

# Research Evidence Base



# **HMH** research mission

HMH® is committed to developing evidence-based educational solutions, assessments, and professional services. To support this goal, the Efficacy Research Team collaborates with school districts and third-party research organizations to evaluate the impact of our programs and services on student outcomes, teacher practice, and school leadership.

# Table of contents

### HMH Into Reading's research evidence base: Introduction

Literacy Today

The science of reading

Program overview

#### **17** HMH Into Reading's instructional design

The Structured Literacy approach

Differentiated instruction

The promise of practice

Classroom organization

#### 35 HMH Into Reading's essential literacy components

Letter knowledge

Phonological and phonemic awareness

Phonics and word study

Fluency

Language comprehension

Knowledge development

Vocabulary development

Reading comprehension

Writing

#### 101 HMH Into Reading's learning ecosystem

EdTech ecosystem

Community of learners

Family engagement

#### 117 HMH Into Reading's assessment design

Assessment of and for learning

Data-driven instruction

#### 127 HMH Into Reading's Professional Learning

Personalized

Program-aligned

Powered by coaching

#### 137 Conclusion

#### 138 References

# Introduction

# HMH Into Reading's research evidence base

In this introductory chapter to the HMH Into Reading Research Evidence Base paper, we describe the current state of literacy today in the United States, briefly summarize the science of learning to read, including the essential elements of literacy instruction, and provide a program overview of HMH Into Reading.

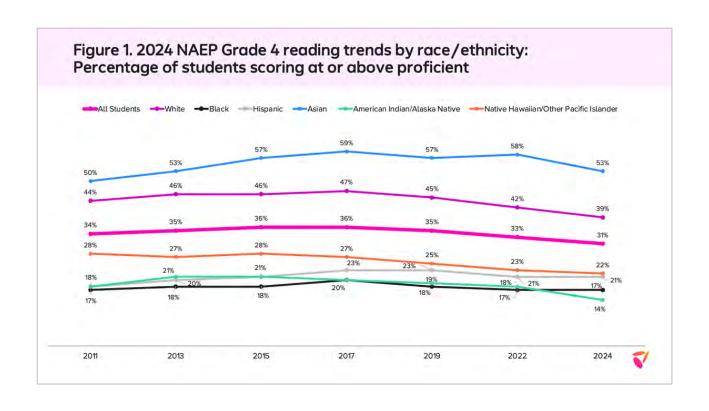
# Literacy today

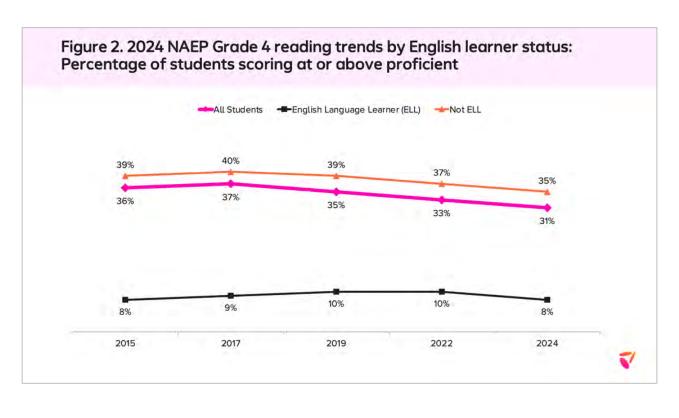
Learning to read is one of the most important steps in a child's educational development. Students continue to grow as capable and confident readers and writers throughout elementary school. Today, students learn to read across a variety of genres and formats, from environmental texts to the classics, to graphic novels. With new formats come new opportunities and challenges, as students encounter and interact with traditional print and digital content in all aspects of their daily lives.

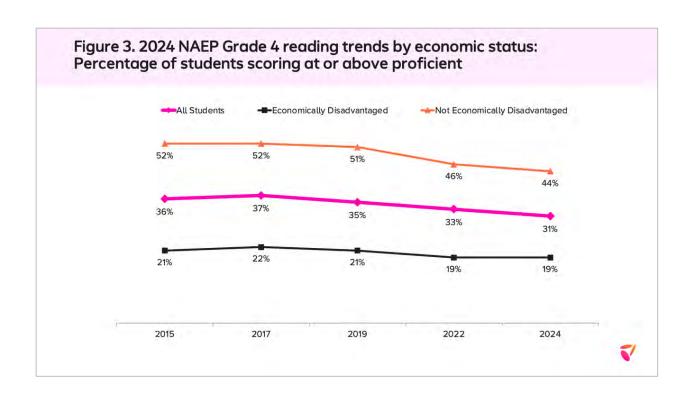
For far too long, the percentage of students performing at or above proficient on the National Assessment of Educational Progress (NAEP) Reading assessment has remained appallingly low, with only 31% of Grade 4 students scoring at or above proficient in 2024—which, of additional concern, marked a decrease of four points compared to the COVID-19 pre-pandemic 2019 results. Further, the 2024 results demonstrate that not only have students not rebounded after COVID-19 school closures, but students' performance began to decline prior to the pandemic. Importantly, these declines are evident across most groups, regardless of

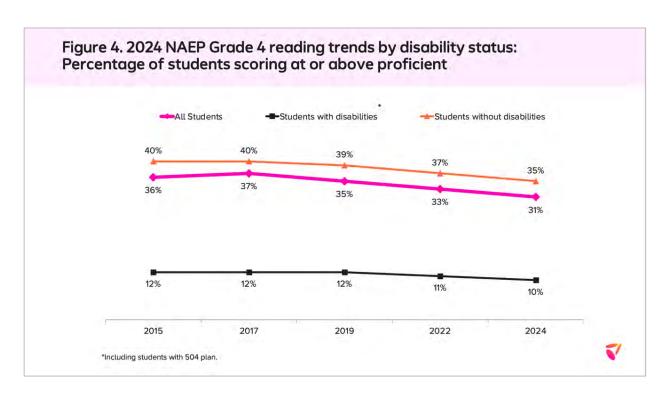
race/ethnicity, English language status, economic status, or disability status (see Figures 1, 2, 3, & 4 below).

A comprehensive study comparing scoring trends from national and international measures of reading achievement, including NAEP and the Progress in International Reading Literacy Study (PIRLS), found a persistent pattern of divergence between high- and low- performing students in the U.S., with increased prevalence over the past decade and since the COVID-19 pandemic (Burg et al., 2022). As Neuman and colleagues (2023) note, "Whether we see the current state of American students' reading achievement as a new crisis or as part of a stable trend, the truth remains that more than one-third (37 percent) of the nation's fourth-graders performed below the National Assessment of Educational Progress (NAEP) 'Basic' level in 2022"—and that "while reading difficulties cut across socioeconomic lines, they disproportionately impact students living in poverty as well as those from black, brown, and indigenous communities" (p. 1), as well as students with disabilities and English learners.









There are many costs to the lack of reading proficiency. Research has shown that the inability to read proficiently in third grade is linked to difficulties learning in other subject areas, difficulties reading in later grades, and decreased likelihood of attending college (Tennessee Department of Education, 2016). Recent studies of college enrollment statistics have found that up to 60 percent of students in the United States are unprepared for collegelevel work in reading, math, or both. Collegebound students and families across the country spend an estimated \$1.3 billion on remedial coursework every year (Jimenez et al., 2016). An estimated 93 million adults in the United States read at or below basic levels and face challenges finding living wage jobs as a result (Tennessee Department of Education, 2016).

## Improving outcomes for students

Amid the bleak literacy landscape nationwide, encouraging data has been emerging from Mississippi over the past several years. In what's been hailed as a pioneering initiative, in January 2014, the Mississippi Department of Education legislated early literacy professional development aligned with science of reading principles and practices for the state's K-3 educators, and this training was accompanied by support from school-based coaches who also ensured high fidelity of implementation (Folsam et al., 2017; Kaufman, 2022). In a study examining effects of this initiative in Mississippi, it was found that between winter 2014 and fall 2015, significant improvements were made in the average rating of quality of instruction, student engagement, and teaching competencies and that teachers who had not yet participated in the professional development program by the end of the study had lower ratings across the same measures as compared with teachers who had completed the training (Folsam et al., 2017).

Even more remarkably, on NAEP, Mississippi which had ranked 49th in the nation in 2013was the only state to make improvements on fourth-grade reading between 2017 and 2019, and by 2019 rose to 29th; with variables such as language (English proficiency) and race controlled, Mississippi performed within the top three states in the country (Kaufmann, 2022; Loweus, 2019).

In the wake of this "Mississippi Miracle," Neuman and colleagues (2023) conducted a state-bystate analysis of reading legislation enacted over the last four years, which found that, while more effort needs to be made in other critical areas for literacy such as oral reading, writing, and building background knowledge, "states are envisioning a pivot in their approach to reading, taking a deliberate turn toward the science of reading to guide instruction. Virtually every state bill requires local districts to adopt a systematic, rigorous and evidence-based approach to reading instruction, generally supporting the five pillars" of reading, including phonemic awareness, phonics, fluency, vocabulary, and comprehension (p. 29).

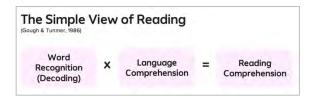
Now, more than ever, it is imperative that schools implement evidence-based, high-quality literacy programs designed to support the academic growth and positive learning behaviors of all students. For nearly two centuries, HMH has been deeply committed to literature, learning, and improving lives through literacy. HMH Into Reading continues that tradition. Specifically, this HMH Into Reading Research Evidence Base explains how HMH Into Reading draws on the Science of Reading, a scientific, evidence-base of research, to give students the foundation they need to be successful readers and writers. Building on this foundation, students continue to develop the literacy skills needed to succeed in school and life. This report synthesizes the research base on critical K-5 literacy content and instructional design, followed by specific examples of how HMH Into Reading aligns with the research to foster students' growth as readers and writers.

# The science of reading

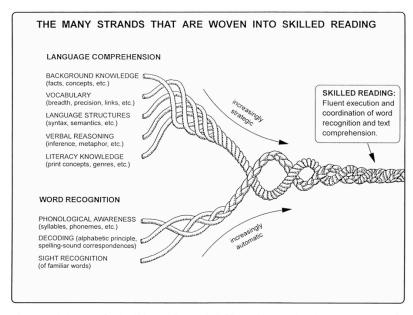
The Simple View of Reading, a prominent theory of reading development, contends that students become readers when they can apply word recognition skills to decode words while simultaneously drawing on their knowledge of language for reading comprehension (Baker et al., 2017; Gough & Tunmer, 1986; Hoover & Gough, 1990).

As Oakhill and colleagues (2014) explain, "The Simple View of Reading is useful and relevant not only to researchers, but also to practitioners. It makes clear that the two main components of reading do not necessarily develop in tandem, but that distinctly different approaches may be needed to develop word recognition skills from those that are required to foster text comprehension skills, and that the two components can be assessed separately. One important implication of this perspective is that attention needs to be paid to the teaching of both these aspects of reading. Thus, teachers will need to be aware of not only the cognitive processes that underlie word reading skills, but

also those that are important in comprehension" (p. 9).



Knowledge of language includes more than vocabulary and simple sentence construction; it also includes students' knowledge of language structures, print concepts, and verbal reasoning skills (Scarborough, 2001). Reading with comprehension occurs when children can convert the meaning represented by words in print to a meaning that they can readily understand. Thus, children successfully learning foundational literacy skills discover how print maps onto their existing spoken language; gradually, they master these foundational skills to move beyond this simple transaction and bring higher levels of language as well as thinking skills, such as inferring and critiquing, to their reading (Moats, 2020a).



The image, used with permission from the Publisher, originally appeared in the following publication: Scarborough, H. S. (2001). Connecting early language and literacy to later reading (dis)al research (Vol. 1, pp. 97–110). Guilford Press to later reading (dis)abilities: Evidence, theory, and practice. In S. Neuman & D. Dickinson (Eds.), Handbook of early lite

## The Active View of Reading: An expanded view of the reading process

Over the past four decades, researchers and educators have expanded their understanding of reading process, with new research continuing to deepen our understanding of how students become proficient readers and how we can best support students throughout the process. One of the most significant contributions in recent years is Drs. Nell K. Duke and Kelly B. Cartwright's (2021) Active View of Reading theory and reader model. Incorporating new insights from reading research to build upon the Simple View of Reading (Gough & Tunmer, 1986) and the Reading Rope (Scarborough, 2001), Duke and Cartwright's Active View of Reading reveals the complexity of learning to read, includes previously overlooked components of the reading process, and outlines ways to help mitigate challenges students may face learning to read.

Duke and Cartwright's (2021) Active View of Reading reader model illustrates how students' motivation, engagement, executive function skills, and use of strategies directly influence their word recognition, language comprehension, bridging processes, and overall reading ability. Each construct in the model is grounded in research showing that it each component is malleable, and targeted instruction in these areas can improve reading comprehension and address reading difficulties.

The Active View of Reading highlights the crucial role of active self-regulation. Active selfregulation is a cognitive process whereby readers actively manage and integrate the different processes required for effective reading by using strategies, staying motivated, and engaging deeply with the text. Active selfregulation, including executive function skills, motivation and engagement, and strategy use, all influence word recognition, language

comprehension, and the connections between them. Unique to this model is its focus on the bridging processes that connect word recognition and language comprehension. The model also highlights the need to support reading fluency, morphological awareness, and vocabulary, all proven to impact reading success.

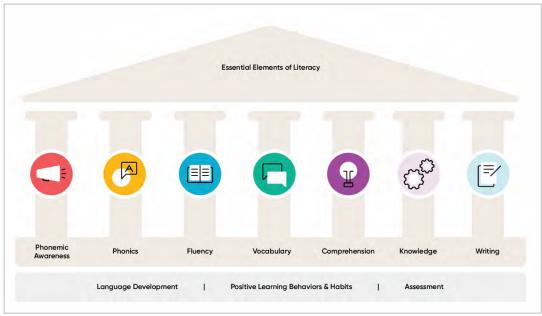
## **Evidence-based essential** elements of literacy instruction

The interest in the challenge of teaching children to read is long-standing. In 1997, the United States Congress convened the National Reading Panel to review the scientific research evidence on reading and the resulting implications for reading instruction. In 2000, the experts on the panel produced a report based on decades of research evidence that highlighted five key pillars of early literacy and reading instruction: Phonemic Awareness, Phonics, Fluency, Vocabulary, and Comprehension (National Institute of Child Health and Human Development, 2000). Numerous independent studies and expert panels have concluded that phonemic awareness and phonics have a direct and positive impact on reading acquisition, and research has also shown that a foundation in phonemic awareness and phonics can positively affect other key elements of literacy, such as fluency, vocabulary development, and comprehension (Castles et al., 2018; Cunningham & Caroll, 2015; Ehri et al., 2001). The 5 Pillars of Reading—also known as the Big 5—remain widely accepted by researchers and educators as core elements of effective reading instruction.

In the decades since the National Reading Panel's report was published, reading researchers have continued to emphasize the importance of using rigorous gold-standard

research methodologies to study essential elements of reading acquisition and to identify effective practices for reading instruction. Modern reading research includes empirical evidence from diverse disciplines such as cognitive psychology, educational psychology, neuroscience, and linguistics to better understand how humans learn to read.

At HMH, we have expanded the model to support not just reading, but literacy more broadly, by including adding the following essential elements to the 5 Pillars of Reading: building knowledge, writing, language development, positive learning behaviors and habits, assessment of and for learning.



HMH essential elements of literacy instruction

Evolutionary psychology shows that written language is a relatively new ability acquired only 5,000 years ago. Neuroscience researchers have identified specific brain regions that are active while reading and demonstrated that learning to read changes the structure of the brain (Dehaene et al., 2010). Indeed, decades of research evidence across scientific fields of study demonstrates how the acquisition reading proficiency and the very act of reading itself is exceedingly cognitively complex (Castles et al., 2018). Learning to read is not like learning to speak—unlike speaking, which many (though not all) children are able to pick up naturally and without formal instruction simply by being immersed in a speech-rich environment, reading is unnatural and effortful to learn

(Gough & Hillinger, 1980; Lyon et al., 2005; Schwartz & Sparks, 2019). Among alphabetic languages, English includes an exceptional lack of one-to-one correspondence between letters and sounds, necessitating explicit instruction in grapheme-phoneme relations, word decoding, and irregular spellings (Ehri, 2020; Petscher et al., 2020). Cognitive psychologists have provided evidence that, for all students, learning to read proficiently requires explicit, systematic, and cumulative instruction in the elements of written language (Hoover & Tunmer, 2020), and particularly so for students experiencing challenges in the process of learning to read, spell, and comprehend text (Spear-Swerling, 2018).

# Program overview

### HMH Into Reading - A comprehensive English Language Arts program

### Instructional approach

HMH Into Reading features a systematic, explicit, incremental, and cumulative approach to reading and writing instruction that is based on evidence from extensive research studies described in detail in the pages of this HMH Into Reading Research Evidence Base paper. Incorporating the most recent reading research, HMH Into Reading's foundational skills lessons follow an evidence-based scope and sequence providing a systematic and cumulative approach to literacy instruction.

The ultimate goal of reading is to comprehend and build knowledge. Therefore, HMH Into Reading's approach is to focus on skills and strategies that best support the specific text that students are reading. By continually spiraling through skills that are in service of texts, rather than texts being in service of a weekly skill, students gradually learn to draw from many skills and strategies to comprehend what they read. Throughout the year, texts increase in complexity, so students are applying the same grade-level appropriate skill to increasingly more complex text. The explicit instruction includes teacher explanation and modeling, including the Gradual Release Model: I Do It, We Do It, You Do It. The instruction is delivered with small-group support for differentiation targeted to each student's learning needs.

#### Foundational literacy skills

Grounded in science-based reading methods that have proven how students acquire reading skills, HMH Into Reading provides comprehensive, explicit, and systematic instruction in foundational literacy skills, aligned with a research-based scope and sequence that provides students with a foundation to become confident, independent readers and writers. HMH Into Reading supports teachers as they nurture students on their paths as emerging readers and writers with the flexibility to adapt foundational skills instruction to meet all students' needs, while immersing students in successful reading and writing experiences.

For example, HMH Into Reading's foundational skills whole-group lessons provide daily, explicit, systematic instruction across a full range of foundational literacy skills, including phonemic awareness, phonics, spelling, word study, and fluency. To further develop strong fluency skills, HMH Into Reading's high-quality decodable texts help children apply knowledge of phonics and high-frequency words in context, feature a connected storyline or topic across the week's texts, and provide an engaging story to build reading fluency, and help students experience reading success. Handwriting is integrated into the foundational skills scope and sequence of HMH Into Reading with connections to the foundational reading skills, including literacy centers and small-group differentiation practice opportunities, and online printables with extensive ready-made resources for instruction and practice.

Spelling is integrated into the literacy instruction of HMH Into Reading with connections to foundational reading skills and word work strategies. The HMH Into Reading spelling scope and sequence was developed with Dr. Shane Templeton, a widely recognized expert in the development and role of orthographic knowledge across the grade spans, including the role phonics, spelling, morphology, vocabulary,

and orthographic knowledge play in developing skilled readers and writers.

#### Building knowledge and vocabulary

HMH Into Reading's intentional design systematically builds students' understanding of meaningful topics and academic vocabulary. Topics and text sets are thoughtfully sequenced to build knowledge—like pieces of a puzzle within a module, within a grade, and across the program.

#### Reading comprehension

HMH Into Reading provides the tools students need to develop critical and strategic thinking skills for the 21st century. With mastery of foundational literacy skills, including strong decoding skills, students will have the building blocks they need to comprehend what they read. HMH Into Reading students develop a lifelong love of reading through the extensive library of engaging, award winning, relevant grade-level texts that span a wide variety of genres and deepen content knowledge as they make connections to the world around them. HMH Into Reading instruction teaches students how to recognize genre characteristics, cite text evidence, and draw from their growing bank of skills and strategies helping them make meaning from complex grade-level texts.

### Integrated writing and communication

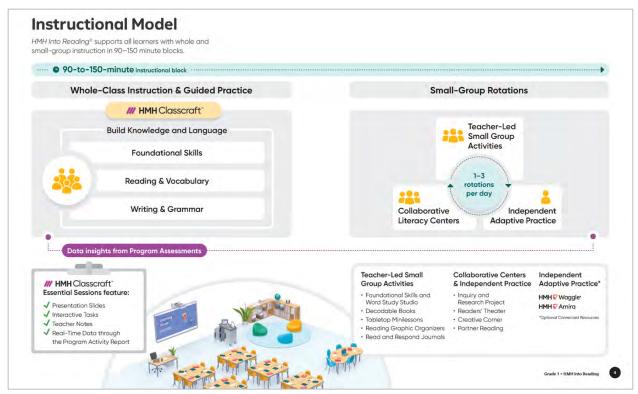
To support effective writing and communication, HMH Into Reading provides daily opportunities for students to express their understanding and thinking, helping them succeed in today's world. The program supports the full range of writing modes and forms, scaffolding the steps of the writing process, while also developing students' ability to have productive, collaborative conversations. Additionally, each week students write, in response to text.

#### Learning across content areas

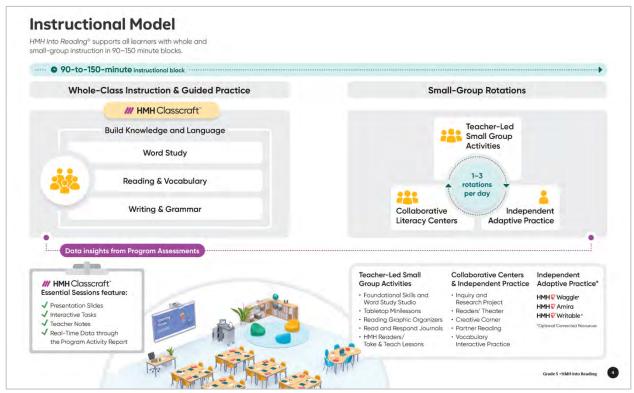
HMH Into Reading supports content area connections that are critical to learning. Literacy instruction provides the "how" for what students learn in science, social studies, mathematics, and the arts. For example, as students read and talk about text, they will naturally build background and knowledge and grade-level cross-curricular topics and content standards.

#### Student choice and independent practice

The power of choice can be motivating, and what is interesting to one student may not appeal to another student. Therefore, HMH Into Reading provides access to a wide variety of relevant, rich, authentic texts for independent reading and meaningful opportunities for independent work, allowing students appropriate ownership of the learning.



Instructional model, HMH Into Reading Grade 1



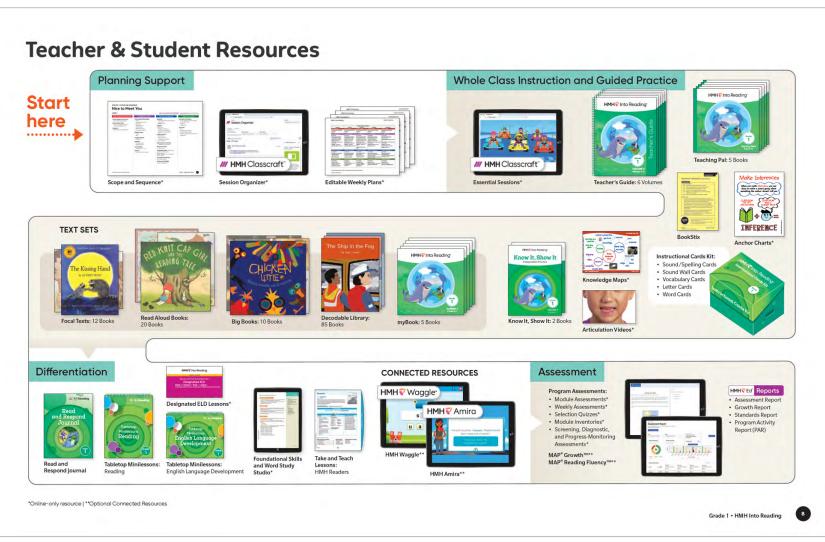
Instructional model, HMH Into Reading Grade 5

#### Connected teaching for accelerated growth

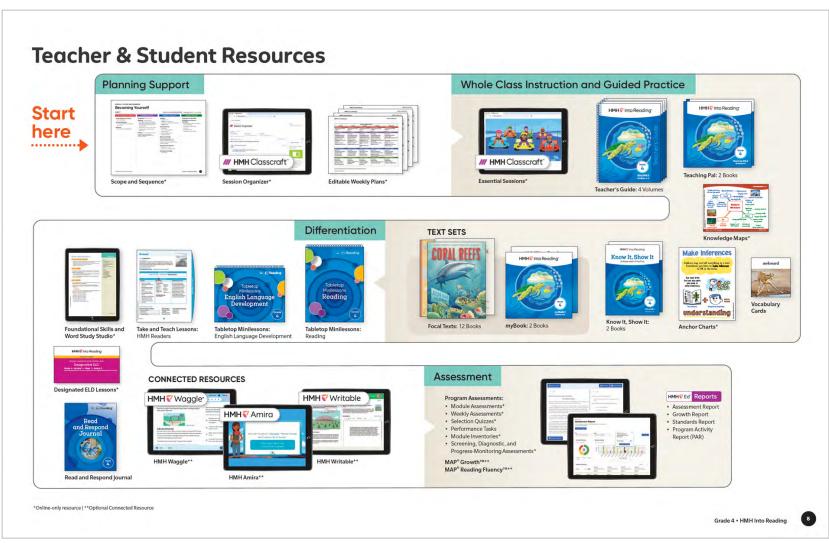
HMH Into Reading provides students, teachers, and schools with access to rich content and standards-based instruction, assessments, and actionable data insights, professional learning, and supplemental practice and instruction—all connected on Ed, HMH's digital learning platform.

- Rich content and standards-based instruction. HMH Into Reading features research-based. explicit systematic instruction with resources to support whole class, small group, and independent student work. Program materials are available to support striving readers and writers, multilingual learners, and advanced learners. In addition, an equitable Spanish Language Arts program, HMH ¡Arriba la Lectura! is designed as an equitable companion program to facilitate either Spanish language or dual-language learners' systematic connections across literacy components.
- Data driven instruction. Data driven instruction drives student growth in HMH Into Reading. The program supports teachers to connect assessment insights with relevant instructional content, tools, and resources to accelerate student growth and narrow the achievement gap. Specifically, HMH Into Reading program assessments, including embedded formative assessments and Oral Reading Fluency assessments provide actionable data insights that can inform instructional decisions, planning, and grouping. In addition, schools that have purchased HMH Into Reading and NWEA MAP Growth Reading, and use the HMH Rostering Service for both, can view key MAP Growth data in the Growth Report on HMH Ed.
- Differentiated support for all learners. HMH Into Reading includes a variety of program resources to meet the needs of all learners. Teachers can continually return to the data and adjust dynamically, allowing them to reinforce, extend, and intervene, in response to students who make learning gains at a different pace. HMH Waggle, HMH Amira, and HMH Writable (available as a

- separate purchase) on HMH Ed provide supplemental practice and instructional opportunities in foundational literacy skills, reading comprehension, fluency, and writing.
- Professional learning. HMH Into Reading provides continuous, connected learning for teachers and administrators. With embedded professional learning and online, on-demand implementation support from HMH's Professional Services, educators are empowered to maximize instructional time, build upon their experience, and access virtual and on-demand resources. Professional support includes guided implementation support, blended courses, and coaching.



Teacher and classroom components, HMH Into Reading Grade 1



Teacher and classroom components, HMH Into Reading Grade 4

# HMH Into Reading's instructional design

It is essential that literacy materials, supplemental practice opportunities, and assessment be coordinated. Over twenty years ago, the National Reading Panel (NICHD, 2000) warned that as teachers gather materials for their literacy block, they might succumb to the temptation of adding one disconnected program after another without thinking about the effectiveness of the additions for their students or the alignment to instructional goals. Therefore, it is crucial that core and supplemental literacy resources, whether print- or digital, not only be evidence-based, but also connected so that components are integrated and support student learning.

The goal of reading and writing instruction in the early grades is to enable students to fluently read texts across genres of varying complexity, access content knowledge and build background knowledge, and to express themselves clearly in writing and when speaking. Teachers' instruction should be aligned to a scope and sequence that reflects how students acquire new skills, including foundational skills, such as phonemic awareness and phonics. Lesson plans should reflect the students in the class and evidencebased practices.

Reading and writing instruction should be delivered explicitly, with language and examples that are appropriate for students' ages, vocabularies, attention spans, and needs, and instruction must be accompanied by meaningful opportunities for practicing new skills. This combination of explicit instruction and deliberate practice activities will have significant, positive effects for beginning readers and writers, even those considered at risk for reading difficulties (Archer & Hughes, 2011; Castles et al., 2018; Ehri, 2020; Fien et al., 2015; Goldenberg & Cárdenas-Hagan, 2023; Moats, 2020b). Extended blocks of time with differentiated instruction have been found to yield strong literacy achievement for students (Al Otaiba et al., 2009; Spear-Swerling, 2019).

Today's classrooms include a diverse population of students, comprising of multilingual learners and students with disabilities, including those who have been identified with dyslexia and Developmental Language Disorder (Al Otaiba et al., 2019; IDA, 2019; Spear-Swerling, 2019; Tomlinson, 2022; Valencia Goodall et al., 2024). Teachers need to be prepared to differentiate instruction to meet the needs of students, who will likely vary greatly in their reading readiness skills, exposure to rich language, and experiences and background knowledge (Opitz & Ford, 2008; Tomlinson, 2022). Explicit, differentiated, high-quality Tier 1 instruction helps students learn the culture, norms, and "languages" of school (AIR, 2023). Fortunately, teachers now have access to programs with interactive, digital learning and assessment, that can make the teaching, planning, and management of the literacy block more successful for all students.

In this chapter we synthesize the research on instructional design, including the Structured Literacy approach, classroom organization, differentiated instruction, the promise of practice, and how HMH Into Reading aligns to the research.

# The Structured Literacy Approach

The Structured Literacy approach, advocated by the International Dyslexia Association, utilizes a highly explicit and systematic teaching of critical components of literacy, both foundational (such as alphabetic principle, decoding, and spelling) and higher-level (such as reading comprehension and written expression) (Spear-Swerling, 2019). The Structured Literacy approach, which has been proven effective with beginning readers and those with reading difficulties, emphasizes both rich language comprehension instruction and explicit word recognition and fluency instruction.)

Through explicit, evidence-based instruction, informed by the Structured Literacy approach, children can successfully learn foundational literacy skills and discover how print maps onto their existing spoken language. It is important to note that decoding and comprehension issues encountered by students with reading difficulties can usually be improved with scaffolded and target teaching informed by Structured Literacy practices (International Dyslexia Association (IDA), 2018; Spear-Swerling, 2019; Valencia Goodall et al., 2024). Employing a diagnostic and prescriptive methodology is especially critical for students with dyslexia and other reading difficulties (Sayeski et al., 2019).

## **Systematic**

With the Structured Literacy approach, the organization of materials follows the systematic, logical order of the English language. The sequence must begin with the easiest and most basic concepts and elements and progress methodically to more difficult concepts and elements. Extensive research findings strongly support the effectiveness of phonemic awareness and phonics instruction, while also emphasizing its larger goal of reading fluency and comprehension (Brady, 2020; Ehri, 2020;

Foorman et al., 2016; Goldenberg & Cárdenas-Hagan, 2023; Moats, 2020a; Sayeski et al., 2019; Spear-Swerling, 2019). As the National Reading Panel (2000) stated over two decades ago, "systematic phonics instruction should be integrated with other reading instruction" (p. 2-97). In other words, students must come to understand the larger purpose behind learning letter-sound relationships. Furthermore, their emerging skills must be continuously applied to meaningful reading and writing activities (NRP, 2000, p. 2-96).

Teachers following the Science of Reading work to align instruction to a scope and sequence that reflects how students acquire new skills. Their lesson plans reflect the diversity of students in the class and include what research has documented as the best practices. Teachers incorporate language and examples that are appropriate for students' ages, vocabularies, attention spans, and needs, and provide students with meaningful opportunities for practicing new skills.

It is essential that literacy materials, supplemental practice opportunities, and assessment be coordinated. Over twenty years ago, the National Reading Panel (NICHD, 2000) warned that as teachers gather materials for their literacy block, they might succumb to the temptation of adding one new program after another without thinking about the effectiveness of the additions for their students or the ways in which the additions align to instructional goals. This warning may be even more important as educators have access to interactive, computeror tablet-delivered programs that can make the planning and management of extended literacy blocks more successful for all students. Therefore, it is crucial that core and supplemental literacy resources, whether printor web-based, not only be vetted, but also

coordinated so that components are integrated and support student learning.

### Coherent

Coherence in reading instruction includes teaching students to read and write words in isolation to promote their spelling and word recognition skills, and teaching students to read words within meaningful contexts so that they can develop understanding of words' usage and meaning (Castles et al., 2018). Coherence, per Willingham (2017) also includes the presentation of new information so that it connects with students' existing schemas, or knowledge bases; to facilitate this, coherent lessons exclude extraneous detail or unnecessary to complexity and instead focus on what's relevant and central to learning goals. Throughout, as students begin to see and say words, it is essential that they be guided to think about the words' meaning. Adams (2011) grounds the case for coherence, in neuroscience, noting, "The brain does not grow block by block from bottom up. It grows through its own efforts to communicate and find coherence within itself" (p. 19).

The design of effective phonemic awareness and phonics instruction should be carefully scaffolded and embedded with feedback, with each element mapped to a scientifically based understanding of how reading skills progress (Adams, 1990; Ehri, 2005, 2014; Fisher & Frey, 2021; Moats, 2020a; Nieser, & Cárdenas-Hagan, 2020; Smith et al., 2021; Spear-Swerling, 2019; Valencia Goodall et al., 2024). Further, those elements must be thoughtfully intertwined to provide the appropriate levels of support and challenge to young learners in order to support the ultimate goal of reading: comprehension (Nation, 2019; Willingham, 2017).

## **Explicit**

Explicit instruction includes the deliberate teaching of all concepts with continuous studentteacher interaction. It is not assumed that

students will naturally deduce these concepts on their own. Evidence—both long established and still growing has shown that using a comprehensive literacy approach that combines explicit literacy instruction with appropriate practice activities has significant, positive effects for beginning readers and writers. Explicit instruction featuring teacher led instruction, with a high degree of structure, step-by-step guidance, as well as modeling of skills and exemplars and constructive feedback, can be especially beneficial for striving readers, and students with disabilities, including students with reading disability such as dyslexia and Developmental Language Disorder (Archer & Hughes, 2011; Castles et al., 2018; Ehri, 2020; Fien et al., 2015; Fisher & Frey, 2021; Foorman et al., 2016; Goldenberg & Cárdenas-Hagan, 2023; Hammond, 2015; IDA, 2019; Moats, 2020a, 2020b; Spear-Swerling, 2019; Valencia Goodall et al., 2024). Additionally, research has also demonstrated the value of differentiated instruction in improving literacy achievement for most students (Al Otaiba et al., 2009; Connor et al., 2011; Spear-Swerling, 2019).

#### Incremental

Using the Structured Literacy approach, small amounts of information are presented incrementally, with skills introduced in small, manageable increments, allowing students to build mastery in a logical sequence. Literature suggests there is value in a teaching method that uses small, easily digestible chunks of information when it comes to teaching reading. Hirsch (1996) points out that the human mind can handle only a small amount of new information at one time: A child's mind needs time to digest the new information, fostering memory and meaning, before it can move on to a set of new information. Instruction begins with foundational skills, such as identifying sounds, and incrementally advance to blending sounds into words and then sentences (Ehri, 2020; Moats, 2020a).

This approach to incremental learning aligns with cognitive load theory, which attests that new learning must be processed within the limits of available working memory—and that reducing cognitive load via teaching methods, such as chunking of content into small, digestible amounts of information or spaced repetition, optimizes learning efficiency and knowledge retention (Agarwal & Bain, 2019; Brophy & Everston, 1976; Fisher & Frey, 2021; Hirsch, 1996; Rosenshine & Stevens, 1986; Sweller et al., 2011).

#### Cumulative

Cognitive science research has shown that learning is cumulative. Using a cumulative approach to instruction, each step is based on concepts previously learned. Complex cognitive skills can be broken into simpler skills, which can in turn be broken into even simpler skills, and lower-level skills must be mastered before higher-level skills can be mastered (Adams, 1990; Gagne & Briggs, 1974; Nieser & Cárdenas-Hagan, 2020). Within the Simple View of Reading, Smith and colleagues (2021) explain: "once children have achieved accuracy and fluency with decoding, complementary models exist to explain the activity of reading comprehension" (para. 2). Further, as described by the schema theory, which posits that the human brain organizes information in frameworks, or schemas, prior knowledge aids the acquisition of new knowledge and learning new information is easier when it connects to existing knowledge; cumulative learning happens as schemas are expanded and refined over time, integrating new information with established knowledge (Ambrose et al., 2010; Smith et al., 2021). As Willingham (2015) emphasizes, "It's true that knowledge gives students something to think about, but a reading of the research literature from cognitive science shows that knowledge does much more than just help students hone their thinking skills: It actually makes learning easier. Knowledge is not only

cumulative, it grows exponentially" (p. 42). Foundational literacy skills develop in specific, progressive yet also overlapping and reciprocal phases (Ehri, 2005, 2014; Spear-Swerling, 2022). For this underlying reason, a spiral curriculum is recommended for reading comprehension. First proposed by Jerome Bruner (1960), a spiral curriculum has students revisiting a topic or subject several times throughout their education, with the complexity of the topic or subject increasing progressively and the relationship between old and new learning presented clearly and contextually. A spiral curriculum approach has been found to be highly beneficially, as learning is reinforced and solidified, logical learning progressions from simple to complex are established, and students are encouraged to apply early knowledge to concepts introduced later (Johnston, 2012). With sustained and spiraling exposure content is reinforced, allowing students to activate and build upon prior knowledge of the topic, ultimately expanding and deepening their understanding (Kim et al., 2024).

# How HMH Into Reading aligns with the research

HMH Into Reading's instructional design is grounded in the Science of Reading and follows a Structured Literacy approach to reading and writing instruction. HMH Into Reading guides beginning readers to master the essential literacy components (described in the subsequent chapter) through an explicit, systematic, incremental and cumulative plan of instruction. The curriculum provides students with daily opportunities to practice foundational literacy skills, including ample opportunities to engage with highly decodable text, as well as authentic text, so that students can integrate these skills seamlessly and automatically to achieve fluent comprehension.

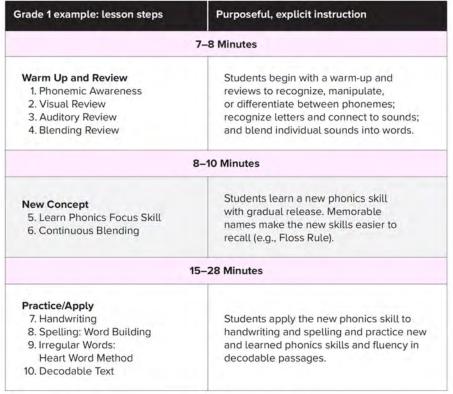
The research-based approach to foundational skills in HMH Into Reading provides explicit, direct teaching; skills that are linguistically and logically sequenced from simple to more complex; and systematic lesson routines. The underpinning of all the instruction is a scope and sequence that is informed by the science of reading and best practices supported by years of literacy research. The instruction is delivered through a gradual release model (I Do It, We Do It, You Do It) during whole-group lessons with small-group support for differentiation. In smallgroup instruction, students experience explicit teaching and practice that is targeted to their specific learning needs.

The following are several examples of how HMH Into Reading's instruction aligns to the five pillars of reading and incorporates a Structured Literacy approach to instruction that is explicit, systematic, coherent, explicit, incremental, and cumulative.

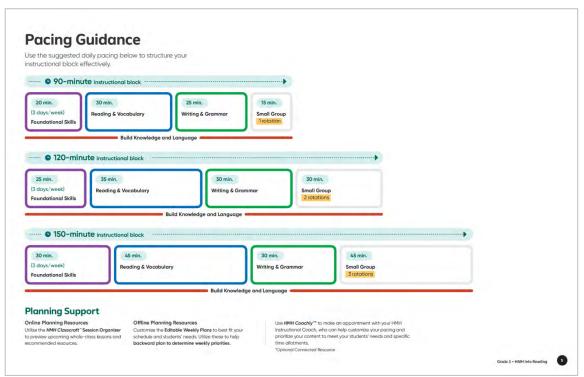
Phonological and Phoneme Awareness. Through explicit, systematic instruction and word play, students learn to recognize and manipulate the

parts of spoken language. The explicit instruction includes teacher explanation and modeling before children give it a try and draws on the reciprocal relationship between phonics and phonemic awareness.

- Phonics and Word Study. The Teacher's Guide includes daily support for phonics. Immediately following explicit, systematic instruction in whole group, children apply their new phonics skills in the context of engaging decodable texts. These texts are carefully crafted to offer practice with reading words containing only known phonic elements and high-frequency words.
- Fluency. By helping children crack the code of the English language, teachers give them the tools they need to read connected text fluently. Weekly fluency lessons feature a spiraling approach that introduces and then returns to fluency skills including accuracy and selfcorrection, reading rate, expression, phrasing, and intonation.
- Vocabulary. Vocabulary instruction in HMH Into Reading builds and expands students' word knowledge within, across, and beyond texts. Academic vocabulary development draws important words from the literature to teach through direct instruction and provides cumulative review to help students retain vocabulary knowledge and build conceptual knowledge.
- Building Knowledge & Comprehension. Daily Reading lessons in the Teacher's Guide explicitly teach a particular skill or strategy before reading, which children immediately apply to help them comprehend a read-aloud or grade-level text. The skills repeat often throughout the school year, as children apply them to increasingly complex texts. By continually spiraling through skills that are in service of texts, rather than texts being in service of a weekly skill, children will gradually learn to draw from many skills and strategies to comprehend what they read.



Foundational Skills Lesson, HMH Into Reading Grade 1 Example



Pacing Guidance, HMH Into Reading Grade 3 Literacy Blocks (90, 120, and 150 minutes)

## Differentiated instruction

## Teaching all learners

In most districts, the student population is diverse: some students are performing on grade level or even exceeding the expectations for their grade level, and other students may be learning English, some may have learning disabilities, and some may have been diagnosed with dyslexia. Teachers have the responsibility of teaching all these students, that is, to meet the students "where they are" and provide them with appropriate instruction and practice activities. Teaching in diverse classes is not easy, and teachers often need support to meet the goals they set for themselves and their students. Yet diversity reflects the reality of many schools nationwide, and it adds to the richness of the learning experience (Cárdenas-Hagan, 2018; Hammond, 2015, 2021; IDA, 2019; Moats, 2020b; Steele & Cohn-Vargas, 2013; Tomlinson, 2022; Valencia Goodall et al., 2024).

One of the key words in the definition of Tier 1 instruction is differentiated, reflecting the fact that in every class, students present a virtual mosaic of levels, accomplishments, and needs. Although it is important that teachers convene their entire class and build a sense of community, it is equally important that they tailor instruction and practice activities to meet individual students' needs. Data help teachers customize their instruction, and ample resources are needed to support this differentiation.

There are many ways teachers can differentiate their instruction to meet the needs of all their students and to keep them all engaged. The process begins with making the classroom welcoming for all—with print and digital reading materials appropriate for a full range of abilities. Classroom literacy resources should include multiple text genres; present cross-disciplinary,

culturally diverse perspectives; and be written at different levels of text complexity.

## Supporting multilingual learners

There are several models for teaching students for whom English is not their first language, some of which immerse them in instruction in their home language before transferring them to a class where most students speak English. When a school's model is to include multilingual learners in classes with native speakers, teachers have many ways to differentiate their instruction, most of which are strong, evidencebased strategies for reading and language arts instruction. Explicit and systematic instruction in foundational literacy skills, including phonemic awareness, phonics, and fluency, as well as oral proficiency in a student's first language and language comprehension is essential for multilingual learners (August & Shanahan, 2006; Goldenberg & Cárdenas-Hagan, 2023; NICHD, 2000).

Multilingual learners must be provided opportunities to build background knowledge through academic and grade-level content, even if they are still learning foundational literacy skills (Filmore & Snow, 2018). Building background knowledge within a community of learners, is especially essential, since doing so honors and respects the knowledge base that multilingual learners bring with them (Gutiérrez et al., 2009; Hammond, 2015, 2021; Pashler et al., 2007; Steele & Cohn-Vargas, 2013). Providing deliberate vocabulary instruction across multiple opportunities to build students' knowledge of key discipline-specific words like "theme," "character," "sentence," or "parts of speech" is essential: students who have been in school previously may be very familiar with these common words in their own language and with

their meaning (Cárdenas-Hagan, 2018; Valencia Goodall et al., 2024). Filmore and Snow (2018) highlight the importance of teaching vocabulary, including word meanings, within the context of academic content. Citing the work of Filmore and Snow (2018), the Council of the Great City Schools (2023) seminal report, A Framework for Foundational Literacy Skills Instruction for English Learners provides additional guidance, stating "learning decoding skills should be connected to understanding words, including those with multiple meanings. For students to learn the multiple meanings of any word, they need to encounter the word in a meaningful context, such as within phrases and sentences in the texts that they are reading to learn gradelevel content. Learning the multiple meanings or uses of words requires students to learn how a word relates to similar forms, how it relates to other words and concepts, and how it can be used grammatically in meaningful phrases and sentences. This is particularly the case for Tier II words that can appear in multiple content areas, with very different meanings" (p. 33). In addition, for multilingual learners, having the English term for familiar concepts builds their confidence and sense of themselves as real classroom participants. Whatever the approach, it is important to recognize the value of students' first language and the benefits of being bilingual or multilingual speakers (Goldenberg & Cárdenas-Hagan, 2023).

Regardless of the range of languages in a classroom, it is up to teachers to provide an environment that allows all young learners to build on the knowledge of language they bring with them to school and to increase that knowledge in a way that builds literacy skills. Screening data can help teachers plan appropriate instruction. It is especially important that they have a sense of students' understanding of fundamental skills such as phonological processing, letter names and sounds, and concepts of print. It is also helpful

for teachers to know if students have begun to read in their native language and to know the extent to which that language differs from English.

If screening or other assessment shows that multilingual learners may be at risk for reading failure, intensive interventions should be provided quickly by trained intervention teachers. These interventions should focus on skills like phonemic awareness and phonics that are the foundation of learning to read (Fletcher et al., 2018; Vargas et al., 2021). Research has shown that providing intensive interventions has lasting, positive effects, essentially narrowing the possibility that students will fail (Gersten et al., 2007; Spear-Swerling, 2018; Vaughn et al., 2006). However, interventions alone will not provide the foundation for multilingual learners' reading success. High-quality Tier 1 instruction that seeks to build all students' background knowledge, increase their vocabulary, and build academic vocabulary or the so-called "language of school" are also highly beneficial (Dutro & Kinsella, 2010; Gersten et al., 2007; Hammond, 2021; Valencia Goodall et al., 2024).

## Supporting students with disabilities and students with dvslexia

Early and frequent screening of students in Kindergarten to Grade 3 provides the first means of identifying students with disabilities and students with dyslexia (Fletcher et al., 2018; Gersten et al., 2008; IDA, 2019). Results from screening tests may suggest that more focused diagnostic testing is advisable to pinpoint the causes of students' potential struggles. Data from such testing that indicates students are at risk for reading failure should set into motion development of a Response to Intervention (RTI) plan and, if needed, further evaluation and the development of an individualized education program (IEP). To maximize success for these

students, classroom teachers and specialists need to work together to ensure that the plan is followed and the interventions are successful. Classroom teachers and the specialist work together to ensure that the plan is followed and that students are making progress. These students may also receive extra, specialized help, either as a "push in" to the classroom or as a "pull out" program.

For their time in the regular classroom, the IEP may suggest more small-group work, which should be easy to accomplish during the literacy block. A structured literacy block offers many opportunities for students to experience readalouds, share literacy experiences with peers, and independently practice the skills they learned. Teachers, however, need to be alert to signs that students are experiencing difficulty, for example, difficulty decoding, poor spelling and handwriting, and difficulty with memorization tasks (Fletcher et al., 2018; Moats, 2020a; Wolf, 2007). Students with reading difficulties need extra practice, extra time, and books aligned with their proficiency that engage their interests. Time in the Tier 1 literacy block reinforces students' sense of belonging in school, even if they spend some of their time with an interventionist.

### **Accelerated learners**

Students whose reading skills are above grade level have not necessarily been identified as "gifted" but certainly are ready for accelerated reading experiences such as more challenging reading materials, opportunities to read to students in lower grades, and other activities that will keep them engaged. But teachers need to remember several things about accelerated readers. First, their advanced abilities may not cut across all content areas; for example, they may need the same sort of scaffolded instruction in math as the least well-performing of their classmates or may be very reluctant writers (Hougen & Smartt, 2012; Tomlinson, 2022).

Second, teachers need to be sure that students' "advanced" beginning reading skills continue to progress in all areas, especially comprehension.

An important study of fourth-grade students who had fallen just "below the bar" for passing their state's Grade 4 reading tests provides a cautionary tale (Buly & Valencia, 2002; Valencia & Buly, 2004). The researchers found distinct patterns among the fourth graders they studied. For example, some comprehended extremely well, answered advanced questions, and discussed articulately what they read, but they read so slowly that they didn't finish the timed test. Equally, some seemingly advanced readers had strong decoding skills but needed direct instruction and opportunities to move from surface to deep understanding and to transfer (Fisher et al., 2016). Thus, it is essential that teachers differentiate instruction for advanced readers in a careful and sensitive way so they can keep growing as readers.

Additional indication of this comes from a randomized controlled study conducted by Connor and colleagues (2011) to examine how third graders' reading comprehension outcomes are influenced by interactions between their individual characteristics (such as vocabulary and decoding skills) and the type of literacy instruction they receive, which concluded that child x instructional treatments matter. The Connor research team found that students benefited most when instruction matched their needs-strong decoders thrived with childmanaged activities, while weaker decoders needed more teacher-led instruction. Further, differentiated instruction significantly improved reading outcomes, demonstrating that one-sizefits-all approaches are less effective and highlighting the importance of adaptive, datadriven teaching to optimize literacy development.

## How HMH Into Reading aligns with the research

HMH Into Reading is differentiated by design, meeting the needs of all learners. Data insights, reporting, and customizable lesson plans ensure support for each student's individual learning path. As students build a strong foundation in reading, writing, listening, and speaking skills, they develop a confidence in themselves that ensures lifelong learners emerge.

Grounded in the latest research. HMH Into Reading delivers meaningful scaffolds in wholeclass instruction, teacher-led small group lessons, and a variety of independent practice activities to meet a wide range of learners. The Teacher's Guide includes scaffolded supports for every lesson, both in whole-group and smallgroup instruction, with easy access to options to differentiate are available through the digital Teacher's Guide on HMH Ed. With multiple teacher-led, small-group instructional options, HMH Into Reading supports tailoring instruction to various student needs, including foundational skills, reading skills, comprehension skills, or intervention.

Small-group instruction and differentiation are at the heart of the HMH Into Reading instructional approach. The HMH Into Reading differentiatedby-design lesson plan provides an authentic approach for reinforcing whole-group instruction. Daily small-group options provide students with targeted extra help for reading skills and strategies. The teacher-led focused instruction provides a natural environment for Tier 1 support by enabling teachers to differentiate instruction for a wide range of students.

During HMH Into Reading small-group instruction, the built-in daily Differentiation and Practice Options allow teachers to naturally differentiate with focused instruction on skills introduced during whole- group instruction,

saving time in planning additional lessons and gathering different resources. Personalized, digital tools such as HMH Waggle, HMH Writable, and Amira Learning (connected resources on HMH Ed, available as a separate license), can provide students with differentiated support and practice.

Foundational skills lessons provide explicit, systematic instruction. Students practice and apply these skills in context by reading decodable texts. Additional Practice activities provide support with phonics, spelling, and highfrequency words, depending on students' needs.

Also, according to student needs, from significantly below level to above level, teachers can use the online Foundational Skills and Word Study Studio, an intervention resource which provides additional explicit, sequential, and systematic instruction and practice in the critical areas of print concepts, letter knowledge, phonological awareness, phonemic awareness, phonics, word recognition, and fluency.

Read and Respond Journals include decodables and passages that allow students to build their confidence as readers. Students practice skills in the context of reading with passages written below grade level. This additional practice provides supports comprehension and opportunities to reinforce, and refine, students' skills.

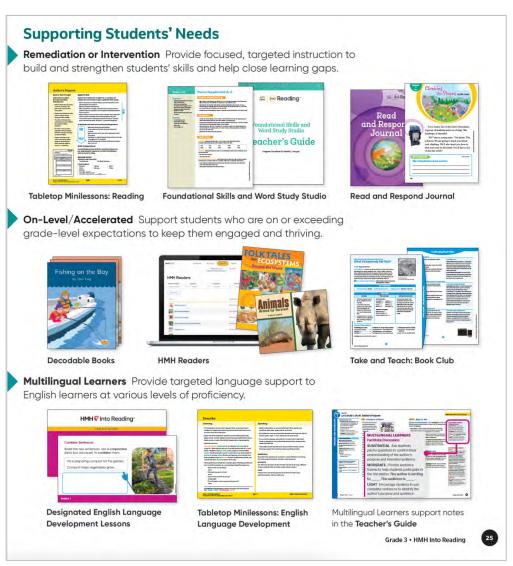
**Skill and strategy lessons** support students at their independent reading level to reinforce targeted reading skills and strategies. These lessons meet the needs of all learners, including striving readers and those who may need a challenge.

#### **English Language development lessons**

facilitate students' effective expression at each level of English language proficiency through teacher-led small groups. Students practice and apply language functions across the four language domains and through collaborative problem solving. Each day of instruction focuses on a domain—listening, speaking, reading, writing—and collaborative problem solving. Delivered through a Tabletop Minilesson, instruction can be delivered daily or used flexibly and less frequently depending on the needs of the students.

#### Tabletop Minilessons support differentiation,

and allow teachers to target grade-level skills and strategies with students in small groups, addressing their learning needs. The teacher-facing side guides the teacher through a brief lesson, including guidance on how to scaffold and extend learning, while the student-facing side provides thought provoking visuals and sparks curiosity and increases engagement.



Grade 3, HMH Into Reading Resources for Differentiation

# The promise of practice

## Practice to support mastery and application of knowledge and skills

The idea of practice and its impact on performance is both long standing and ubiquitous. We often see the term practice applied in a variety of settings including sports, the arts, business, and of course all fields of education. However, the popular use of practice can often lead to its misinterpretation because not all manifestations of practice are alike or equally as effective. The actual science behind effective and purposeful practice is much more nuanced. HMH has adopted a Science of Practice approach as one of its key pillars for developing skill mastery in students. Effective practice increases retention of information automaticity, internalized application of skills, and motivation to learn more (Brabeck et al., 2015).

Across all areas of instruction, student performance is directly impacted by how much they engage in deliberate practice. Deliberate practice is not, however, rote; it entails attention, rehearsal, and repetition that also generates new and more complex knowledge and skills. Deliberate practice is a structured and purposeful form of practice that is aimed at improving practice. Unlike routine repetition or passive review, deliberate practice involves focused effort, specific goals, immediate feedback, and constant refinement and reflection on learning. As Brown et al. (2014) reminds us, "Learning is deeper and more durable when it's effortful. Learning that's easy is like writing in sand, here today and gone tomorrow" (p. 3).

Effective practice is essential for acquiring and building knowledge and skills. Inextricably linked to cognitive load, the design of learning tasks and practice can affect students' capacity to process new information and construct knowledge in long-term memory. Sweller and colleagues (2019) explain that "human cognitive

processing is heavily constrained by our limited working memory which can only process a limited number of information elements at a time. Cognitive load is increased when unnecessary demands are imposed on the cognitive system. If cognitive load becomes too high, it hampers learning and transfer. Such demands include inadequate instructional methods to educate students about a subject as well as unnecessary distractions of the environment . . . In order to promote learning and transfer, cognitive load is best managed in such a way that cognitive processing irrelevant to learning is minimised and cognitive processing germane to learning is optimized" (online).

In addition, the timing relative to practice tasks should be carefully considered. Specifically, "techniques focused on improving memory include interleaving (spacing) practice over time, rather than massing all practice at a single time; practicing retrieval of memorized information, rather than just studying the information again; and exposing learners to materials in different settings" (NASEM, 2018, p. 55).

As described by Agarwal & Bain (2019), cognitive science has long established a three-stage process for learning: encoding (information comes in), storage (information is retained), and retrieval (information previously learned is brought back and applied). They also point out that historically within classrooms, the greatest emphasis has been placed on encoding. Yet evidence increasingly supports the idea that the retrieval stage is most essential for long-term learning, as that's where learning is strengthened and has the best chances of adhering for future application. "Retrieval practice refers to learning activities involving deliberate attempts to recall and articulate previously taught information" (p. 48). Agarwal & Bain (2019) emphasize how

extensive research in classrooms has shown that retrieval practice boosts student learning across diverse student populations, subject areas, time delays, and stages of development and that retrieval practice improves higher-order thinking, knowledge acquisition, transfer of knowledge, higher-order thinking, and a wide range of reading and writing skills.

Research has also continually demonstrated that engaging with information across multiple sessions that are spaced apart—known as distributed practice—yields better learning outcomes than spending the same amount of time on material within a single session or in close succession (Brabeck et al., 2015; Cepeda et al., 2006; Dudai et al., 2015; Underwood, 1961). "The spacing effect is one of the oldest and most reliable findings in research on human learning" (Carpenter et al., 2012, p. 2). In an examination of studies within cognitive and educational psychology, Dunlosky and colleagues (2013) found distributed practice to be one of the teaching techniques with the highest utility in improving students' performance across various criterion tasks in educational contexts, including long-term retention of information, and one that benefits learners across ages and abilities.

However, merely exposing students to the same material in the same ways multiple times will not ensure learning for most students (Brown et al., 2014). Much more impactful is practice that features interleaving within a spaced or distributed schedule (Agarwal & Bain, 2019). Whereas distributed practice spreads out interaction with targeted content over time, thus providing repeated opportunities for retrieval, an interleaved approach mixes different but related skills or forms of problems and topics within a session (Dunlosky et al., 2013). "When practice is interleaved rather than blocked, the practice of different skills is intermixed rather than grouped by type (e.g., abcbcacab instead of aaabbbccc). . . With interleaved practice, by contrast, each

lesson is followed by a set of practice problems drawn from many previous lessons so that no two problems of the same kind appear consecutively, thereby requiring students to choose appropriate problem-solving strategies, prior knowledge, etc." (Taylor & Rohrer, 2010, p. 837). Therefore, "interleaved practice helps students to discriminate between the different kinds of problems so that they will be more likely to use the correct solution method for each one" (Dunlosky et al., 2013, p. 40) while also encouraging students to discriminate between similarities and differences (Agarwal & Bain, 2019). Numerous studies attest to the benefits of interleaving practice (Brown et al., 2014; NASEM, 2018; Taylor & Rohrer, 2010). Evidence, based on "years of cognitive science research has established that interleaving—simply rearranging the order of retrieval opportunities during spacing without changing the content to be learned—can increase (and even double) student learning" (Agarwal & Bain, 2019, p. 107).

Also essential to effective practice is ongoing, immediate feedback, as frequent feedback during retrieval practice has been shown to support metacognition, so that students become aware of what they know and what they don't and then what is to be done fills in any identified gaps in knowledge or skills (Agarwal & Bain, 2019; Brown et al., 2014; Fisher et al., 2014; Hattie, 2009, 2023; Hattie & Clarke, 2018; Molin et al., 2020). Ongoing, constructive feedback that focuses on learning targets and fosters selfassessment, self-regulation, and metacognition is key to effective practice that supports all levels of learning (Brabeck et al., 2015; Dean et al., 2012; Hattie, 2009, 2023; Hattie & Clarke, 2018), including, particularly, reading and writing (Fisher et al., 2016). In addition, research strongly supports providing feedback during retrieval that includes both verification of correctness and elaboration (Agarwal & Bain, 2019; Metcalfe, 2017; Rosenshine, 2012; Shute, 2008).

# How HMH Into Reading aligns with the research

Within the field of literacy development, decades of research consistently attests to the efficacy of skill- and strategy-based, direct, explicit instruction followed by guided practice, especially for striving readers, younger readers, and students at risk of reading difficulties (Al Otaiba et al., 2023; Archer & Hughes, 2011; Engelmann, 2024; Gersten et al., 2009; Hempenstall, 2020; National Reading Panel, 2000; National Research Council, 1998; Reutzel et al., 2014; Rupley et al., 2009; Shanahan et al., 2010; Torgesen, 2004).

HMH Into Reading's instructional approach is grounded in the science of learning, employing an approach to practice that incorporates productive and efficient strategies that lead to skill acquisition and subsequent generalizability. Grounded in the science of reading and a Structured Literacy approach, the instructional design of the program features purposeful practice, including deliberate practice, retrieval practice, and interleaving (spaced) practice (Agarwal & Bain, 2019).

In the following chapter on HMH Into Reading's essential literacy components, we provide numerous specific examples of how deliberate practice, retrieval practice, and interleaved practice are embedded throughout program. Below are a few examples:

## **Deliberate practice**

HMH Into Reading provides students with opportunities for deliberate practice with structured and purposeful practice through numerous learning activities aimed at improving performance, both individually and collaboratively, enhanced through both digital non-digital learning, with immediate, actionable feedback.

For example, Phonics lessons and the associated practice activities are goal-oriented, with each lesson targeting a specific skill; students engage in effortful learning that requires concentration, and pushes students to excel, with immediate, actionable feedback to correct misconceptions. The activities provide repetition with variation, where skills are practiced repeatedly, but with intentional variation to deepen understanding. Lessons support student in reflecting on their learning, with the goal of refining their understanding. (See the chapter on Essential literacy content for additional detail related to Phonics instruction).

Similarly, Writing lessons support students' growth and learning as they go through the writing process, including explicit support related to goal setting, focused effort, immediate feedback, and constant refinement (see the chapter on Writing for additional detail related to the writing process).

## Retrieval practice

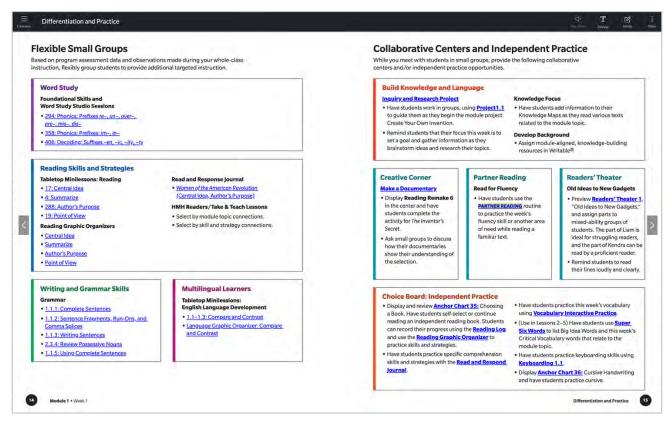
HMH Into Reading instruction includes retrieval practice throughout the grade levels, whereby students must actively recall information from memory rather than passively review it. For example, instead of re-reading notes or highlighting text, learners are asked to bring information to mind (e.g., answering a question, writing down what they remember, or taking a weekly or module quiz). In addition, HMH Into Reading's instructional card kits support student retrieval, as do collaborative opportunities to recall information during Think-Pair Share activities. Further, writing activities include prompts activate retrieval and prior knowledge.

## Interleaved practice

Interleaving is incorporated into HMH Into Reading's daily and weekly lessons. Throughout the daily literacy block, and across the week, students receive instruction and practice opportunities spanning different topics, skills, or problem types are mixed together during practice, rather than studying one topic at a time. For example, students practice grammar, vocabulary, and reading comprehension in the lesson. In addition, interleaved. In addition, HMH Into Reading's spiral approach to instruction provides cumulative review, including skills from earlier modules, within the current module, as well as spacing of concepts and skills (reviewed over time) to enhance retention.

## HMH Waggle®, an HMH Connected Solution

Available for a separate license, Wagale ELA is a digital supplemental learning and practice solution builds concept and skill proficiency through dynamic personalization and rigorous, standards-based content aligned with HMH Into Reading. Waggle differentiates instruction to meet individual students' needs by continuously assessing knowledge and skill levels and creating adaptive content based on formative indicators. A key feature of Waggle is that is provides students with explicit instruction and targeted deliberate practice, retrieval practice, and interleaved practice with just-in-time, scaffolded hints, language supports, and itemspecific, corrective feedback - further enhancing the learning outcomes for HMH Into Reading students.



Digital Teacher's Guide, HMH Into Reading Grade 5, Differentiation and Practice

# Classroom organization

### Literacy block for maximum learning

Careful planning for the literacy block is essential because it is up to teachers to provide the environment, tools, motivation, and opportunities to help students achieve. There is a finite amount of time for the daily literacy block, and although that may seem boundless, teachers recognize the challenges of allocating the time carefully so that the instruction they offer and the activities they provide meet the needs of all their students. Although students differ along many dimensions, virtually all students will respond to researchbased instruction and learn to read (Afflerbach, 2016; McFarland et al., 2019).

The most productive literacy blocks give students opportunities to work with their teacher in both large and small groups, to work with small groups of peers, and to work independently. Research findings on early literacy development strongly recommend an extended period for instruction—at least 90 minutes. There should be limited interruptions, and all students should have opportunities to engage in different kinds of reading and writing activities (Alexander, 2021; NICHD, 2000; Shaywitz et al., 1999). It is crucial that students receive focused, explicit instruction on foundational skills (Ehri, 2020; Goldenberg & Cárdenas-Hagan, 2023; Hammond, 2015; Moats, 2020b). The actual number of minutes in a school's literacy block and the needs of students will determine how teachers divide up the time devoted to reading and writing, yet it is essential that the following activities be included:

Explicit instruction and practice on foundational reading skills such as recognizing and manipulating word parts presented orally (phonemic awareness), understanding letter-sound relationships (phonics), blending letter-sound patterns to produce words (decoding), or understanding common spelling patterns (encoding).

- Targeted, whole-class reading or writing instruction in a teacher-led lesson as a precursor to the longer period of independent or smallgroup work; during the lesson, the teacher (1) ties new content or skills to what has been learned previously; (2) states the teaching point that will be presented (e.g., use of dialogue in narrative writing); (3) models or explains the teaching point, usually with some textual support; (4) asks students to practice the teaching point with partners; and (5) restates the focus of the lesson; the teacher then sends students to their independent and small-group work.
- Small-group instruction, during which teachers meet with small groups while other students work independently, work with partners, work in centers, or otherwise practice their developing skills. Small group instruction should include print and/or digital practice activities; center work should reinforce what students have been learning; and teachers must check-in and debrief to ensure students are maximizing their time.
- A variety of interactive and independent reading and writing activities, for example: Read-alouds, during which teachers model reading and engage students actively in asking and answering questions; Instruction to build vocabulary and background knowledge; writing independently or with a partner; engaging in shared reading with a partner; and reading independently in trade books with teachers monitoring the reading.

The literacy block can flow most smoothly when teachers help students understand their responsibilities in moving from whole-class instruction to small groups to independent work. The advantages of such a dynamic instructional structure include building community through whole-class work, offering instruction in focused small-group interactions, prioritizing students' time practicing skills alone and with peers, and alternating times when students sit and listen with times when they are more active.

## How HMH Into Reading aligns with the research

## Matching students to instruction, pacing, and grouping

HMH Into Reading is designed to provide daily individual, needs-based instruction, with lessons aligned to the challenges and opportunities of the curriculum. Teachers form flexible and dynamic student groups, reflecting the changing needs of the groups based on individual needs and interests. Instruction is flexibly paced to optimize individual growth, with an emphasis on using assessment and observation to inform each student's path (move back, stay on course, accelerate). Instruction is designed to support students across the curriculum. For example, the program connects the day's foundational skill focus and applies it to a decodable text, and teachers can use comprehension skills from wholegroup instruction to support small group instruction.

## Teacher-led daily options for smallgroup differentiation

Small-group instruction allows teachers to tailor instruction to individual students' needs, giving them support with the skills or practice required to move forward and become skilled readers. Instruction in this context also helps teachers identify gaps in students' learning, break down concepts, and provide immediate feedback. By having a place to closely evaluate what each student can do, teachers can react and support their students immediately.

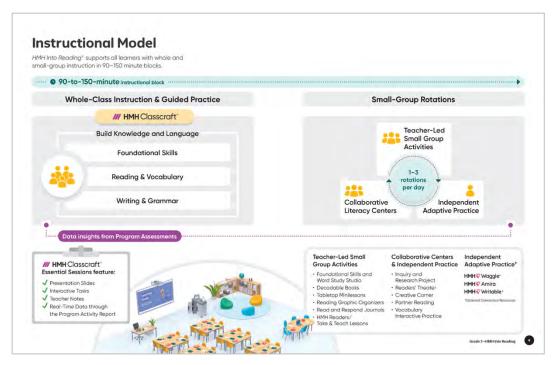
HMH Into Reading teacher-led small-group instruction advances students' abilities with texts that engage and challenge readers at their

independent level. It meets the needs of all learners, including multilingual learners, students who struggle, or students who need a challenge. The focus of HMH Into Reading small-group instruction is to target students and their unique needs in small groups to maximize student growth and improve learning outcomes for all students. Resources for differentiation include a decodable text library, Tabletop Minilessons: Reading, HMH Readers, Take and Teach Lessons (accompanying each reader), and Foundational Skills and Word Study Studio.

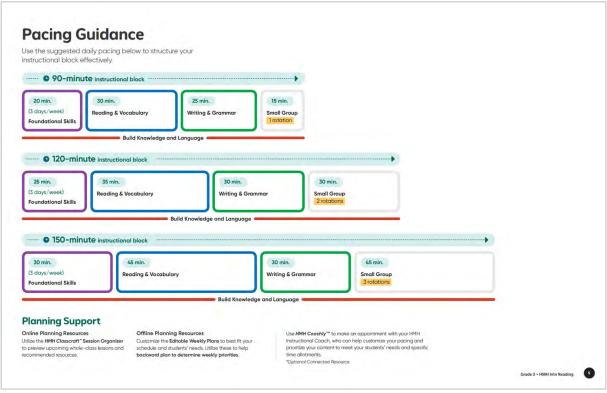
While teachers provide small group instruction, the other students in the classroom can work in Literacy Centers and engage in daily independent work options, such as independent reading, writing, or digital practice activities, including Waggle, Writable, or Amira Learning (HMH optional resources) on HMH Ed, HMH's digital learning platform.

## Lesson planning to meet student's needs

An intuitive HMH Into Reading digital lessonplanning tool supports teachers in adapting and customizing specific lessons and daily routines and in finding activities and resources for differentiation to meet the particular needs of an individual, small group, or class. Further, a digital Teacher's Guide makes it easy for teachers to find targeted support and differentiation, as well as modify instruction/questions and add their own resources. Robust note-taking capability supports teachers in personalizing their Teacher's Guide and recording reflections about what worked and what to modify for next year.



Instructional model, HMH Into Reading Grade 3



Pacing Guidance, HMH Into Reading Grade 3 Literacy Blocks (90, 120, and 150 minutes)

# HMH Into Reading's Essential literacy components

A century of research has established and reaffirmed the efficacy of an explicit and systematical approach to reading instruction, including a focus on foundational literacy skills at the primary grades that teaches students the elements of language (such as phonology, morphology, and syllabication) and facilitates the application of such knowledge into decoding (reading) and encoding (spelling) of written language (Sayeski et al., 2019). This approach, which was strongly advocated in the Report of the National Reading Panel (NICHD, 2000), enables students to first become alphabetic readers, who ultimately read with fluency and comprehension (Ehri, 2020; Goldenberg & Cárdenas-Hagan, 2023).

Decades of cognitive science research has affirmed that "reading is a complex developmental challenge that [is] intertwined with many other developmental accomplishments: attention, memory, language, and motivation" (National Reading Council [NRC], 1998, p. 15). Among the intertwined factors, at its essence, learning to read involves knowing the alphabet, being able to decode, read words accurately and fluently, comprehending the ideas represented in text, and more. For many students, learning to read can be tough work and for almost all students, it requires a systematic, sequential instructional approach (Ehri, 2022; Moats, 2020a).

Research has demonstrated that the core of a strong early literacy block is instruction focused on the foundational skills upon which students' development as readers and writers is built (Castles et al., 2018; Foorman et al., 2016; Gersten et al., 2007; Goldenberg & Cárdenas-Hagan, 2023; Liben & Liben, 2019; National Institute of Child Health and Human Development [NICHD], 2000; Nieser & Cárdenas-Hagan, 2020; NRC, 1998).

HMH Into Reading is designed to ensure successful literacy skill development when implemented with the recommended research-based instruction, resources, and routines grounded in the Science of Reading. In this chapter we synthesize the research on the essential literacy content and instruction and how HMH Into Reading aligns to the research to foster acquisition of letter knowledge, phonological awareness and phonemic awareness, phonics and word study, fluency, language comprehension, knowledge development, vocabulary development, reading comprehension, and writing.

# Letter knowledge

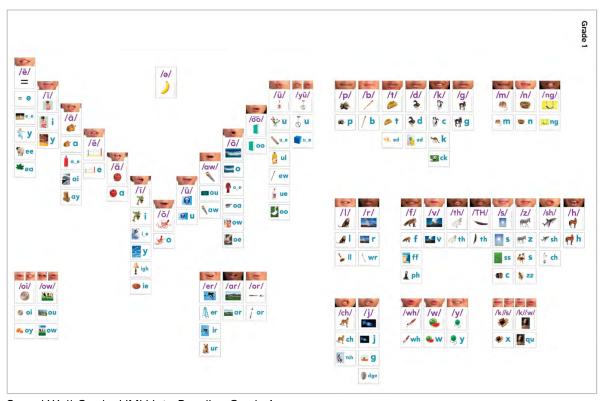
Letter knowledge is an essential first step in reading proficiency. Research has long shown that the ability to recognize and name upperand lowercase letters at the start of first grade accurately predicts reading success by the end of the year (Adams, 1990); conversely, "poor grasp of the alphabetic basics—letter knowledge and phonemic awareness—[is] a strong harbinger of difficulty in learning to read (Adams, 2001, p. 67). Brady (2020) explains and emphasizes why: "[i]n writing systems that are alphabetic, the beginner first has to become aware of individual phonemes in spoken words and then understand that those phonemes are represented by letters. This sequence provides students with a necessary understanding of how the alphabetic writing system works, referred to as the alphabetic principle" (p. 20). Alphabetic knowledge is both a precursor to as well as facilitator of both phonemic awareness and alphabetic decoding; yet the process of acquiring alphabetic principle is complex and it requires explicit instruction for most children (Castles et al., 2018; Moats, 2020a; Nieser & Cárdenas-Hagan, 2020).

Ehri's framework (1995, 2005) for letter knowledge development and its role in reading proficiency outlines a progression through four distinct phases. The initial phase is PreAlphabetic, when children recognize words based on visual cues without understanding letter-sound relationships (e.g., they may identify a word by its overall shape or associated imagery rather than by decoding letters. Next, as children begin to grasp some letter-sound correspondences, they use this partial knowledge to decode, typically, focusing on initial and/or final letters to make educated quesses about words and often relying on context to aid recognition; Ehri identifies this the second phase, Partial Alphabetic. The third phase is Full Alphabetic, distinctly when children possess a comprehensive understanding of the alphabetic system that enables decoding of unfamiliar words by systematically converting letters into sounds. The Full Alphabetic phase is also marked by the development of automatic sight word recognition and the ability to segment and blend phonemes effectively. Finally, Ehri's framework concludes in the Consolidated Alphabetic Phase, when readers can recognize larger units within words (e.g. syllables, morphemes, and common letter patterns); this consolidation facilitates faster processing of familiar word parts and thereby allows for more efficient and fluent reading

## How HMH Into Reading aligns with the research

HMH Into Reading teaches the components of letter knowledge using developmentally appropriate strategies and activities. There are many opportunities to develop knowledge and encourage curiosity about letters through explicit and systematic instruction in the Teacher's Guide, along with meaningful play experiences and exploration of print. After learning all of the letter names and forms, HMH Into Reading builds student's knowledge of letter sounds while building their phonics skills. Students gain meaning of the letters and sounds through activities that involve exploring environmental text. Letter knowledge is practiced and reinforced through games, instruction, and Literacy Centers.

Grade K-2 Instructional Card Kits support students' mastery of letter knowledge, including Letter Cards, and large format Sound Spelling Cards that identify all the sound-spelling patterns covered in the grade level. The Sound Spelling Cards help students make sound-to-print connections and support instruction of the Phonics Focus Skill. Sound Wall Cards support letter-sound correspondence by teaching and reinforcing phoneme-grapheme mapping, helping students bridge their understanding of how a sound is spoken to how it is written. The Sound Wall Cards, designed to create a sound wall in the classroom, also include mouth articulations and key words for each sound. Letter knowledge is further supported through sound-keyword hand movements provided for many of the graphemes on the Sound Wall. Articulation Videos and Handwriting lessons and practice opportunities further support students understanding of letter knowledge.



Sound Wall Cards, HMH Into Reading Grade 1

#### **INSTRUCTIONAL ROUTINE**

# **Letter Knowledge**

Use the **LETTER KNOWLEDGE** routine to

- teach children to identify and form upper- and lowercase letters in the beginning of the year using a consistent set of steps.
- reteach in small groups the letter names and forms children have not mastered.
- model how to form letters and to describe their strokes using clear language.

#### **ROUTINE MATERIALS**

Use Letter Cards when teaching upper- and lowercase letters.

### **ROUTINE IN ACTION**

MODEL LANGUAGE	
Let's look at this letter, uppercase A. It has slanted lines on the sides, with a short line in the middle.	
Astrid starts with the letter A. Say it with me. Who has a lowercase a in their name?	
What is the name of this letter? Uppercase A. Let's write it.  Start at the top. Slant down left. Lift to the top. Slant down right. Lift to the middle. Slide right.	
What is the name of this letter? Lowercase a. Let's write it.  Start in the middle; make a circle nice and round.  Go back up a little; make a straight line down.	
Great job forming letter A! Let's look out for A as we read and write.	

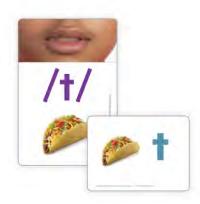
© HMH Education Company. All rights reserved.

HMH Into Reading • Grade K

### **INSTRUCTIONAL ROUTINE**

## **Letter Sounds**

Purpose: Guide children to practice pronouncing a target sound-spelling and connecting the grapheme(s) and sound. Materials: Sound Wall Cards, sound keyword hand movements, Letter and Grapheme Cards, mirrors and/or devices with cameras (optional)



#### **ROUTINE IN ACTION**

<b>ROUTINE STEP</b>		MODEL LANGUAGE
Show the Sou the grapheme say the first so	e phoneme and grapheme. nd Wall Phoneme Card. Say name and its sound. Then und in the keyword while you gesture to match the keyword.	Today we'll learn to read and spell a new consonant sound. The grapheme t makes the sound /t/. The /t/ sound is at the beginning of the word taco. Say /t/. Fold your hand as if it's a taco and then pretend to eat.
Pocus on arti	culation.	Watch me say the sound: /t/. What does my mouth look like when I say this sound?
3 Practice the support.	phoneme with multimodal	Let's say it together: /t/. Again: /t/. Use your mirror or camera to watch your mouth. Touch the tip of your tongue to the back of your top teeth. Drop your tongue and blow air out.
4 Connect the	phoneme to its grapheme.	Point to the grapheme t on the Sound Wall Grapheme Card. This is the grapheme that spells the sound /t/. What's the name of this letter? (t) What is its sound? (/t/)
3 Identify the	ohonemes in words.	Now we will listen for /t/ at the beginning of some words. When you hear the sound at the beginning, fold your hand as if it's a taco and pretend to eat. Top, ball, team, talk, pit, tell, hot.
	<b>percase letter.</b> Model writing Use the verbal path.	Let's practice writing uppercase T. Start at the top. Pull down straight. Lift to the top left. Slide right.
	vercase letter. Model writing se the verbal path.	Now lowercase t. Start between the middle and the top. Pull down straight. Lift to the middle. Slide right short.
8 Reinforce the connection.	phoneme-grapheme	Let's review the sound we learned today: /t/. This is the sound we hear at the beginning of taco and top. Now look at our Sound Wall. Can you find the grapheme t on the wall? What is the sound for the letter t? (/t/)

© HMH Education Company. All rights reserved.

HMH Into Reading • Grade K

Letter Sounds Instructional Routine, HMH Into Reading Kindergarten on HMH Ed

## Phonological and phonemic awareness

With a Structured Literacy approach, students learn the speech sound system—explicitly, sequentially, and with understanding as to why it's important (Castles et al., 2018; Ehri, 2020; Moats, 2020a). "The development of children's word literacy skills is causally influenced by children's early letter knowledge and phoneme awareness" (Hulme et al., 2012, p. 576). A consistent and continually confirmed finding across well-established reading research is that proficient reading, spelling, and other markers of literacy are strongly predicated on the ability to identify, recall, manipulate, and combine units of sound that correspond with letters and gradually associate sound segments with letters within written words. Similarly, Clayton et al.'s (2020) research concluded that both letter-sound knowledge and phoneme awareness are strong predictors of reading development.

## Phonological awareness

Phonological awareness is the ability to distinguish and manipulate any unit of sound in our language, such as whole words, onset-rime, body-coda, or individual phonemes through rhyming, alliteration, segmenting sentences into words, identifying the syllables in a word, and isolating, blending, and segmenting onset-rimes or phonemes—skills that are instrumental in phonics decoding and spelling. Brady (2012) provides a helpful distinction in noting that phonological awareness can be seen as having two levels: "the first level, phonological sensitivity, pertains to conscious awareness of larger, more salient sound structures within words, including syllables and sub-syllabic elements (onsets and rimes). The second level, phoneme awareness" (p.20) or phonemic awareness, refers to "the ability to perceive and manipulate individual speech sounds, or phonemes within words" (Cunningham &

Zibulsky, 2014, p. 446). Both larger sound units and those at the phoneme level are included in the more encompassing term of phonological awareness.

Research consistently demonstrates that "learning to read can be facilitated by providing explicit instruction that directs children's attention to the phonological structure of words, indicating that phonological awareness plays a causal role in learning to read . . . " (NRC, 1998, p. 56). Furthermore, explicit instruction in phonological awareness shows stronger effects than indirect instructional approaches (NRP, 2000, p. 2-33). According to Clayton and colleagues (2020), there is a growing consensus "that early reading development is dependent on phonological skills...and that deficits in these skills are probably causally related to difficulties in learning to read" (p. 91). Indeed, per Liben and Liben (2019), "phonological awareness...is considered by many researchers to be the single greatest predictor of success in early reading (p. 29). The effect on reading success is even stronger when phonological and phonemic awareness instruction is methodically and systematically combined with activities that promote knowledge of letter names and letter sounds (Adams, 1990; Brady 2012; NELP, 2008). As Cunningham (1990) explains, "explicit instruction in how segmentation and blending are involved in the reading process helps children to transfer and apply component skills such as phonemic awareness to the activity of reading" (p. 441).

Researchers have suggested that certain levels of phonological awareness, as measured by different tasks or by different levels of linguistic complexity, come before learning to read. Alternatively, more advanced levels of phonological awareness result from learning to

read (Stahl & Murray, 2006). Research further suggests that reciprocal causation exists between learning to read and phonological awareness; in other words, there is evidence that growth in both areas proceeds in parallel (Adams, 1990; NRC, 1998). "Many relationships between speech and print are reciprocal and interactive, so that gains in one domain can have positive effects on other aspects of language processing" (Moats, 2020b, p. 10). Foundational reading skills, by necessity, develop incrementally, in phases and over time (Castles et al., 2018; Clayton et al., 2020; Ehri, 2020, 2022).

### Phonemic awareness

Phonemic awareness is the ability to understand and distinguish the smallest sounds in our language that make a difference in word's meaning or phonemes. According to National Research Council (1998) reading experts, refers to the fact "that every spoken word can be conceived as a sequence of phonemes. Because phonemes are the units of sound that are represented by the letters of an alphabet, an awareness of phonemes is key to understanding the logic of the alphabetic principle and thus to learning of phonics and spelling" (p. 52). Phonemic awareness "is not spontaneously acquired, [but] can be successfully taught" through explicit training (NRC, 1998, p. 329). This was position affirmed by meta-analysis conducted by the National Reading Panel (NICHD, 2000): "[Phonemic awareness] training benefits not only word reading, but children's ability to read and spell for months, if not years, after the training has ended" (pp. 2-40). Two decades later, Brady (2020) asserts that subsequent research in the form of longitudinal studies and reviews reinforces the significant influence and the predictive capacity that early phonemic awareness has in the process of learning to read: "in sum, the convergent evidence for the importance of phoneme awareness and letter skills for learning to read is indisputable" (p. 20).

Moats (2023) explains that in becoming phonemically aware "children must gradually differentiate the sounds in spoken words and map them to letters and letter sequences," increasingly recognizing and manipulating the sounds that comprise words; the process is not one of visual imprinting but rather achieved through developing a "mental map connecting speech with print" that over time forms a repository of known words that can be recalled (p. 6-7), contributing to vocabulary development and other reading skills. Studies show that phonemic awareness shares a reciprocal relationship with reading (Clayton et al., 2020). High-quality instruction in the early grades, explicitly and systematically, helps students understand the role that phonemic awareness plays in learning to read and write.

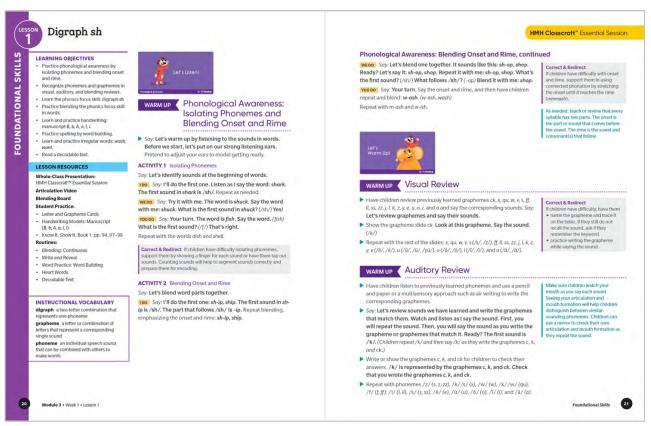
Phonemic awareness and letter knowledge "provide the foundation enabling beginners to move into reading and spelling" (Ehri & Roberts, 2006, p. 113). Phonemic awareness reinforces connections between spoken language and literacy, that is, that learning to read and write involves attending to and analyzing the structure of what is said and heard so that utterances can be broken into language, then into sequences of syllables, and then into phonemes within the syllables (Al Otaiba et al., 2019; NICHD, 2000; NRC, 1998). Among kindergartners, phonemic awareness "is one of the strongest predictors of subsequent reading achievement" (Brady, 2012, p. 19). It is important that phonemic awareness instruction at K-1 emphasizes that phonemes of English represent building blocks of speech and language, not merely letters of the alphabet (Moats, 2023). Cárdenas-Hagan (2018) recommends an explicit, step-by-step, and scaffolded approach that entails breaking down the process for learning a new sound into its component parts and utilizing repetition and multiple examples; this provides students with more comprehensible instruction.

## How HMH Into Reading aligns with the research

HMH Into Reading's scope and sequence outlines how its phonological and phonemic awareness skills progress from simple to more complex tasks.

Specific lessons include instruction that provides practical application of taught skills. Lessons are provided in a systematic, explicit, and teacherdirected model. For example, in Grades K-2, lessons focus on alliteration, rhyme, onset-rime identification, phoneme identification, blending, segmenting, deletion, manipulation, and then build those skills from least complex to most complex, as the grade levels progress.

At all grade levels, explicit instruction includes teacher explanation and modeling before students give it a try. The instruction draws upon the reciprocal relationship between phonics and phonemic awareness. For example, students warm up by listening to the sounds in words before blending and segmenting based on the model of gradual release, holding up fingers for each sound and saying them as the teacher slides across the sounds on the whiteboard. Students then continue with those methods to engage in visual and auditory reviews of previously taught graphemes and phonemes.



Foundational Skills Lesson: Phonological and Phonemic Awareness, HMH Into Reading Grade 1 Teacher's Guide

## Phonics and word study

HMH Into Reading features systematic, explicit phonics instruction; rich, authentic texts; smallgroup instruction; and ample independent opportunities for practice and application. As Ehri (2022) reminds us, "the road leading to automatic word reading is not short. It is not reached directly by having novice beginners practice reading words on flash cards. The course of development requires mastery of letters, phonemic awareness, knowledge of the alphabetic writing system and how to spell the sounds in words, the ability to decode unfamiliar words, and acquisition of a growing vocabulary... Learning these skills is facilitated by systematic phonics instruction" (Ehri, 2022, p. 53).

### **Phonics**

Phonics encompasses instructional practices that teach students the relationship between graphemes and phonemes within in an alphabetic writing system; systematic phonics programs teach grapheme-phoneme correspondences in a sequential, structured manner—which is, fundamentally, the most effective way that the English language can be taught, due its deep orthography (i.e., inconsistent spelling-sound mapping) (Castles et al., 2018; Ehri, 2022; Moats, 2020b). According to National Research Council (NRC) reading experts, "Phonics refers to instructional practices that emphasize how spellings are related to speech sounds in systematic ways" (NRC, 1998, p. 52). Decades of research provide overwhelming evidence of the value of explicit, systematic phonics in early reading instruction (Adams, 1990; Brady, 2020; Ehri, 2020; Foorman et al., 2016; Goldenberg & Cárdenas-Hagan, 2023; Liben & Liben, 2019; Moats, 2020b; NELP, 2008; NRC, 1998). Spear-Swerling (2019) explains how classroom instructional materials best support the Structured Literacy approaches to phonics: "educators teach from a sequence of

phonics materials proceeding from use of simpler to more complex patterns. Children read books containing the phonics word patterns they have been taught. Reading of texts and phonics instruction are coordinated so that as children's decoding skills develop, they are able to read increasingly complex texts. Similarly, spelling is coordinated with decoding, so that each reinforces the other" (para. 6).

This still growing body of evidence reinforces the strong emphasis the National Reading Panel (NRP) placed on phonics at the turn of the 21st century. Per the NRP, systematic and explicit instructional approaches to phonics—that is, those that "use a planned, sequential introduction of a set of phonic elements along with teaching and practice of those elements" and feature "the identification of a full array of letter-sound correspondences" have been shown to be more effective in promoting early literacy than non-systematic approaches (NICHD, 2000, p. 2-89). These findings provide clear evidence that "systematic phonics instruction makes a bigger contribution to children's growth in reading than alternative programs providing unsystematic or no phonics instruction" (NICHD, 2000, p. 2-92). Noting that the NRP reported stronger outcomes for systematic phonics instruction at K-1, Brady (2020) points out that more recent studies "suggest that the inclusion of explicit, code-based instruction beyond first grade is critical for at-risk students and allows students with stronger reading skills to be far more likely to reach their potential" (p. 25).

Phonics instructional approaches in which word families are carefully grouped to highlight lettersound contrasts have been shown to be effective in helping students grasp orthographic patterns (Adams, 1990; Henry, 2010). Instruction that systematically organizes and exploits minimal contrasts helps focus children's attention and

hastens development of their orthographical/phonological abilities (Adams, 1990). Within systematic phonics learning, an initial phoneme-grapheme level approach, which is characteristic of Structured Literacy and supported by research, is generally preferred and mastery in this should be demonstrated before students move into larger unit phonics, such as onset-rimes and word analyses (Spear-Swerling, 2019).

As students learn phonics (letter-sound correspondences), they develop decoding skills and gradually, with explicit instruction, it is important that apply what they know about lettersound correspondences to decode words as they read and to encode words as they write (see Foorman et al., 2016, for a review of more recent research not covered in the NRP report). Thus, in addition to learning letter-sound patterns, beginning readers must become fluent in decoding—the process of matching letters to sounds, applying phonics patterns, then blending all the sounds together to access that word in their lexicon. Research evidence points to the value of teaching these skills explicitly with detailed explanations, modeling, and practice (Strickland, 2011).

In addition, decades of research has demonstrated the effectiveness of teaching foundational reading skills in a cumulative manner. The National Reading Panel reviewed 38 research studies and concluded that explicit and systematic phonics instruction—that is, instruction that was based on a clearly defined plan and sequence and that was directly taught to students—was more effective at helping children learn to read than responsive phonics instruction—individualized phonics minilessons provided if and when children need themor no phonics instruction at all (NICHD, 2000). The ability to decode in the early stages of learning to read has been identified as the most crucial factor in a student's capacity to progress to higher-level skills (Castles et al., 2018; Goldenberg & Cárdenas-Hagan, 2023). Spear-Swerling (2019) recommends

that "while their decoding is still developing—and particularly for children who struggle with decoding—oral reading of texts with teacher guidance and feedback is essential. Texts should include many words that children can decode. Otherwise, children may just guess at words" (para. 22). Learning to read is complex process. Based on their review of the research, the experts on the National Reading Panel reported that an estimated 60% of early readers need systematic, explicit, and cumulative phonics instruction in order to learn to read (NICHD, 2000).

As Ehri (2022) reminds us, "the road leading to automatic word reading is not short. It is not reached directly by having novice beginners practice reading words on flash cards. The course of development requires mastery of letters, phonemic awareness, knowledge of the alphabetic writing system and how to spell the sounds in words, the ability to decode unfamiliar words, and acquisition of a growing vocabulary... Learning these skills is facilitated by systematic phonics instruction" (Ehri, p. 53).

Once students know a few consonant and vowel sounds and their corresponding letters, they can start to sound out and blend them into words in isolation and in context. In this process, they must use their recognition of letter shapes. understand the order of letters in words, access the sounds of these letters, and put together the meanings of the words to create a basic understanding of the words on the page or screen (Adams, 1990; Cunningham & Allington, 2011).

As Moats (2020b) describes the process, "young readers progress by gradually learning each of these ways that our print system represents language, and then applying what they know during ample practice with both oral and silent reading. If reading skill is developing successfully, word recognition gradually becomes so fast that it seems as if we are reading 'by sight.' The path to that end, however, requires knowing how print

represents sounds, syllables, and meaningful word parts; for most students, developing that body of knowledge requires explicit instruction and practice over several grades" (p. 10).

It is important to recognize that skills don't exist in a vacuum. They must be applied to a meaningful activity, in this case, the reading of connected, grade-level appropriate text. Brady (2012), while endorsing the importance of research-based methods of code instruction, advocates connecting that instruction to the reading of connected text. Furthermore, engagement with "texts with a high proportion of decodable, familiar words (complemented by high-frequency words) enhance beginners' reading acquisition" (Brady, p. 21).

### High-frequency word instruction & the "Heart Word" method

Beginning readers' ability to fluently comprehend text—the goal of all reading instruction—depends to a significant extent on reading high-frequency words with automaticity (Adams, 1990; Castles et al., 2018; Ehri, 2024; Moats, 2020b). Because of their frequency, students must master highfrequency words before they can fluently read connected redundant text or decodable text. Approaches that enable children to manipulate words through categorization, word association, or semantic analysis have been shown to be effective with both native speakers and English learners (Carlo et al., 2004; Marzano & Pickering, 2005; Nagy, 1997).

In the past, students were often encouraged to memorize the most common 150 English highfrequency words due to their irregular nature. More recent scholarship by Miles and Kearns (2019) emphasizes that many high-frequency words are not entirely irregular, but rather contain mostly decodable parts with only one or two irregular elements. Therefore, when teaching highfrequency words, it's important to frame the instruction within the foundation of phonics. For example, in the word said, students may already know the sound-spellings for s and d, and only the

ai representing /e/ needs to be memorized. This supports the idea that most high-frequency words are partially decodable, and instruction should highlight the regular parts while explicitly addressing the irregular ones.

In addition, many words are only temporarily irregular because they appear before the relevant phonics patterns are introduced. For instance, like and she are temporarily irregular if taught before students learn i e for long i or sh for the /sh/ sound. This framing helps students and teachers understand that irregularity is often a matter of timing, not exception, and reinforces the importance of systematic phonics instruction as the foundation for decoding and comprehension.

The "Heart Word" methodology advocated by Farrell and colleagues (2013) recommends that high frequency words be categorized according to spelling patterns (and whether regularly spelled or not). "Irregularly spelled words are called "Heart Words" because some part of the word will have to be 'learned by heart.' "Heart Words" are also used so frequently that they need to be read and spelled automatically" (para. 18). Instruction of these words are integrated into phonics lessons, encouraging students to make sense of phonics patterns and spelling patterns for these words. Ideally kindergarteners and beginning readers should be taught 10-15 of the most essential irregularly spelled, high-frequency words upon starting phonics instruction, but only after students know all the letter names (without letter name learning solidified, struggle with word learning is likely). Pre-reading high frequency words should be introduced one at a time and practiced until fully recognized and recalled.

Through explicit instruction, students learn to apply phonics knowledge and skills to connect the pronunciations of words to their spellings and become more familiar with those connections, enabling an efficient and ever-quicker decoding of words, "as if by sight".

### **Syllabication**

Syllables are larger units of spoken language than phonemes and are thus easier for beginners to hear and manipulate (Al Otaiba et al., 2019; NICHD, 2000). Syllabic awareness constitutes an essential link between [the] seemingly easy-toacquire ability underlying our sensitivity to sound similarity and rhyme and that hard-to-acquire capacity to recognize individual phonemes (Adams, 1990, pp. 302-303

Syllabication, the ability to identify and divide written words into syllables equips students with strategies for identifying unfamiliar multisyllabic words. Ehri (2020) explains how syllabication fits into the progression of learning to read: "readers move to the full alphabetic phase when they have acquired decoding skill and can fully analyze and form grapheme-phoneme connections within words to read and spell them from memory. Readers move into the consolidated alphabetic phase when they have accumulated fully analyzed spellings of many words in lexical memory and, as a result, have acquired knowledge of larger consolidated spelling patterns representing spoken syllables and morphemes. These readers can use these larger units to decode multi-syllabic words and to form connections to read and spell multisyllabic words from memory" (p. S50).).

From a reading fluency perspective, as students' progress in their reading from the partialalphabetic phase of development through to the consolidated phase, they use their implicit knowledge (statistical learning) to detect recurring letter patterns to consolidate letters into larger units, which, in turn, facilitates their learning of words as sight words beyond the basic, highfrequency, non-decodable set (Ehri, 2020; Seidenberg, Borkenhagen, & Kearns, 2020). Thus, this ability—to break words into syllables—is critical to skillful reading of long words, and to the acquisition of increasingly complex words as sight words (Adams, 1990; Ehri, 2020; NICHD, 2000).

### **Spelling**

Long-established evidence demonstrates that spelling is an integral component of learning to read and write proficiently. Research demonstrates that knowing how to spell with reliable accuracy recursively supports the development of decoding skills and word knowledge, which underpins more advanced reading and writing skills, such as comprehension and composition, and contributes to the fluency and efficiency of each (Ehri, 2014, 2022).

As students progressively acquire more advanced skills, spelling instruction should incorporate morphology—the study of word parts such as roots, prefixes, and suffixes. Understanding morphemes aids students in decoding and spelling multisyllabic words, fostering both spelling accuracy and vocabulary development. Research indicates that instruction in morphology significantly improves spelling skills and supports reading comprehension (Goodwin & Ahn, 2013).

Developing an awareness of conventional spelling (orthography) is important to early reading success. It is worth noting that while an understanding of spelling patterns aids reading success, children's awareness of phonics also promotes their spelling skills. The National Reading Panel concludes "that systematic phonics instruction produces gains in . . . spelling not only in the early grades (Kindergarten and 1st grade) but also in the later grades (2nd through 6th grades) and among children having difficulty learning to read" (NRP, 2000, p. 2-122).

The evidence for including focused and explicit spelling instruction in a comprehensive ELA program is strong. Adams (1990) concludes that "learning about spelling . . . enhances reading proficiency" because it reinforces knowledge of common letter sequences, spelling-sound relationships, and (possibly) word parts (p. 404).

Through explicit instruction, along with and ample opportunities to practice, students' understanding of spelling develops cumulatively, with teachers revisiting and reviewing previously taught skills along with new content. over the school years. Bear & Templeton (1998) explain the developmental process, noting, students "construct knowledge about words specifically and about spelling patterns more generally ... based on [learners'] theories of how printed words work, over a period of years learners develop orthographic representation for words in their mental dictionaries ... these orthographic representations change from alphabetic, to patters of letters, to syllable patterns, to meaning elements" (p. 237)

Moats (2019) explains the Structured Literacy approach to spelling in detail. It begins with phonemic awareness and systematic phonics, teaching sound-symbol correspondences in a clear sequence that enables students to learn spelling patterns and rules before progressing to more complex words (e.g., students first learn to spell consonant-vowel-consonant (CVC) words like "cat"). Spelling continues to be practiced explicitly and cumulatively, with teachers revisiting and reviewing previously taught skills along with new content.

#### Orthographic mapping

While developing an awareness of spelling patterns is known to be important to early reading success (Adams, 1990; NICHD, 2000), recent research, particularly by Ehri (2014, 2022, 2024) and Moats (2019), attests to the value of explicitly teaching phoneme-grapheme correspondences needed to enable orthographic mapping. Orthographic mapping relies heavily on phonemic awareness and knowledge of phonics and spelling patterns. As Ehri (2020) describes, "grapheme-phoneme knowledge and phonemic segmentation are key foundational skills that launch development followed subsequently by knowledge of syllabic and morphemic spelling-sound units" (p. 45). When

students learn to spell, they practice breaking down words into their constituent phonemes and matching these phonemes to letters or letter patterns (graphemes). This reinforces their ability to map spoken language onto written language, which in turn also increases reading fluency.

Teaching students orthographic representations, or the way phonics patters are represented by letters, as part of early word decoding attempts may be particularly beneficial for students from historically disadvantaged backgrounds who are at greater risk for literacy difficulties; positive outcomes documented for these students using such an approach to spelling and orthography include self-learning advantages, improved fluency, and more confidence (Gillon et al., 2019). Orthographic mapping is activated for students when they are taught the strategy of pronouncing new words aloud as they read text; this process generates sound-spelling bonds that, with continued practice, enables students to retain and recall words, including while reading and, eventually, promotes fluency and comprehension. Spelling instruction enhances students' understanding of letter-sound correspondence through effortful retrieval which strengthens the neural connections associated with word recognition (Ehri, 2014, 2022).

The cognitive process of "orthographic mapping occurs when, in the course of reading specific words, readers form connections between written units, either single graphemes or larger spelling patterns, and spoken units, either phonemes, syllables or morphemes. Through a process of continual retrieval, neural connections are strengthened and retained in memory along with meanings and enable readers to recognize the words "as if by sight". An important consequence of orthographic mapping is that the spellings of words enter memory and influence vocabulary learning, the processing of phonological constituents in words, and phonological memory" (Ehri, 2014, p. 5-6).

Moats (2019) points out that within a Structured Literacy learning environment, emphasis is placed on the explicit teaching of spelling as a way to build orthographic memory and, more generally and usefully, "Spelling supports reading: If students do learn to spell words, their recognition of those words for reading becomes more accurate and automatic" (p. 17). Ehri (2024) explains further that a key contribution orthographic mapping makes along the path to becoming a skilled reader is that also builds a storehouse of irregularly spelled words in memory.

### Morphology and syntax

Morphemes are the smallest meaning-bearing units in the English language (Castles et al., 2018) and morphology refers to the underlying meaning structure of words (Bowers & Cooke, 2012). In the context of foundational literacy instruction, morphological awareness refers to the ability to understand the function and meaning of word bases and affixes (e.g., inflectional endings, prefixes, suffixes), and how they can be combined to form words (Hammond, 2021; Nieser, & Cárdenas-Hagan, 2020.) As students learn morphology, they learn to use morphemes, to help them figure out how to understand and spell unfamiliar words. Because the English orthography is a morphophonemic system, students benefit from learning the meanings of these parts of words. Prefixes, roots, base words, and suffixes are all examples of morphemes; their spelling and meaning are usually consistent, but they may be pronounced differently depending on the words in which they are used (e.g., photo vs. photography vs. photogenic).

Because English words are represented by units of sound (phonemes) and as units of meaning (morphemes), it is logical to conclude that literacy instruction needs to address both (Nieser, & Cárdenas-Hagan, 2020; Reed, 2008). Traditionally, morphology has been considered an advanced topic, but increasingly research and expert opinion

recommends it be addressed early and explicitly in literacy instruction (Adams, 1990; Bowers & Cooke, 2012; Carlisle, 2004; Castles et al., 2018; Ebbers, 2017; Reed, 2008). Learning about morphology helps children understand words regardless of their first language or reading level (Nieser, & Cárdenas-Hagan, 2020). In addition, research by Crosson et al. (2019) provides evidence for explicitly teaching Latin roots to English learners during morphology instruction, as they found it supports morphological problem-solving of unfamiliar words and lexical access of new vocabulary words.

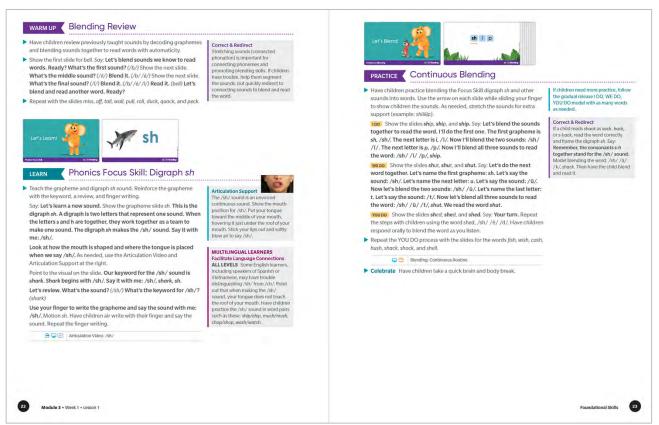
Castles and colleagues (2018) emphasize that morphology "provides an important degree of regularity in the relationship between print and meaning (p. 24) and that "acquiring knowledge of how morphology underpins the mapping between spelling and meaning is an important process in the development of skilled reading" (p. 23). The importance of early exposure to morphology is underscored by research showing that morphological awareness accounts for "around 4% or 5% of the variance in decoding" (Reed, 2008, p. 37). Morphological awareness has been shown to contribute to vocabulary growth, and enables readers to understand as many as three words for every known base word (Nagy et al., 2006). In a meta-analysis of peerreviewed studies with subjects spanning PK-8, Bowers et al. (2010) found that morphological instruction is beneficial, particularly for less proficient readers and more effective when combined with other aspects of literacy instruction. Other research shows that at-risk students, students with dyslexia, and other striving readers benefit from direct instruction in morphemic knowledge analysis (Ebbers, 2017; Reed, 2008). Reed (2008) summarizes the multiple benefits of morphological awareness, noting that it has been shown to "have a positive impact on students' word identification, spelling, vocabulary, and reading comprehension" (p. 46).

## How HMH Into Reading aligns with the research

### **Phonics**

Phonics lessons in HMH Into Reading include sequential instruction that progresses from simple to more complex sound-spelling patterns and word analysis (word study) skills. Instruction begins with consonants whose names give clues to sounds, sounds that can be elongated, and sounds that are used in the most frequent phonograms. Lessons include repeated modeling and opportunities for students to hear, say, write, and read sound and spelling patterns.

Following consistent instructional routines – such as word building, word chaining, and word sorting – teacher materials provide step-by-step guidance for implementing routines and having students adopt them as their own. Scripting includes instruction for how to introduce the sound and the key word for the phonemegrapheme correspondence. Students also review phoneme-grapheme correspondences of previously taught skills with a Visual Review and an Auditory Review. Additionally, spelling practice, assessment and dictation sentence practice is aligned to the Phonics Focus Skill each week. Students practice reading the lesson's focus skill in context while also focusing on fluency practice.

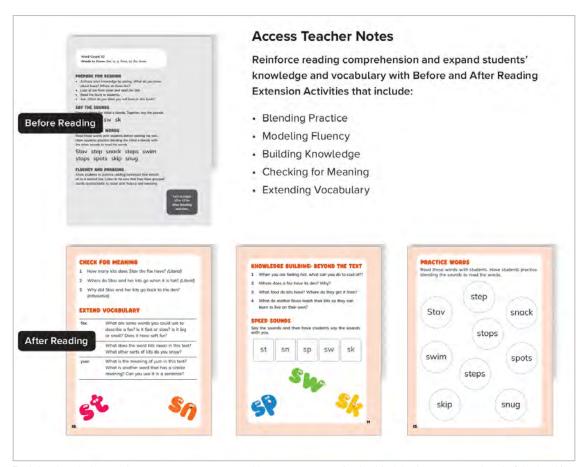


Foundational Skills Lesson: Blending, HMH Into Reading Grade 1 Teacher's Guide

Further, lessons include Decodable Texts that are aligned to the Phonics Focus Skill being taught or reviewed. The Phonics Focus Skill is explicitly reviewed within the week it is initially introduced. The Decodable Texts (used in whole class instruction and reproduced in the Know It, Show It workbooks) in Grades K–2 are 100% decodable, based on previous instruction of sound-spellings correspondences and irregular words heart words children have been taught, to allow for review of those words in context. In Grade 3, the Decodable Texts are highly decodable, based on sound-spelling correspondences taught in Grades K-2, but contain a few words that are not decodable. The Grades K-3 Decodable Books are 100% decodable.



HMH's new Decodable Library.



Each book includes teacher instruction prompts and learning activities (embedded the beginning and end of the book)

As students' progress through the grades, they receive explicit instruction in vowel teams and variant vowels. This introduces them to more complex phoneme-grapheme correspondences, helping them understand how word structure and meaning are closely tied to spelling patterns. Encoding practice immediately follows decoding practice in each lesson.

Decoding and encoding of high-frequency words are taught by attending to sound-symbol associations and not by memorizing whole words. Phonetically irregular high-frequency words are taught by identifying the regularly spelled part and the irregularly spelled part explicitly taught through decoding and encoding. To do so, students follow the "Heart Word"

method. They are first introduced to the soundspellings they know, and the review and practice of the irregular part is included each day of the week. Students then build automaticity by practicing the words throughout the week in varied activities that allow students to hear, say, write, and read sound and spelling patterns. This explicit spelling instruction is followed by handson word study activities – including Word Cards for sorting activities.

Beginning at Kindergarten, phonetically irregular high-frequency words are taught by identifying the regularly spelled part and the irregularly spelled part explicitly taught through decoding and encoding. Students focus on encoding immediately after decoding.



Foundational Skills Lesson Irregular Word Instruction: HMH Into Reading Grade 1 Teacher's Guide

### **INSTRUCTIONAL ROUTINE**

## **Heart Words**

Purpose: Teach children to read and spell words with irregular spellings.

**Materials:** HMH Classcraft™ session, Lesson Slides: Irregular

Words, dry-erase boards and markers (optional)



## **ROUTINE IN ACTION**

RO	UTINE STEP	MODEL LANGUAGE
0	<b>Listen to this word and a sentence with the word.</b> Display the slide for the irregular word.	This is the word said. Listen for the word: My friend <b>said</b> that she can play today.
0	<b>Tap and count the sounds.</b> Have children tap the sounds in the word, connecting a finger to their thumb with each sound. Tap along with children.	Let's tap the sounds we hear in the word said: /s//ĕ//d/. How many sounds do you hear in the word said? (3) Yes, we can hear 3 sounds in the word said.
8	<b>Say the sounds.</b> Have children identify the beginning and ending sounds of the word (as appropriate).	What is the first sound you hear in the word said? (/s/) Yes, we hear/s/ at the beginning of the word said! What is the last sound you hear in the word said? (/d/) Yes, we hear/d/ at the end of the word said! Great job!
0	Identify the irregular part of the word.  Have children identify the irregular part of the word.	We can use what we know about the sounds/s/ and/d/ to spell parts of this word. We need to remember how to spell the middle sound by heart. What sound do you hear in the middle of the word said? (/ĕ/) Yes, we hear/ĕ/ in the middle of the word said! In this word, the /ĕ/ sound is spelled with the letters ai. This is the part we need to remember by heart.
G	<b>Spell the word.</b> Have children use an arm to write the word in the air.	Now let's spell the word. Use your whole arm to write the letters as I spell the word. Think about each letter as you spell it: s-ai-d, said. Let's spell it again: s-ai-d, said. One more time: s-ai-d, said.
6	<b>Spell the word again.</b> Have children use a finger to write the word in the air; model as you say each sound.	Let's practice spelling the sounds we hear. Use your finger to spell the letters in the air as I say each sound in said: /s/, now the tricky part—/ĕ/,/d/.
0	<b>Spell and write the word.</b> For additional support, have children make a line for each sound, writing the matching grapheme in the appropriate space.	Now it's your turn to spell and write the word said. Remember to listen for all the sounds in the word. Write said. Now show me. Look at the word said. Did you spell it correctly? Everyone say the letters: s-ai-d, said.

© HMH Education Company. All rights reserved.

HMH Into Reading • Grade K

Heart Words Instructional Routine, HMH Into Reading Kindergarten on HMH Ed

### **INSTRUCTIONAL ROUTINE**

# **Words to Know**

Use the **WORDS TO KNOW** routine to

- build automaticity with reading high-frequency words.
- give children the opportunity to pronounce and spell words chorally.

#### **ROUTINE MATERIALS**

Use the Lesson Slides: Irregular Words to teach Words to Know.

• Select Lesson Slides for the high-frequency words you want to teach or review.



#### **ROUTINE IN ACTION**

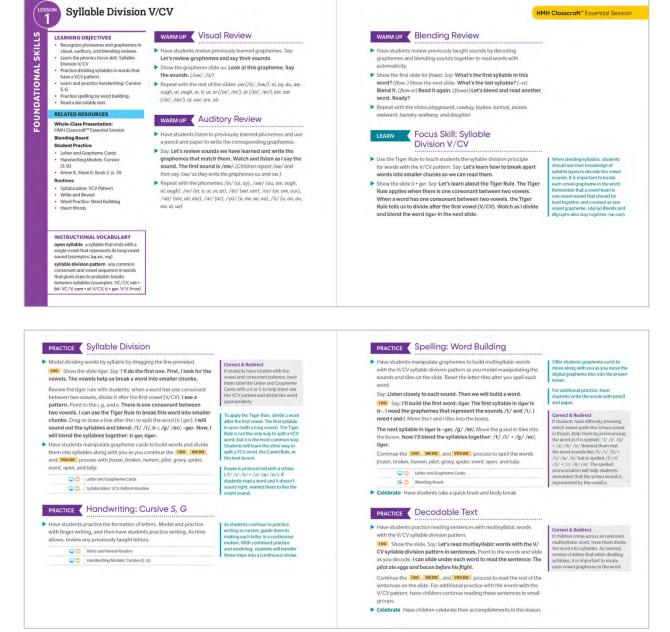
ROU	TINE STEP	MODEL LANGUAGE
SI	<b>isten to the word.</b> Display the Lesson lide for the high-frequency word. Use it in sentence.	This is the word friend. Listen for the word: My <b>friend</b> and I can ride bikes.
ta fir	ap and count the sounds. Have children ap the sounds in the word, connecting a nger to their thumb with each sound. Tap long with children.	Let's tap the sounds we hear in the word friend: /f/ /r/ /ĕ/ /n/ /d/. How many sounds do you hear in the word friend? (5) Yes, we hear 5 sounds in the word friend.
<b>ir</b> re	ay the sounds and discuss any regularities. Have children identify the egular sound-spellings and discuss which bund-spellings are irregular.	Friend is a word that has an irregular spelling pattern. Which sounds have regular spellings? (/f/, /r/, /n/, /d/) Which sound has an irregular spelling? (/ĕ/) Yes, the vowel sound /ĕ/ is spelled differently in this word. /ĕ/ is spelled ie.
_	<b>pell the word.</b> Have children use their rm or their finger to write the word in the ir.	Let's say and spell the word friend. Remember the regular and irregula sound-spellings as we go. Ready? Friend, f-r-ie-n-d. Good, let's do it again.
su so m	pell and write the word. For additional apport, have children draw lines for each bound or use Elkonin boxes, writing the natching grapheme in the appropriate pace.	Now it's your turn to spell friend. Remember to listen for all the sounds in the word. Write friend. Now show me. Look at your word. Did you spell it correctly? Let's spell it together: f-r-ie-n-d, friend.

@ HMH Education Company. All rights reserved.

HMH Into Reading • Grade K

## **Syllabication**

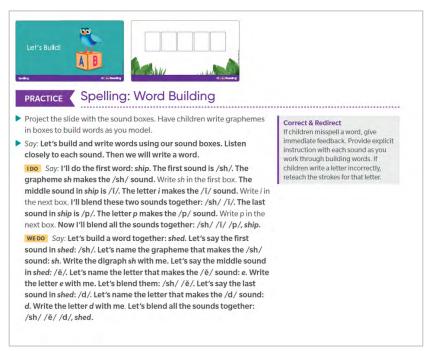
HMH Into Reading word study instruction focuses students' attention on the structure of the word; the sequence of advanced word study includes all six syllable types, morphemes, and etymological influences. As students progress through the HMH Into Reading Scope and Sequence, they are introduced to more complex strategies for reading longer words, including syllabication, root words, base words, affixes, and language of origin.



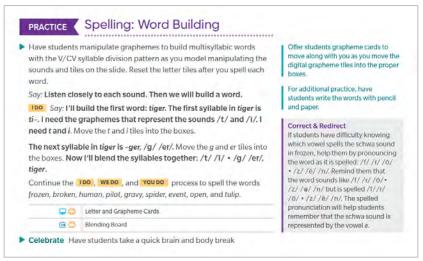
Foundational Skills Lesson: Syllable Division, HMH Into Reading Grade 3 Teacher's Guide

## **Spelling**

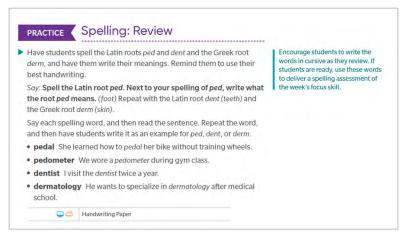
Spelling practice is part of every lesson in HMH Into Reading. The Phonics Focus Skill is introduced and students immediately practice encoding the skill through word building with grapheme tiles, word building with Elkonin boxes, word chaining, or dictation practice every week. Explicit spelling instruction is designed to continue at the grades progress, with the aim of building readers orthographic knowledge. As children progress, students are introduced to more complex phoneme-grapheme correspondences and practice encoding these skills immediately after decoding practice. Beginning in Grade 1, spelling inventory and differentiated list materials are also featured to support below-level or above-level students.



Foundational Skills Lesson: Spelling, HMH Into Reading Grade 1 Teacher's Guide



Foundational Skills Lessons: Spelling Word Building, HMH Into Reading Grade 3 Teachers Guide



Foundational Skills Lessons: Spelling Review, HMH Into Reading Grade 5 Teacher's Guide

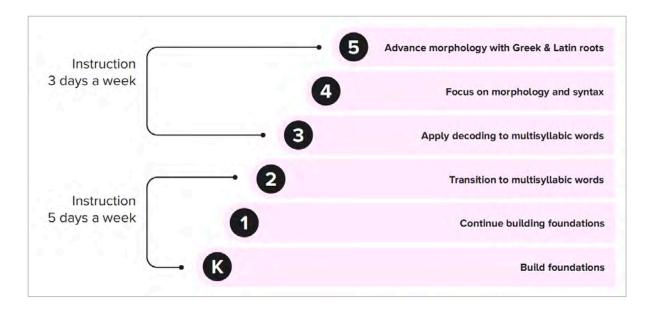
### Morphology and syntax

Explicit instruction in morphology is provided in HMH Into Reading. Through direct instruction, students are quided to identify which word parts carry meaning and how adding these word parts together determines the meaning of words. As instruction progresses at Grade 3, explicit morphology lessons focus on word parts and their meanings, helping students increase their personal vocabulary stores. By developing an awareness of morphology, students not only improve their spelling but also enhance their reading, vocabulary, and comprehension. Understanding how word parts convey meaning helps them decode unfamiliar words, expand their vocabulary, and grasp the meaning of complex texts more effectively.



Foundational Skills Lesson: Word Study, HMH Into Reading Grade 5 Teacher's Guide

HMH Into Reading uses a structured literacy model of explicit, consistent, systematic instruction for Grades K-5. Word study lessons in the upper elementary grades build on the foundation established in early grades, focusing on multisyllabic words, morphology, syntax, and Greek and Latin roots. K-5 lessons always begin with reviewing previously taught skills and students have adequate practice for decoding and encoding the new skill. Students then apply new and previously learned skills in authentic reading and writing experiences.



## **Fluency**

Twenty-five years ago, the Report of the National Reading Panel (NICHD, 2000) catapulted fluency front and center among the most critical reading skills shaping policy and practice. Referring to fluency as "the ability to read a text quickly, accurately, and with proper expression," the NRP emphasized that fluency bridges the gap between word recognition and reading comprehension and that fluent readers are able to focus on understanding the meaning of a text rather than decoding individual words, rendering fluency as essential for comprehension (p. 3). Indeed, over the past two decades, significant research has been conducted that generated more complex understandings of what comprises and constitutes fluency, but findings have not changed much about how fluency is promoted in classrooms (Hasbrouck, 2020a).

In their influential definition, Hasbrouck & Glaser (2019) describe reading fluency as "reasonably accurate reading, at an appropriate rate, with suitable expression, that leads to accurate and deep comprehension and motivation to read" (p. 9). They go on to explain that accuracy, rate, and expression are observable and can be precisely measured whereas the other elements of performance (reasonably, appropriate, and suitable) are intentionally ambiguous—and that accuracy should be viewed as "first, foremost, and forever the foundation of fluency" (p. 12). When words within a text can be decoded with accuracy, as well as ease and, yes, speed, the reading process becomes automatic, which then expands one's capacity for comprehension of that text (Samuels, 2012).

Automaticity is key to fluency. As Vaughn and Fletcher (2023) explain, "the number of words a student can read automatically, at a glance, influences significantly the student's efficiency as a reader and thus their reading fluency. Word reading fluency is a necessary step to

improving overall text understanding. For many students with reading difficulties and disabilities, automatic word reading is a bottleneck because these students often display slow and labored word reading impairing their understanding of text" (p. 15).

Research shows that the mastery of a knowledge domain, such as reading, depends on the ability to perform sub-processes unconsciously with speed and accuracy while consciously carrying out other higher-level cognitive tasks (Bloom, 1986; Hasselbring, et al., 1988; LaBerge & Samuels, 1974). However, before gaining automaticity, beginning learners must exert substantial effort to retrieve the necessary information about a new skill from their working memory. This retrieval process creates a cognitive load that can inhibit their ability to engage in other learning processes at the same time (Adams, 1990).

Reading fluency has reciprocal effects on other critical aspects of literacy; strengthening skills that underpin a students' ability to read with automaticity and effortlessness fosters the development of decoding, word recognition, and, of course, comprehension, which is the ultimate goal. A strong correlation has been found between students' oral reading fluency and spelling development (Kilpatrick, 2015; Paige et al., 2019). . Effective approaches to developing reading fluency build on and reinforce both language comprehension and word recognition (Duke & Cartwright, 2021).

Beginning readers ability to retrieve relevant knowledge and information can vary from being effortful to relatively effortless to automatic (Cohen et al., 1990). A growing body of research points to effective practices for developing students' fluency in ways that concurrently improve other foundational literacy skills and

reading comprehension generally. Research suggests that it is important that students practice reading fluently, using controlled, decodable texts that initially include soundspellings and irregular patterns that students have been exposed to previously (Ehri, 2005; Hiebert, 2005; Samuels, 2012) and, eventually, grade-level texts with scaffolding as needed (Kuhn et al., 2006; Samuels, 2012) – including and particularly for students with reading difficulties and disabilities (Vaughn & Fletcher, 2023).

Explicit instruction that builds students' morphological awareness, particularly when such instruction overlaps with a student's existing language base, has been linked to increased fluency (Nieser & Cárdenas-Hagan, 2020). Hasbrouck and Glaser (2019) stress the importance of building reading fluency through structured activities that gradually increase in complexity, with scaffolding provided as needed to ensure students gain automaticity and confidence as they become more proficient and with ongoing opportunities for both guided and independent practice. In addition, there is strong evidence that if text is sufficiently challenging, repeated readings methods (in which students read the same text aloud multiple times with a goal of increasing accuracy and automaticity), leads to improved fluency, particularly for elementary-grade readers, striving readers, and English learners (NICHD, 2000; Rasinski, 2012).

Castles and colleagues (2018) note that while the teaching of foundational skills is critical within the science of reading, ultimately students need ever increasing exposure to increasingly complex and diverse print to become skilled and fluent readers: teaching foundational skills, such as high frequency words, "plays a part in what we see as the deeper response to the question of how to promote fluent word reading, which is to get children as quickly as possible to a point where they can read independently. Reading for themselves allows children to build their experience with printed words, which, as we emphasize in our key message for this section, is crucial for building word-reading fluency.

Once children can read even simple texts on their own—either for pleasure or for learning their exposure to words grows rapidly. Ultimately, it is children's own extensive, varied, and rich experience in reading that undoubtedly plays the most important role in their transition from novice to expert readers" (p. 24). It is also important to routinely and systematically assess readers' oral reading fluency through standardized measures that score for words correct per minute (WCPM) (Hasbrouck & Glaser; 2019; Kilpatrick, 2015); an effective protocol entails having students perform a "cold read" of an unfamiliar passage as the examiner follows along tallying words mispronounced, transposed, or omitted and derives a score that places the student in a percentile range for appropriate reading rate (Hasbrouck, 2020b, p. 11).

## How HMH Into Reading aligns with the research

HMH Into Reading explicitly acknowledges that automaticity with decoding is a necessary foundation for effective reading comprehension.

At K–2, phoneme-grapheme correspondences are reviewed each day to encourage and build letter-sound fluency. The Visual Review section in each lesson has students view graphemes and then say the sound(s). The Auditory Review section has students listen to a sound and then write grapheme(s).

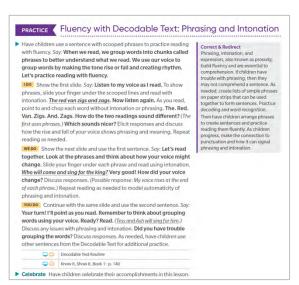
At all grade levels, the program employs explicit and systematic instruction to ensure that students grasp critical sound-spelling correspondences when learning to decode and read connected text fluently—that is, with accuracy, automaticity, and appropriate prosody.

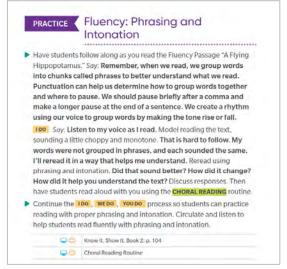
The program's teacher materials provide guidance for teacher modeling and gradually fade support for students during whole-group and small-group instruction. Instruction features weekly practice of a fluency skill, including Accuracy and Self-Correction, Phrasing and Intonation, Reading Rate and Automaticity, and

Expression. Students are prompted to multiple opportunities to practice these skills both in whole group and in small group using skillsaligned Decodable Texts and activities like decodable pyramids and phrase scooping. Students are also encouraged to read selections in echo, choral, partner, and whole group settings, including repeated readings.

All lessons are aligned to decodable texts that only include decodable sound-spellings children have learned, or words with irregular patterns to which children have been exposed for review in context. Fluency is modeled and practiced in different genres, and students have ample opportunities to further practice their fluency independently with a collection of rich, awardwinning literature of different genres.

At all grade levels, for those students who require intensive instruction and practice, teachers can use the program's Foundational Skills and Word Study Studio, which provides a bank of sequenced lessons that target critical areas such as fluency.





Foundational Skills: Fluency Practice, HMH Into Reading Grade 1 and Grade 5 Teacher's Guide

## Language comprehension

Language comprehension, also known as linguistic or listening comprehension, refers to what readers would understand if a text were to them. Language comprehension constitutes the second major component of the Simple View of Reading. Language comprehension is an active and complex process of constructing and integrating ideas across words and sentences within a text and associating the information with and beyond background and cultural knowledge—and, like decoding, it makes an essential contribution to reading comprehension that should be developed in the course of reading instruction (Cabell & Hwang, 2020; Duke & Cartwright 2021; Hammond, 2015; Hennessy, 2021; Moats, 2020a; Valencia Goodall et al., 2024). However, while the interplay of both decoding and language comprehension is what, per the Simple View, allows for reading, it is important to recognize that for a beginning reader, decoding is entirely new whereas language comprehension has been present since birth.

Language comprehension provides the foundation on which reading proficiency develops (or does not) and it varies considerably based on a child's earliest linguistic experiences, at school and especially at home; further, once a child gains competency in decoding, language comprehension is perhaps the most significant determinant of reading capacity and challenge (Cain, 2016; Gillon et al., 2019; Hennessy, 2021; Nation, 2019; Oakhill et al., 2015). Research demonstrates that while many students classified as having reading difficulties persisting into grade 2 and up have a "classic poor-reading profile, characterized by word-reading difficulties" (p. 11), for others, who struggle to understand text read aloud to them, the source of issues is with language comprehension (Cain, 2016). The emergent language abilities in young children are multidimensional and complex

(Hennessy, 2021; Language and Reading Research Consortium [LARCC], 2015); more specifically here "language comprehension requires vocabulary knowledge, background knowledge, working memory, syntactical skills, as well as other discourse-level skills" (Kilpatrick, 2015, p. 247). It is then crucial that learning ecosystems, offer rich activities for students to engage with language in all forms, including those that cultivate listening, speaking, expression, communication, reading, writing, and knowledge building.

### Oral language development

Oral language, the ability to produce and understand spoken language, has long been regarded as one of the earliest and most reliable predictors of later literacy success (Hennessy, 2021). According to Castles et al., (2018) "a range of oral language skills measured in preschool are closely associated with later reading comprehension, and this relationship continues through the primary school years" (p. 34). Indeed, a wealth of longitudinal research demonstrates how oral language proficiency upon school entry predicts later reading comprehension skills (e.g., Hulme et al., 2015; Roth et al., 2002; Suggate et al., 2018). Here are some illustrative findings from Hulme and colleagues (2015) in a study of children at familial risk for dyslexia: "Our results showed that reading comprehension builds on word- reading accuracy but is also heavily influenced by variations in oral language skills...We believe it is likely that the effects of oral language skills on reading comprehension are causal, since training studies indicate that interventions to boost children's oral languagecomprehension skills also improve readingcomprehension skills" (p. 1884). Other studies have shown that students identified as weak comprehenders in the early elementary years indicated oral language weaknesses during

preschool (Cain, 2016). Further, it is wellestablished in the research literature that children from impoverished backgrounds who begin school with low levels of oral language proficiency are more likely to experience challenges in literacy learning (Gillon et al., 2019).

Research supports reading aloud complex texts to young children to enhance language comprehension and vocabulary development before they can read independently. Exposure to sophisticated vocabulary and complex sentence structures through read-alouds builds oral language skills, essential for later reading comprehension. For example, a study of the Complex Text Analysis (CTA) approach showed that first graders in weekly read-aloud sessions improved in analyzing complex texts, vocabulary, and story writing (Witte, 2016). Similarly, Santoro and colleagues (2016) found that structured read-alouds help struggling readers access and comprehend informational texts through explicit instruction and discussions Most vocabulary knowledge develops implicitly; when learners receive explicit vocabulary instruction orally via listening and speaking, word knowledge acquisition increases (Pennell & Knudson, 2025). Studies of interactive read-alouds in early learning settings that have adults asking children questions about new words and concepts encountered in the texts have found significant increases in word learning, content area knowledge, and engagement (Blewitt & Langan, 2016; Blewitt et al., 2009; Wright, 2018).

## Linguistic components of language

Knowledge of language includes more than vocabulary and simple sentence construction; it also includes students' knowledge of language structures, print concepts, and verbal reasoning skills (Al Otaiba et al., 2019; Scarborough, 2001). Many beginning readers and writers are challenged by learning how written language

maps onto spoken language (Hennessy, 2021). Therefore, it is essential that comprehensive literacy programs include explicit instruction on how language works, that is, instruction that gives students the tools to: understand how speech, through units and patterns, constitutes language; recognize how what is said and heard translates into reading and writing; and analyze and produce language in all forms.

Successful reading depends on students' ability to decode and access their knowledge about language. Therefore, students must be provided with insight into the various linguistic components that give language order as well as richness, depth, and complexity. It is important to note that "by the age of 8 to 9 years, a child's performance on measures of vocabulary, grammar, and higher-level language skills can be distinguished statistically ... Meaning these different aspects of language are not one and the same thing. Further, from the earliest stages of reading development, each dimension of language predicts outcomes in reading comprehension over time, in addition to measures of a child's general cognitive ability" (Cain, 2016, p. 11).

## The value of instruction in speaking and listening

"Linguistic comprehension is broadly captured by listening comprehension, that listening comprehension itself subsumes children's vocabulary, grammar and language processing abilities and that these abilities (along with decoding) predict reading comprehension" (Nation, 2019, p. 50). Even children who are skilled at oral language and communication upon school entry do not necessarily have all the linguistic proficiencies needed for text comprehension and more advanced literacy; additionally, for success in school and outside of it, all students need awareness of the many ways that spoken and written language differ (Oakhill et al., 2015; Valencia Goodall et al., 2024).

Beyond understanding the sounds that comprise words, children need to be able to express their ideas clearly and confidently in order to have productive conversations in school and beyond. Part of this important instruction should include guidance about knowing when and how to listen, knowing when and how to speak, knowing whether to use formal or informal language, and being aware of nonverbal communication skills; these are all important elements of oral discourse within classrooms and other settings students will ultimately encounter.

Providing students guidance and practice is common sense and also commonly conducted within well-managed classrooms. However, it is also borne out in research. As Lawrence and Snow (2011) point out, "skill in oral language is crucial to participating in instructional interactions that lead to effective learning of vocabulary and comprehension skills (background knowledge, context, understanding of argument structure, support for aspects of a situation model and/or enhance motivation as a precursor to and support for reading). This aspect of oral language is thought to be especially important in the years before children can read independently with ease, or when children are reading especially challenging texts (scaffolding of component skills perspective)" (pp. 320-321).

Communication skills should be taught intentionally with many opportunities to practice and receive feedback. By teaching children effective speaking and listening behaviors and by modeling them regularly, you can guide them to have successful academic conversations and social relationships. Teachers can encourage students to engage in conversations, storytelling, and other activities that encourage students to express themselves orally and to talk to others. Encouraging students to tell stories gives teachers the opportunity to engage students in conversation, use student-directed speech, and enhance their oral language skills. As evidence

to such recommendations with specific regard to developing reading and writing competencies, in a 2004 investigation of discourse among preschoolers, Griffin and colleagues detected the following indications of complex relationships between oral language in the form story-telling and explanation and later literacy proficiencies: "Children's ability to mark the significance of narrated events through the use of evaluation at age 5 predicted reading comprehension skills at age 8. Children's ability to represent informational content in expository talk at age 5 also predicted reading comprehension at age 8. Control of discourse macrostructures in both narrative and expository talk at age 5 was associated with written narrative skill at age 8" (abstract).

Children's interaction with text should not be limited to what they can read on their own; indeed, many elementary level students (and older) can more effectively engage with topics and ideas and learn accompanying vocabulary that stretches their growth when they listen to teachers read complex texts aloud and discuss the texts with peers (Willingham, 2017). As Cain (2016) explains, "when reading or listening to text or when engaged in social communications, we evaluate our understanding. If something is not clear, then we might re-read to check for sense or, in conversation, we can ask the speaker for clarification" (p. 10).

Another goal of instruction in speaking is to expand students' range of speech patterns so that the conventions of effective speaking in different contexts become almost second nature to them. They learn to talk in class discussions and research presentations, just as they learn to ask for explanations about topics and skills they don't understand. When individual students speak more effectively, their fellow students are much more likely to be engaged and interested in what the speaker has to say (Palmer, 2014). Kinsella (2015) advises teachers to talk to their students about different "registers" (although

teachers may not use this term that is common in texts on rhetoric). This means that they will be teaching their students to speak and listen with comprehension to academic or formal language, without giving up on their vernacular conversational modes of speaking. She reminds teachers that students do know about this—they most likely speak to their grandparents or the principal in ways that are highly different from how they talk to peers, and they probably listen to these grownups more carefully than to friends on the playground. Spoken and written language in an academic register is marked by more technical and precise word choices, sentence styles, and grammar and is produced for various formal situations (Valencia Goodall et al., 2024).

Students also benefit from guidance on how to interact productively in pairs or small groups. Efforts to have students collaborate—perhaps on a research project or in conducting science experiments—easily derail if students do not understand the give-and-take of speaking and listening or the subtle cues of body language in group situations where they work toward a common goal (Frey, Fisher, & Nelson, 2013; Hattie & Yates, 2014; Palmer, 2011).

## How HMH Into Reading aligns with the research

## Oral language and listening comprehension

An important aspect of oral language development is speaking and listening skills for effective communication and collaboration. In the Teacher's Guide, Oral language lessons explicitly teach collaborative discussion skills and other related skills, such as listening actively, initiating conversations, and giving and following directions. Routines highlighted throughout the Teacher's Guide make these cooperative learning structures a regular part of classroom practice, including: Collaborative Discussion Routine; Turn and Talk Routine; Think-Pair-Share Routine.

Oral language vocabulary lessons in the lower grades precede the actual text being read which allows students to learn and practice new vocabulary in advance, which they then apply during listening and discussion of the text. Teachers model vocabulary use and sentence structure during read-alouds, helping students internalize newly learned academic vocabulary. In addition, HMH Into Reading includes dialogic reading prompts via BookStix. In the upper grades, oral language instruction typically follows the reading of the text. By utilizing the routines referenced, students engage in discussions and activities that build on vocabulary, language structures, and knowledge building that deepen their understanding and ability to express their thoughts.

Grammar lessons follow a gradual release model and are connected to the module topic and Read Aloud Focal Text. Teachers model how to revise sentences for grammar and clarity using examples and ideas from the focal text, as noted in the sidebar notes in the Teacher's Guide.

To explicitly support the students' speaking and listening skills, the *HMH Into Reading* Teacher's Guide Speaking and Listening pages provides prompts and lesson opportunities to support classroom discussion, including the prompts related to module topics and the Get Curious Videos. There are numerous occasions for partner work, especially in the lower grades. In addition, the Reading strand has a "wrap up and share" component at the end of each lesson, where students have an opportunity to reflect and orally express their thinking with other students.

The myBook includes "turn and talk" prompts, whereby students can apply their listening skills as they learn how to take turns speaking and listening. In addition, teachers facilitate students' exploration and discussion of an "essential question" during each module. Students engage in lively discussion about literature, drawing upon their experiences, making connections to their lives as well as to the various texts they are reading in order to form opinions and insights related to the essential question.

Speaking and Listening lessons at the lower grades typically come at the end of each week. These lessons are tied to a *myBook* text and follow the gradual release model. Teachers model and guide students in understanding key communication skills, such as social communication. There are also Anchor Charts that can support this instruction and help connect it to the texts.

In the upper grades, instruction becomes more student-led. After reading myBook texts, teachers introduce discussion strategies such as "How to Have a Discussion" where then students are encouraged to participate in collaborative discussions about the text or skill learned, using newly acquired vocabulary and building on one another's ideas.



#### LISTENING COMPREHENSION

### **Teacher Read-Aloud**

#### LEARNING OBJECTIVES

- **Build Knowledge and** Language Discuss how the information about waterfalls compares to the other natural wonders and revisit what makes each wonder unique.
- · Listen to fluent reading.
- · Determine the central idea and supporting details of an informational text.
- · Respond to a text by writing about it.
- · Language Use descriptive words to compare connected ideas about a topic.

#### **LESSON RESOURCES**

Whole-Class Presentation: HMH Classcraft™ Essential Session myBook, Book 2: pp. 10-11 myBook, Book 2: Seven Natural Wonders. pp. 14-15

#### **OUICK TEACH VOCABULARY**

To help students build background knowledge for Incredible Waterfalls, provide these student-friendly explanations for the following words in the text.

crest The crest is the top part of something.

temperate Temperate is used to describe a place that is not very hot or very cold. altimeter An altimeter is an instrument in an aircraft that shows how high the aircraft is above the ground.

SPANISH COGNATES

crest cresto

### STEP 1 Introduce the Text

Tell students that they will be listening to a text you will read aloud about two of the largest and most unique waterfalls in the world. Work with students to list waterfalls they have seen and where they saw them. Discuss why a large waterfall would be considered a marvel of nature.

- . Genre Study Tell students that they will be listening to an informational text about one of nature's wonders. Remind them that informational texts give facts and information about a topic. Tell students that this selection contains the names of the places where the two waterfalls are located and includes words that are specific to the topic of waterfalls.
- Set a Purpose Have students set a purpose for listening, such as listening to identify the two waterfalls and what makes each of them unique. Ask students to listen carefully for context clues that will help them determine the meanings of any unfamiliar words they hear.
- · Summarize/Paraphrase Tell students that summarizing or paraphrasing what they hear will help them monitor their listening comprehension and remember what they heard. Explain that after hearing about each waterfall and about comparisons between the two waterfalls, students should think about the main points they heard.
- · Model Fluency Tell students to listen to how you read aloud accurately with intonation and at an appropriate rate.
- · Listen and Comprehend Read the text aloud, pausing occasionally to ask the questions in the margins. Periodically, remind students to summarize or paraphrase what they hear. Review the meanings of the Quick Teach Vocabulary words in context in order to build background knowledge.

#### MULTILINGUAL LEARNERS

**Build Vocabulary** 

As students read, use the following supports.

SUBSTANTIAL Have students draw one of the waterfalls they just heard about and write words that describe the waterfall.

MODERATE Have students complete the sentence frame: Niagara Falls is \_, while Angel Falls is \_

LIGHT Point out words that describe each waterfall and have students use these words to compare the two waterfalls.

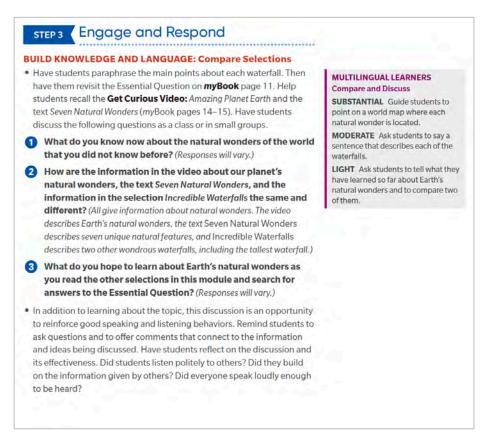


Module 6 • Week 1 • Lesson 2

Reading and Vocabulary Lesson: Listening Comprehension, HMH Into Reading Teacher's Guide Grade 4



Reading and Vocabulary Lesson: Listening Comprehension: Read-Aloud, HMH Into Reading Grade 4 Teacher's Guide



Reading and Vocabulary Lesson: Listening Comprehension, HMH Into Reading Grade 4 Teacher's Guide

## Knowledge development

The well-established and evidence-based Simple View of Reading (SVR) emphasizes that comprehension depends on readers' ability to decode and their knowledge of language. Of course, understanding anything more than the simplest texts (e.g., a STOP sign) requires mastery of numerous comprehension strategies as well. However, research has shown that there is an even stronger influence on readers' comprehension and retention: their background or "domain" knowledge across content areas and beyond (Adams, 2010/2011; Adams, 2015; Cervetti et al., 2016; Neuman, 2019; Recht & Leslie, 1988; Willingham, 2017). Simply put, the more readers know about a topic, the easier it will be for them to comprehend a text written about this topic; this applies to all readers, including English learners and striving readers and it demonstrates why it is critical for schools to incrementally build students' schemata, or accumulated knowledge bases (Cervetti & Hiebert, 2019; Hammond, 2015; Smith et al., 2021; Valencia Goodall et al., 2024). Hammond (2021) makes it clear: "The science of learning tells us that background knowledge plays a significant and fundamental role in learning including in critical thinking and reading comprehension" (p. 8).

Background knowledge has been shown to influence the speed, fluency, and cognitive processing with which one reads (Willingham, 2006) and to have a compensatory effect on comprehension (Smith et al., 2021). Reading with comprehension in turn expands readers' background knowledge further and adds to their vocabularies (Cervetti & Wright, 2020; Cunningham & Stanovich, 1991; Hirsch, 2006). As Duke and Cartwright (2021) stress, "knowledge predicts reading ability even in models in which the original SVR components of decoding and listening comprehension are controlled... Explicitly drawing practitioners' attention to the

role of cultural and other content knowledge may lead to more instruction aimed at building students' knowledge, which research has found positively impacts reading development" (p. S27-S28). An investigation conducted by Kim and colleagues (2024) suggests that a systematic and sustained spiral approach to content and literacy instruction across consecutive elementary grades and designed to help students connect new, thematically-organized learnings to their expanding schemas is effective at improving domain-general reading comprehension as well as content area vocabulary over the long-term and in the transfer of knowledge.

In recent years a movement has been underway to advance knowledge building within English language arts (ELA) instruction, to ensure that attention to foundational skills, particularly at the elementary level, does not eclipse other important learning, including specifically topic knowledge (Cabell & Hwang, 2020). Such efforts additionally serve to advance comprehension within classrooms beyond teaching critical thinking skills and cognitive strategies—the how of thinking—and into knowledge building, the what of thinking (Cervetti & Hiebert, 2019; Palincsar & Duke, 2004; Steiner, 2023; Willingham, 2016) and help to close the documented "knowledge gap" that prevents large numbers of students from succeeding in school (Christodoulou, 2013; Hirsch, 2006, 2019; Willingham, 2016).

One organization at the forefront of such initiatives is the Knowledge Matters Campaign (KMC), which, with a larger mission to increase equity and engagement within American education, advocates for prioritizing content-rich instruction in subjects like science, social studies, and the arts, arguing that building students' background knowledge and vocabulary about

the natural world (e.g., plants, animals, physical environment) and the social world (e.g., communities, families, societies) is crucial for reading comprehension and overall academic success. Calling for the teaching of sequenced topics that provide opportunities for students to develop oral and academic language and make meaning of texts they encounter, the KMC Scientific Advisory Committee urges that "comprehensive, coherent literacy instruction must begin in the earliest grades— PreK and Kindergarten—so that as students are learning to read, they are also building their reading comprehension. Instruction aligned to the science of reading should be designed around the research on reading comprehension, which includes the important role that content knowledge plays in literacy (March 28, 2024). Knowledge Matters Campaign efforts are rooted in research indicating that students' capacity and motivation to read well rely on the following conditions: abiding science of reading principles that entail teaching systematic foundational skills until word recognition is automatic and students are fully fluent; coherent building of "word and world knowledge"; and providing all students access to content-rich complex texts. To support language development and knowledge building, it is essential that students not only have ongoing opportunities to read content-rich texts, but also structured opportunities to speak, listen, and engage in dialogue around these complex texts.

Johns Hopkins University, through its Institute for Education Policy, has also been actively advocating for the prioritization of building students' content knowledge in education. Its work highlights how a lack of background knowledge affects students' reading comprehension and overall academic achievement, especially from fifth grade onward (JHIEP, 2022).

Research points to several approaches within the elementary ELA curriculum that are effective at

building students' background knowledge and thereby increasing reading proficiency:

- Integrate literacy and content area instruction starting at the earliest grade levels (Cervetti & Hiebert, 2019; Connor et al., 2017; Hirsch, 2006; Willingham, 2016). In a meta-analysis evaluating impacts of such a program across K-5, Hwang and colleagues (2022) found that this approach promises to enhance both vocabulary learning and comprehension abilities at the elementary level along with the bonus benefit of expanding social studies and science knowledge. Within this integrated, content-rich literacy learning environment, students should be provided ongoing opportunities within classroom routines to process and engage with their newly acquired knowledge via discussions with teachers and peers and as well as in writing (Guthrie & Klauda, 2014; Hammond, 2015, 2021; Knowledge Matters Campaign, 2024). Indeed, full and active participation within classroom communities should enable all students to derive meaning and enjoyment from complex and content-rich texts (Davidson & Liben, 2019; Murphy et al., 2018).
- Systematically and explicitly anchor instruction at each grade in a series of well-sequenced and thematically or topically connected texts of varying types and levels of complexity, allowing students to build coherent networks of knowledge (Cervetti & Hiebert, 2019; Hammond, 2015, 2021; Hirsch, 2019; Knowledge Matters Campaign, 2024; Murphy et al., 2018; Prescott, 2024; Smith et al., 2021; Willingham, 2017). Kim et al. (2021) found in an investigation into the efficacy of a content literacy intervention with first graders significant positive outcomes on measures of reading comprehension and science knowledge and vocabulary development. Results from a 2016 study conducted by Cervetti and colleagues with fourth graders revealed that students who read conceptually coherent texts within ELA instruction demonstrated greater concept knowledge and knowledge of target words and had better text recall of novel text compared to students who read unrelated texts.

Grow students' topic knowledge through explicit instruction of vocabulary, voluminous reading of complex and content-rich texts, and continuous opportunities to hear and use target words (Adams (2010/2011; Cervetti & Hiebert, 2019; Davidson & Liben, 2019; Hammond, 2015, 2021; Knowledge Matters Campaign, 2024; Nagy & Townsend, 2012). Valencia Goodall and colleagues (2024) point out that in providing this this critical explicit instruction to enrich students' academic vocabularies, it is important to leverage students' existing background knowledge, rather than teaching words from dictionary definitions or otherwise out of context. Not only do students need to be exposed to the key foundational elements of reading through effective explicit instruction, but also the amount of text students are exposed to has profound positive effects on cognition (Cunningham & Stanovich, 2003). Indeed, a large body of evidence demonstrates that the volume of fluent, independent reading a student engages in has the single greatest effect on reaching achievement (Allington & McGill-Franzen, 2021). Research has long revealed a vast gap between skilled readers and reluctant readers in the number of books read outside of school (Anderson et al., 1988; Cunningham &

Stanovich, 1998) and that widening numbers in terms of exposure to print contribute to the trajectory of the "Matthew Effect" on students' reading ability throughout their school years (Stanovich, 1986). Students do not need to wait to attain levels of proficiency to read extensively. In conjunction with wide reading, robust vocabulary instruction, as advocated by Beck and colleagues (2013), has been shown to boost word knowledge as well as improve students' ability to comprehend text, including specifically to infer meaning from text, which fosters a deeper understanding of content. As Cunningham and Zibulsky (2014) note, "one of the richest and most robust ways to gain knowledge is by reading. Indeed . . . research has unequivocally shown that children who read more have greater vocabularies and stores of knowledge, which makes reading easier and more pleasurable, which in turn, makes children more prolific readers" (p. 322).

## How HMH Into Reading aligns with the research

## Knowledge building

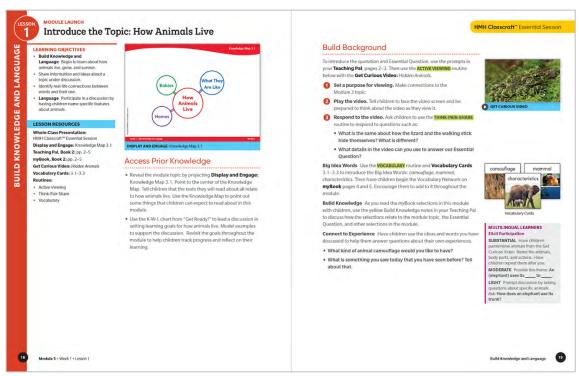
To support knowledge building at all grade levels, each module is focused on a central topic that students explore through carefully curated texts, media, and projects that generate text-driven conversations in which students build on each other's ideas.

Topics are developed and expanded within and across grades to foster knowledge development. Students continually apply reading skills to a variety of high-quality texts through the shared reading instructional design of each module. Texts increase in complexity to develop independence of grade-level skills and to make connections amongst contexts. Students build on what they already know to boost comprehension as they move to the next text in the module. In addition, read-alouds of complex text in the early grades help students build knowledge. As students gain proficiency as readers, the complex text they read

(with guidance, as needed) supports students in building background and content knowledge.

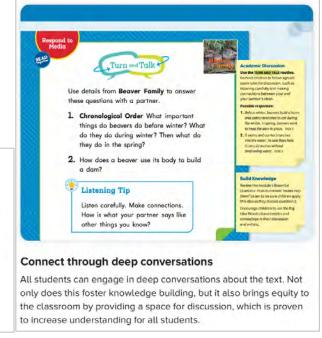
Teachers can use the Introduce the Topics lessons in the Teacher's Guide to launch each module and continue expanding their topic knowledge with daily Inquiry and Research project activities.

Throughout the module, teachers and students continually return to, and expand the module's Knowledge Map, as they encounter new texts and media about the topic. To synthesize and apply their knowledge, students write in response to reading throughout each module. At the end of the module, teachers' guide students to make connections, synthesize what they learned, and reflect on the topic. In Grades 1–6, students conclude the module through a culminating task, further reinforcing knowledge development.



Building Knowledge and Language: Module Launch, HMH Into Reading Grade 1 Teacher's Guide

Knowledge building instruction also lives in the Teaching Pal as "sticky notes" to the teacher to help students make connections to the module text.



#### **Build Knowledge**

Text to Text: Remind children that they read about nests in The Nest and webs in Step-by-Step Advice from the Animal Kingdom. Guide children to discuss these animal homes.

ASK: How is a beaver building a dam similar to a spider spinning a web? To a bird building a nest? How do beavers use their bodies to help them? Listen to the discussion to be sure they discuss how beavers swim and carry twigs and how they use their teeth.

#### Connect texts to texts

Text-to-text connections support students in taking learnings from one text and applying that knowledge to the next text that they read. This allows better access to the text.

## Cross-curricular knowledge with multi-genre text sets

Culturally and ethnically diverse text sets have been curated around essential standards-based science and social studies topics to foster crossdisciplinary content knowledge. Students can build topic-knowledge expertise and reading

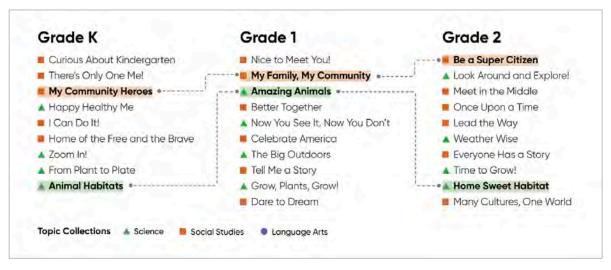
comprehension skills through high-interest and award-winning texts. In addition, the essential question provides a frame for the text sets students will read. These relevant essential questions are designed to help the students explore the text and make connections to themselves.

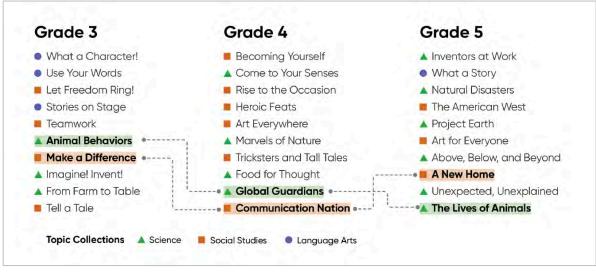


## **Engaging text**

High quality, engaging text sets reflect culturally and ethnically diverse content and form the foundation for the delivery of key vocabulary, essential skills, and topic knowledge. Carefully

selected award-winning texts and texts by notable authors build general content knowledge, genre knowledge, and complexity across the school year. In addition, text sets are anchored by essential questions designed to engage students in discussion and relevant writing assignments.

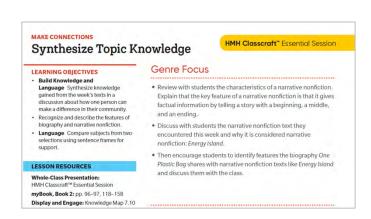






## **Expand topic knowledge**

Introduced during the module launch and then paced throughout the module, students collaborate on a Research and Inquiry Project where they set goals and gather information, develop ideas, and practice and present their project to build content knowledge and language in support of the module topic.



## Vocabulary

"The way the brain organizes and maintains its schema is deeply related to authentic vocabulary development. Think of vocabulary richness as the brain's Google search engine. Deep background knowledge and word wealth go hand in hand" (Hammond, 2021, p. 11). Research continually demonstrates the strong and direct link between vocabulary knowledge and comprehension capabilities (Cain, 2016; Castles et al., 2018; Hennessy, 2021; Oakhill et al., 2015; Gillon et al., 2019; Moats, 2020b; Suggate et al., 2018). Students' vocabulary knowledge has even been associated with post-secondary education and income levels, rendering it a matter of equity (Hirsch, 2013). From the very beginning of schooling, high-quality literacy instruction must also include instruction and practice on vocabulary (Beck et al., 2013; Cunningham & Stanovich, 1997; Foorman et al., 2016).

As students move through elementary school, they must enrich their oral speaking, listening, reading, and writing vocabularies. Students' vocabularies expand from repeated encounters with new words, both in the literacy block and in content-area instruction (Connor & Morrison, 2012); vocabularies also grow from listening, reading, and talking to others. As Biemiller (2012) points out, "From Grade 3 on, the main limiting factor [to academic achievement] for the majority of children is vocabulary, not reading mechanics (decoding print into words)" (p. 34). Teachers play two roles in this: providing direct instruction (NRP, 2000) and ensuring that the classroom environment is full of language, rich with words, and inclusive of opportunities to learn and use new vocabulary (Beck et al., 2013).

Given there are an estimated 500,000 to 1 million words in the English language, it would be impossible to directly teach students every word. A small group of words makes up most of the words we encounter in texts. Many of these

words also represent important understandings across content areas. Therefore, if we can teach children to "generate" the meanings of words on their own, they will have a significant advantage in accessing new meanings in texts.

Acknowledging the wealth of research indicating best classroom practices for developing vocabulary knowledge, Graves (2016) states that "vocabulary instruction is most effective when learners are given both definitional and contextual information, when learners actively process the new word meanings, and when they experience multiple encounters with words. Said somewhat differently, vocabulary instruction is most effective, and is most likely to influence students' comprehension, when it is deep, and extended" (p. 7).

Key to vocabulary development is building students' background knowledge, which provides a schematic framework for learning new words. As discussed previously in this paper, schema theory asserts that prior knowledge plays a critical role in learning and comprehension (e.g., Ambrose et al., 2010; Duke & Cartwright, 2021; Smith et al., 2021; Valencia Goodall et al., 2024; Willingham, 2015). According to schema theory, learners also acquire new words more effectively when they can connect them to existing mental frameworks or schemas (Cervetti & Wright, 2020; Cunningham & Stanovich, 1991; Hammond, 2021; Hirsch, 2006). This theory emphasizes the importance of background knowledge in making sense of new information, including word knowledge, suggesting that vocabulary instruction should be contextually rich, engaging, and connected to students' prior, real-world experiences (Beck et al., 2013; Kim et al., 2024; Nation, 2013).

Oral language is an essential element for learning to read and write proficiently (Al Otaiba et al., 2019; Castles et al., 2018; Ehri, 2022; Valencia Goodall et al., 2024). Verbal interactions with adults, both formal and informal, provide students with exposure to new words and sophisticated language models. At the primary level, ELA instruction should include frequent read-alouds to explicitly teach vocabulary. However, as research has demonstrated repeatedly, to succeed in school more broadly as they advance through the grades, students also need to learn, directly and explicitly, academic language (Baker et al., 2014; Foorman et al., 2015; Foorman et al., 2016; Nagy & Townsend, 2012; Shanahan et al., 2010).

Common ways to define academic language are to say that it's "the language of school" or "the language of a discipline or subject area." Closely related to academic language is academic vocabulary, which is the general academic and discipline-specific vocabulary that is used by sophisticated readers and writers. Beck et al. (2013) categorize vocabulary into three tiers based on utility and frequency. Tier 1 words are common, everyday words (e.g., cat, happy, play) that children are exposed to regularly and then typically do not require direct instruction. Tier 2 words are high-utility academic words (e.g., consequence, analyze, beneficial) found across various subjects and texts and important for proficient literacy and learning; these words are ideal for explicit instruction because understanding these words bolsters comprehension, expression, and learning broadly. Tier 3 words are domain-specific terms (e.g., retrospective, isotope, milieu) that are necessary for understanding specialized content but are less frequent in general discourse, particularly at the elementary level. Beck et al. recommends focusing on Tier 2 words in vocabulary instruction, as these words offer the greatest impact on language development and academic success.

## Academic vocabulary

Academic vocabulary is a critical component of the discipline-based knowledge building urged within ELA instruction (Hirsch, 2006; Valencia Goodall et al., 2024; Willingham, 2016). Contentrich words are tools, as Nagy and Townsend (2012) emphasize: "we use the metaphor of 'words as tools' to reflect our understanding that instruction in academic vocabulary must approach words as means for communicating and thinking about disciplinary content, and must therefore provide students with opportunities to use the instructed words for these purposes as they are learning them" (abstract). Cumulatively, some vocabulary instruction prepares students for what has been called "surface literacy learning," but students also need instruction to move beyond this level (Fisher et al., 2016; Hattie, 2012). Here's where academic vocabulary can play a part. As teachers provide instruction in reading and in content areas, they model academic language skills and directly teach the academic vocabulary that is common across all subject areas and related to each content area (Foorman et al., 2016).

These skills help all students, regardless of background and language status, acquire the "language of instruction" and the grammatical and textual structures and words that are common in books and in school discourse. Inferential language skills allow students to discuss topics beyond their immediate context, for example, events or processes in an informational book. Narrative language skills are those needed to talk about the events and ideas found in narratives. Teachers can embed vocabulary and language instruction into all their practices, from the daily message time to readalouds to content area instruction (Apthorp et al., 2012; Baker et al., 2013; Fisher et al., 2016; Justice et al., 2005). While teachers should provide explicit instruction to grow students' academic vocabularies (Goldenberg & Cárdenas-Hagan, 2023), it is important to not rely upon a

rote, decontextualized approach such as memorizing definitions. Rather engagement with word learning should be embedded in rich texts, read-alouds, and classroom discussions to provide context, with instruction drawing upon students' background knowledge and cultural assets (Valencia Goodall et al., 2024)—infused with curiosity, exploration, and play (Hammond, 2021).

Strategies include learning words for comparing and contrasting, classifying, and creating metaphors and analogies—and so much more. In addition, teachers also need to fill their classrooms with activities that develop "word consciousness" and the sorts of language play that encourages students to challenge themselves and others to learn new words and to think deeply about language (Blachowicz & Fisher, 2014; Graves, 2016; McKeown et al., 2012).

## How HMH Into Reading aligns with the research

Learning flows through language. As students engage in academic discussion, construct meaning from texts, and put their own ideas into writing, they embrace the power of using language to communicate effectively. Students learn and continually apply new vocabulary within the context of each module topic to build cross-curricular context and critical thinking skills. Students learn words drawn from the literature, through consistent, routine strategies for acquiring new words.

In Kindergarten Oral Language lessons in the Teacher's Guide use a routine approach to introduce each week's Power Words and provide meaningful practice in oral and written contexts. In the Kindergarten Teacher's Guide, domainspecific words are introduced and reinforced in week 1 of each module; teachers are encouraged to integrate these words into discussions, particularly as they help students build knowledge around the module topic. In subsequent weeks, Determine Word Meaning lessons help students determine the meanings of words they have not explicitly been taught. focusing on strategies that support students in making connections between words and expanding word knowledge.

Beginning at Grade 1, Vocabulary lessons in the Teacher's Guide use a routine approach to introduce and provide meaningful practice in oral and written contexts. Across all grade levels, review lessons appear each week after reading, and cumulative, spiral vocabulary review lessons return to words from previous weeks to cement learning over time.

In the Teacher's Guide (Grades 1-5), students revisit words they've been taught to learn new concepts and to access an expanding vocabulary network. Through Generative

Vocabulary lessons in Grades 1–2, one or more of the week's vocabulary words serves as a springboard to learning other words with a morphological or semantic relationship. In Grades 3–5, students explore and apply their understanding of morphology in the Foundational Skills (Grade 3) or Word Study (Grades 4–5) strand.

A Vocabulary Strategy lesson appears in the first week of each module in Grades 1–2 and in each week of Grades 3-5, giving students a growing list of tools to unlock meaning when they encounter unknown words in their reading. Students are consistently guided to apply the Vocabulary Strategy during the first read of a text (in the Teaching Pal).



Vocabulary Cards, HMH Into Reading Kindergarten



**HMH Classcraft**™ Essential Session

#### **LEARNING OBJECTIVES**

- Identify real-life connections between words and their use.
- Use newly acquired vocabulary expressively.
- Language Answer questions and discuss meanings to develop vocabulary.

#### LESSON RESOURCES

Whole-Class Presentation:

HMH Classcraft™ Essential Session

Display and Engage: Critical Vocabulary 7.11a and 7.11b

Vocabulary Cards: 7.21-7.26

Routines:

READING AND VOCABULARY

- Vocabulary
- · Turn and Talk

#### CRITICAL VOCABULARY

slender (p. 169) gallant (p. 172) chimed (p. 172) preparations (p. 175) flickered (p. 176) concluded (p. 178)

#### **SPANISH COGNATES**

gallant galante preparation preparación concluded concluir

### IDO Introduce the Words

#### Project Display and

Engage: Critical Vocabulary 7.11a and 7.11b. Then use the **VOCABULARY** routine to introduce the Critical Vocabulary from The Storyteller's Candle. You may wish to display the corresponding Vocabulary Card for each word as you discuss it.



- Read aloud each word and have students repeat it.
- Read aloud and discuss each word's student-friendly explanation.
- Point out the example for the word. Have students suggest other examples.

Multiple-Meaning Word In the text The Storyteller's Candle, the author uses the word chimed to describe what everyone else did when Santiago expressed his desire to help. That is, they all joined in and agreed with him. Chimed can also mean to make a musical sound by striking a bell, as in The bell in the tower chimed twelve times, so we knew it was noon.

### HMH Classcraft™ Essential Session

### **WEDO** Guided Practice

Guide students to interact with the words by discussing questions such

- · Describe something that is slender.
- . If someone behaves in a gallant way, would you be annoyed with or proud of that person? Explain.
- · If a friend said basketball is the best sport and you chimed in, what would you be doing? Explain.
- · What kind of preparations might you need to make for a trip?
- · If a candlelight flickered, what could have caused that to happen?
- · If a movie had just concluded, would it have just started or just ended? Explain.

### **MULTILINGUAL LEARNERS**

**Build Vocabulary** 

SUBSTANTIAL Have students point to objects in the classroom that are slender. Provide the name of each object if students don't know its

MODERATE Have students use this sentence frame to describe an object in the classroom that is slender.

can be described as slender because

LIGHT Have students share sentences describing items inside or outside the classroom that are

### YOU DO Apply

- Have students work independently to complete steps 3 and 4 on Vocabulary Cards 7.21-7.26.
- . Have students use the TURN AND TALK routine to discuss with a partner the prompt on each Vocabulary Card.

Reading and Vocabulary Lessons: Critical Vocabulary, HMH Into Reading Grade 3 Teacher's Guide

### INSTRUCTIONAL ROUTINE

# Vocabulary/Words to Learn

Use the **VOCABULARY** routine to

- teach Big Idea Words at the beginning of each module and Power Words from the Read Aloud Books.
- provide explicit vocabulary instruction in the context of reading.
- give children the opportunity to pronounce new words and explore their meanings through relevant, child-friendly examples.
- support children in building word knowledge and rich vocabularies that contribute to future reading success.
- simplify vocabulary teaching by using a consistent set of steps.

### **ROUTINE MATERIALS**

Use the Vocabulary Cards when teaching Big Idea Words and Power Words.

- Display the front of the card so that it's visible to all children as you teach the
- Use the back of the card as a quick reference for the routine steps, child-friendly meaning, and examples.



### **ROUTINE IN ACTION**

ROUTINE STEP		MODEL LANGUAGE		
-	ay it. Say the vocabulary word out loud to ne class, and have children repeat it.	The first word we are going to learn today is polite. Repeat after me: polite. (polite) Again. (polite) Now let's say it in syllables. Repeat: po-lite. (po-lite) polite (polite)		
_	<b>efine it.</b> Read the definition of the word. hen use the word in a sentence.	If you are <b>polite</b> , you are kind to others and have good manners.  The boy is <b>polite</b> and says thank you when a friend gives him the art supplies.		
di	iscuss it. Invite children to role-play or iscuss the meaning of the word with a artner.	Let's act it out! I will role-play a polite conversation with a volunteer. May I please borrow a pencil? Thank you! Now, you try. Have a polit conversation with a partner.		
ch	se it. Share the sentence frame with nildren. Have them take turns verbally ompleting the sentence with a partner.	Complete this sentence frame: It is polite to say please and		

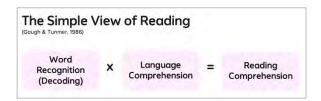
© HMH Education Company. All rights reserved.

HMH Into Reading • Grade K



## Reading comprehension

Foundational skills are critical to early literacy development, but as a means, not an end; ultimately the goal in reading instruction is to understand what we read (Castles et al., 2018; Hennessy, 2021; Moats, 2020b; Nation, 2019; Oakhill et al., 2015; Willingham, 2017). According to the Simple View of Reading, a theory of reading development, reading comprehension is the product of word recognition and language comprehension. More specifically, students become readers when they can marshal the skills to decode words while simultaneously drawing on their knowledge of language for reading comprehension (Baker et al., 2017; Gough & Tunmer, 1986; Hoover & Gough, 1990). To read with comprehension, readers must decode the words on a page while simultaneously drawing on their knowledge of language to access the meaning of the text (Baker et al., 2017; Cárdenas-Hagan, 2018; Gough & Tunmer, 1986; Hoover & Gough, 1990).



Knowledge of language includes more than vocabulary and simple sentence construction; it also includes students' knowledge of language structures, print concepts, and verbal reasoning skills (Scarborough, 2001). Reading with comprehension occurs when children can convert printed words into a meaning they can readily understand. Thus, children successfully learning foundational literacy skills discover how print maps onto their existing spoken language; gradually, they master these foundational skills to move beyond this simple transaction and bring higher levels of language as well as thinking skills, such as inferring and critiquing, to their reading (Castles et al., 2018; Catts, 2022; Ehri,

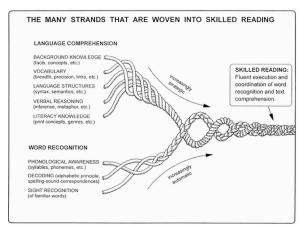
2020, Kilpatrick, 2015; Moats, 2023).

Catherine Snow's (2002) framework for understanding reading comprehension emphasizes it as a dynamic, long-term developmental process shaped by the interplay of the reader, the text, and the reading activity all within a broader sociocultural context. Proficient readers are those who can extract and construct meaning across diverse texts and purposes, even when content is challenging or unengaging. The reader's level of proficiency, motivation, knowledge, and experiences interact with text features (such as genre, structure, and digital elements) and the purpose for reading, which may evolve during the activity. In sum, reading comprehension can be understood as "the process of simultaneously extracting and constructing meaning through interaction and involvement of written language" (Snow, 2002, p. 11).

Multidimensional language comprehension (e.g., linguistic or listening comprehension) also contributes to what a reader grasps from a text (Hennessy, 2021; LARCC, 2015; Oakhill et al., 2015). Comprehension is indeed a complex and active task entailing cognitive and linguistic processes that readers must engage in to make sense of text (Hennessy, 2021).

As discussed elsewhere in this paper, decoding involves connecting the spelling in words to their sounds and putting them together in order to read (Ehri, 2014, 2020, 2022; Moats, 2019; Nieser & Cárdenas-Hagan, 2020). Once established, "word-reading skills become more efficient and fluent with increasing age, greater cognitive resources are available for processing the meaning of the text, and language comprehension becomes more strongly predictive of reading comprehension than word reading" (Cain, 2016, p. 11). In addition, as Castles

and colleagues (2018) explain: "word recognition and high-quality lexical knowledge provide the necessary input to reading comprehension, but knowledge and processes beyond the individual word level are vital too. These aspects are not all specific to reading but are features of language comprehension more broadly...by the time children learn to read, they already have in place a sophisticated language system, setting the critical foundation for reading comprehension" (p. 34). As the research makes abundantly clear, the development and interplay of a set of skills enable (or prohibit) reading comprehension, but in itself reading comprehension is not a skill, rather it is dynamic process (Catts, 2022). In addition, even emerging readers benefit from engaging with longer passages or reading short stories rather than being limited to isolated words or sentences. Teachers should start the practice of reading connected text early and do it daily, as it helps students understand context, narrative flow, and how ideas are connected within a text.



sed with permission from the Publisher, originally appeared in the following publication: Scarborough, H. S. (2001). Connecting early of literacy to later reading (dislubilities: Evidence, theory, and practice. In S. Neuman & D. Dickinson (Eds.), Handbook of early literacy: 1.1, pp. 97–110). Guillord Press.

## **Building comprehension through** strategy, knowledge, and engagement

Reading with comprehension occurs when children can convert the meaning represented by words in print to a meaning that they can readily understand. Gradually, students master these foundational skills to move beyond this simple transaction and bring higher levels of language as well as thinking skills, such as inferring and critiquing, to their reading (Castles et al., 2018; Catts, 2022; Ehri, 2020).

Studies have well-established that upper elementary students as well as beginning readers benefit from instruction that introduces them to a variety of strategies taught explicitly and directly to help them understand different kinds of texts and their text structures (Catts, 2022; Duke, 2000; Elleman, 2017; Shanahan et al., 2010; Willingham, 2023). A recent metaanalysis conducted by Peng and colleagues (2024) concluded that, particularly for students with reading difficulties in third grade and up, an "ingredient-interaction model" may work best. Specifically, the model challenges the idea that simply teaching more strategies is better. While no single strategy proved to be superior, the combination of main idea, text structure, and retell [strategy instruction] taught together was found to best optimize the cognitive load and improve comprehension. The use of multiple, high-impact strategies can help distribute the cognitive demands of reading, making it easier for students to process and understand text (Peng et al., 2024). Given the effectiveness of strategy combinations can vary depending on the context and the individual needs of the students, teachers need to apply a tailored, flexible, and adaptive approach.

In addition, Peng et al.'s (2024) meta-analysis reiterates the essential role of background knowledge, finding that strategy instruction was only effective with paired with background knowledge instruction. Background knowledge combined with strategy instruction helps students retrieve relevant knowledge, reducing the cognitive load required to apply strategies during reading. Emphasizing the importance of building background knowledge alongside providing explicit reading-comprehension strategy instruction helps students understand texts better and improves comprehension

outcomes (Willingham, 2023).

Young students begin to develop deeper comprehension through daily opportunities to read connected text, that gradually increases in length and complexity. Through ample experiences with connected text, students gain background knowledge, an understanding of context, narrative flow, and how ideas are connected within a text through (Foorman et al., 2016; Shanahan et al., 2010). Part of beginning comprehension instruction involves teachers "externalizing" or modeling the comprehension strategies mature readers use automatically.

The daily read-aloud period is an ideal means to support not only background knowledge, but also to model comprehension strategies, and support reading comprehension skills. During read-alouds, students need to be actively involved in the process of understanding text via asking and answering questions, making predictions, drawing inferences, or explaining characters' motivations or other actions (Duke & Pearson, 2002; Elleman, 2017; Rosenshine et al., 1996; Reutzel et al., 2008; Shanahan et al., 2010; Sanden et al., 2021). Furthermore, researchers have found positive relationships between students' reading growth and the extent to which they have engaged in "analytic talk" during the back-and-forth with teachers during read-alouds (McGee & Schickendanz, 2007). This makes sense because the listening comprehension of young learners develops prior to students emerging reading comprehension skills (Cabell & Hwang, 2021; Cain, 2016; Hennessy, 2021; Oakhill et al., 2014). (See the Oral Language section for additional listening comprehension research).

### **Close Reading**

Teachers encourage deeper understanding of text, as they model increasingly sophisticated comprehension and metacognitive strategies and provide students with tools like concept or word maps or self-questioning (e.g., asking

readers to actively generate questions before, during, and after reading a text to enhance their understanding and engagement). To help students move beyond "surface" to "deep" literacy learning, teachers should encourage students to plan, investigate, and elaborate as they read for comprehension (Fisher et al., 2016) . By engaging students in deep reading (Fisher & Frey, 2012) and in lively discussions and questioning, teachers can meet their goal of helping students learn to assimilate new knowledge from what they've read and even expand and modify what they already know. This process may result in some "Aha!" moments as students experience themselves grow as readers and thinkers because of what they have read (Fisher et al., 2016). Building on this deeper reading can lead to "transfer" literacy learning, as students apply what they know to new and novel situations and often reorganize their conceptual knowledge (Fisher et al., 2016).

While close reading plays an important role in reading instruction and comprehension, it is important to note that reading occurs for various purposes and not every text needs to be read "closely" (e.g., reading for entertainment, skimming for the main gist, building background knowledge).

### The role of engagement

Engagement plays a pivotal role in supporting reading comprehension, particularly when students are actively involved in meaningful literacy experiences. Research shows that engaged readers—those who are motivated, strategic, and socially interactive—are more likely to comprehend texts deeply and retain information over time (Guthrie et al., 2012). Engagement is influenced by instructional practices that promote autonomy, relevance, and interaction. For example, when students are given opportunities to set learning goals, participate in collaborative discussions, and connect reading to real-world contexts, their motivation and comprehension improve (Kamil et al., 2008). A positive classroom environment that fosters curiosity and confidence further enhances students' willingness to engage with texts.

Instructional strategies that effectively boost both engagement and comprehension include explicit instruction of high-impact strategies, use of high-interest and culturally relevant texts, and interactive read-alouds. To activate background knowledge, teachers can structure lessons around a three-part framework—before, during, and after reading to guide strategic thinking, and encourage reflection. Activities such as book talks, dramatic readings, and student-led discussions help make texts more accessible and engaging. Additionally, integrating reading with content areas and encouraging analytic talk during read-alouds supports deeper understanding and sustained engagement. These approaches not only improve comprehension outcomes but also cultivate lifelong reading habits (Texas Education Agency, n.d.).

## Benefits of voluminous reading

Voluminous reading is a strong predictor of students' general knowledge, vocabulary, growth in reading comprehension, decoding and spelling facility, and the quantity and quality of their writing" (Cunningham and Stanovich, 1998, p. 7). To further support both comprehension, content knowledge and background knowledge development, as well vocabulary, students should have access to abundant informational and literary books for independent reading, both inside and outside the school day.

Adding further support to the role voluminous reading plays in overall reading and writing achievement, Adams (2015), makes a strong case, stating "the kind of knowledge required for reading develops first and foremost through reading . . . This means more eyes-on, minds-on reading by them, and it also means more reading aloud to them. Significant research attests to how wide, voluminous reading contributes significantly to reading proficiency achievement (Allington & McGill-Franzen, 2021; Cunningham & Stanovich, 1998; Willingham, 2017).

Additionally, when diverse, content-rich texts about the social and natural world are thoughtfully selected and presented to students with clear topical or thematic organization and cultural connections, they foster background knowledge activation and building as well as effective reading comprehension, yielding numerous positive outcomes on students' academic success more broadly (Cabell & Hwang, 2020; Catts, 2022; Duke & Cartwright, 2021; Hammond, 2015, 2021; Willingham, 2017, 2023).

It is crucial that students who are just learning to read have ample opportunities to practice their fluency and decoding abilities, by reading engaging books that they can decode independently Compton et al., 2005). Once students develop sufficient skills, they should have access to authentic literature, helping expand students' vocabulary, build knowledge, and understanding of complex text and literary devices.

## How HMH Into Reading aligns with the research

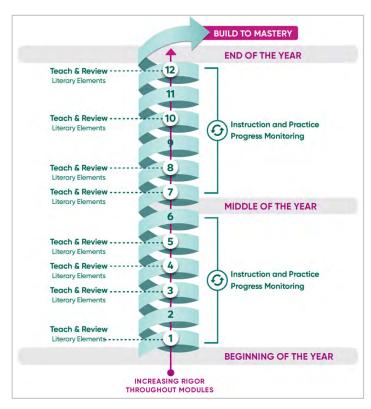
The ultimate goal of reading is to comprehend and build knowledge. To support this goal, HMH Into Reading's approach is to focus on strategies that best support the specific text that students are reading. As students read, view, and interact with the texts and media in each module, they build deep topic knowledge, essential to applying reading comprehension strategies.

### Spiraling approach to instruction

In Kindergarten, Daily Reading and Vocabulary lessons begin with explicit instruction of a specific comprehension strategy, which students immediately apply to a Read Aloud Book or Big Book. These strategies are repeated throughout the year as students encounter a variety of genres and topics. Similarly, in Grades 1-6, students receive direct instruction in a targeted

strategy before reading, which they then apply to grade-level texts or read-alouds. Across the grade levels, students use these strategies with increasingly complex texts, reinforcing their comprehension skills across diverse reading experiences.

By continually spiraling through strategies that are in service of texts, rather than texts being in service of a weekly strategy, students gradually learn to draw from many strategies to comprehend what they read. These strategies are intentionally chosen to match the objective and purpose of the text so that students can learn new information and build knowledge. Throughout the year, texts increase in complexity, so students are applying the same grade-level appropriate strategy to increasingly more complex text.

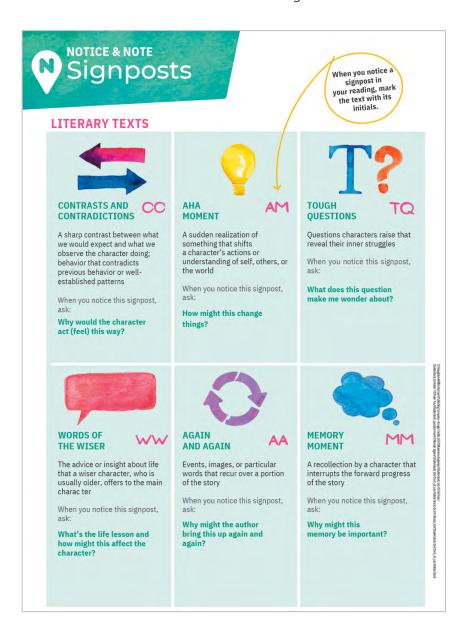


Spiral Approach to Teaching Literacy Elements, HMH Into Reading Grade 3

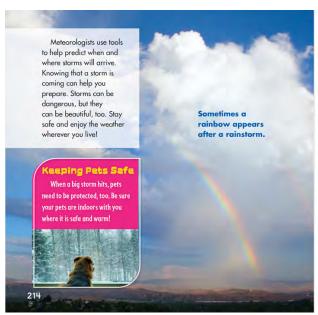
### Deep analysis of text

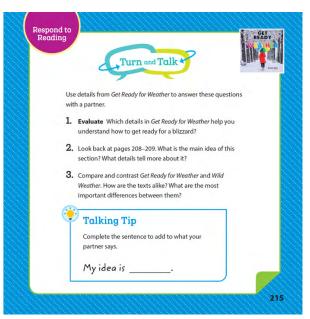
Kylene Beers and Robert E. Probst (2013) developed the close reading strategy, Notice & Note, that fosters deep learning and cultivates students' critical reading habits that make students more engaged, analytical, and independent readers. The Notice & Note strategy, incorporated into HMH Into Reading introduces readers to six signposts and anchor questions that help readers understand and

respond to critical aspects of both fiction and nonfiction texts. Students are asked to stop, notice, and reflect on significant moments in the text, encouraging students to read closer and with more rigor. By alerting the readers to significant moments in a work of literature and encouraging students to examine the text more closely, these signposts guide students in their thinking to inquire about the text, find evidence to support their interpretations, and reflect on the text's significance in one's own life.

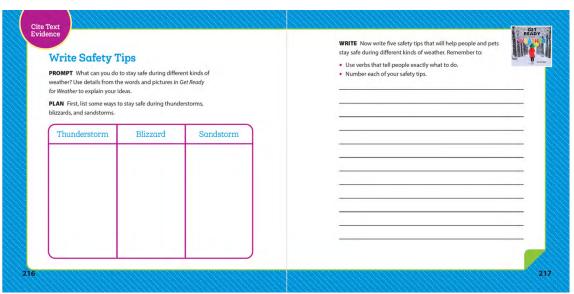


In addition, the Teaching Pal offers point-of-use instructional teaching notes for critical thinking and deep analysis of the *my*Book student texts. The *my*Book is a student component that provides write-in text interactions such as note-taking, annotating, and responding. Teaching Pal notes encourage students to stop and notice critical elements as they read, helping them gain a deeper understanding of texts





Grade 2 myBook



Grade 2 myBook

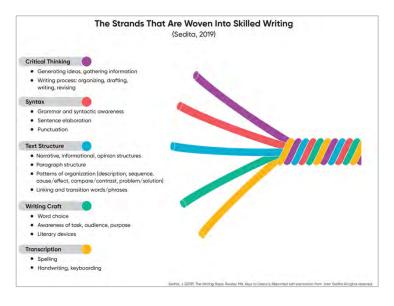
## Writing

The relationship between reading and writing is both multidimensional and powerful, from the early stages of literacy learning (Ehri, 2014; Ehri & Roberts, 2006; Gehsmann & Templeton, 2011/2012; Kim & Graham, 2022; Kim et al., 2014) and as students advance "from learning to read to reading to learn" within and across content area domains (Donovan & Smolkin, 2011; Graham & Hebert, 2010; Hammond, 2015; Graham et al., 2020). A significant, established, and still growing research corpus attests to the inextricable interconnectedness of reading and writing; although each entails a set of complex cognitive processes and foundational skills, the relationship between them is mutually supportive. Instruction that integrates reading and writing has been shown to improve content and background knowledge, vocabulary, and comprehension, ultimately improving overall literacy outcomes (Berninger et al., 2002; Carroll & Wilson, 2007 & 2014; Cunningham, & Allington, 2011; Graham, 2020; Graham et al., 2018; Graham & Harris, 2013; Shanahan, 2016; Tierney & Shanahan, 1991).

Based on Scarborough's (2001) Reading Rope, Sedita's (2023) Writing Rope framework, based on Berninger and colleagues' (2002) Simple

View of Writing, identifies five core components, or strands, that contribute to skilled, fluent writing—critical thinking, syntax, text structure, craft, and transcription.

The primary grades are a critical period for building foundational writing skills (Kim et al., 2021). Much evidence demonstrates that, as with reading, explicit approaches to teaching writing that draws from and builds on students' understanding of language are most effective (Berninger et al., 2006; Ehri, 2020; Ehri & Roberts, 2006; Hochman & Wexler, 2019; Nieser & Cárdenas-Hagan, 2020; Sedita, 2023). Slavin and colleagues (2019) recent meta-analysis found that explicit teaching of writing strategies, guided practice, and feedback, significantly enhances students' writing skills, promote student engagement, and support writing proficiency across the elementary and secondary grade span. In addition, a 2012 meta-analysis, Graham and colleagues found that if writing instruction occurs daily and is taught via a combination of systematic and direct instruction, practice in application, and includes corrective feedback, students will gradually acquire handwriting, spelling, and grammar rules, as they progress through the grades.



## **Transcription skills**

Transcription skills, including handwriting, keyboarding and spelling have significant impact on students' emergent written expression (Berninger et al., 2006; Puranik & Al Otaiba, 2012; Sedita, 2023).

### Handwriting

Early literacy programs with a strong, established research-base explicitly and systematically emphasize handwriting within consistent daily instruction that includes: providing students with guides for correct, legible letter formation and practice in that as well as dictation (syntax plus handwriting) (Sayeski et al., 2019); forging connections between writing and letter-sound knowledge; and helping students attain automaticity and muscle memory (Moats, 2020a). Berninger and colleagues (2006) point out that writing is not simply or even primarily either a motor or a visual activity; rather, language itself is not a singular construct but a complex set of interdependent multimodal processes, one of which is "Language by Hand (producing written language output)" (p. 62). Handwriting skills from the early years are considered to be a critical factor of academic success, and difficulty with handwriting can interfere with academic achievement and self-esteem (Feder & Majnemer, 2007).

Studies have linked explicit handwriting instruction to various aspects of literacy development, including spelling, and composing (Wolf, et al., 2017). Ray and colleagues (2022) found that, in particular, letter writing fluency strongly impacts writing composition, and letter name and sound knowledge and also bears relationship to spelling, word reading, and phonological skills. As students' handwriting skills increase and their foundational literacy skills are established, students' writing can become more expressive; and students' written work provides teachers insight into their mastery of spelling and language structures (Puranik & Al Otaiba, 2012). Automaticity in handwriting reduces cognitive load, allowing students to focus more on higher-order writing processes such as idea generation and organization—and lacking such automaticity, students may struggle with composing sentences, as they expend too much effort on forming letters (Berninger et al., 2006; Moats, 2020a).

Handwriting studies of typically developing elementary children have found that the quality of handwriting develops rapidly during Grade 1 and reaches a plateau by Grade 2. By Grade 3, students' handwriting skills become more automatic, organized, and a means through which to develop ideas (Blote & Hamstra-Bletz, 1991). Early and diverse experiences in writing support literacy development and integrating multiple modes of alphabet letter production (e.g., writing manuscript letters with pen, keyboard, and cursive letters by pen) may enhance early language skills (Berninger et al., 2006). Explicit, structured handwriting instruction is essential for students with dyslexia and other reading difficulties, as it strengthens visual and motor memory and aids in decoding; additionally, when students write letters while learning sounds, it helps solidify connections between phonemes and graphemes, which reinforces "orthographic mapping," and aids the brain's ability to store word recognition skills in memory (IDA, 2018; Moats, 2020a).

## Writing as an integrated and collaborative process of inquiry

Carroll and Wilson (2007 & 2014) provide a model for writing instruction that emphasizes writing as a recursive process fully integrated within reading and literacy development. The writing process includes prewriting, drafting, revising, editing, and publishing with a larger aim of providing opportunities for exploration of ideas and experiences that are meaningful and connected to students' lives as well as to support students in developing their voice, fluency, and

clarity over time. Inquiry, a natural extension of reading that takes the form of research is at the core of their model: "Writing, before, during, and after inquiry ensures a systematic journey through the research (Carroll & Wilson, 2007, p. 308).

For Carroll and Wilson (2007), writing is an inherently social activity entailing engagement with a learning community as well as a targeted audience. This view echoes the work of other researchers and has implications for evidencebased writing instruction. Collaboration on writing has been found to be motivating and is especially effective when teachers have helped students develop a clear set of guidelines for evaluating their own and others' writing and when they have also established expectations for substantive and polite give-and-take among students (Graham et al., 2012). To achieve these results, students need ongoing opportunities as well as routines in which to collaborate, to share, to participate in writing discussions with teachers; they need to learn to give and take feedback on ideas, techniques, drafts, and final products and to act on the feedback to improve their work (Graham & Harris, 2013; Graham et al., 2012; Fisher et al., 2016; Hammond, 2015; Sedita, 2023; Slavin et al., 2019; Troia, 2014). Several classroom situations encourage collaboration and community development, including teachers writing with their students, teachers conducting writing conferences for individualized instruction, paired writing, and a formal program to publish students' writing (Graham et al., 2012; Tracy et al., 2009; Yarrow & Topping, 2001).

### Mentor texts

Although students benefit from instruction on handwriting, spelling, sentence structure, grammar, and other skills, teachers also need to model writing for their students and point out the features of good writing during instructional interactions (Graham et al., 2012; Sedita, 2023). It is also important that students become well

versed in writing genres--narrative, expository, persuasive, and descriptive as this helps students adapt to the characteristics, purposes, and demands of different forms of text, both as readers and writers (Carroll & Wilson, 2007, 2014).

To make writing skills and strategies more concrete, teachers often use mentor texts. Mentor texts are examples of high-quality writing, or varying lengths, from all genres that can be studied and discussed for style, structure, word choice, author's craft, and overall effectiveness (Gil, 2017; Sedita, 2023). Because many students don't know what to look for in model writing, it is important for teachers to provide explicit quidance and modeling in analyzing mentor text (Sedita, 2023). The Structured Literacy approaches to teaching writing and written expression are particularly critical for students with reading difficulties; such instruction should place significant emphasis on phonetic spelling and semantic knowledge (Haynes et al., 2019) and explicit, systematic teaching into higher levels of literacy, including the structures of sentences, text, and discourse (Spear-Swerling, 2019).

Additionally, to support students' writing development, teachers can ask students to pause a few seconds as they read, to study the "craft of writing," including the choices authors make to create a mood in a poem, the sense of anticipation in a story, or the clear sequence of events laid out in the description of an experiment or a historical event. Studying mentor texts and deciding what "good" writing looks like establishes a common "vision" toward which students can work as teachers release responsibility for writing to their students (Graham et al., 2012). Ultimately, mentor texts reinforce the reciprocal relationship between reading and writing (Carroll & Wilson, 2007).

## Rubrics and peer feedback

Embedded, formative, and authentic assessment with constructive and corrective feedback is an essential component of promoting students' writing growth (Carroll & Wilson, 2007 & 2014; Graham et al., 2012). Teachers need to track students' writing development with the same care they routinely afford to students' reading and to give students tools to monitor their own growth (Gehsmann & Templeton, 2011/2012). Providing students with explicit criteria for finished products (e.g. rubric traits) as well as checklists to guide the writing process encourages self-evaluation through drafting and revision and improves writing quality generally (Troia, 2014). For example, a checklist can remind students to check for substantive aspects of writing like sequence of ideas, logic, inclusion of details to support a perspective, or grammatical issues like verb tenses, pronoun references, or punctuation (Hotchkiss & Hougen, 2012). Rubrics provide detailed descriptors of the characteristics of pieces of writing at various levels of proficiency and set clear expectations about how teachers will grade students' written work, in turn, helping students evaluate their own and others' writing (Brookhart & Nitko, 2008).

## Writing in support of learning

Writing, when engaged with as a process and connected to reading and research, provides ongoing opportunity for students to explore and extend their learning and deepen understanding (Carroll & Wilson, 2007, 2014; Graham et al., 2012). Students' written work provides teachers insight into their mastery of spelling and language structures (Shanahan, 2016) as well as evidence of surface and deeper content learning (Fisher et al., 2016). As Hochman and Wexler (2019) note, "writing is a skill, or a set of skills, involving everything from spelling and handwriting (or keyboarding) to the organization of ideas. But it is also intimately bound up with

content knowledge. You cannot write about what you do not know, and the more you know about a topic the better your writing is likely to be" (p. 25).

In addition, writing in response to reading supports the development of comprehension skills because the writing experience encourages students to think more deeply about what they have read (Graham & Hebert, 2010). Writing in response to reading should become a standard practice in all genres and content areas, not just in language arts, so long as students are given adequate time to engage in the writing process. Such writing can easily be seen as writing in support of learning, especially if students are given some choice in how they will express themselves. Indeed, writing's impact transcends literacy development; a metaanalysis conducted by Graham and colleagues (2020) found that writing tasks help consolidate content knowledge, deepen understanding, and improve retention across subject area learning in science, social studies, and mathematics. Hochman and Wexler (2019) put it this way: "when embedded in the content of the curriculum and begun at the sentence level, explicit writing instruction is potentially the most powerful lever we have for building and deepening knowledge" (p. 29)

### Grammar

Grammar is the system of rules that governs the structure and interpretation of a language, encompassing the conventions for spelling and punctuation (orthography), the arrangement of words and phrases to form sentences (syntax), and the meanings conveyed by those structures (semantics).

Carroll and Wilson (2007) call for an approach to grammar instruction that is embedded within a rich context of reading and writing, rather than one that has students focus on isolated skills and drills. They emphasize that when the structures

and conventions of language are acquired through authentic application and processoriented revision, fluency and accuracy are enhanced and broader, deeper literacy is supported.

### Orthography

Orthography refers to the patterns and conventions of a written language, including capitalization, spelling, hyphenation, and punctuation (Kilpatrick, 2015). Orthographic knowledge is developed as students learn these patterns and conventions, such as letters that cannot be used at the end of words or cannot be doubled or the fact that most syllables in English have at least one vowel (Cunningham, 2006). As Cunningham (2006) reports, "when confronted with unfamiliar words, the opportunistic reader self-teaches by applying previous knowledge of spelling-to-sound correspondences to generate candidate target pronunciations and then matching those pronunciations with words known in the reader's oral vocabulary" (p. 58). (See the Phonics and Word Study section above for a discussion on the research related to spelling and orthographic mapping).

#### **Syntax**

Syntax refers to how words are usually ordered and organized in sentences, phrases, or clauses to convey meaning (e.g., nouns or pronouns followed by verbs, with modifiers as needed). Parts of speech, the usual conventions of language, and the structures of different sentence types are included in the study of syntax. Adams (1990) recommends that instruction should build awareness of syntax

because language users must understand how syntactical units within sentences are organized, in order to comprehend text of increasing complexity. Students who are learning to read and write in a second language benefit from additional support and explanations in mastering English syntax (Cummins, 2016).

#### **Semantics**

Semantics refers to the meanings of single words, phrases, and sentences and relationships among them. Semantics relates to vocabulary instruction but extends to the directly stated or implied meaning of phrases, sentences, and paragraphs. The term also refers to the understanding of text organization (e.g., a poem vs. a story vs. an informational piece all on the same topic). In order to effectively make meaning, students need varied and regular experience in working with words and their meanings within sentences (Oakhill et al., 2015). Attending to semantics contributes to proficient reading; it is important to cultivate students' semantic knowledge by providing opportunities for them to hear new words embedded within meaningful speech-based contexts (Ehri, 2020). While upon school entry phonological awareness has been found to predict word reading in the following two years, by Grade 2 semantic abilities in the form of oral definitions and word retrieval has been found to predict passage comprehension (Roth et al., 2002). Deepening students' understanding of semantics enhances their ability to draw on their knowledge of language as they work to comprehend what they read and express their thinking via writing.

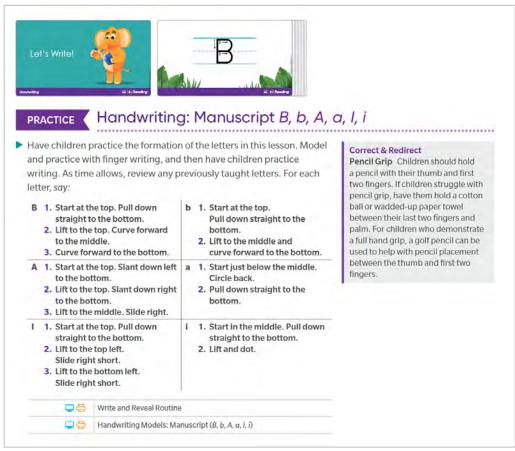
## How HMH Into Reading aligns with the research

A comprehensive and integrated approach to literacy ensures that students find their voice and can communicate through effective expression. In addition to the essential literacy skills addressed in the proceeding chapters, students must also be able to write clearly and efficiently to effectively communicate across written genres.

## **Transcription**

In Grades K -3, HMH Into Reading includes explicit instruction related to handwriting including letter formation, posture, and grip with opportunities for cumulative practice.

Lessons are built to facilitate direct instruction, teacher modeling, and opportunities for guided and independent practice. Resources such as reproducible pages for both manuscript and cursive, as well as an Anchor Chart, provide students extra support and letter formation models to follow. Explicit instruction for handwriting and cursive are embedded within the Foundational Skill lessons. In the writing process, there are additional opportunities for handwriting, cursive, and keyboarding at the publishing step. Explicit practice in handwriting, cursive, and keyboarding is provided during Differentiation and Practice and in the Weekly Practice Bundles.



Handwriting Lesson, HMH Into Reading Grade 1 Teacher's Guide

## Writing process

HMH Into Reading provides ample opportunity for students to hone their writing craft by developing a deep understanding of the stages in the writing process and expressing their ideas and thoughts. Writing instruction includes lessons that teach the writing processprewriting, drafting, revising, editing, publishing, and sharing. Some stages may span multiple lessons (e.g., Drafting I, Drafting II), allowing students to engage more deeply with each step.

HMH Into Reading's writing instructional model draws upon authentic trade books as the focal text for student writing. Typically, students take a piece of writing through the entire writing process over the course of the module (four weeks in Kindergarten; three weeks in Grades 1– 6). HMH Into Reading organizes writing forms (e.g., format/structure: descriptive essay, personal narrative/imaginative story, research report, letter, poem, article, or journal entry) within broader writing modes (e.g., purpose: narrative, informational/expository, or persuasive/argumentative). For example, a descriptive essay falls under the informational/expository mode, while personal narrative and imaginative story are categorized within the narrative mode. Students learn the writing process across all modes and forms.

Within the Writing Strand, the purpose for writing is addressed in relation to the writing prompt. The specific writing prompt aligns with module's topic and Focal Text, and is connected to the broader writing mode of the module/ A Writing Model is provided, illustrating the writing mode and form.

Each writing module features a mentor text connected to the module topic. Students are given a writing prompt that further supports building knowledge on the module topic and exposes students to the modes of writing through an explicit stepped out, recursive

process. Students engage in daily writing practice and revisit various stages of the writing process (e.g., prewriting, drafting, revising, editing, publishing, and sharing). Instruction on these steps often unfolds across multiple lessons. Students have multiple opportunities to return to their drafts throughout the "steps" of drafting, revising, and editing before moving on to publishing and sharing.

In Kindergarten, students focus on the writing process through one writing mode and form of writing, per 4-week module. In Grades 1–6, students work through the complete writing process on one piece of writing over the course of the 3-week module. Each module has a specific writing form. For example, in Grade 3 Module 1, the writing strand will focus students on completing a personal narrative over the course of the module (3 weeks). Grade 3 Module 2 student focus on writing a letter.

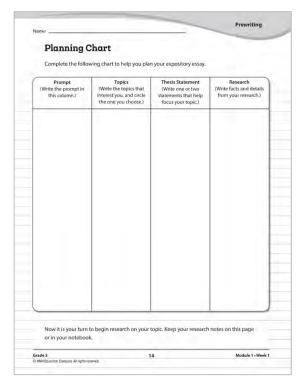
In Grades 3–5, Performance Tasks provide students the opportunity to engage in the writing process with the purpose of informing or persuading about the module topic, using text evidence and knowledge gained. In Grades 1–2, Performance Tasks are optional.

In addition, throughout the grades, there are various opportunities for quick writing. Within the writing lessons, students engage in activities designed to foster thinking—such as practice prompts for brainstorming, concept maps, and graphic organizers using the Know It, Show It student book.

## Source based writing instruction

In HMH Into Reading, students apply the writing process skills learned in the Writing lessons and module Performance Tasks. The Teacher's Guide features robust, supportive instruction for teachers to guide students in crafting strong source-based essays. Students have access to both a Focal Text and a Writing Model, which serve as tools for discussing key elements that

will be incorporated into their writing assignment. Depending on the writing prompt and form, students may also be required to conduct research to support their work. Each lesson steps teachers and students through expectations of the task, analysis of the prompt, and the steps of the writing process. Teachers model how to find and incorporate specific text evidence into writing, ensuring students are supported as they learn these critical skills. At point of use in the Performance Task instructional pages, teachers can find specific Writing lessons for deeper instruction and practice with the writing process and text features related to the writing mode.

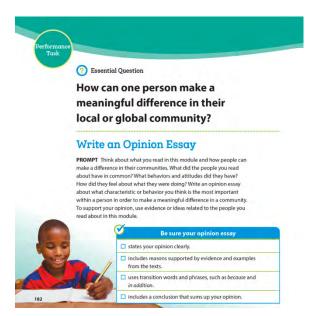


## *My*book

The write-in myBook is a print-based student resource, aligned to the HMH Into Reading

## Writing rubrics

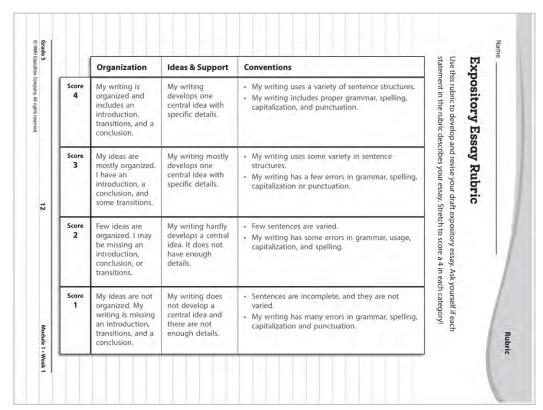
There are teacher rubrics available for each writing mode across all grade levels. In Grade 1, modules that provides numerous writing opportunities connected to each module in the program, allowing students to take notes, annotate, respond, and ultimately take ownership of their learning. In addition, each module concludes with a myBook Module Wrap-Up, which includes two key components: Make Connections and Evaluate Module Selections. In these activities, students reflect on the texts they've read, revisit the Essential Question, and engage in discussion around the module topic to deepen their understanding and synthesize the knowledge they've gained. These myBook wrapup activities provide the opportunity for students to synthesize what they've learned through writing and discussions and to express their new insight through writing. Writing opportunities are further enhanced in the HMH Into Reading digital offering, via the interactive myBook for annotating text and writing about reading.



additional rubrics are provided to assess the specific writing forms featured in each module. For Grades 3-5, student-facing rubrics are included in the Know It. Show It resources. addressing each writing form to support selfassessment and reflection.

	Exceeding Expectations	Meeting Expectations	Progressing 2	Developing 1	No Score
PURPOSE/ORGANIZATION	The response is clear, stays on topic, and is well organized.  Main or central idea is clear, focused, and effective for task, audience, and purpose.  Includes a swinety of transitions to relate ideas.  Contains a logical sequence of ideas with strong relationships between them.  Includes an effective introduction and conclusion.	The response is mostly clear, on topic, and organized.  Man or central idea is clear, mostly focused, and mostly effective for task, audience, and purpose.  Includes some vairety of transitions to relate ideas.  Contains an adequate sequence of ideas with adequate relationships between them.  Includes an adequate introduction and conclusion.	The response is somewhat clear and on topic. Organization may be inconsistent.  • Main or central idea may be somewhat unclear, lack hous, or be ineffective for tack, audience, and purpose.  • Instudes little variety of transitions to relate ideas.  • Sequence of ideas may be weak or unclear.  • Introduction and conclusion need improvement.	The response and topic are unclear, with little organization. Whan or central idea may be confusing; response may be inappropriate for lask, audience, and purpose.  Includes few or no transitions to relate ideas.  Sequence of ideas is unorganized, may include off dopic ideas.  Introduction and/or conclusion, may be missing.	The response does not demonstrate purpose or organization.  Not intelligible. Not on topic. Contains text copied from source. Does not address the purpose for writing.
KNOWLEDGE/EVIDENCE	The response clearly demonstrates knowledge of the topic; presents strong support for the main and supporting ideas; and includes effective use of evidence from sources, facts, and details, elaborating with specific and effective language.  • Demonstrates knowledge gained through use of thoughtful evidence and synthesis of ideas.  • Elaborates through use of relevant details that support key ideas from appropriate sources.  • Vocabulary is clear and appropriate for topic Lask, audience, and purposs.  • Style is appropriate and effective.	The response demonstrates adequate knowledge of the topic, presents adequate support for the main and supporting ideas, and includes widence from sources, facts, and details, elaborating with some specific and general fanguage.  Demonstrates adequate knowledge gained through use of evidence and an attempt to synthesize ideas.  Elaborates through use of adequate details that support key ideas from appropriate sources.  Vocabulary is mostly appropriate for topic, task, audience, and purpose.  Style is generally appropriate and effective.	The response demonstrates some knowing of the topic, presents inconsistent support for the main and supporting ideas; and includes limited evidence from sources, facts, and details, elaborating inconsistently and with simple language.  Demonstrates some knowledge galined, but the evidence may be inconsistent; with little synthesis of ideas:  Includes use of details from sources that may be inrelevant, with loose support of key ideas.  Vocabulary is not necessarily appropriate for topic, tash, sudience, and purpose.  Style is inconsistent.	The response demonstrates little knowledge of the tippic, procents viague support for the main and supporting ideas; and includes little or no evidence from sources, farts, and details, with inadequate or no elaboration.  Demonstrates little knowledge gained, and the evidence may be vague, with little or no synthesis of ideas.  Includes little use of details and lacks support of key ideas.  Vocabulan; not appropriate for topic, task, audience, and purpose.  Style is weak or absent.	The response does not demonstrate knowledge of the topic.  Demonstrates no understanding of, or does not address, the topic, and lacks any evidence.  Includes no details or has copied irrelevant details from a source.  Does not address the purpose for writing.
CONVENTIONS	The response demonstrates command of conventions with no errors.  • Consistent use of correct sentence structures, grammar, punctuation, capitalization, and spelling.	The response demonstrates adequate command of conventions with few errors.  • Mostly correct use of sentence structures, grammar, punctuation, capitalization, and spelling	The response demonstrates partial command of conventions.  • Limited use of correct sentence structures, punctuation, capitalization, grammar, and spelling.	The response demonstrates little command of conventions.  Rare use of correct sentence structures, punctuation, capitalization, grammar, and spelling.	The response does not demonstrate command of conventions.  Not intelligible.  No attempt at use of conventions.

### Teacher Rubric



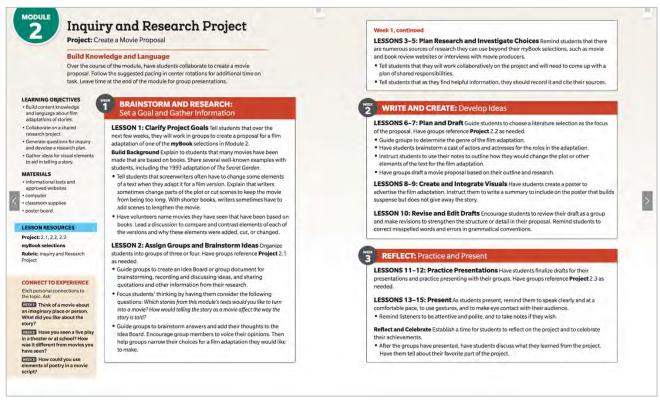
Student Rubric

### Inquiry & research

In HMH Into Reading, lessons extend beyond just writing. The Build Knowledge and Language strand integrates research-based inquiry with writing. The Teacher's Guide includes lessons to support inquiry and research. These inquiry and research lessons are designed to engage students in projects that provide opportunities to extend topic knowledge while building research, writing, listening, speaking, and collaboration skills across the grade levels. Students complete projects that culminate in a final product or presentation, where writing is key component throughout the process.

In Kindergarten, students are encouraged to be active investigators by providing them with opportunities and support for research projects. In each module, children research, collaborate, and complete an inquiry-based project about the topic of the module. A daily focus and instruction in the Teacher's Guide provide structure and pacing for the project.

In Grades 1–6, students complete a daily focused, inquiry-based project paced over a three-week module. Students conduct research, collaborate, and complete a project about the topic of the module. Printables support each project to guide students' independent and collaborative work. In addition, research skills are taught explicitly through formal lessons, which are featured occasionally in the Teacher's Guide, including (in Grades 1-2) how to select a topic, formulate research question, follow a research plan, choose and use sources, and evaluation and organize information. Similarly, in Grades 3-6, students learn how to generate a research plan, gather information, take notes, evaluate, and organize information, and cite sources.



Inquiry and Research Project Week 1, HMH Into Reading Grade 5 Teacher's Guide

### Grammar

In HMH Into Reading, grammar and conventions are integrated into daily writing with explicit instruction and opportunities for immediate practice. Across the grade levels, the teacher's guide features grammar exemplars and practice related to the module topic and texts, weaving knowledge building into writing and grammar and tying all of the instructional strands together to create a cohesive learning experience.

At Grade K, students are introduced to the basics of grammar and writing. Students begin the year with a focus on parts of speech and constructing sentences. Beginning in Module 5, students are introduced to the writing process. With teacher guidance, students move through each step planning, organizing, drafting, revising and editing, and publishing - to create sentencelevel writing in different genres. Students practice grammar and writing skills in their myBook each week.

**HMH Classcraft**™ Essential Session

**TARGET** 

Grammar

#### **ADVERBS OF FREQUENCY AND INTENSITY**

Review that an adverb tells something about a verb and often answers the question how, when, or where. Point out that adverbs can appear before or after the words they modify.

Say: Writers use adverbs to tell how often an action happens. Writers also use adverbs to tell how much or to what degree an action happens. These types of adverbs are adverbs of frequency or intensity. Adverbs of intensity often come before an adjective or another adverb. Let's identify adverbs in sentences.

Model identifying the adverbs, pointing them out as you discuss. Say: The sentence is The volcano erupted daily. The action and verb in this sentence is erupted. The next word is the adverb and tells more about the verb. The adverb is daily. Daily is an adverb of frequency. It tells me how often the volcano erupted.

**WEDO** Together with students, read the next sentence: The mountain stream flowed too quickly for swimming. Identify the verb with students. (flowed) Then identify the adverbs. (too, quickly) Discuss the type of adverb and how you know. (Too is an adverb of intensity that describes another adverb; quickly tells how the stream flowed.)

YOU DO Next, have students identify the verb, the adverb, and the type of adverb in this sentence: The geyser exploded hourly. (verb: exploded; adverb of frequency: hourly) Discuss how they know. Repeat with the remaining sentences.

**Connect to Texts** If students are ready, have them identify adverbs of frequency or intensity in a decodable text, in Coral Reefs, or in their myBook.

### **DAILY WRITE**

Prompt students to write a sentence with an adverb. Have students circle the adverb and underline the verb it describes.

For additional practice, refer to the Flexible Small Group options.

## **MULTILINGUAL LEARNERS**

**Scaffold Writing** 

**SUBSTANTIAL** Have students describe what they want to say in the letter in simple language. Help them form complete sentences. Write these down, and then have students copy them into their notebook. Students can use these ideas as they draft their letters.

MODERATE Have each student read their letter aloud, sentence by sentence. Point out any problems, such as incorrect word order or tense. Discuss how to correct the problems. If necessary, provide students with sentence frames: I would like to know more about . Have you studied

LIGHT Help students with any new basic or subject-specific words that they find difficult. Ask students what part of the letter they feel needs the most work, and help them with specific issues

#### **Adverbs of Frequency and** Intensity

Write the following sentences on the board and use them to help students use adverbs. Note that these sentences relate to the module topic: Earth's Natural Wonders.

The volcano erupted daily.

The mountain stream flowed too quickly for swimming.

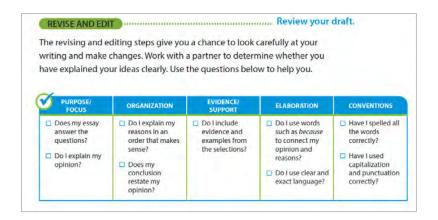
The geyser exploded hourly

The migrating cranes occasionally arrive after sunset.

The mountains rose extremely high.

The ocean waves crashed too often.

Beginning at Grade 1, over the course of 15 lessons, students move through the full writing process—prewriting, drafting, revising, editing, and publishing—allowing ample time to develop their ideas and refine their skills. Students are supported throughout the writing process with Know It, Show It practice pages, as well as anchor charts and a writer's model for reference. This structured approach ensures students have the guidance and time they need to produce thoughtful, polished writing pieces by the end of each module.



## HMH Writable, an HMH Connected Solution on HMH Ed

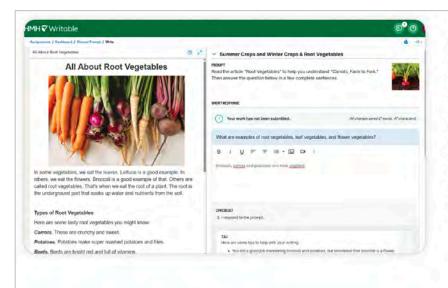
Writable, accessible on HMH Ed as a separate purchase, is available as customized solution for Grade 3–5 HMH Into Reading classrooms. Writable combines scaffolded prompts and ondemand feedback with relevant readings and media, allowing teachers to seamlessly provide additional writing opportunities. Writable provides an equitable English and Spanish writing solution, that can be integrated with HMH Into Reading or HMH's dual-language program ¡Arriba la Lectura!

Below are a few of the ways Writable with HMH Into Reading support students writing development:

Teachers can integrate reading and writing practice for students through the digital HMH Into Reading myBook embedded within Writable. The myBook text is

displayed alongside writing prompts to serve as a mentor text and to provide a side-byside reference.

- Students can highlight, annotate text, and write notes to help reinforce **comprehension**. By using *Writable* with *HMH* Into Reading, students can respond to a text, improve comprehension, and hone their writing potential on one integrated platform.
- With seamless access to HMH Into Reading's end-of-module performance tasks, student learning in enhanced, as students monitor and reflect on their writing. Writable's alignment to HMH Into Reading's Writing stand, provides students with support throughout the writing process, including opportunities for students to receive ongoing feedback.
- Student-friendly rubrics and peer review options provide support for students to have multiple opportunities to revise, edit, and submit their best work. Harnessing the power of AI, Writable provides students with instant feedback through the revision cycles.



### Deepen knowledge with additional articles

Students have an opportunity to read two short articles for each HMH Into Reading selection to further develop background knowledge on the module topic and texts. They can then demonstrate their understanding through short writing responses.



### Create prompts to boost engagement\*

Teachers can easily create a brief writing prompt tied to the module topic in just a few clicks to engage students at any point throughout the module.

# HMH Into Reading's learning ecosystem

Although some students learn to read without significant difficulty, entering Kindergarten ready for the challenge of becoming fully literate, mastering reading poses a challenge for many other students. Researchers have shown that the absence of books and rich language in children's preschool lives can be detrimental because they lack the vocabulary and the "word knowledge" they need to thrive in Kindergarten (Cain, 2016; Duke & Block, 2012; Hart & Risley, 1995; NELP, 2008; Wolf, 2007). As instruction becomes more and more advanced and assigned texts more difficult, students may decide that the cognitive energy needed to learn to read well and the embarrassment of mistakes are not worth their effort.

Teachers also need to attend to students' well-being, including feelings students have about themselves as learners (Farrington et al., 2012; Hammond, 2015). They also need to attend to the classroom ecosystem that teachers and students share (Kraft et al., 2016; Quay, 2017; Quay & Romero, 2015; Steele & Cohn-Vargas, 2013; Tomlinson, 2022). Increasingly, educators are becoming aware of the neuroscience factors that influence students' learning trajectories and are emphasizing the importance of classroom environments that acknowledge these differences and allow students to help shape their own learning. Approaches that allow for students' individual biology, experiences, background knowledge, and relationships to converge in dynamic ways optimize the likelihood that all students will learn. For this convergence to be effective, students must be supported as they actively engage with new concepts, build new knowledge, and augment their existing knowledge. This process will take different amounts of time for each student, but the social nature of elementary classrooms—the collaborative interaction of students—supports all learners (Hammond, 2015, 2021; Darling-Hammond et al., 2024; Valencia Goodall et al., 2024). Through these experiences, students will understand the relevance of what they are learning, specifically how reading can be a valuable part of their lives.

Blended learning, a combination of teacher directed and technology-based instruction, has the potential to bring accessibility, affordability, and customization that might have previously been complicated, expensive, and standardized to educational places. In this way, it can transform learning experiences for students (Horn & Staker, 2011; Johnson et al., 2023; Kallio & Halverson, 2020; Mancaruso et al., 2020; Moore et al., 2017; U. S. Department of Education (ED), 2017; Zhao & Watterson, 2021).

For a child to be successful in school, there are numerous critical roles that families and communities play: supporters of learning, encouragers of perseverance and determination, models of educational practices, and advocates of appropriate school environments for their child (Grade Level Reading Campaign, 2017). In a blended learning environment, the support of family and caregivers to reinforce students' learning at home becomes even more paramount.

In this chapter we synthesize the research on the classroom learning ecosystems and describe how HMH Into Reading aligns to the research, including the EdTech ecosystem, fostering a community of learners, and family engagement.

## **EdTech Ecosystem**

Before COVID-19 drove educators around the United States and the world to suddenly switch to remote teaching in early 2020, the number of students receiving instruction in online or blended, or hybrid, learning environments had been steadily growing (Gemin & Pape, 2017; Graham et al., 2019). While this area of inquiry is relatively new, findings that have emerged over the past two decades indicate that digital learning, particularly in blended environments, has enormous potential to positively transform education for diverse groups of students when evidence-based practices are incorporated into instructional design (Chen et al., 2018; Johnson et al., 2023; Li & Wang, 2022; Mancaruso et al., 2020; Patrick & Powell, 2009; Topping et al., 2021). "Technology can be a powerful tool for transforming learning. It can help affirm and advance relationships between educators and students, reinvent our approaches to learning and collaboration, shrink long-standing equity and accessibility gaps, and adapt learning experiences to meet the needs of all learners" (USDOE, 2017, p. 3).

Yet research suggests that the best practices in digital learning environments are largely the same as those in conventional classrooms (Anthony, 2019; Borup & Archambault, 2018; Hattie & Clarke, 2018). Teaching still matters more than technology when it comes to quality instruction: ultimately, teachers should use digital platforms and tools purposefully to optimize learning experiences and outcomes for all students (Fisher et al., 2020; Horn & Staker, 2011)—and one of the most effective enhancements that technology offers is making classrooms more student-centered, active, and engaging. Digital learning provides the clearest, most comprehensive pathway to the differentiated, personalized instruction essential for students today (ED, 2017; Ertmer, et al., 2015; Kallio & Halverson, 2020; Moore et al., 2017;

O'Byrne & Pytash, 2015; Zhao & Watterson, 2021).

### Interactive digital learning tools

Learning itself is an active process of engagement and, recursively, engagement leads to motivation which leads to learning. When students are engaged, they can focus attention and efforts on completing tasks and mastering content, persisting through difficulties as needed (Wang & Degol, 2014). Active participation is associated with numerous positive learning outcomes, including improved acquisition and retention of knowledge (Chi & Wylie, 2014; Conrad & Donaldson, 2004; Finn & Zimmer, 2012). Decades of research across fields of study has explored and continually affirmed that, across all grade levels, content areas, and socioeconomic factors, active engagement in classroom activities is essential for meaningful and successful learning as well as academic achievement (Eccles & Wigfield, 2002; Guthrie & Humenick, 2004; Jansen et al., 2022; Lee & Shute, 2010; Schunk & Mullen, 2012; Wang & Degol, 2014).

Continually mounting evidence supports the idea that effective technology use in the classroom through a blended learning format has multiple benefits, including increased student engagement and motivation (Anthony, 2019, ED, 2017; Halverson & Graham, 2019; Moore et al., 2017; O'Byrne & Pytash, 2015; Patrick & Sturgis, 2015). Research also indicates that instruction improves when technology-based, dynamic multimedia, including visuals and sound features, is incorporated; the effect is enhanced student engagement and motivation, critical factors that facilitate learning (Chen et al., 2018; Johnson et al., 2023; Mayer, 2013, 2017; Parsons & Taylor, 2011). Interactivity and responsiveness have been associated in research with increased motivation,

engagement, and satisfaction levels for students in digital learning environments (Chen et al., 2018; Evans & Gibbons, 2007; Johnson et al., 2023; Means et al., 2013; Schunk et al., 2008; Zhang, 2005). Effective technology use in the classroom has an additionally motivating effect by allowing students to take greater charge of their own learning and that digital learning itself is enhanced when students are given more agency and autonomy via more direct and dynamic interaction with content (ED 2010 & 2017; Horn & Staker, 2011; Johnson et al., 2023; O'Byrne & Pytash, 2015; Patrick & Powell, 2009).

## Digital tools to support reading & writing

Digital tools can be used beyond simply reinforcing discrete skill instruction. Digital instruction can enhance comprehension practice by allowing students to highlight text, make marginal notes, and gain the pronunciation and meaning of unfamiliar words, thereby providing in-the-moment support when students need it and reinforcing the usefulness of such strategies.

The integration of technology into our daily lives, and into today's classrooms, has also influenced the way writing is taught and practiced. Features

like spelling and grammar checks, thesauri, ways to emphasize text, and graphic organizers for structuring different pieces of writing can support all students, both confident writers and those who struggle to master these essentials (Graham et al., 2012; Kervin & Mantei, 2016). Being able to take advantage of these reading and writing tools gives students a sense of ownership over the process, increases engagement, and supports reading and writing strategy use.

Further, current digital learning platforms afford opportunities for timely progress monitoring and assessment; teachers can use such technologies to meet instructional needs of individual students and collect assessment data from multiple sources for progress monitoring, as well as provide prompt, direct feedback to guide specific learning (Anthony, 2019; Pulham & Graham, 2018). As for ways digital learning can improve literacy outcomes, Mancaruso and colleagues (2020) found that, compared to similar students in a control group, elementary students considered less proficient readers showed significant gains on a standardized reading test after a year of receiving blended reading instruction, confirming results of previous studies.

## How HMH Into Reading aligns with the research

### HMH Ed

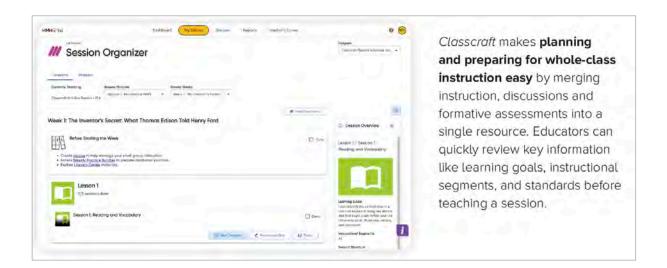
HMH's learning platform, HMH Ed offers a myriad of digital student and teacher support and instructional resources. Educators can access core content, assessments, supplemental programs, and curated professional learning all in one place with a single username and password. To inform instruction, learning, and growth, reports in HMH Ed allow teachers to view progress by class, students, assignments, standards, and skill level. This information. available at point of use, allows teachers to adjust instruction to meet the needs of all learners.

## HMH Into Reading Classcraft **Essential Sessions**

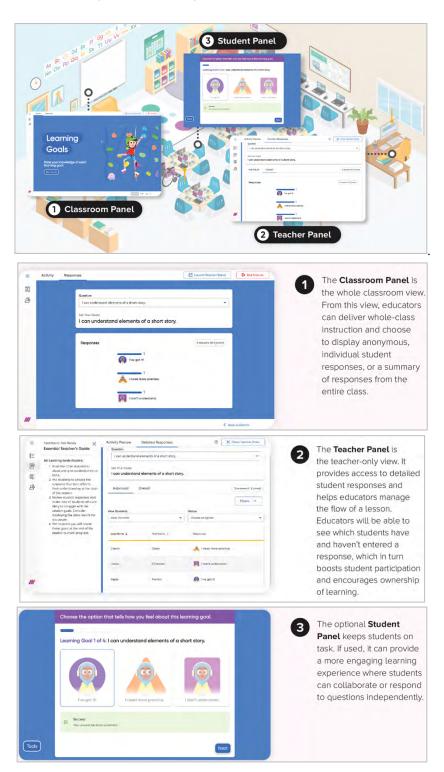
HMH Into Reading supports whole-class instruction and enhances the craft of teaching by merging efficacious content with consistent, seamless delivery of research-based lessons, increasing student engagement, and reducing planning time. HMH Into Reading Classcraft™

Essential Sessions' pre-built, standards-aligned, whole-class instruction – with opportunities for student response and collaboration – provides teachers with real-time insights to support inclass remediation.

- Instruction matches Teacher's Guide instruction step-by-step.
- Provides standards-aligned instructional resources that transform whole-classroom learning.
- Includes high-quality lessons that save every educator time in locating appropriate instructional resources and providing the instruction that is most essential to every student.
- Increases student engagement and peer-topeer collaboration.
- Supports synchronous classroom learning with assessment insights, delivered in real time, that help educators pivot more quickly to provide remediation, if needed.



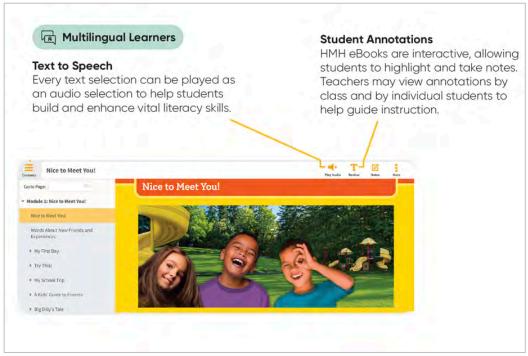
Classcraft can be implemented in a low-tech or high-tech classroom. The Classroom Panel and embedded classroom management tools can be used to deliver whole-class instruction without students needing devices. Or, in a one-to-one classroom, students can follow along with the instruction and enter responses via their Student Panel, providing actionable insights on the Teacher Panel to help inform instruction.



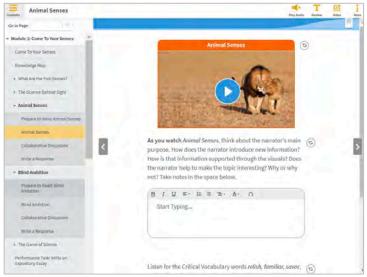
## **Digital student resources**

HMH Into Reading digital tools promote student ownership of their reading and writing. At the beginning of each module, students learn about the module topic and Essential Question by viewing a high-interest Get Curious multimedia video. myBook, decodable text library, and HMH Readers titles are available as eBooks on HMH

Ed. eBook annotation tools provide instructional support to improve student learning. Read-along highlighting supports students in understanding text and hearing what fluent reading sounds like. In addition, Notetaking features including highlighting and interactive graphic organizers work alongside instructional prompts to promote close reading, vocabulary acquisition, and best practices in writing.



myBook features



myBook on Ed, Grade 4

### Family Room on HMH Ed

Available in English and Spanish, Family Room, is available to families, through HMH Ed, (when logged onto HMH Into Reading). Family Room supports families' home-school connections and makes at-home learning more manageable for families and caregivers by providing easily accessible and equitable, on-demand resources. For example, to help families support their children, they can access their child's HMH Into Reading assignments, online learning sessions, as well as additional learning resources all in one place.

### **HMH Connected Solutions**

Schools can provide students with differentiated support and practice, seamlessly with HMH connected digital solutions, including HMH Waggle, HMH Amira, and HMH Writable on Ed (available as a separate purchase).

HMH Waggle and HMH Amira offer personalized, adaptive learning for students, and HMH Writable provides a structured platform for writing instruction and practice. These digital tools create an ideal environment for students to work through lessons at their own pace.

### Waggle

Teachers can use Waggle to easily differentiate instruction with fun, targeted, and deliberate practice. Waggle provides adaptive, personalized practice and instruction through 60 engaging, skill-based games. Waggle uses AI to help break down skills and analyze multiple data points to offer targeted practice, and embeds hints and feedback to aid in student mastery and retention of essential K-5 literacy knowledge and skills

### **Amira**

Teachers can utilize Amira, an Al-based reading tutor, for emerging readers. Amira listens as students read aloud, providing support for students as they read, while it keeps track of student's performance and generates running records and reports to help identify each student's progress and needs

### Writable

Writable's instructional design uses evidencebased best practices to drive growth in student writing, including the Practice-Feedback-Revision cycle, which becomes even more effective when combined with the time-saving AI features built into Writable. In addition, Spanish-speaking multilingual learners can access short stories in both English and Spanish as they complete assignments in Writable.

## **Community of learners**

Educators should strive to create a classroom environment that fosters appreciation and respect for all cultures, languages, and dialects. The practice of creating a culturally responsive environment begins with noticing one's own biases and building relational trust with students by honoring their stories and listening to their emotions (Gay, 2018; Ladson-Billings, 1995; National Equity Project, 2020; Paris, 2012). Practices and approaches that support culturally and linguistically diverse students who are often marginalized in schools build their confidence and competency to achieve academic success (Aronson et al., 2016; Darling-Hammond & Cook-Harvey, 2018; Hammond, 2015, 2021).

By leveraging students' background knowledge, home languages, and home experiences, teachers can make classroom instruction more relevant and meaningful. This asset-based approach helps enhance instruction; increase students' interest, participation, and learning; and can improve teacher-student relationships (Neri et al., 2016; Brooks & Karathanos, 2009).

### Make real-world connections

In our diverse society, schools should be a place where all students feel welcomed, appreciated, and encouraged. The following are some of the recommended practices for creating an inclusive environment:

- Honor judiciously and respectfully, how each student is unique. Emphasize that differences are to be celebrated.
- Stay mindful of the fact that one culture's custom may hold a different meaning in another culture. Discuss examples of what it means for students to be responsible, respectful, and considerate of other's views.
- Expose students to texts that reflect a variety of life experiences.

Educate students about the history, traditions, and contributions of various groups so that children gain an understanding of their communities.

## Cross-linguistic influence on learning

In today's multilingual society, it's increasingly common for students to speak a language other than English at home. A substantial and growing body of research underscores the critical role of multilingual learners (MLs) home language in promoting academic achievement. The transferability of literacy skills across languages substantiates the value of strong home-language literacy (Genesee, 2012). Extensive research evidence corroborates these findings, indicating that students with well-developed reading skills in their home language tend to exhibit stronger reading performance in English, thereby affirming the importance of supporting bilingual development from an early age. These findings are further substantiated by multiple metaanalyses that have consistently demonstrated that educational programs incorporating students' native languages yield positive academic outcomes (Genesee & Lindholm-Leary, 2012).

In addition, Lindholm and Aclan (1991) found a significant positive relationship between bilingual proficiency and academic performance in English, particularly in reading and mathematics. Their findings revealed that students classified as "high bilinguals" achieved grade-level proficiency in English reading by fourth grade and in mathematics by third grade, suggesting that robust development in both languages can accelerate academic progress. Further, Relyea and Amendum (2019)'s research found that early reading skills in a student's home language significantly support English reading development in bilingual students. Specifically, their research demonstrated that

Spanish-speaking children who entered kindergarten with strong Spanish reading abilities demonstrated greater growth in English reading over time, even outperforming peers who were more fluent in spoken English but had weaker Spanish literacy. These findings suggest a strong cross-linguistic influence, where early literacy in a first language positively impacts second-language reading development. The study emphasizes the importance of nurturing native-language literacy. For families, this underscores the value of reading to their children in any language to support long-term literacy growth.

As described above, literacy skills in a student's home language can significantly support reading development in a second language. Students with strong home-language reading abilities tend to show similar strengths in their second language, a pattern well-documented among multilingual learners in the U.S. (August & Shanahan, 2006; Riches & Genesee, 2006). Furthermore, international research has documented cognitive advantages among bilingual students, particularly in executive functions such as attentional control and problem-solving (Bialystok, 2006; Chin & Wigglesworth, 2007).

## Honor home languages and dialects

Creating links between students' home languages or dialects, and the English-learning environment at school is key to fostering a sense of belonging. Educators can support this and foster respect for all languages by asking students to share a few words or phrases in their home languages for the entire class to learn; and show respect and appreciation of children's home languages by learning a few words yourself. For students who speak English dialects, these classroom practices allow students to validate differences in the ways English is expressed, as well as use develop a

deeper understanding of the academic content. For monolingual English students, exposure to other languages and dialects, in a natural and supportive environment can enhance their listening skills and assist and accelerate their own academic language development.

Encouraging translanguaging in the classroom is also critical for academic achievement. It honors that students hold multiple languages as one integrated system to better understand the world. "The act of translanguaging then is transformative in nature; it creates a social space for the multilingual user by bringing together different dimensions of their personal history. experience and environment, their attitude, belief and ideology, their cognitive and physical capacity into one coordinated and meaningful performance". (Li, 2011, p. 1223). Teachers can support translanguaging in numerous ways, including offering students the option of reading a book in one language and summarizing it in another language; using multiple languages during a classroom discussion; taking notes any language; or writing a draft in a first language (Corujo, 2024).

## Establish a sense of belonging

There is clear evidence that internal factors—like sense of belonging in school or resilience—will be strongest when students perceive themselves to be respected and valued (Bornstein & Leventhal, 2015; Hammond, 2015). Strong teacher-student and student-student relationships support this kind of learning (Cantor et al., 2018). Teachers need to promote supportive, responsive relationships with and among students by modeling and insisting upon appropriate social behaviors. Effective teachers do more than teach knowledge and skills: they are mentors and guides, ensuring that students receive feedback that encourages them to persevere in their learning (Darling-Hammond et al., 2024).

Young students' first classroom experiences are often ones of building relationships—with their teacher and peers—and classroom interactions continue to shape students' attitudes toward themselves and their ability to learn (Hammond, 2015; National Scientific Council on the Developing Child, 2004). Wolf (2007) cites work by Biemiller (1970), who studied students' process of learning to read. Biemiller found that students who ultimately become the most successful readers "never get arrested in any of the early steps, but move quickly through them" (Wolf, 2007, p.119). Teacher facilitated, informal pair or small group interactions are particularly beneficial in linguistically diverse classrooms, as this aids language development for all students and additionally promotes oral language practice, increased participation, and community belonging for multilingual learners (MLs) (Ardasheva et al., 2017; Boyd, 2012). "By some estimates, [MLs] spend less than 2% of their school day in oral interaction. We must find ways to provide students learning opportunities that engage them in productive talk and then listen carefully to the language they use in order to support their continued growth" (Walqui & Heritage, 2018, p. 20).

As schoolwork becomes more challenging, teachers' support, modeling, encouragement, and feedback build and reinforce students' growth mindset (Dweck, 2006. These teacher behaviors also establish a classroom tone that sets clear expectations that all students are learners, mistakes are a part of the learning process, and students' efforts and hard work are valued above all other behaviors. By modeling and requiring a positive, accepting, interactive

tone for all classroom communications, teachers show they respect and care equally for all students, regardless of where they are in their reading development journey. As Mindset Network Scholars' summary of recent experimental research stresses, students need to know that their teachers' expectation and goals are for them to succeed (Mindset Scholars Network, 2015).

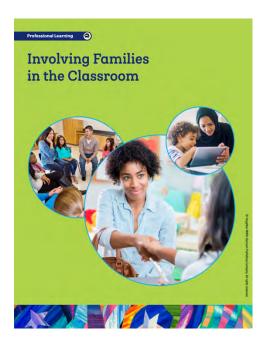
In such classrooms, all students sense that they belong, that their ability and competence can grow, and that they can be successful. In essence, teachers can create a "learning mindset culture," one that not only provides instruction on skills and content knowledge but also builds strategies for perseverance, resilience, and effort. Steele and Cohn-Vargas (2013) remind teachers that as they seek to promote a sense of belonging for all students, they need to be aware of group dynamics and the formation of cliques, especially those that may be forming between students who are beginning to perceive themselves as "at risk" for school failure.

Even if students never hear these actual labels, they may begin to identify themselves as somehow different from peers for whom academics come easily (Learned, 2016), and research has shown that this identification can change the dynamics in a classroom. Some students may begin to falter as their reading tasks become increasingly difficult and they need to read more deeply and critically (McNamara et al., 2016). For many of these students, initial challenges in school expand as low reading skills lead to difficulty in other content areas (Master et al., 2017).

HMH Into Reading was designed to ensure all students see themselves and others in the literature they are reading. HMH Into Reading contains carefully curated, high-quality texts throughout the program that reflect the rich diversity in school communities and promotes natural ways to cultivate an inclusive and collaborative environment that values all voices.

The program fosters connections to home and family through Family Letters in multiple languages and Family Room on HMH Ed (described in the following section on Family Engagement).

To support teachers' in creating a family-school connection, HMH has created a Professional Learning resource for teachers designed to support family involvement of all families.



HMH Into Reading's student-centered inquiry and research projects connect students' learning to real-world experiences. With meaningful, current and relevant content, instruction reflects our diverse world and supports knowledge building for all students.

Engagement routines such as Think-Pair-Share and Turn and Talk are embedded throughout the program to promote collaborative discussion, support the development of relationship skills building the oracy skills that are imperative for language development, especially for multilingual students.

Essential questions embedded throughout HMH Into Reading engage students by featuring thought-provoking topics that help students engage in text-driven student discourse that builds on one another's ideas – including prompts in the Teaching Pal that feature connections to the text and module focus competency while also deepening diverse cultural perspectives.

In addition, HMH Into Reading features diverse authors and literature selections that represent people from various ethnic and cultural backgrounds and environments. As well as ethnically diverse literature, that rejects stereotypes and reflects the limitless possibilities for all students' future success. Students have opportunities to share cultural perspectives and language connections through collaborative conversations and classroom discussions.



Essential Question, Module 7 HMH Into Reading Grade 3 Teacher's Guide



Text sets, Module 7 HMH Into Reading Grade 3 Teacher's Guide

## Family engagement

Research shows that students are eager for their families to be knowledgeable and active supporters of their education and are more likely to be successful in school if they see their parents playing this vital role (Epstein, 2010). In addition, research shows that early elementary students are more successful in school when they and their families experience supportive relationships with teachers, a correlation that has been found for achievement in general as well as specifically for reading achievement (Hughes & Kwok, 2007). Developing productive relationships between teachers and families seems of particular importance for students who are at risk of academic failure (Hughes & Kwok, 2007; Hunter, 2012).

## Literacy-rich home environment

Having books in the home helps establish a reading culture that continues from generation to generation within families and is independent of education and class. This creates an interest in and desire for books that will promote the skills and knowledge needed to foster both literacy and numeracy, thus leading to lifelong academic advantages (Evans, Kelly, Sikora, & Treiman, 2010). Many students growing up in high-poverty neighborhoods live in "Book Deserts" with extremely limited access to books and appropriate student text (Neuman & Moland, 2016). While not a sufficient solution, schools can help counter text scarcity, and support children and families, by providing as many print-rich resources as possible, across genres, reading levels, and interest areas, even if the resources are lent out temporarily.

When students not only have access to books but can share them with reading mentors who love books and reading, they are much more likely to thrive as readers (Bridges, 2014; Heath, 1983). As noted by Adams (1990), family reading in which family members and caregivers interactively read

with children is the most important activity families can do with their children to build the knowledge and skills required for skillful reading. Further, "continuing shared reading, even after your child learns to read independently, ensures that she is consistently exposed to rich and unfamiliar vocabulary and can help sustain an interest in the magical world of books, and provides continued motivation for children to master the art of reading" (Cunningham & Zibulsky, 2014, p. 306).

## Reading at home

Children spend up to 75% of their waking hours at home. Even with all the hours in the school day, additional reading time is needed at home to build fluent comprehension skills (Guthrie, 2004; Krashen, 2004; 2011). Therefore, it is imperative for schools to work with families to capitalize on the educational value of this time throughout the school year and summer (Duke & Block, 2012; Kim & White, 2008).

Voluminous reading can have a statistically significant impact on students' vocabulary development, general knowledge, spelling, verbal fluency, and reading comprehension (Allington & McGill-Franzen, 2021; Cunningham & Stanovich, 1998). Yet, voluminous reading is possible only if students have access to abundant texts and sufficient opportunities to read outside of school hours (Krashen, 2011). Reading at home is also important over the summer as students spend a large chunk of time at home during these months. When children do not have the opportunity to experience books over the summer months, "the summer slide" occurs in which students start school reading several levels behind where they were at the end of the previous year. Reading at home over the summer months is an important way families can support students to become successful readers (Allington et al. 2010; Gac-Artigas, 2016; Kim & White, 2008).

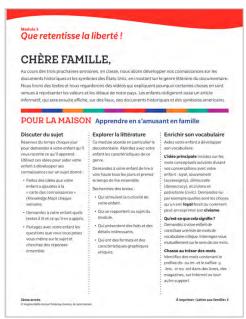
## Funds of knowledge

It is important to recognize that language-rich literacy experiences are present in the lived experiences of all families (Hogg, 2011). Families of students who live in "book deserts", have many other ways they promote literacy, including attending church (choir readings or biblical analysis), oral story telling (cultural folklore), and

watching videos in the student's home language. Educators can actively support students' learning and foster critical home-school literacy connections by taking stock and utilizing students' funds of knowledge, drawings connections between students' lived experiences and literacy concepts in the classroom (Gonzalez, Moll, & Amanti, 2005).

## Home family connection

Family letters are available on HMH Ed. Teachers can customize the Family Letters and then send them home to include parents and caregivers in the learning goals of each HMH Into Reading module. In addition to English, Family letters, outlining the learning at the start of each HMH Into Reading module are available in 10 languages, ranging from Spanish and French to Chinese, Arabic, Haitian Creole, Russian, and Tagalog, among others (translated languages reflect HMH community feedback and school enrollment data from the U.S. Census Bureau® and other school demographic databases.



Family Letter, HMH Into Reading Grade 3, Module 3

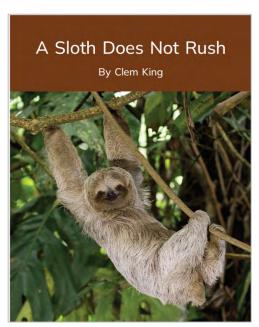
## Reading at home

Consumable myBooks can be sent home once they have been completed in school. Further, students can share their work digitally at home, including their myBook notes and responses as well as the digital texts appropriate to their specific reading level.



myBook, HMH Into Reading Grade 3

Teachers can also print HMH Readers and HMH Into Reading decodable books and other text to be sent home with students, allowing students to practice through shared and independent reading at home to further build their skills and to engage their parents and caregivers in the topics they are discussing and writing about in school.



HMH Decodable book, HMH Into Reading Grade 2

## Family Room on HMH Ed

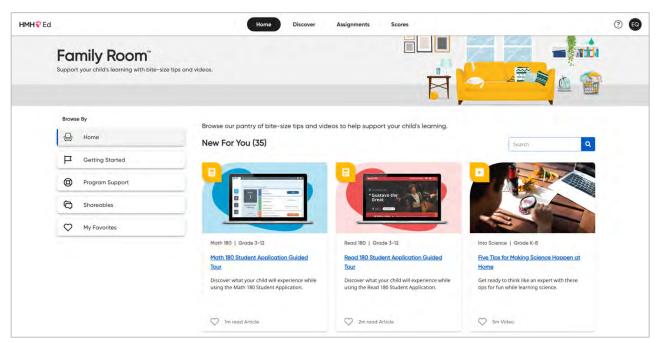
Parents and caregivers can access Family Room on HMH Ed through their student's HMH Into Reading login, including resources in English or Spanish, such as:

- Student Curriculum access to their child's HMH Into Reading assignments and online learning sessions.
- Shareables on-demand, bite-size articles. videos, and tips for caregivers, including resources such as "Getting to Know Your HMH Into Reading Resources" and "The Power of Talk in HMH Into Reading", and quick and friendly tips to manage your child's engagement, instruction, and development.
- Getting Started tips for parents on how to navigate the HMH Ed learning platform and questions to ask their children.
- Program Support learn about their child's instructional programs and how they can help.

## Share student progress

During family conferences, teachers can:

- Share the student's reading, writing, and other learning goals.
- Focus on the child's particular strengths and progress since the last meeting.
- Review the child's portfolio to look at samples of his or her classwork that show growth.
- Share student assessment reports and discuss student's progress and strategies for working together. (See the following chapter for additional details related to HMH Into Reading assessment and program performance reports.



Family Room on HMH Ed

# HMH Into Reading's assessment design

HMH Into Reading provides ongoing balanced assessment and integrated, actionable reporting and harnesses digital technologies to empower teachers with data-driven decision making and tools for effective instructional planning. Teachers know that their students differ in many ways—interests, personalities, and levels of accomplishment. They also know that they can be most effective if they are able to provide instruction that recognizes and accommodates these differences. A comprehensive assessment system of and for instruction helps teachers achieve this goal; such a system consists of multiple main types of assessments, which serve different purposes throughout the year and elicit reliable, actionable data measuring students' progress in specific skill areas (Black & William, 1998; Black et al., 2004; Jimenez & Modaffari, 2021; Klingner et al., 2015; Lee et al., 2020; Moats, 2020a; Moss & Brookhart, 2019).

By measuring the key essential skills, assessment data can help teachers improve student achievement by providing a detailed description of each student's progress, as well as an aggregate portrait of how a class or grade has progressed. Thoughtful use of formative, summative and screening assessment data ensures that all students receive instruction that meets these criteria (Pane et al., 2015):

- Instruction is appropriate for students' levels of development and needs.
- Instruction is efficient and seamless.
- Instruction provides students the time they need to master the skills and strategies that are taught.
- Instruction is sequenced flexibly, accommodates individual progress, and answers the critical question of "what next?

Further, in addition to planning instruction and independent practice activities, teachers must help students understand that they themselves have the capacity to become successful readers and writers (Sisk et al., 2018), that is, to draw on their knowledge of language and the world around them to bring meaning to print. Not only does assessment data inform teachers of the knowledge and skills that students have acquired and their level of mastery, but the practice of consistently taking low-stakes performance assessments, coupled with high expectations, and meaningful feedback help all students become assessment-capable learners (Frey et al., 2018).

Assessing students' skills and knowledge and interpreting the results is not easy. It requires significant knowledge of the domain and the processes behind learning. Fortunately, HMH Into Reading can alleviate some of this burden from teachers—where assessment is tied directly to instruction and data insights and resources are readily available.

In this chapter we synthesize the research on assessment design, including assessment of and for learning and data-driven instruction, and describe how HMH Into Reading aligns to the research to foster student growth.

## Assessment of and for learning

Teachers are always assessing their students' progress – their observations of students working in groups or on their own and their analysis and use of what they see constitutes one form of assessment. However, to maximize their students' learning, teachers need additional sources of data about how their students are progressing (Al Otaiba et al., 2011, 2014; Jimenez & Modaffari, 2021; Shepard et al., 2005). The right kinds of data inform teachers about the instruction that will most benefit their students; identify students who may need additional, out-of classroom help; and give thoughtful teachers feedback on how they are doing in meeting students' needs (Hattie, 2023; Hattie & Clarke, 2018; Lee et al., 2020; Moss & Brookhart, 2019; Wiliam & Thompson, 2017). There are many available assessments that can help teachers measure reading achievement, as well as guide instruction. It is recommended that teachers use various types of assessments, as each provides a unique view of your students (Hougen & Smartt, 2012). Below we review three types of assessment: screeners, summative, and formative.

## Screening assessments

There is wide consensus about the importance of screening tests as students enter school and at the beginning and middle of Kindergarten to Grade 2 (Fletcher et al., 2018; Gersten et al., 2008; IDA, 2018; Vargas et al., 2021). Early and frequent screening, using instruments that are efficient, reliable, and valid can provide early warnings of students who might be at risk for reading difficulties, learning disabilities, or dyslexia (Spear-Swerling, 2018; Washington et al., 2010). Although schools should use the highest-quality screening tools available, screening tools can be imperfect; anyone interpreting the results needs to be sensitive to cultural and language differences or situational

apprehension that may be reflected in students' scores (Abedi, 2013; Gersten et al., 2008; Jimenez & Modaffari, 2021; Keary & Kirkby, 2017). Administration of the screening test again, at least at mid-year, helps schools track students' progress, adjust instruction as needed, and provide additional services to prevent later problems.

#### Summative assessments

Used less frequently, often used at the end point in a learning continuum, such as the end of a lesson, unit, or school year; summative assessments measure what students have learned overall. Summative assessments are often administered at multiple times throughout the year, and can be used to measure student progress toward proficiency on end-of-year learning goals. Because these assessments are typically longer and formally scored, they offer teachers quantitative information and a greater level of reliability. Even though they may be used less frequently, they can still offer valuable insights into making instructional decisions.

#### Formative assessments

Formative reading assessments are considered the most informal type of assessment. In fact, if done well, most students do not even realize they are being assessed. Formative assessment is often characterized as the assessment for learning as opposed to an assessment of learning because of its intimate association with instruction. The focus here is on capturing student understanding often (daily) and in real time so misconceptions can be uncovered and corrective solutions can be brought to bear in a timely manner.

Formative reading assessments are often embedded in reading instruction and can take on many forms, such as encouraging students to

retell what they read, engaging in discussions about the text, responding verbally or in writing to text-specific prompts, or completing short multiple-choice quizzes related to the assigned reading. Although these assessments do not cover significant areas of the curriculum on any given day and are not typically subject to formal scoring and reliability metrics often attributed to more formal assessments, they are invaluable for fostering learning in the classroom.

## The Right Assessment at the **Right Time**

When an instructional program is constructed with assessment in mind, the tasks can be embedded into the lesson allowing for a greater contextualized experience. HMH Into Reading provides a variety of curriculum-embedded assessment opportunities that are formative, summative, and performance-based. Longerterm collaborative assessments, such as research projects, may also be used to build upon and synthesize previously learned skills.

Teachers are afforded the flexibility to incorporate these assessments into their instruction or modify based on their needs.

When afforded a greater variety of assessment options an additional challenge becomes choosing the right assessment at the right time. Since no single assessment can provide us all the answers and different assessments have different purposes, it is best to view student performance across a portfolio of assessment opportunities and modalities, keeping these five considerations in mind:

- What do I need to do?
- What skills am I trying to assess?
- When and how often can I administer it?
- How much time do I have?
- What information will the assessment provide me or my student?

HMH assessment solutions provide time-saving tools to help teachers observe, measure, and understand where their students are at different points throughout the school year. HMH reporting tools on Ed connect benchmark assessment data with HMH Into Reading program assessment data to form a complete picture of students' proficiency. Assessment data and reporting on Ed provide actionable insights to target instruction and boost students' growth.

#### HMH Into Reading assessments & progress monitoring tools

HMH Into Reading features numerous assessments including weekly assessments, module assessments, HMH Reader quizzes, performance tasks, and teacher observation tools. Ongoing formative assessment quides daily instruction while performance-based assessments demonstrate student progress toward mastery of module skills and standards.

- **NWEA MAP® Growth™ Reading:** Available for purchase with HMH Into Reading, MAP Growth Reading is an adaptive, research-based interim assessment that measures student achievement and growth in foundational skills for emerging readers, as well as reading comprehension and vocabulary skills for independent readers in Grades K-12, up to four times a year. Beginning in Fall 2025, schools that have purchased HMH Into Reading and MAP Growth Reading, and use the HMH Rostering Service for both, can view key MAP Growth Report data in the Growth Report on HMH Ed.
- Selections Quizzes: Assess comprehension of the myBook text selections (assessment is available online or as an editable file).
- Weekly & module assessments: Weekly assessments can be used to measure students' understanding of the key Reading, Writing, and Foundational Skills covered during each week of instruction. Module assessments measure students' understanding of module content in the critical skills covered in this module (e.g., foundational skills, generative vocabulary, vocabulary strategies, comprehension/literary analysis, grammar, writing). For Grades 3–6, the Knowledge Building module assessments (available in English and Spanish) can be used to

- understand student's knowledge-building progress at the end of each module and to see students' ability to synthesize knowledge across module texts and to craft a response (weekly and module assessments are available online or as editable files).
- Performance-based assessments: Students synthesize what they have learned from the module's text set and demonstrate their topic knowledge by completing one of the module's culminating activities. An optional written Performance Task is also provided at the end of each module in the Teacher's Guide.
- Writing assessments: Throughout the course of the module, students work through the stages of the writing process as part of their writing instruction. Students' writing can be evaluated according to the rubric provided for the module's writing form in the Teacher Resource Book.
- Other ongoing formative assessment tools: Comprehension Quizzes, 1:1 Observation Record, Daily Lesson Checks, and Correct & Redirect Opportunities in the Teacher's Guide.

#### Screening, diagnostic, & progress monitoring assessments

As needed, teachers can administer screening, diagnostic, and progress monitoring assessment to identify students at risk, and to obtain detailed information to inform skills-based flexible groups and targeted instruction. Assessments include:

- **MAP**® **Reading Fluency**™: Available for purchase with HMH Into Reading, MAP Reading Fluency allows teachers to quickly assess Grades preK-5 students foundational skills, oral reading fluency, and literal comprehension. The computer adaptive assessment can be used for universal screening, as well as progress monitoring for students at risk of developing reading difficulties, including older students still working on essential literacy skills. The assessment includes Dyslexia screening tests for Grade K-3 students.
- Foundational Literacy Inventory: Track basic early literacy skills in grades K-6, including alphabet knowledge, phonological awareness, phonics, word study, and oral reading fluency. The assessment can illuminate beginning-of-year skill gaps; show where interventions are needed, and can identify which skills to target; and can be used to monitor the progress of students receiving interventions (assessment is administered via Printable PDF, and is available in Spanish)
- Qualitative Spelling Inventory: Identify grades 1-6 students' spelling grade level; identify students who are on, above, and below grade level expectations; provide details about specific phonics and spelling principles a student has mastered so far and what instruction should come next; and help determine how to group students for spelling instruction (assessment is administered via Printable PDF).

- Oral Reading Fluency assessment: Oral Reading Fluency (ORF) assessments measure students' oral reading skills, including fluency, accuracy, and rate. In addition, by using specific grade-level targeted vocabulary the ORF assessments provide important insights about the student's decoding strategies. Teachers can use the ORF assessments at the beginning of the school year to obtain, preliminary information about students' performance' and to determine flexible groups for foundational skills instruction ORF assessments are also available for each module. Used in combination with other observations, teachers can determine whether students would benefit for supplemental instruction, intervention instruction, or if additional diagnostic testing is needed.
- **Oral Reading Progress Monitoring assessments:** Three to five-minute oral reading assessments can be administered to students approximately every two weeks to: measure growth in reading skills; identify challenging areas for reteaching, review, and extra practice; provide checks on students beginning reading skills; monitor progress of students who are receiving intervention; and to help determine when students are ready to exit intervention.

## **Data-driven instruction**

Assessment and data are essential components of effective instruction. Diagnostic teaching entails continuously assessing students' progress, both informally (for example, through observation of students working alone and also in groups) and formally (for example, with standardized measures) and adjusting their instruction to meet the needs of the students. Teachers who want to maximize their students' learning need additional sources of data about how their students are doing (Al Otaiba et al., 2011; Jimenez & Modaffari, 2021; Nation, 2019; William & Thompson, 2017). The right kinds of data inform teachers about the instruction that will most benefit their students. identify students who may need additional out-ofclassroom help, and give thoughtful teachers feedback on how they are doing in meeting students' needs.

Data are essential for planning instructional groups for the literacy block: Who should be included in the groups and what should the groups be taught and asked to do? Are students ready for new concepts and skills or should teachers reteach students to ensure learning? Data help teachers differentiate instruction according to their students' learning. According to the National Reading Panel (NICHD, 2000, p. 2), students learn best in carefully constituted small groups, even more so than if taught one-on-one. Grouping should be a dynamic, flexible practice, with instruction determined by student need and students' entry into and exit from specific groups determined by their progress. Thus, teachers can provide immediate focused instruction for students who seem to be experiencing difficulty or at risk for failure as part of their regular Tier 1 literacy block, potentially forestalling assignment to Tier 2 or 3 intervention. Formative diagnostic assessment data can also identify those students who would most benefit from specialized Tier 2 or 3 interventions (Al Otaiba et al., 2014; Fien et al., 2015: Gersten et al., 2008).

Teachers seeking to provide data-informed instruction rely specifically on two types of formative assessment:

- (1) Formative benchmark assessments compare students' progress so far against a determined set of standards (e.g., a scope and sequence) to help teachers track students' trajectory toward established long-term goals.
- (2) Formative diagnostic assessments provide data on students' learning accomplishments (e.g., can answer literal questions about what has been read) and areas that are not as well developed (e.g., has difficulties drawing simple inferences from text).

Formative diagnostic assessments are extremely valuable part of the teaching process, as they provide teachers with actionable information about their students' learning by offering insight into students' skill gaps, as well as their understandings and misconceptions. A wealth of studies indicates that regular use of ongoing, flexible, integrated, and varied formative assessment to collect evidence of student thinking and monitor student progress can mitigate and prevent reading and language weaknesses and improve student learning outcomes across diverse groups (Abedi, 2013; Afflerbach, 2012; Alvarez et al., 2014; Fisher et al., 2016; Hattie, 2012, 2023; Heritage, 2013; Klingner et al., 2015; Lee et al., 2020; Moss & Brookhart, 2019; Nation, 2019; Vargas et al., 2021).

Carlson and colleagues (2011) found evidence that, when implemented validly and reliably at scale, data-driven reform efforts can result in substantively and statistically significant improvements in achievement outcomes.

Assessing reading does not have to be a one and done process where the assessment experience

seems external to the instructional environment. Assessment can and should take many forms in order to provide unique insights into each students' strengths and areas for growth. For students with disabilities, it is particularly

important to use assessment data to monitor progress to determine ongoing instructional and interventional needs (Fletcher et al., 2018; IDA, 2018; National Joint Committee on Learning Disabilities, 2008; Wanzek et al., 2016).

HMH Into Reading is built on the promise of student outcomes. It includes meaningful data insights to help teachers determine daily skills focus for lessons and small-group needs. HMH Ed Reports offer dynamic goal setting and data that supports tracking progress. HMH assessment solutions save time by automatically grading online assessments and provided insights through HMH Ed. This data helps teachers track student's progress, identify gaps, and target instruction. HMH Ed also enables flexible grouping based on assessment results, supporting student's learning goals, mastery, and growth throughout the school year.

## Teacher reports and grouping recommendations

HMH actionable reports drive grouping, reading, and instructional recommendations appropriate for each learner. For example, HMH Into Reading reports display student proficiency and growth, allowing teachers to see the gaps and gains of his or her class—and each individual learner—at any moment throughout the school year, based on activities associated with lessons (or modules) and interim assessments, including:

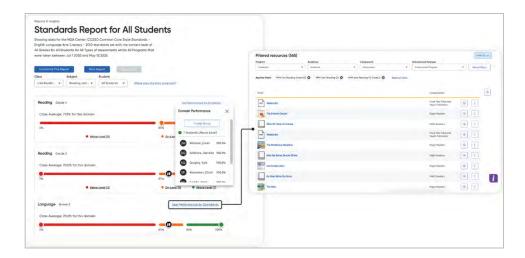
Assessment Report provides the overall class performance on all HMH Into Reading program assessments, as well as individual student performance. The report can be filtered by data and assessment type.



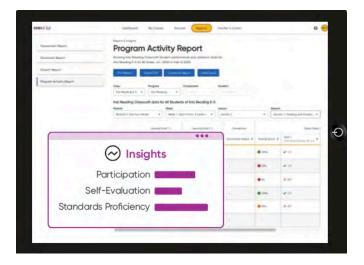
Standards Report displays the standards performance for the class across the three performance levels; individual student standards performance; and performance on HMH Into Reading program assessments. In addition, the Standards Report automatically recommends student groups based upon students' assessment results, and provides HMH Into Reading standard-aligned lessons, assignments, and resources for scaffolded support.

HMH Into Reading grouping and resource recommendations provides grouping recommendations based on data, allowing teachers to quickly group students for differentiated and target instruction to meet their needs and maximize learning outcomes. HMH Ed allows teachers to manage flexible groups for small group instruction, skills reinforcement, and language development. The HMH Into Reading Standards

Report provides automictic grouping recommendations, and HMH Into Reading standard-aligned lessons, assignments, and resources for scaffolded support to target students' individual learning needs.



Classcraft Program Activity Report: provides quick access to key data from HMH Into Reading whole class sessions. The report provides insights on student engagement during whole-class instruction, student performance on formative assessments, student confidence levels on learning goals, and growth over time.



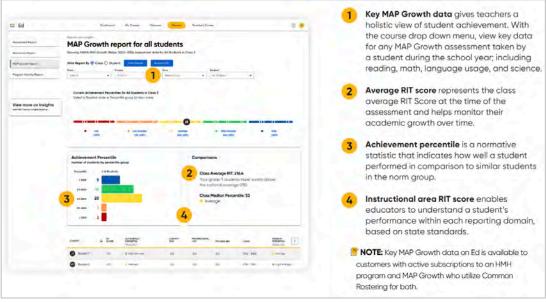
HMH Into Reading also includes a number of district leader reports to support implementation and to monitor student growth. For example, the Standards Report illustrates student performance on statealigned standards using data from in-program assessments; the Assessment Report illustrates student performance on in-program assessments, including item-level analysis; the Pathways Report allows leader to review the utilization of HMH program-based professional learning resource, including participation in the Teacher Success Pathways and their teacher-coach engagement, as well as the District Data Export provides information on student and teacher usage and login frequency.

## **NWEA MAP Reports**

Schools that have purchased NWEA MAP Growth Reading or NWEA MAP Reading Fluency have access to a number of additional reports:

NWEA MAP Growth Leader Reports provides a comprehensive suite of district and school reporting metrics, that can be used to drive planning for school success, including the District Profile Report (providing a holistic view of academic performance and growth across the district, schools, grade-levels and students subgroups); the School Profile Report (providing trends across grades and subjects), the Class Profile Report and the Student Profile Reports (described above).

MAP Growth Reports provide a holistic view of student growth and achievement through key MAP Growth data. For example, the Student Profile report details each student's growth and achievement at the time of assessment and over time, including a growth and achievement percentile (e.g., a normative statistic that indicates how well the student performed in comparison to similar students in the norm group), as well as the student's instructional area RIT score, which enables educators to understand a student's performance within each reporting domain, based on state standards-aligned content, at the time of assessment and over time. In addition, the report includes the student's projected proficiency for state-summative and college- and career-readiness tests (ACT/SAT). The Class Profile report provides classroom and individual achievement results, and can be used to uncover classroom achievement trends, and can be used as a planning tool for creating flexible groups.



NWEA MAP Growth Data on HMH Ed

NWEA MAP Reading Fluency Reports provide students' performance compared to grade-level expectations, and provide suggestions for instructional next steps tailored to each student. Reports offer recommendations for grouping students, differentiating instruction, and informing program-level decisions. In addition, benchmark assessments for Spanish speakers, include insight reports and recommendations for next steps aligned to how students learn to read in Spanish.

# HMH Into Reading's Professional Learning

To support the delivery of effective instruction, HMH Into Reading features research-based approaches to professional learning that prepares teachers to facilitate high-impact learning experiences for their students. Comprehensive professional learning solutions are data and evidence driven, mapped to instructional goals, and centered on students—and they build educators' collective capacity. HMH enables teachers to achieve agency in their professional growth through effective instructional strategies, embedded teacher support, and ongoing professional learning relevant to everyday teaching. In this chapter we synthesize the research on personalized and program-aligned professional learning, and the power of coaching and described how HMH Professional Learning strengthens teaching and learning by bolstering teachers' individual expertise and collective efficacy, demonstrating the significant impact of Into Reading teachers.

## Personalized

Effective curriculum-based professional learning consists of ongoing, active experiences that focus on improving the rigor and impact of instructional practices and ideally replicate the learner-centered approaches that teachers are expected to provide for their students. Elements of effective curriculum-based professional learning include high-quality educative curriculum materials, transformative learning experiences that shift teachers' attitudes, beliefs, and practices, and a prioritization of equity to ensure all students meet high expectations. Functional design elements include learning designs that model inquiry-based instruction, experiences to shift teachers' beliefs, opportunities for reflection and feedback, and change management strategies that address individual concerns and group challenges. Finally, structural design features include collective participation in which teachers practice and reflect on the curriculum, models of learning that evolve from initial use to ongoing support to building capacity, and effective use of teachers' time. These elements of effective curriculumbased professional learning must exist in a system with strong leadership, adequate resources, and coherence towards common goals (Short & Hirsh, 2020).

How professional learning is delivered has an impact on its effectiveness. Professional learning programs with teacher-to-teacher collaboration focused on instructional improvement – whether in professional learning communities (PLCs), teacher teams, or group work in professional learning sessions - have demonstrated improvement in teachers' instructional skills. Another effective practice is conducting followup meetings or coaching sessions after the initial implementation of a program so that teachers can share their experiences and receive feedback. The content of the professional learning is equally important. It should focus on

subject-specific instructional practices (not merely content knowledge), prioritize specific supportive materials over general principles, and help teachers build stronger relationships with students (Hill & Papay, 2022).

Long-term connected professional learning includes cohesive features—online coaching, observations, and collaboration—all with a focus on how to ensure student well-being and meaningful student learning in digital environments. A connection between workshops, coaching, and collaboration is essential for a professional learning program to make a difference in student achievement. Connecting workshops, follow-up coaching, and support among peers can help teachers retain new knowledge, apply and refine new skills, and share effective approaches that they can scale (Aguilar, 2019).

Effective professional learning, whether inperson, online, or blended, offers teachers coherent experiences so that their learning is connected to their work in the classroom and builds proficiency. This approach includes alignment between the study of theory and practice, observation of theory and practice, individual coaching, and further practice and refinement through collaboration. Each of these components is essential to support and build on the content and pedagogy that is learned, observed, and practiced in each of the other components (Rock, 2019).

For schools to support the implementation of high-quality instructional materials, effective professional learning during the launch of the curriculum, when teachers are learning and committing to an instructional approach, is critical (Gulamhussein, 2013). Teachers' initial exposure to a concept should engage them through varied approaches and active learning strategies to make sense of the new practice (Bill & Melinda Gates Foundation, 2014; Garet et al., 2001; Gulamhussein, 2013). An effective professional learning program should be curriculum-based and focused on targeted content, strategies, and practices (Bill & Melinda Gates Foundation; 2014; Saxe et al., 2001; Wei, 2009) and be grounded in the teacher's grade level or discipline (Gulamhussein, 2013).

Online professional learning can help solve resource challenges in implementing a scalable and sustainable model. Online professional learning platforms can create a peer-to-peer support community, building the capacity of the teaching team to support each other. Perhaps most importantly, online professional learning allows teachers to experience the agency and personalized learning they are creating for students. The unique opportunity of blended professional learning is the shift from learning as a one-time or periodic event to learning as an ongoing and embedded practice (Tucker & Wycoff, 2019).

Many school districts and providers of teachers' professional learning are moving toward a more personalized model of professional learning, taking a cue from the movement toward personalized learning for students. This

approach often focuses on short modules, which teachers can choose and then complete on their own time. The modules can incorporate aspects of gamification, micro-credentialing, and online professional learning communities. By allowing teachers to choose their own professional learning courses and activities, and complete and review content in their own place at their own pace, the learning will be better matched to their needs. Teachers will be able to set goals, find resources to help them meet those goals, refresh their learning, track their progress, and get feedback from supervisors and colleagues (Gamrat et al., 2014; Meeuwse & Mason, 2018).

Providing teachers with time and frameworks to collaborate on improving their instruction, through Professional Learning Communities (PLCs) or Teacher Study Groups (TSGs), has the potential to improve teachers' knowledge, instructional practices, and student achievement. A study of TSGs focused on reading comprehension and vocabulary instruction found that teachers who participated in TSGs saw significant improvements in their knowledge of vocabulary instruction and their teaching practices. Students of the TSG teachers also saw improvements in oral vocabulary (Gersten et. al., 2010).

## HMH Into Reading implementation support

HMH Into Reading provides a continuum of connected professional learning designed to foster teacher agency, promote collaboration, and build collective efficacy and capacity to support teachers' role as both facilitators and implementors of high-quality instruction. Through strategic planning, guided implementation support, and blended coaching. HMH helps schools and districts achieve measurable gains with professional learning centered on research-based practices and student outcomes.

Guided Implementation Support for HMH Into Reading assists educators in building confidence and success with their HMH Into Reading program. A Getting Started session provides teachers with learnercentered foundational program knowledge through exploration and hands-on activities. It is the first step toward a successful implementation. In addition, a Leader Success session is included to provide school building and district leaders with essential program details and resources to support successful implementation.

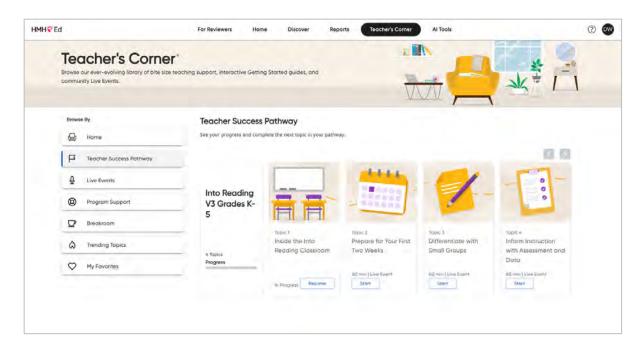
#### **Teacher Success Pathways**

Ongoing training and support resources are also provided through their HMH Into Reading Teacher Success Pathways on HMH Ed, HMH's learning platform. There, teachers access a guided learning pathway focused on the first 30-60 days of instruction. A recommended sequence of topics, which includes live events, videos, interactive media, and related resources, helps teachers plan, teach, and assess student learning using their new HMH program. The pathways allow teachers to personalize their learning by selecting the mode of learning (live event or on demand) to meet their needs. In addition, teachers have control over how much time they spend reviewing resources.

#### Teacher's Corner

HMH provide a personalized model for professional learning, engaging teachers throughout the school year via Teacher's Corner on HMH Ed.





Teachers have access to a searchable library that includes classroom videos, tips from other teachers, teacher-to-teacher collaboration through live events, and additional content and support from HMH's experienced instructional coaches. Teacher's Corner includes the following:

- Live events promote learning from HMH coaches, thought leaders, and HMH Into Reading educators in live online sessions with active participation and feedback.
- Program support provides on-demand teaching resources and professional learning tools, including model lesson videos, teacher tips, interactive support, and more.
- The Breakroom inspires educators with ideas from other educators, new lesson resources, and reflection opportunities.
- Additional resources to support the successful implementation of HMH Into Reading, including support for leaders and families. Leader's Corner, available to district and site-based leaders through their HMH Ed login, offers leader access to program support and resources to assist teachers with program implementation. Family Room, available to families through their student's HMH Into Reading login on HMH Ed, provides a dedicated space with personalized, easily accessible, and on-demand resources to support family engagement and learning at home.

## **Program-aligned**

Grounded in research principles of effective professional learning, HMH program-aligned courses provide flexible, continuous, and relevant learning for teacher groups and professional learning communities (PLCs). Through a blend of in-person and online group sessions that may be scheduled anytime, HMH courses provide educators with deep learning tying theory to practice, proven to generate sustained impact (Tucker & Wycoff, 2019). HMH courses are designed to unpack the program's research, helping educators understand the why behind the program's evidence-based instructional approach and content.

Educators benefit from opportunities to continuously review their learning, practice implementing strategies in the classroom, and exchange feedback with their PLC throughout the academic year. Engaging in follow up online study groups to collaboratively practice and reflect on learnings after each course session ensures that educators' growth is reinforced by practice and sustained over time (Aguilar, 2019).

Additionally, HMH courses do not simply relay general subject-knowledge to educators. HMH course offerings provide educators implementing HMH Into Reading access to personalized content that leverages program resources, activities, and instructional strategies, illustrating the connection with research-based practices and instructional principals. This focus on program-aligned, efficacy driven content ensures that professional learning is relevant to educators and immediately applicable to their classroom practices (Hill & Papay, 2022).

## HMH program-aligned courses

The HMH program-aligned course is comprised of three topical in-person learning sessions followed by six online study groups. To deepen teacher expertise in both program and instructional practices, courses offer focused guidance on HMH Into Reading resources, cutting-edge literacy research, and best pedagogical practices. In a six-hour in-person course day, an HMH instructional coach supports up to two teacher groups of 35 participants in three hours of topical learning followed by guided planning time.

In-person days are then followed by one-hour online study groups, where teachers will have the opportunity to ask questions, reflect on the application of new learning, and refine their classroom instruction for lasting student impact.

#### HMH Into Reading aligned course title include:

- **Building Literacy and Foundational Skills with HMH Into Reading.** In this course teachers will take the Science of Reading pedagogy from concept to classroom by connecting Science of Reading concepts to the HMH Into Reading program through engaging in-person learning and online study groups.
- Growing Writers with HMH Into Reading. In this course teachers will take evidenced-based pedagogy from concept to classroom by connecting high-impact writing strategies to the HMH Into Reading program through engaging inperson learning and online study groups.

## Program-aligned courses

Bring instructional coaching to your ELA PLCs with program-aligned courses that connect research-backed strategies to HMH programs.

#### Building Literacy and Foundational Skills with HMH Into Reading



Teaching Phonemic Awareness and Fluency



Deepening Knowledge, Vocabulary, and Language Skills



Developing Reading Comprehension

#### **Growing Writers with HMH Into Reading**



Reading to Teach Purposeful Writing



Launching, Pre-Writing, and Drafting with the Focal Text



Revising and Editing to Create a Published Piece

Alternate Session: Scribbles to Stories: Supporting Kindergarten Writers

## Powered by coaching

Research has demonstrated that sustained, jobembedded coaching is the most effective form of professional learning, whether it is delivered in person or online. Coaching delivered in person is most effective when coaches are highly expert and focus their work with teachers on a clearly specified instructional model or program. Other opportunities for teachers to develop their knowledge of the targeted instructional model (e.g. in courses, workshops or coach-led learning groups) are also an important component of successful coaching programs. Online coaching shows promise for being at least as effective as in-person coaching for improving outcomes, though the research base comparing delivery systems is thin. The balance of evidence to date, however, suggests that the medium through which coaching is delivered is less important than the quality and substance of the learning opportunities provided to teachers (Matsumara et al, 2019).

A recent meta-analysis of coaching programs found overall effect sizes of 0.49 SD on instructional practices and 0.18 SD on student achievement. Encouragingly, teachers who received online coaching performed similarly to teachers who received in-person coaching for improving both instructional practices and student achievement. The authors identified several aspects of online coaching as potential strengths: increasing the number of teachers

with whom a high-quality coach can work, reducing educators' concern about being evaluated by their coach, and lowering costs while increasing scalability (Kraft, Blazar, & Hogan, 2018).

The best evidence for coaching is found for oneto-one coaching, where coaches observe and offer feedback on teachers' practice. There is not a great deal of research on specific coaching practices, but effective coaches might engage in co-planning, modeling, or guiding teacher reflection. Effective coaching is time-intensive and the most successful programs have invested in the selection, training, and ongoing support of their coaches (Hill & Papay, 2022).

Online coaching can provide a framework for a shared leadership structure that focuses on facilitating teachers' autonomy, selfmanagement, empowerment, and cooperation. Because the coach and the teacher jointly pursue the goal of increased student achievement, virtual coaching provides social support for both parties, leading to enhanced well-being. Any coaching relationship traditional or virtual—builds on several underlying qualities of both teacher and coach. Chief among them are a willingness to change, a trusting relationship, a high level of initiative, and a personal and organizational commitment to the workplace (Blackman, 2010).

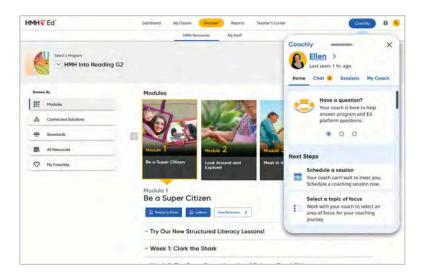
## **HMH Coaching**

HMH Coaching is grounded in a research-based coaching framework that leverages instructional best practices proven to impact student success. It offers sustained data-driven, and personalized support aligned to each teacher's individual learning goals. Available through unlimited one-on-one virtual coaching sessions and in-person coaching days, HMH Coaching supports every teacher to elevate instructional practice, meet district goals, and raise student achievement. HMH Coaching provides teachers with the agency and insights to connect their own growth to student outcomes.



## **HMH Coachly**

HMH Coachly is a yearlong digital coaching subscription that gives teachers unlimited access to a dedicated HMH coach. Teachers are matched with a highly experienced instructional coach, who will guide them through high-impact coaching topics such as implementing instructional best practices with HMH Into Reading, addressing classroom challenges, and goal setting and tracking. Once logged onto HMH Ed, teachers will be able to schedule unlimited 1-on-1 virtual Coaching sessions, message their coach, and receive timely feedback in a single-platform experience. For additional support, Coachly licenses can be paired with in-person group Coaching days.



## Evidence-based coaching framework

HMH's proven framework is designed to promote a unified teaching culture and a shared approach to setting, measuring, and achieving professional goals.

#### The Coachly topic journey

Preview the journey a teacher and coach follow through a focus via Coachly.



#### **Explore relevant coaching topics**

Topics within the HMH Coaching Framework are centered around high-impact teaching strategies for each grade level and subject.



#### Instructional focus topics

- Learning dispositions and behaviors
- · Discourse and questioning
- Planning and pacing
- · Differentiation and small-group instruction
- Assessment and progress monitoring



#### K-6 literacy content topics

- · Building foundational skills
- · Building knowledge, language, and vocabulary
- · Building skilled readers
- · Building skilled writers

## Conclusion

## HMH Into Reading - Into a world of learning

Reading is the gateway to all learning. Children need to read and write with confidence and competency to learn about themselves and the world. Literacy impacts learning in all content areas, preparing children to do well in school and in life. The Science of Reading and the Structured Literacy approach offer research- and evidence-based instructional methods that guide teachers in implementing literacy programs and strategies to help students become proficient readers and writers. With the partnership of families to further support student learning, we can ensure students will not only learn about the world but will also make the world better.

HMH Into Reading puts students at the center of an inclusive and responsive learning ecosystem designed to support their literacy and language growth. In addition to the unique and critical role of teachers, HMH Into Reading supports the important contributions of families and school leaders. Indeed, it will take all of us to ensure that all students learn to read effectively and fluently and, just as important, that all students love to read and write enthusiastically and joyfully.

# References

- Abedi, J. (2013). Testing of English language learner students. In K. F. Geisinger, B. A. Bracken, J. F. Carlson, J.-I. C. Hansen, N. R. Kuncel, S. P. Reise, & M. C. Rodriguez (Eds.), APA handbook of testing and assessment in psychology, Vol. 3. Testing and assessment in school psychology and education (pp. 355-368). American Psychological Association. https://doi.org/10.1037/14049-017
- Adams, M. J. (1990). Beginning to read: Thinking and learning about print. MIT Press.
- Adams, M. J. (2001). Alphabetic anxiety and explicit, systematic phonics instruction: A cognitive science perspective. In S. B. Neuman & D. K. Dickinson (Eds.), Handbook of early literacy research (pp. 66-80). Guilford Press.
- Adams, M. J. (2009). Decodable text: Why, when, how? In E. H. Hiebert & M. Sailors (Eds.), Finding the right texts (pp. 23-46). Guilford Press.
- Adams, M. J. (2010/2011, Winter). Advancing our students' language and literacy: The challenge of complex texts. The American Educator, 34(4), 3-11, 53.
- Adams, M. J. (2011). The relation between alphabetic basics, word recognition, and reading. In S. J. Samuels & A. E. Farstrup (Eds.), What research has to say about reading instruction (pp. 4–24). International Reading Association.
- Adams, M. (2015). Preface: Knowledge for literacy. Literacy ladders (pp. 4-10). Albert Shanker Institute, American Federation of Teachers, & Core Knowledge Foundation. https://www.shankerinstitute.org/resource/literacyladders
- Afflerbach, P. (2012). Understanding and using reading assessment, K-12 (2nd ed.). International Reading Association.

- Afflerbach, P. A. (2016). Handbook of individual differences in reading: Reader, text, and context. Routledge.
- Agarwal, P. K., & Bain, P. M. (2019). Powerful teaching: Unleash the science of learning. John Wiley & Sons.
- Aguilar, E. (2019). You can't have a coaching culture without a structure. Educational Leadership: A Culture of Coaching, 77(3), 22-28.
- Alexander, F. (2021, October 4). Structuring the literacy block. Shaped HMH blog. https://www.hmhco.com/blog/90-minute-literacyblock-schedule
- Allington, R. L., & McGill-Franzen, A. M. (2021). Reading volume and reading achievement: A review of recent research [Special issue]. Reading Research Quarterly, 56, S231-S238. https://doi.org/10.1002/rrq.404
- Allington, R. L., McGill-Franzen, A., Camilli, G., Williams, L., Graff, J., Zeig, J., Zmach, C., & Nowak, R. (2010). Addressing summer reading setback among economically disadvantaged elementary students. Reading Psychology, 31(5), 411-427. https://doi.org/10.1080/02702711.2010.505165
- Al Otaiba, S., Allor, J. H., Baker, K., Conner, C., Stewart, J., & Mellado de la Cruz, V. M. (2019). Teaching phonemic awareness and word reading skills: Focusing on explicit and systematic approaches. Perspectives on Language and Literacy, 45, 11–16.
- Al Otaiba, S., Connor, C. M., Foorman, B., Schatsneider, C., Greulich, L., & Sider, J. F. (2009). Identifying and intervening with beginning readers who are at-risk for dyslexia: Advances in individualized classroom instruction. Perspectives on Language and Literacy, Fall, 13–19.
- Al Otaiba, S., Connor, C. M., Folsom, J. S., Greulich, J., Meadows, J., & Zhi, L. (2011). Assessment data-Informed guidance to individualize kindergarten

- reading instruction: Findings from a clusterrandomized control field trial. The Elementary School Journal, 111(4): 535-560.
- Al Otaiba, S., Connor, C. M., Folsom, J. S., Wanzek, J., Greulichs, L., Schnatschneider, C., & Wagner, R. K. (2014). To wait in Tier 1 or intervene immediately: A randomized experiment examining first- grade responses to intervention in reading. Exceptional Children, 81(1), 11-27.
- Al Otaiba, S., McMaster, K., Wanzek, J., & Zaru, M. W. (2023). What we know and need to know about literacy interventions for elementary students with reading difficulties and disabilities, including dyslexia. Reading Research Quarterly, 58(2), 313-332.
- Alverez, L., Anada, S., Walqui, A., Sato, E., Rabinowitz, S. N. (2014). Focusing formative assessment on the needs of English language learners. WestEd.
- Ambrose, S. A., Bridges, M. W., DiPietro, M., Lovett, M. C., & Norman, M. K. (2010). How learning works: Seven research-based principles for smart teaching. Jossey-Bass.
- American Institutes for Research (2023). Essential features of Tier 1. AIR Center on Multi-Tiered System of Supports. https://mtss4success.org/sites/default/files/2023-07/tier\_1\_infographic.pdf
- Anderson, R. C., Wilson, P. T., & Fielding, L. G. (1988). Growth in reading and how children spend their time outside of school. Reading Research Quarterly, 285-303.
- Anthony, E. (2019). (Blended) learning: How traditional best teaching practices impact blended elementary classrooms. Journal of Online Learning Research, 5(1), 25-48.
- Apthorp, H., Randel, B., Cherasaro, T., Clark, T., McKeown, M., & Beck, I. (2012). Effects of a supplemental vocabulary program on word knowledge and passage comprehension. Journal of Research on Educational Effectiveness, 5(2), 160-188.

- Archer, A. L., & Hughes, C. A. (2011). Explicit instruction: Effective and efficient teaching. Guilford Publications.
- Archer, A. L., & Hughes, C. A. (2011). Explicit instruction: Effective and efficient teaching. Guilford Publications.
- Ardasheva, Y., Wang, Z., Adesope, O. O., Valentine, J. C. (2017). Exploring effectiveness and moderators of language learning strategy instruction on learning outcomes. Review of Educational Research, 87(3), 544-582. https://doi.org/10.3102/0034654316689135
- Aronson, B., & Laughter, J. (2016). The theory and practice of culturally relevant education: A synthesis of research across content areas. Review of educational research, 86(1), 163-206. https://doi.org/10.3102/0034654315582066
- August, D., & Shanahan, T. (Eds.). (2006). Developing literacy in second-language learners: Report of the National Literacy Panel on Language-Minority Children and Youth. Lawrence Erlbaum Associates Publishers.
- Bailey, T. R., Colpo, A. & Foley, A. (2020). Assessment practices within a multi-tiered system of supports (Document No. IC-18). University of Florida, Collaboration for Effective Educator, Development, Accountability, and Reform Center. http://ceedar.education.ufl.edu/tools/innovationcon figurations/
- Bialystok, E. (2006). The impact of bilingualism on language and literacy development. In Bhatia, T. K., & W. E. Ritchie (Eds.) The handbook of bilingualism (pp. 577-601). Blackwell Publishing.
- Baker, S. K., Fien, H., Nelson, N. J., Petscher, Y., Sayko, S., & Turtura, J. (2017). Learning to read: "The simple view of reading". U.S. Department of Education, Office of Elementary and Secondary Education, Office of Special Education Programs, National Center on Improving Literacy. http://improvingliteracy.org
- Baker, S., Lesaux, N., Jayanthi, M., Dimino, J., Proctor, C. P., Morris, J., Gersten, R., Haymond, K., Kieffer, M. J., Linan-Thompson, S., & Newman-Gonchar, R.

- (2014). Teaching academic content and literacy to English learners in elementary and middle school (NCEE 2014-4012). National Center for Education Evaluation and Regional Assistance (NCEE), Institute of Education Sciences, U.S. Department of Education http://ies.ed.gov/ncee/wwc/publications\_reviews.a spx.
- Baker, S. K., Santoro, L. E., Chard, D. J., Fien, H. Park, Y., & Otterstedt, J. (2013). An evaluation of a specific read aloud intervention taught in wholeclassroom formats in first grade. Elementary School Journal, 113(3), 331-358.
- Bear, D. R. & Templeton, S. (1998). Explorations in developmental spelling: Foundations for learning and teaching phonics, spelling, and vocabulary. The Reading Teacher, 52(3), 222-242.
- Beck, I., McKeown, M. G., & Kucan, L. (2013). Bringing words to life: Robust vocabulary instruction (2nd ed.). Guilford Press.
- Beers, K., & Probst, R. E. (2013). Notice and note: Strategies for close reading. Heinemann.
- Berninger, V. W. (2009). Highlights of programmatic, interdisciplinary research on writing. Learning Disabilities Research & Practice, 24(2), 69-80. https://doi.org/10.1111/j.1540-5826.2009.00281.x
- Berninger, V. W., Abbott, R. D., Abbott, S. P., Graham S., & Richards, T. (2002). Writing and reading: Connections between language by hand and language by eye (Special issue). Journal of Learning Disabilities, 35(1), 39-56. https://doi.org/10.1177/002221940203500104
- Berninger, V.W., Abbott, R. D., Jones, J., Wolf, B. J., Gould, L., Anderson-Younstrom, M., Shimada, S., & Apel, K. (2006). Early development of language by hand: Composing, reading, listening, and speaking connections; three letter-writing modes; and fast mapping in spelling. Developmental Neuropsychology, 29(1), 61-92. https://doi.org/10.1207/s15326942dn2901\_5
- Berninger, V. W., Rutberg, J., Abbott, R., Garcia, N., Anderson-Youngstrom, M., Brooks, A., & Fulton, C. (2006). Tier 1 and tier 2 early intervention for

- handwriting and composing. Journal of School Psychology, 44(1), 3-30.
- Biemiller, A. (1970). The development of the use of graphic and contextual information as children learn to read. Reading Research Quarterly, 6(1), 75-96. https://doi.org/10.2307/747049
- Biemiller, A. (2012). Teaching vocabulary in the primary grades: Vocabulary instruction needed. In E. J. Kame'enui & J. F. Baumann (Eds.), Vocabulary instruction: Research to practice (2nd ed., pp. 34-50). Guilford.
- Bill & Melinda Gates Foundation. (2014). Teachers know best: Teachers' views on professional development. Author.
- Blachowicz, C., & Fisher, P. J. (2014). Teaching vocabulary in all classrooms (5th ed.). Pearson Education.
- Black, P. & Wiliam, D. (1998). Assessment and classroom learning. Assessment in Education: Principals, Policy & Practice, 5(1), 7–74. https://doi.org/10.1080/0969595980050102
- Black, P. Harrison, C., Lee, C., Marshall, B., & Wiliam, D. (2004). Working inside the black box: Assessment for learning in the classroom. Phi Delta Kappan, 86(1), 8-21. https://doi.org/10.1177/003172170408600105
- Blackman, A. (2010). Coaching as a leadership development tool for teachers. Professional Development in Education, 36(3), 421-441.
- Bloom, B. (1986). Automaticity: The hands and feet of genius. Educational Leadership, 43(5), 70-77.
- Blewitt, P., & Langan, R. (2016). Learning words during shared book reading: The role of extratextual talk designed to increase child engagement. Journal of Experimental Child Psychology, 150, 404-410. https://doi.org/10.1016/j.jecp.2016.06.009
- Blewitt, P., Rump, K. M., Shealy, S. E., & Cook, S. A. (2009). Shared book reading: When and how questions affect young children's word

- learning. Journal of Educational Psychology, 101(2), 294-304. https://doi.org/10.1037/a0013844
- Blöte, A. W., & Hamstra-Bletz, L. (1991). A longitudinal study on the structure of handwriting. Perceptual and Motor Skills, 72(3), 983-994.
- Bornstein M. H., Leventhal T. (2015). Children in bioecological landscapes of development. In R. M. Lerner, M. H. Bornstein, & T. Leventhal (Eds.), Handbook of child psychology and developmental science, Vol. 4, Ecological Settings and Processes (7th ed, pp. 1-6). Wiley.
- Borup, J., & Archambault, L. (2018). K-12 blended and online competencies, standards, retention, and attitudes. Journal of Online Learning Research, 4(1), 1-3.
- Bowers, P. N., & Cooke, G. (2012). Morphology and the Common Core: Building students' understanding of the written word. Perspectives on Language and Literacy, 38(4), 31–35.
- Bowers, P. N., Kirby, J. R., & Deacon, S. H. (2010). The effects of morphological instruction on literacy skills: A systematic review of the literature. Review of Educational Research, 80(2), 144-179. https://doi.org/10.3102/0034654309359353
- Boyd, M. P. (2012). Planning and realigning a lesson in response to student contributions: Intentions and decision making. The Elementary School Journal, 113(1), 25-51. https://doi.org/10.1086/665817
- Brabeck, M., Jeffrey, J., & Fry, S. (2015, March 9). Practice for knowledge acquisition (not drill and kill). American Psychological Association. https://www.apa.org/educationcareer/k12/practice-acquisition
- Brady, S. (2012). Taking foundational standards far enough. Perspectives on Language and Literacy, 38(4), 19-24.
- Brady, S. (2020). A 2020 perspective on research findings on alphabetics (phoneme awareness and phonics): Implications for instruction. The Reading League Journal, 1(3), 20–28.

- Bridges, L. (2014). The joy and power of reading. Scholastic Inc.
- Brookhart, S., & Nitko, A. J. (2008). Assessment and grading in classrooms. Pearson Education.
- Brooks, K., & Karathanos, K. (2009). Building on the cultural and linguistic capital of English learner (EL) students. Multicultural Education, 16(4), 47-51.
- Brophy, J., & Everston, C. (1976). Learning from teaching: A developmental perspective. Allyn and Bacon.
- Brown, P. C., Roediger III, H. L., & McDaniel, M. A. (2014). Make it stick: The science of successful learning. Harvard University Press.
- Bruner, J. (1960). The process of education. Harvard University Press.
- Buly, M. R., & Valencia, S. W. (2002). Below the bar: Profiles of students who fail state reading assessments. Educational Evaluation and Policy Analysis, 24(3), 219-239.
- Burg, S., Stephens, M., Malley, L., & Fonseca, F. (2022). Synthesizing NAEP and international large-scale assessment score trends. American Institutes for Research. https://www.air.org/sites/default/files/2022-10/Research-Note-Score-Trends-NAEP-ILSAs-Oct-2022.pdf
- Cabell, S. Q., & Hwang, H. (2020). Building content knowledge to boost comprehension in the primary grades [Special issue]. Reading Research Quarterly, 55(S1), S99-S107. https://doi.org/10.1002/rrq.338
- Cabell, S. Q., Tortorelli, L. S., & Gerde, H. K. (2013). How do I write...? Scaffolding preschoolers' early writing skills. The Reading Teacher, 66(8), 650-659. https://doi.org/10.1002/trtr.1173
- Cain, K. (2016). Reading comprehension development and difficulties: an overview. Perspectives on Language and Literacy, 42(2), 9-16. https://onlit.org/wp-content/uploads/2023/08/Kate-Cain-Reading-Comprehension.pdf

- Cantor, P., Osher, D., Berg, J., Steyer, L., & Rose, T. (2018). Malleability, plasticity, and individuality: How children learn and develop in context. Applied Developmental Science.
  - https://doi.org/10.1080/10888691.2017.1398649
- Cárdenas-Hagan, E. (2018). Cross language connections for English learners' literacy development. Intervention in School and Clinic, 54(1) 14-21. https://doi.org/10.1177/1053451218762583
- Carlisle, J. F. (2004). Morphological processes that influence learning to read. In C. A. Stone, E. R. Sillman, B. J. Ehren, & K. Apel (Eds.), Handbook of language and literacy: Development & disorders (pp. 318-339). Guilford Press.
- Carlo, M. S., August, D., McLaughlin, B., Snow, C. E., Dressler, C., Lippman, D. N., Lively, T. J., & White, C. E. (2004). Closing the gap: Addressing the vocabulary needs of English-language learners in bilingual and mainstream classrooms. Reading Research Quarterly, 39(2), 188-215.
- Carlson, D., Borman, G. D., & Robinson, M. (2011). A multistate district-level cluster randomization trail of the impact of data-driven reform on reading and math achievement. Educational Evaluation and Policy Analysis, 33(3), 378-398. https://doi.org/10.3102/0162373711412765
- Carpenter, S. K., Cepeda, N. J., Rohrer, D., Kang, S. H. K., & Pashler, H. (2012). Using spacing to enhance diverse forms of learning: Review of recent research and implications for instruction. Educational Psychology Review, 24, 369-378.
- Carroll, J. A., & Wilson, E. E. (2007). Acts of teaching: How to teach writing. A text, a reader, a narrative. Teacher Ideas Press.
- Carroll, J. A., & Wilson, E. E. (2014). The critical writer: Inquiry and the writing process. Libraries Unlimited.
- Castles, A., Rastle, K., & Nation, K. (2018). Ending the reading wars: Reading acquisition from novice to expert. Psychological Science in the Public Interest, 19, 5-51. https://doi:10.1177/1529100618772271

- Catts, H. W. (2022). Rethinking how to promote reading comprehension. American Educator, 45(4), 26. https://files.eric.ed.gov/fulltext/EJ1322088.pdf
- Cepeda, N., Pashler, H., Vul, E., Wixted, J., & Rohrer, D. (2006). Distributed practice in verbal recall tasks: A review and quantitative synthesis. Psychological Bulletin, 132(3), 354-380.
- Cervetti, G. N., & Hiebert, E. H. (2019). Knowledge at the center of English language arts instruction. The Reading Teacher, 72(4), 499-507. https://doi.org/10.1002/trtr.1758
- Cervetti, G. N., Wright, T. S., & Hwang, H. (2016). Conceptual coherence, comprehension, and learning in content area texts. Reading and Writing Quarterly, 32(3), 225-246. https://doi.org/10.1007/s11145-016-9628-x
- Cervetti, G. N., & Wright, T. S. (2020). The role of knowledge in understanding and learning from text. In E. B. Moje, P. Afflerbach, N. K. Leseaux, & P. Enciso (Eds.), Handbook of reading research (Vol. 5, pp. 237–260). Routledge/Taylor & Francis Group.
- Chen, B., Bastedo, K., & Howard, W. (2018). Exploring design elements for online STEM courses: Active learning, engagement & assessment design. Online Learning, 22(2), 59-75.
- Chi, M. T., & Wylie, R. (2014). The ICAP framework: Linking cognitive engagement to active learning outcomes. Educational Psychologist, 49(4), 219-243. https://doi.org/10.1080/00461520.2014.965823
- Chin, N. B., & Wigglesworth, G. (2007). Bilingualism: An advanced resource book. Routledge.
- Christodoulou, D. (2013). Minding the knowledge gap: The importance of content in student learning. American Educator, 38(1), 27-33.
- Clayton, F., West, G., Sears, C., Hulme, C., & Lervåg, A. (2020) A longitudinal study of early reading development: Letter-sound knowledge, phoneme awareness and RAN, but not letter-sound integration, predict variations in reading development. Scientific

- Studies of Reading, 24(2), 91–107. https://doi.org/10.1080/10888438.2019.1622546
- Compton, D. L., Olinghouse, N. G., Elleman, A., Vining, J., Appleton, A. C., Vail, J., & Summers, M. (2005). Putting transfer back on trial: Modeling individual differences in the transfer of decoding-skill gains to other aspects of reading acquisition. Journal of Educational Psychology, 97(1), 55-69. https://doi.org/10.1037/0022-0663.97.1.55
- Connor, C. M., Dombek, J., Crowe, E. C., Spencer, M., Tighe, E. L., Coffinger, S., Zargar, E., Wood, T., & Petscher, Y. (2017). Acquiring science and social studies knowledge in kindergarten through fourth grade: Conceptualization, design, implementation, and efficacy testing of content-area literacy instruction (CALI). Journal of Educational Psychology, 109(3), 301-320. https://doi.org/10.1037/edu0000128
- Connor, C. M., Morrison, F. J., Fishman, B. J., Giuliani, S., Luck, M., Underwood, P. S., Bayraktar, A., Crowe, E. C., & Schatschneider, C. (2011). Testing the impact of child characteristics x instruction interactions on third graders' reading comprehension by differentiating literacy instruction. Reading Research Quarterly, 46(3), 189-221. https://doi.org/10.1598/RRQ.46.3.1
- Connor, C. M., & Morrison, F. J. (2012). Knowledge acquisition in the classroom: Literacy and content area knowledge development in early childhood: How young children build knowledge and why it matters. In A. M. Pinkham, T. Kaefer, & S. B. Neuman (Eds.), Knowledge development in early childhood: How young children build knowledge and why it matters (pp. 220–241). Guilford Press.
- Conrad, R. M., & Donaldson, J. A. (2004). Engaging the online learner: Activities and resources for creative instruction. Jossey- Bass.
- Conrad, R. M., & Donaldson, J. A. (2012). Continuing to engage the online learner: More activities and resources for creative instruction (Vol. 35). John Wiley & Sons.
- Corujo, J. (2024, April 8). Code-switching vs. translanguaging. HMH Shaped Blog.

- https://www.hmhco.com/blog/code-switching-vstranslanguaging
- Council of the Great City Schools (2023). A framework for foundation literacy skills instruction for English learners: Instruction practice and materials consideration. https://www.cgcs.org/ELL
- Crosson, A. C., McKeown, M. G., Moore, D. W., & Ye, F. (2019). Extending the bounds of morphology instruction: Teaching Latin roots facilitates academic word learning in English learner adolescents. Reading and Writing, 32(23), 689-727. https://doi.org/10.1007/s11145-018-9885-v
- Cummins, J. (2016). Language differences that influence reading development: Instructional implications of alternative interpretations of research evidence. In P. A. Afflerbach (Ed.), Handbook of individual differences in reading: Reader, text, and context (pp. 223-244). Routledge.
- Cunningham, A. E. (1990). Explicit versus implicit instruction in phonemic awareness. Journal of Experimental Child Psychology, 50(3), 429-444.
- Cunningham, A. E. (2006). Accounting for children's orthographic learning while reading text: do children self-teach? Journal of Experimental Child Psychology, 95(1), 56-77.
- Cunningham, A., & Carroll, J. (2015). Early predictors of phonological and morphological awareness and the link with reading: Evidence from children with different patterns of early deficit. Applied Psycholinguistics, 36, 509-531. https://doi.org/10.1017/S0142716413000295
- Cunningham, A. E., & Stanovich, K. E. (1991). Tracking the unique effects of print exposure: Associations with vocabulary, general knowledge, and spelling. Journal of Educational Psychology, 83, 264–274.
- Cunningham, A. E., & Stanovich, K. E. (1997). Early reading acquisition and its relation to reading experience and ability 10 years later. Developmental Psychology, 33(6), 934-945.

- Cunningham, A. E., & Stanovich, K. E. (1998). What reading does for the mind. American Educator, 22(4), 8-15.
- Cunningham, A., & Stanovich, K. (2003). Reading can make you smarter! Principal, 83(2), 34-39.
- Cunningham, A., & Zibulsky, J. (2014). Book smart: How to develop and support successful, motivated readers. Oxford University Press.
- Cunningham, P. M., & Allington, R. L. (2011). Classrooms that work: They can all read and write (6<sup>th</sup> ed). Allyn and Bacon.
- Darling-Hammond, L., & Cook-Harvey, C. M. (2018). Educating the whole child: Improving school climate to support student success. Learning Policy Institute.
- Darling-Hammond, L., Schachner, A. C. W., Wojcikiewicz, S. K., & Flock, L. (2024). Educating teachers to enact the science of learning and development. Applied Developmental Psychology, 28(1), 1-21. https://doi.org/10.1080/10888691.2022.2130506
- Davidson, B., & Liben, D. (2019). What a knowledgebuilding approach looks like in the classroom. Perspectives on Language and Literacy, 49(2). 31-
- Dean, C. B., Hubbell, E. R., Pitler, H., & Stone, B. (2012). Classroom instruction that works: Research-based strategies for increasing student achievement (2nd Ed.). ASCD.
- Dehaene, S., Pegado, F., Braga, L. W., Ventura, P., Filho, G. N., Jobert, A., Dahaene-Lambertz, G., Kolinsky, R., Morais, J., & Cohen, L. (2010). How learning to read changes the cortical networks for vision and language. Science, 330(6009), 1359-1364. https://doi.org/10.1126/science.1194140
- Donovan, C. A., & Smolkin, L. B. (2011). Supporting informational writing in the elementary grades. http://www.readingrockets.org/article/supportinginformational-writing-elementary-grades
- Dudai, Y., Karni, A., & Born, J. (2015). The consolidation and transformation of memory. Neuron, 88(1), 20-32.

- Duke, N. (2000). 3.6 minutes per day: The scarcity of informational texts in first grade. Reading Research Quarterly, 35(2), 202-224.
- Duke, N. K., & Block, M. K. (2012). Improving reading in the primary grades. The Future of Children, 55-72.
- Duke, N. K., & Cartwright, K. B. (2021). The science of reading progresses: Communicating advances beyond the simple view of reading. Reading Research Quarterly, 56, S25-S44. https://doi.org/10.1002/rrq.411
- Duke, N. K., & Pearson, P. (2002). Effective practices for developing reading comprehension. In A. E. Farstrup & S. J. Samuels (Eds.), What research has to say about reading instruction (3rd ed., pp. 205-242). International Reading Association, Inc.
- Dunlosky, J., Rawson, K. A., Marsh, E. J., Nathan, M. J., & Willingham, D. T. (2013). Improving students' learning with effective learning techniques: Promising directions from cognitive and educational psychology. Psychological Science in the Public Interest, 14(1), 4-58.
- Dutro, S., & Kinsella, K. (2010). English language development: Issues and implementation at grades six through twelve. In *Improving education* for English learners: Research-based approaches. CDE Press.
- Ebbers, S. M. (2017, Spring). Morphological awareness strategies for the general and special education classroom: A vehicle for vocabulary enhancement. Perspectives on Language and Literacy, 43(2), 29-34.
- Eccles, J. S., & Wigfield, A. (2002). Motivational beliefs, values and goals. Annual Review of Psychology, 53(1), 109-132. https://doi.org/10.1146/annurev.psych.53.100901.13 5153
- Ehri, L. C. (1995). Phases of development in learning to read words by sight. Journal of Research in Reading. 18(2), 116-125.
- Ehri, L. C. (2005). Development of sight word reading: Phases and findings. In M. J. Snowling & C. Hulme (Eds). The science of reading: A

- handbook (pp. 135–154). Blackwell Publishing. https://doi.org/10.1002/9780470757642.ch8
- Ehri, L. C. (2014). Orthographic mapping in the acquisition of sight word reading, spelling memory, and vocabulary learning. Scientific Studies of Reading, 8, 5-21.
- Ehri, L. (2020). The science of learning to read words: A case for systematic phonics instruction [Special issue]. Reading Research Quarterly, 55(S1), S45-S60. https://doi:10.1002/rrq.334
- Ehri, L. C. (2022). What teachers need to know and do to teach letter-sounds, phonemic awareness, word reading, and phonics. The Reading Teacher, 76(1), 53-61.
- Ehri, L. C. (2024). Clarifying the role of orthographic mapping in sight word reading. The Reading League Journal, 5(1), 4-13.
- Ehri, L. C., Nunes, S. R., Willows, D., Schuster, B., Yaghoub-Zadeh, Z., & Shanahan, T. (2001). Phonemic awareness instruction helps children to read: Evidence from the National Reading Panel's meta-analysis. Reading Research Quarterly, 3, 250-257. https://doi.org/10.1598/RRQ.36.3.2
- Ehri, L. C., & Roberts, T. (2006). The roots of learning to read and write: Acquisition of letters and phonemic awareness. In D. K. Dickinson, & S. B. Neuman (Eds.), Handbook of early literacy research (Vol. 2, pp. 113–131). Guilford Press.
- Elleman, A. M. (2017). Examining the impact of inference instruction on the literal and inferential comprehension of skilled and less skilled readers: A meta-analytic review. Journal of Educational Psychology, 109(6), 761.
- Engelmann, K. (2024). Direct instruction: A practitioner's handbook. John Catt.
- Epstein, J. L. (2010). School, family, and community partnerships: Preparing educators and improving schools (2nd ed.). Westview Press.
- Ertmer, P. A., Ottenbreit-Leftwich, A. T., & Tondeur, J. (2015). Teacher beliefs and uses of technology to support 21st century teaching and learning. In Fives, H., & Gill, M. G. (Eds.) International

- Handbook of Research on Teacher Beliefs, (pp. 403-418). Routledge.
- Evans, C., & Gibbons, N. J. (2007). The interactivity effect in multimedia learning. Computers & Education, 49(4), 1147-1160. https://doi.org/10.1016/j.compedu.2006.01.008
- Evans, M. D. R., Kelley, J., Sikora, J., & Treiman, D. J. (2010). Family scholarly culture and educational success: Books and schooling in 27 nations. Research in Social Stratification and Mobility, 28(2), 171-197.
- Farrell, L., Hunter, M., & Osenga, T. (2013). A new model for teaching high frequency words. Readsters Reader, 3(1), 1-7. https://www.readsters.com/wpcontent/uploads/2013/03/NewModelForTeachingH FWords.pdf
- Farrington, C., Roderick, M., Allensworth, E., Nagaoka, J., Keyes, T. S., Johnson, D., & Beechum, N. O. (2012). Teaching adolescents to become learners: The role of noncognitive factors in shaping school performance. University of Chicago Consortium on Chicago School Research.
- Feder, K. P., & Majnemer, A. (2007). Handwriting development, competency, and intervention. Developmental Medicine & Child Neurology, 49(4), 312-317.
- Fien, H., Smith, J. M., Smolkowski, K., Baker, S. K., Nelson, N. J., & Chapparo, E. (2015). An examination of the efficacy of a multi-tiered intervention on early reading outcomes for first grade students at risk for reading difficulties. Journal of Learning Disabilities, 48(6), 602-621.
- Fillmore, L. W., & Snow, C. E. (2018). What teachers need to know about language. In C. T. Adger, C. E. Snow, & D. Christian (Eds.), What teachers need to know about language (2nd ed., pp. 8-51). Multilingual Matters.
- Finn, J. D., & Zimmerman, K. S. (2012). Student engagement: What is it? Why does it matter? In S. L. Christenson, A. L., Reschly, & C. Wylie (Eds.), Handbook of research on student engagement

- (pp. 97–131). Spring Science + Business Media. https://doi.org/10.1007/978-1-4614-2018-7\_10
- Fisher, D., & Frey, N. (2012). Close reading in elementary school. The Reading Teacher, 66(3), 179-188.
- Fisher, D., & Frey, N. (2021). Better learning through structured teaching: A framework for the gradual release of responsibility. ASCD.
- Fisher, D., Frey, N., & Hattie, J. (2016). Visible learning for literacy: Implementing the practices that work best to accelerate student learning. Corwin Literacy.
- Fisher, D., Frey, N., & Hattie, J. (2020). The distance learning playbook, grades K-12: Teaching for engagement and impact in any setting. Corwin Press.
- Fisher, A. V., Godwin, K. E., & Seltman, H. (2014). Visual environment, attention allocation, and learning in young children: When too much of a good thing may be bad. Psychological Science, 25(7), 1362-1370. https://doi.org/10.1177/0956797614533801
- Fletcher, J. M., Lyon, G. R., Fuchs, L. S., & Barnes, M. A. (2018). Learning disabilities: From identification to intervention. Guilford Publications.
- Folsom, J. S., Smith, K. G., Burk, K., & Oakley, N. (2017). Educator outcomes associated with implementation of Mississippi's K-3 early literacy professional development initiative (REL 2017-270). U.S. Department of Education, Institute of Education Sciences, National Center for Education Evaluation and Regional Assistance, Regional Educational Laboratory Southeast. http://ies.ed.gov/ncee/edlabs.
- Foorman, B., Coyne, M., Denton, C. A., Dimino, J., Hayes, L., Justice, L., Lewis, W., & Wagner, R. (2016). Foundational skills to support reading for understanding in kindergarten through 3rd grade: A practice guide (NCEE 2016-4008). National Center for Education Evaluation and Regional Assistance (NCEE), Institute of Education Sciences, U.S. Department of Education.

- https://ies.ed.gov/ncee/wwc/Docs/PracticeGuide/w wc\_foundationalreading\_040717.pdf
- Foorman, B., Koon, S., Petscher, Y., Mitchell, A., & Truckenmiller, A. (2015). Examining general and specific factors in the dimensionality of oral language and reading in 4th–10th grades. Journal of Educational Psychology, 107(3), 884-899.
- Frey, N., Fisher, D., & Nelson, J. (2013). It's all about the talk. Kappan, 94(4), 8–13.
- Frey, N., Hattie, J., & Fisher, D. (2018). Developing assessment-capable visible learners, grades K-12: Maximizing skill, will, and thrill. Corwin Press.
- Gac-Artigas, A. (2016). School of the future. NOVA PBS television special. https://www.pbs.org/wgbh/nova/video/school-of-the-future/
- Gagne, R. M., & Briggs, L. J. (1974). Principles of instructional design. HBJ College Publishers.
- Gamrat, C., Zimmerman, H. T., Dudek, J., & Peck, K. (2014). Personalized workplace learning: An exploratory study on digital badging within a teacher professional development program. British Journal of Educational Technology, 45(6), 1136-1148. https://doi.org/10.1111/bjet.12200
- Garet, M., Porter, A., Desimone, L., Birman, B., & Yoon, K. (2001). What makes professional development effective? Results from a national sample of teachers. American Educational Research Journal, 38(4), 915-945. https://doi.org/10.3102/00028312038004915
- Gay, G. (2018). Culturally responsive teaching: Theory, research, and practice. (3rd Ed.) Teachers College Press.
- Gehsmann, K. M., & Templeton, S. (2011/2012). Stages and standards in literacy: Teaching developmentally in the age of accountability. Journal of Education, 191(1), 5–16.
- Gemin, B., & Pape, L. (2017). Keeping pace with K-12 online learning. Evergreen Education Group.
- Gensee, F. (2012). The home language: An English language learner's most valuable resource. Colorin colorado.

- https://www.colorincolorado.org/article/homelanguage-english-language-learners-mostvaluable-resource
- Genesee, F., & Lindholm-Leary, K. (2012). The education of English language learners. In K. R. Harris, S. Graham, T. Urdan, A. G. Bus, S. Major, & H. L. Swanson (Eds.), APA educational psychology handbook Vol. 3, Application to learning and teaching (pp. 499–526). American Psychological Association. https://doi.org/10.1037/13275-020
- Gerde, H. K., Bingham, G. E., & Wasik, B. A. (2012). Writing in early childhood classrooms: Guidance for best practices. Early Childhood Education Journal, 40, 351–359. https://doi.org/10.1007/s10643-012-0531-z
- Gersten, R., Baker, S. K., Shanahan, T., Linan-Thompson, S., Collins, P., & Scarcella, R. (2007). Effective literacy and English language instruction for English learners in the elementary grades: A practice guide (NCEE 2007-4011). National Center for Education Evaluation and Regional Assistance, Institute of Education Sciences, U.S. Department of Education. https://ies.ed.gov/ncee/wwc/Docs/PracticeGuide/2 0074011.pdf
- Gersten, R., Compton, D., Connor, C. M., Dimino, J., Santoro, L., Linan-Thompson, S., & Tilly, W. D. (2000). Assisting students struggling with reading: Response to Intervention and multi-tier intervention for reading in the primary grades. A practice guide. (NCEE 2009-4045). National Center for Education Evaluation and Regional Assistance, Institute of Education Sciences, U.S. Department of Education. https://ies.ed.gov/ncee/wwc/docs/practiceguide/rti
- Gersten, R., Dimino, J., Jayanthi, M., Kim, J. S., & Santoro, L. E. (2010). Teacher study group: Impact of the professional development model on reading instruction and student outcomes in first grade classrooms. American Educational Research Journal, 47(3), 694-739.

\_reading\_pg\_021809.pdf

Gil, C. (2017, June 1). 8 tips for teaching with mentor texts. Edutopia. https://www.edutopia.org/blog/8tips-teaching-mentor-texts-christina-gil

- Gillon, G., McNeill, B., Scott, A., Denston, A., Wilson, L., Carson, K., & Macfarlane, A. H. (2019). A better start to literacy learning: Findings from a teacherimplemented intervention in children's first year at school. Reading and Writing, 32(8), 1989–2012. https://doi.org/10.1007/s11145-018-9933-7
- Goldenberg, C., & Cárdenas-Hagan, E. (2023). Literacy research on English Learners: Past, present, and future. The Reading League Journal. https://www. thereadingleague.org/wpcontent/uploads/2023/09/ TRLC-ELEB-Goldenberg-Cardenas-Hagan-2023.pdf
- Goodwin, A. P., & Ahn, S. (2013). A meta-analysis of morphological interventions in English: Effects on literacy outcomes for school-age children. Scientific Studies of Reading, 17(4), 257-285. https://doi.org/10.1080/10888438.2012.689791
- Gough, P., and Turner, W. (1986). Decoding, reading, and reading disability. Remedial and Special Education, 7, 6–10.
- Grade Level Reading Campaign (2017, June). Supporting parent success: Applying what we know to what we do. http://gradelevelreading.net/wpcontent/uploads/20 17/11/SupportingParentSuccess11-17.pdf
- Graham, S. (2020). The sciences of reading and writing must become more fully integrated [Special issue]. Reading Research Quarterly, 55(S1), S35-S44. https://doi.org/10.1002/rrq.332
- Graham, C. R., Borup, J., Pulham, E., & Larsen, R. A. (2019). K-12 blended teaching readiness: Model and instrument development. Journal of Research on Technology in Education, 51(2), 1–18.
- Graham, S., Bollinger, A., Olson, C. B., D'Aoust, C., MacArthur, C., McCutchen, D., Olinghouse, N. (2012). Teaching elementary school students to be effective writers: A practice guide (NCEE No. 2012-4058). National Center for Education Evaluation and Regional Assistance (NCEE), Institute of Education Sciences, U.S. Department of Education. https://ies.ed.gov/ncee/wwc/practiceguide/17
- Graham, S., & Harris, K. R. (2013). Designing an effective writing program. In S. Graham, C.

- MacArthur, & J. Fitzgerald (Eds.), Best practices in writing instruction, (Vol. 2, pp. 3-25). Gilford Press.
- Graham, S., & Hebert, M. A. (2010). Writing to read: Evidence for how writing can improve reading. A Carnegie Corporation Time to Act Report. Alliance for Excellent Education. http://carnegie.org/fileadmin/Media/Publications/W ritingToRead\_01.pdf
- Graham, S., & Hebert, M. (2011). Writing to read: A meta-analysis of the impact of writing and writing instruction on reading. Harvard Educational Review, 81(4), 710-744.
- Graham, S., Kiuhara, S. A., & MacKay, M. (2020). The effects of writing on learning in science, social studies, and mathematics: A meta-analysis. Review of Educational Research, 90(2), 179-226. https://doi.org/10.3102/0034654320914744
- Graham, S., Liu, X., Aitken, A., Ng, C., Bartlett, B., Harris, K. R., & Holzapfel, J. (2018). Effectiveness of literacy programs balancing reading and writing instruction: A meta-analysis. Reading Research Quarterly, 53(3), 279-304. https://doi.org/10.1002/rrq.194
- Graham, S., & Sandmel, K. (2011). The process writing approach: A meta-analysis. Journal of Educational Research, 104(6), 396-407.
- Graves, M. F. (2016). The vocabulary book: Learning and instruction (2nd ed.). Teachers College Press.
- Griffin, T. M., Hemphill, L., Camp, L., & Wolf, D. P. (2004). Oral discourse in the preschool years and later literacy skills. First Language, 24(2) 123–147. https://doi.org/10.1177/0142723704042369
- Gulamhussein, A. (2013). Teaching the teachers: Effective professional development in an era of high stakes accountability. Center for Public Education.
- Guthrie, J. T. (2004). Teaching for literacy engagement. Journal of Literacy Research, 36(1), 1-29.
- Guthrie, J. T., & Humenick, N. M. (2004) Motivating students to read: Evidence for classroom practices

- that increase reading motivation and achievement. In P. McCardle & V. Chhabra (Eds.), The voice of evidence in reading research (pp.213-234). Brookes.
- Guthrie, J. T., & Klauda, S. L. (2014). Effects of classroom practices on reading comprehension, engagement, and motivation for adolescents. Reading Research Quarterly, 49(4), 387-416. https://ila.onlinelibrary.wiley.com/doi/10.1002/rrq.81
- Guthrie, J. T., Wigfield, A., & You, W. (2012). Instructional contexts for engagement and achievement in reading. In S. L. Christenson, A. L. Reschly, & C. Wylie (Eds.), Handbook of research on student engagement (pp. 601-634). Springer Science + Business Media. https://doi.org/10.1007/978-1-4614-2018-7\_29
- Gutiérrez, K. D., Morales, P. Z., & Martinez, D. C. (2009). Re-mediating literacy: Culture, difference, and learning from nondominant communities. Review of Research in Education, 33(1), 212–245.
- Halverson, L. R., & Graham, C. R. (2019). Learner engagement in blended learning environments: A conceptual framework. Online Learning, 23(2), 145-178.
- Hammond, Z. (2015). Culturally responsive teaching and the brain: Promoting authentic engagement and rigor among culturally and linguistically diverse students. Corwin Press.
- Hammond, Z. (2021). Liberatory education: Integrating the science of learning and culturally responsive practice. American Educator, 45(2), 4. https://files.eric.ed.gov/fulltext/EJ1305167.pdf
- Hart, B., & Risley, T. (1995). Meaningful differences in the everyday lives of young American children. Paul H. Brookes.
- Hasbrouck, J. (2020a). An update to the National Reading Panel Report: What We Know About Fluency in 2020. The Reading League Journal, 1(3), 29-31.
- Hasbrouck, J. (2020b). Conquering dyslexia: A guide to early detection and intervention for teachers and families. Benchmark Education.

- Hasbrouck, J., & Glaser, D. (2019). Reading fluency: Understand – assess – teach, Benchmark Education.
- Hasselbring, T. S., Goin, L. I., & Bransford, J. (1988). Developing math automaticity in learning: The role of computerized drill and practice. Focus on Exceptional Children, 20(6), 1–7.
- Hattie, J. (2009). Visible learning: A synthesis of over 800 meta-analyses relating to achievement. Routledge.
- Hattie, J. (2012). Visible learning for teachers: Maximizing impact on learning. Routledge.
- Hattie, J. (2023). Visible learning, the sequel: A Synthesis of over 2,100 meta-analyses relating to achievement. Taylor & Francis.
- Hattie, J., & Clarke, S. (2018). Visible learning: Feedback. Routledge.
- Hattie, J., & Yates, G. (2014). Visible learning and the science of how we learn. Routledge.
- Haynes, C. W., Smith, S. L., & Laud, L. (2019). Structured literacy approaches to teaching written expression. Perspectives on Language and Literacy, 45(3), 22-28.
- Heath, S. B. (1983). Ways with words: Language, life, and work in communities and classrooms. Cambridge University Press.
- Hempenstall, K. (2020). Teaching reading through Direct Instruction: A role for educational psychologists? The Educational and Developmental Psychologist, 37(2), 133-139.
- Hennessy, N. L. (2021). The reading comprehension blueprint: Helping students make meaning from text. Brookes.
- Henry, M. K. (2010). Unlocking literacy: Effective decoding and spelling instruction (2nd ed.). Brookes Publishing.
- Heritage, M. (2013). Formative assessment in practice: A process of inquiry and action. Harvard Education Press.

- Hiebert, E. H. (2005). The effects of text difficult on second graders' fluency development. Reading Psychology, 26, 1–27. https://doi.org/10.1080/02702710590930528
- Hill, S. (2009). Oral language and beginning reading: Exploring connections and disconnections. Forum on Public Policy Online (2), 1-13. https://eric.ed.gov/?id=EJ870077
- Hill, H. C., & Papay, J. P. (2022). Building better PL: How to strengthen teacher learning. Research Partnership for Professional Learning. https://annenberg.brown.edu/sites/default/files/rpp l-building-better-pl.pdf
- Hirsch, E. D. (1996). The schools we need and why we don't have them. Doubleday.
- Hirsch, E. D. (2006). The knowledge deficit: Closing the shocking education gap for American children. Houghton Mifflin Harcourt.
- Hirsch, E. D. (2013, Winter). A wealth of words: The key to increasing upward mobility is expanding vocabulary. City Journal. https://www.cityjournal.org/article/a-wealth-of-words
- Hirsch, E. D. (2019). Why knowledge matters: Rescuing our children from failed educational theories. Harvard Education Press.
- Hochman, J., & Wexler, N. (2019). The connections between writing, knowledge acquisition, and reading comprehension. Perspectives on Language and Literacy, 25–29.
- Hoover, W. A., & Gough, P. B. (1990). The simple view of reading. Reading and Writing: An Interdisciplinary Journal, 2(2), 127–160. https://doi.org/10.1007/BF00401799
- Hoover, W. A., & Tunmer, W. E. (2020). The cognitive foundations of reading and its acquisition: A framework with applications connection teaching and learning. Springer.
- Horn, M. B., & Staker, H. (2011). The rise of K-12 blended learning. Innosight Institute.
- Hotchkiss, K., & Hougen, M. (2012). Writing like a historian: What teacher candidates should know

- and be able to do. The Social Studies, 103, 149-157. https://doi.org/10.1080/00377996.2011.596861
- Hougen, M. C., & Smartt, S. M. (Eds). (2012). The fundamentals of literacy instruction and assessment. Brookes Publishing Co.
- Hughes, J., & Kwok, O. (2007). Influence of studentteacher and parent-teacher relationships on lower achieving readers' engagement and achievement in the primary grades. Journal of Educational Psychology, 99(1), 39-51.
- Hulme, C., Bowyer-Crane, C., Carroll, J. M., Duff, F. J., Snowling, M. J. (2012). The causal role of phoneme awareness and letter-sound knowledge in learning to read: Combining intervention studies with mediation analyses. Psychological Science, 23(6), 572-577. https://doi.org/10.1177/0956797611435921
- Hulme, C., Nash, H. M., Gooch, D., Lervåg, A., & Snowling, M. J. (2015). The foundations of literacy development in children at familial risk of dyslexia. Psychological Science, 26(12), 1877-1886. https://doi.org/10.1177/0956797615603702
- Hunter, P. C. (2012). It's not complicated! What I know for sure about helping our students of color become successful readers. Scholastic.
- Hwang, H., Cabell, S. Q., & Joyner, R. E. (2022). Effects of integrated literacy and content-area instruction on vocabulary and comprehension in the elementary years: A meta-analysis. Scientific Studies of Reading, 26(3), 223-249. https://doi.org/10.1080/10888438.2021.1954005
- International Dyslexia Association. (2018). Knowledge and practice standards for teachers of reading (2nd ed.). Author.
- International Dyslexia Association. (2019). Structured literacy: An introductory guide. Education Training Initiatives Brief. Author.
- Jansen, T., Meyer, J., Wigfield, A., & Möller, J. (2022). Which student and instructional variables are most strongly related to academic motivation in K-12 education? A systematic review of meta-analyses. Psychological Bulletin, 148(1-2).

- Jimenez, L., & Modaffari, J. (2021). Effective and equitable assessment systems. Future of Testing in Education. Center for American Progress.
- Jimenez, L., Sargrad, S., Morales, J., & Thompson, M. (2016). Remedial education: The cost of catching up. Center for American Progress. https://files.eric.ed.gov/fulltext/ED586241.pdf
- Johns Hopkins University, Institute for Education Policy. (2022). The ELA Knowledge Map™. Author. https://education.jhu.edu/edpolicy/k-12-educationsolutions/ela-knowledge-map/
- Johnson, C. C., Walton, J. B., Strickler, L., & Elliott, J. B. (2023). Online teaching in K-12 education in the United States: A systematic review. Review of Educational Research, 93(3), 353-411.
- Johnston, H. (2012). The spiral curriculum: Research into practice. Education Partnerships Inc. https://files.eric.ed.gov/fulltext/ED538282.pdf
- Justice, L. M., Meier, J., & Walpole, S. (2005). Learning new words from storybooks: An efficacy study with at-risk kindergarteners. Language, Speech, and Hearing Services in Schools, 36(1), 313-326.
- Kallio, J. M., & Halverson, R. (2020). Distributed leadership for personalized learning. Journal of Research on Technology in Education, 52(3), 371-390.
- Kamil, M. L., Borman, G. D., Dole, J., Kral, C. C., Salinger, T., & Torgesen, J. (2008). Improving adolescent literacy: Effective classroom and intervention practices (NCEE 2008-4027). Washington, DC: U.S. Department of Education, Institute of Education Sciences, National Center for Education Evaluation and Regional Assistance. Retrieved from https://ies.ed.gov/ncee/wwc/PracticeGuide/8
- Kaufman, D. (2022, October 6). In Mississippi, a broad effort to improve literacy is yielding results. The New York Times. https://www.nytimes.com/2022/10/06/education/le arning/mississippi-schools-literacy.html
- Keary, A., & Kirkby, J. (2017). 'Language shades everything': Considerations and implications for

- assessing young children from culturally and linguistically diverse backgrounds. TESOL in Context, 26(1), 27-44. https://files.eric.ed.gov/fulltext/EJ1240555.pdf
- Kervin, L., & Mantei, J. (2016). Digital writing practice: A close look at one grade three author. Literacy, 50(3), 133-140.
- Kim, J. S., Burkhauser, M. A., Mesite, L. M., Asher, C. A., Relyea, J. E., Fitzgerald, J., & Elmore, J. (2021). Improving reading comprehension, science domain knowledge, and reading engagement through a first-grade content literacy intervention. Journal of Educational Psychology, 113(1), 3-26. https://doi.org/10.1037/edu0000465
- Kim, J. S., Gilbert, J. B., Relyea, J. E., Rich, P., Scherer, E., Burkhauser, M. A., & Tvedt, J. N. (2024). Time to transfer: Long-term effects of a sustained and spiraled content literacy intervention in the elementary grades. Developmental Psychology, 60(7), 1279-1297. https://doi.org/10.1037/dev0001710
- Kim, J. S., & White, T. G. (2008). Scaffolding voluntary summer reading for children in grades 3 to 5: An experimental study. Scientific Studies of Reading, 12(1), 1-23. https://doi.org/10.1080/10888430701746849
- Kim, Y.-S. G., & Graham, S. (2022). Expanding the Direct and Indirect Effects Model of Writing (DIEW): Reading-writing relations, and dynamic relations as a function of measurement/dimensions of written composition. Journal of Educational Psychology, 114(2), 215-238. https://doi.org/10.1037/edu0000564
- Kinsella, K. (2015, March). Fostering academic interaction. Language Magazine, 24-31.
- Klingner, J. K., Vaughn, S., & Boardman, A. (2015). Teaching reading comprehension to students with learning difficulties. Guilford Publications.
- Knowledge Matters Campaign Scientific Advisory Committee. (2024). Statement. March 28, 2024. https://knowledgematterscampaign.org/statementfrom-the-knowledge-matters-campaign-scientificadvisory-committee/

- Kraft, M. A., Blazar, D., & Hogan, D. (2018). The effect of teaching coaching on instruction and achievement: A meta-analysis of the causal evidence. Review of Educational Research, 88(4), 547-588. https://doi.org/10.3102/003465431875926
- Kraft, M. A., & Falken, G. T. (2020). Why school climate matters for teachers and students. State Education Standard, 20(2), 33-35, 50. https://eric.ed.gov/?id=EJ1257758
- Krashen, S. (2004). The power of reading: Insights from the research (2nd ed.). Heinemann.
- Krashen, S. (2011). Free voluntary reading. Libraries Unlimited.
- Kuhn, M. R., Schwanenflugel, P. J., Morris, R. D., Morrow, L. M., Woo, D.G., Meisinger, E. B., Sevcik, R. A., Bradley, B. A., & Stahl, S.A. (2006). Teaching children to become fluent and automatic readers. Journal of Literacy Research, 38(4), 357-387. https://doi.org/10.1207/s15548430jlr3804\_1
- LaBerge, D., & Samuels, S. J. (1974). Toward a theory of automatic information processing in reading. Cognitive Psychology, 6(2), 293-322.
- Ladson-Billings, G. (1995). Toward a theory of culturally relevant pedagogy. American Educational Research Journal, 32(3), 465-491.
- Language and Reading Research Consortium [LARRC]. (2015). The dimensions of language ability in young children. Child Development, 86(6), 1948-1965. https://doi.org/10.1111/cdev.12450
- Lawrence, J. F., & Snow, C. E. (2011). Oral discourse and reading. In M. Kamil, P.D. Pearson, E. B. Moje, & P. P. Afflerback (Eds.), Handbook of reading research (Volume IV, pp. 320-337). Routledge.
- Learned, J. E. (2016). "The behavior kids": Examining the conflation of youth reading difficulty and behavior problem positioning among school institutional contexts. American Educational Research Journal, 53, 1271-1309.
- Lee, H., Chung, H. Q., Zhang, Y., Abedi, J., & Warschauer, M. (2020). The effectiveness and features of formative assessment in US K-12

- education: A systematic review. Applied Measurement in Education, 33(2), 124-140.
- Lee, J., & Shute, V. J. (2010). Personal and socialcontextual factors in K-12 academic performance. An integrative perspective on student learning. Educational Psychologist, 45(3), 185-202. https://doi.org/10.1080/00461520.2010.493471
- Li, S., & Wang, W. (2022). Effect of blended learning on student performance in K-12 settings: A metaanalysis. Journal of Computer Assisted Learning, 38(5), 1254-1272. https://doi.org/10.1111/jcal.12696
- Li., W (2011). Moment analysis and translanguaging space: discursive construction of identities by multilingual Chinese youth in Britain. Journal of Pragmatics, 43(5), 1222-1235
- Liben, D., & Liben, M. (2019). Know better, do better: Teaching the foundations so every child can read. Literacy Solutions.
- Lindholm, K.J., & Aclan, Z. (1991). Bilingual proficiency as a bridge to academic achievement: Results from bilingual/immersion programs. Journal of Education 173, 99-113.
- Loewus, L. (2019, October 30). National reading scores are down. What does it mean? Education Week. https://www.edweek.org/teachinglearning/national-reading-scores-are-down-whatdoes-it-mean/2019/10
- Lyon, G. R., Shaywitz, S. E., Shaywitz, B. A., & Chhabra, V., (2005). Evidence-based reading policy in the United States: How scientific research informs instructional practices. Brookings Papers on Education Policy, 209-250. https://www.jstor.org/stable/20062559
- Macaruso, P., Wilkes, S., & Prescott, J. E. (2020). An investigation of blended learning to support reading instruction in elementary schools. Educational Technology Research and Development, 68(6), 2839-2852. https://doi.org/10.1007/s11423-020-09785-2
- Marzano, R. J., & Pickering, D. J. (2005). Building academic vocabulary: Teacher's manual.

- Association for Supervision and Curriculum Development.
- Master, B., Loeb, S., & Wyckoff, J. (2017). More than content: The persistent cross-subject effects of English language arts teachers' instruction. Education Evaluation and Policy Analysis, 39, 429-447.
- Matsumura, L.C., Correnti, R., Walsh, M., DiPrima Bickel, D., & Zook-Howell, D. (2019) Online content-focused coaching to improve classroom discussion quality, Technology, Pedagogy and Education, 28(2), 191-215, https://doi.org/10.1080/1475939X.2019.1577748
- Mayer, R. E. (2013). Multimedia learning. In J. Hattie, & E. Anderman (Eds.), Educational psychology handbook: International guide to student achievement (pp. 396-398). Routledge.
- Mayer, R. E. (2017). Using multimedia for e-learning. Journal of Computer Assisted Learning, 33(5), 403-423.
- Means, B., Yukie, T., Murphy, R., & Baki, M. (2013). The effectiveness of online and blended learning: A meta-analysis of the empirical literature. Teachers College Record, 115(3). https://doi.org/10.1177/016146811311500307
- McFarland, J., Hussar, B., Zhang, J., Wang, X., Wang, K., Hein, S., Diliberti, M., Forrest Cataldi, E., Bullock Mann, F., & Barmer, A. (2019). The condition of education 2019 (NCES 2019-144). U.S. Department of Education. National Center for Education Statistics. Retrieved from https://nces.ed.gov/ pubsearch/pubsinfo. asp?pubid=2019144
- McGee, L. M., & Schickendanz, J. A. (2007). Repeated interactive read-alouds in preschool and kindergarten. The Reading Teacher, 60(8), 742-751.
- McKeown, M. G., Beck, I. L., & Sandora, C. (2012). Direct and rich vocabulary instruction needs to start early. In E. J. Kame'enui & J. F. Baumann, (Eds.), Vocabulary instruction: Research to practice (2nd ed., pp. 17–33). Guilford Publications, Inc.

- McNamara, D. S., Jacovina, M. E., & Allen, L. K. (2016). Higher order thinking in comprehension. In Afflerbach, P. (Ed.) Handbook of individual differences in reading: Reader, text, and context. (pp. 164-177). Routledge.
- Meeuwse, K., & Mason, D. (2018). Personalized professional learning for educators: Emerging research and opportunities. IGI Global.
- Metcalfe, J. (2017). Learning from errors. Annual Review of Psychology, 68(1), 465-1489.
- Miles, K. P. & Kearns, D. (2019, July 17–20). Analysis of the regularity of "sight words". [Conference presentation] at Society for the Scientific Study of Reading Convention, Toronto, Ontario, Canada. https://www.devinkearns.com/wp/wpcontent/uploads/2025/03/2019\_07\_18-SSSR-Talk-FINAL.pdf
- Mindset Scholars Network (2015). Students need to know your only bias is for them to succeed. Center for the Advanced Study in the Behavioral Sciences at Stanford University. http://mindsetscholarsnetwork.org/wp-content/ uploads/2015/09/Your-Only-Bias-Is-For-Them-To-Succeed.pdf
- Moats, L. C. (2005/2006, Winter). How spelling supports reading: And why it is more regular and predictable than you may think. American Educator, 29(4), 12-22, 42-43.
- Moats, L. C. (2019). Teaching spelling: An opportunity to unveil the logic of language. Perspectives on Language and Literacy, 45(3),17-20.
- Moats, L. C. (2020a). Speech to print (3rd Ed.). Brookes.
- Moats, L. C. (2020b). Teaching reading is rocket science: What expert teachers of reading should know and be able to do. American Federation of Teachers. https://www.aft.org/sites/default/files/moats.pdf
- Moats, L. C. (2023). Creating confident readers: How LETRS supports teachers—and their students. American Educator, 47(1), 4-11. https://www.aft.org/ae/spring2023/moats

- Molin, F., Haelermans, C., Cabus, S., & Groot, W. (2020). The effect of feedback on metacognition-A randomized experiment using polling technology. Computers & Education, 152, 103885.
- Moore, M., Robinson, H., Sheffield, A., & Phillips, A. (2017). Mastering the blend: A professional development program for K-12 teachers. Journal of Online Learning Research, 3(2), 145-173.
- Moss, C. M., & Brookhart, S. M. (2019). Advancing formative assessment in every classroom: A guide for instructional leaders (2nd ed.). ASCD.
- Murphy, P. K., Wilkinson, I. A., & Soter, A. O. (2018). Text talk: Exploring texts together in the classroom. Teachers College Press.
- Nagy, W. (1997). On the role of context in first- and second-language vocabulary learning. In N. N. Schmitt & M. McCarthy (Eds.), Vocabulary: description, acquisition and pedagogy (pp. 64-83). Cambridge University Press.
- Nagy, W., Berninger, V. W., & Abbott, R. D. (2006). Contributions of morphology beyond phonology to literacy outcomes of upper elementary and middle school students. Journal of Educational Psychology, 98(1), 134-147. https://doi.org/10.1037/0022-0663.98.1.134
- Nagy, W., & Townsend, D. (2012). Words as tools: Learning academic vocabulary as language acquisition. Reading Research Quarterly, 47(1), 91-108. https://doi.org/10.1002/RRQ.011
- Nation, I. S. P. (2013). Learning vocabulary in another language. Cambridge University Press.
- Nation, K. (2019) Children's reading difficulties, language, and reflections on the simple view of reading, Australian Journal of Learning Difficulties, 24(1), 47-73. https://doi.org/10.1080/19404158.2019.1609272
- National Academies of Sciences, Engineering, and Medicine (NASEM). (2018). How people learn II: Learners, contexts, and cultures. National Academies Press.
- National Early Literacy Panel (NELP). (2008). Developing early literacy: Report of the National

- Early Literacy Panel. National Institute for Literacy, National Center for Family Literacy.
- National Equity Project. (2020, February). Liberatory design: Mindsets and modes to design for equity. https://nationalequityproject.org/wpcontent/uploads/Liberatory-Design-CARDS\_NEP-Prototype\_Feb-2020.pdf
- National Institute of Child Health and Human Development (NICHD). (2000). Report of the National Reading Panel. Author.
- National Joint Committee on Learning Disabilities. (2008). Adolescent literacy and older students with learning disabilities: A report from the National Joint Committee on Learning Disabilities. Learning Disability Quarterly, 211–218.
- National Reading Panel (NRP). (2000). Report of the National Reading Panel: Reports of the subgroups. National Institutes of Health.
- National Research Council (NRC). (1998). Preventing reading difficulties in young children. C. E. Snow, M. S. Burns, & P. Griffin (Eds.). National Academies Press.
- National Scientific Council on the Developing Child (2004). Young children develop in an environment of relationships. Working per No. 1. http://www.developingchild.net
- Neri, R., Lozano, M., Chang, S., & Herman, J. (2016). High-leverage principles of effective instruction for English learners. From College and Career Ready Standards to Teaching and Learning in the Classroom: A Series of Resources for Teachers. Center on Standards and Assessments Implementation. https://eric.ed.gov/?id=ED570911
- Neuman, S. B. (2019). Comprehension in disguise: The role of knowledge in children's learning. Perspectives on Language and Literacy, 45(4), 12-16.
- Neuman, S. B., & Moland, N. (2016, July). Book deserts: The consequences of income segregation on children's access to print. Urban Education, 54(1), 126-147.
  - https://doi.org/10.1177/0042085916654525

- Neuman, S. B., Quintero, E., & Reist, K. (2023). Reading Reform across America: A Survey of State Legislation. Albert Shanker Institute. https://www.shankerinstitute.org/sites/default/files/ 2023-07/ReadingReform%20ShankerInstitute%20FullRe port%20072723.pdf
- Nevills, P., & Wolfe, P. (2009). Building the reading brain. PreK-3. Corwin Press.
- Nieser, K., & Cárdenas-Hagan, E. (2020). Phonics development among English learners. In Cárdenas-Hagan (Ed.), Literacy foundations for English learners: A comprehensive guide to evidencebased instruction, pp. 61–88. Brookes Publishing.
- Oakhill, J., Cain, K., & Elbro, C. (2015). Understanding and teaching reading comprehension: A handbook. Routledge.
- O'Byrne, W. I., & Pytash, K. E. (2005). Hybrid and blended learning: Modifying pedagogy across path, pace, time, and place. Journal of Adolescent and Adult Literacy, 59(2), 137-140. https://doi.org/10.1002/jaal.463
- Opitz, M. F., & Ford, M. P. (2008). Do-able differentiation: Varying groups, texts, and supports to reach readers.
- Paige, D. D., Smith, G. S., Rasinski, T. V., Rupley, W. H., Magpuri-Lavell, T., & Nichols, W. D. (2019). A path analytic model linking foundational skills to grade 3 state reading achievement. The Journal of Educational Research, 112(1), 110-120. https://doi.org/10.1080/00220671.2018.1445609
- Palincsar, A. S., & Duke, N. K. (2004). The role of text and text-reader interactions in young children's reading development and achievement. The Elementary School Journal, 105(2), 183-197. https://doi.org/10.1086/428864
- Palmer, E. (2011). Well spoken: Teaching speaking to all students. Stenhouse.
- Palmer, E. (2014). Teaching the core skills of listening and speaking. ASCD.
- Pane, J. E., Steiner, E. D., Baird, M. D., & Hamilton, L. S. (2015). Continued progress: Promising evidence on

- personalized learning. Rand Corp. https://doi.org/10.7249/rr1365.1
- Paris, D. (2012). Culturally sustaining pedagogy: A needed change in stance, terminology, and practice. Educational Researcher, 41(3), 93-97.
- Parsons, J., & Taylor, L. (2011). Improving student engagement. Current Issues in Education, 14(1).
- Pashler, H., Bain, P., Bottge, B., Graesser, A., Koedinger, K., McDaniel, M., & Metcalfe, J. (2007). Organizing instruction and study to improve student learning (NCER 2007-2004). National Center for Education Research, Institute of Education Sciences, U.S. Department of Education. http://ncer.ed.gov
- Patrick, S., & Powell, A. (2009) A summary of research on the effectiveness of K-12 online learning. International Association for K-12 Online Learning. https://files.eric.ed.gov/fulltext/ED509626.pdf
- Patrick, S., & Sturgis, C. (2015). Maximizing competency education and blended learning: Insights from experts. International Association for K-12 Online Learning (iNACOL). https://eric.ed.gov/?id=ED557755
- Peng, P., Wang, W., Filderman, M. J., Zhang, W., & Lin, L. (2024). The active ingredient in reading comprehension strategy intervention for struggling readers: A Bayesian network meta-analysis. Review of Educational Research, 94(2), 228-267.
- Pennell, C. & Knudson, T. (2025). Supporting preservice teachers' planning for explicit vocabulary instruction. The Reading League Journal, 6(1), 10-18.
- Petscher, Y., Cabell, S. Q., Catts, H. W., Compton, D. L., Foorman, B. R., Hart, S. A., Lonigan, C. J., Phillips, B. M., Schatschneider, C., Steacy, L. M., Terry, N. P., & Wagner, R. K. (2020). How the science of reading informs 21st-century education [Special issue]. Reading Research Quarterly, 55(S1), S267–S282. https://doi.org/10.1002/rrq.352
- Prescott, J. (2024, October 10). The importance of building background knowledge in reading. Shaped: HMH blog.

- https://www.hmhco.com/blog/the-importance-ofbuilding-background-knowledge-in-reading
- Pulham, E., & Graham, C. R. (2018). Comparing K-12 online and blended teacching competencies: A literature review. Distance Education, 39(3), 411-432. https://eric.ed.gov/?id=EJ1186772
- Puranik, C. S., & Al Otaiba, S. (2012). Examining the contribution of handwriting and spelling to written expression in kindergarten children. Reading and Writing, 25(7), 1523-1546.
- Quay, L. (2017). Leveraging mindset science to design environments that nurture people's natural drive to learn. Mindset Scholars Network. Center for the Advanced Study in the Behavioral Sciences at Stanford University.
- Quay, L., & Romero, C. (2015). What we know about learning mindsets from scientific research. Mindset Scholars Network. Center for the Advanced Study in the Behavioral Sciences at Stanford University.
- Rasinski, T. (2012). Why reading fluency should be hot! The Reading Teacher, 65(8), 516-522. https://doi.org/10.1002/TRTR.01077
- Ray, K., Daily, K., Rowlandson, L., Tam, K. I., & Lane, A. E. (2022). The relationship of handwriting ability and literacy in kindergarten: a systematic review. Reading and Writing, 35, 1119-1155. https:doi.org/10.1007/s11145-021-10224-8
- Recht, D. R., & Leslie, L. (1988). Effect of prior knowledge on good and poor readers' memory of text. Journal of Educational Psychology, 80(1), 16.
- Reed, D. K. (2008). A synthesis of morphology interventions and effects on reading outcomes for students in grades K-12. Learning Disabilities Research & Practice, 23(1), 36-49.
- Relyea, J. E. & Amendum, S. J. (2019). English reading growth in Spanish-speaking bilingual students: Moderating effect of English proficiency on crosslinguistic influence. Child Development, 91(4), 1150-1165. https://doi.org/10.1111/cdev.13288
- Reutzel, D. R., Child, A., Jones, C. D., & Clark, S. K. (2014). Explicit instruction in core reading

- programs. The Elementary School Journal, 114(3), 406-430.
- Reutzel, D. R., Fawson, P. C., & Smith, J. A. (2008). Reconsidering silent sustained reading: An exploratory study of scaffolded silent reading. The Journal of Educational Research, 102(1), 37–50.
- Riches, C., & Genesee, F. (2006). Literacy: Crosslinguistic and crossmodal issues. In F. Genesee, K. Lindholm-Leary, W. Saunders, & D. Christian, D. (Eds.) Educating English language learners: A synthesis of research evidence (pp. 64-108). Cambridge University Press. https://doi.org/10.1017/CBO9780511499913.004
- Rock, M. L. (2019). The eCoaching continuum for educators: Using technology to enrich professional development and improve student outcomes. ASCD.
- Rosenshine, B. (2012). Principles of instruction: Research-based strategies that all teachers should know. American Educator, 36(1), 12.
- Rosenshine, B., Meister, C., & Chapman, S. (1996). Teaching students to generate questions: A review of the intervention studies. Review of Educational Research, 66(2), 181-221
- Rosenshine, B., & Stevens, R. (1986). Teaching functions. In M. C. Wittrock (Ed.), Handbook of research on teaching (Vol. 3, pp. 376-391). Macmillian.
- Roth, F. P., Speece, D. L., & Cooper, D. H. (2002). A longitudinal analysis of the connection between oral language and early reading. The Journal of Educational Research, 95(5), 259-272. https://doi.org/10.1080/00220670209596600
- Rupley, W. H., Blair, T. R., & Nichols, W. D. (2009). Effective reading instruction for struggling readers: The role of direct/explicit teaching. Reading & Writing Quarterly, 25(2-3), 125-138.
- Samuels, S. J. (2012). Reading fluency: Its past, present, and future. In T. Rasinski, C. Blachowicz, & K. Lems (Eds.), Fluency instruction: Research-based practices (2nd ed., pp. 3–16). The Guilford Press.

- Sanden, S., Mattoon, C., & Osorio, S. L. (2021). Book talk: Growing into early literacy through readaloud conversations. Teachers College Press.
- Santoro, L. E., Baker, S. K., Fien, H., Smith, J. L. M., & Chard, D. J. (2016). Using read-alouds to help struggling readers access and comprehend complex, informational text. TEACHING Exceptional Children, 48(6), 282-292. https://doi.org/10.1177/0040059916650634
- Saxe, G., Gearhart, M., & Nasir, N. (2001). Enhancing students' understanding of mathematics: A study of three contrasting approaches to professional support. Journal of Mathematics Teacher Education, 4(1), 55-79. https://doi.org/10.1023/A:1009935100676
- Sayeski, K. L., Earle, G. A., Davis, R., & Calamari, J. (2019). Orton Gillingham: Who, what, and how. Teaching Exceptional Children, 51(3), 240–249. https://doi.org/10.1177/004005991881699
- Scarborough, H. S. (2001). Connecting early language and literacy to later reading (dis)abilities: Evidence, theory, and practice. In S. Neuman & D. Dickinson (Eds.), Handbook for research in early literacy (pp. 97-110). Guilford Press.
- Schunk, D. H., & Mullen, C. A. (2012). Self-efficacy as an engaged learner. In S. L. Christenson, A. L., Reschly, & C. Wylie (Eds.), Handbook of research on student engagement (pp. 219–235). Spring Science + Business Media. https://doi.org/10.1007/978-1-4614-2018-7\_10
- Schunk, D. H., Pintrich, P. R., & Meece, J. L. (Eds.). (2008). Motivation in education: Theory, research and applications (3rd ed.). Upper Saddle River: Pearson/Merrill Prentice Hall.
- Schwarz. S. & Sparks, S. (2019, October 2). How do kids learn to read? What the science says. Education Week. https://www.edweek.org/teaching-learning/howdo-kids-learn-to-read-what-the-sciencesays/2019/10#citation-1
- Sedita, J. (2023). The writing rope: A framework for evidence-based writing instruction. Brookes.

- Seidenberg, M. S., Borkenhagen, M. C., & Kearns, D. M. (2020). Lost in translation? Challenges in connecting reading science and educational practice [Special Issue]. Reading Research Quarterly, 55(S1), S119-S130. https://doi:10.1002/rrq.341
- Shanahan, T. (2016). History of Writing and Reading Connections. In C. MacArthur, S. Graham, & J. Fitzgerald. (Eds.), Handbook of Writing Research (2nd ed., pp. 194-207). Guilford.
- Shanahan, T., Callison, K., Carriere, C., Duke, N. K., Pearson, P. D., Schatschneider, C., & Torgesen, J. (2010). Improving reading comprehension in kindergarten through 3rd grade: A practice guide (NCEE No. 2010-4038). National Center for Education Evaluation and Regional Assistance (NCEE), Institute of Education Sciences, U.S. Department of Education. https://ies.ed.gov/ncee/wwc/Docs/PracticeGuide/re adingcomp\_pg\_092810.pdf
- Shaywitz, S. E., Fletcher, J. M., Holahan, J. M., Shneider, A. E., Marchione, K. E., Stuebing, K. A., Francis, D. J., Pugh, K. R., & Shaywitz, B. A. (1999). Persistence of dyslexia: The Connecticut longitudinal study at adolescence. Pediatrics, 104(6), 1351-1359. https://doi.org/10.1542/peds.104.6.1351.
- Shepard, L., Hammerness, K., Darling-Hammond, L., & Rust, F. (2005). Assessment. In L. Darling-Hammond & J. Bransford (Eds.), Preparing teachers for a changing world: What teachers should learn and be able to do (pp. 275-326). Jossey- Bass.
- Short, J., & Hirsh, S. (2020). The elements: transforming teaching through curriculum-based professional learning. Carnegie Corporation of New York.
- Shute, V. J. (2008). Focus on formative feedback. Review of Educational Research, 78(1), 153-189.
- Slavin, R., Lake, C., Inns, A., Baye, A., Dachet, D., & Haslam, J. (2019). A quantitative synthesis of research on writing approaches in grades 2 to 12. Education Endowment Foundation.

- Smith, R., Snow, P., Serry, T., & Hammond, L. (2021). The role of background knowledge in reading comprehension: A critical review. Reading Psychology, 42(3), 214-240. https://doi.org/10.1080/02702711.2021.1888348
- Snow, C. (2002). Reading for understanding: toward a research and development program in reading comprehension. RAND. https://www.rand.org/pubs/monograph\_reports/MR
- Spear-Swerling, L. (2018). Structured literacy and typical literacy practices: Understanding differences to create instructional opportunities. Teaching Exceptional Children, 51(3), 201–211.
- Spear-Swerling, L. (2019). Here's why schools should use structured literacy. International Dyslexia Association, 8(2), https://dyslexiaida.org/hereswhy-schools-should-use-structured-literacy/
- Spear-Swerling, L. (2022). An introduction to structured literacy and poor reader profiles. In L. Spear-Swerling (Ed.), Structured literacy interventions: Teaching students with difficulties, grades K-6, (pp. 1-22). Guilford.
- Stahl, S. A., & Murray, B. A. (2006). Defining phonological awareness and its relationship to early reading. In K. Stahl, & M. C. McKenna (Eds.), Reading research at work: Foundations of effective practice (pp. 92-113). Guilford Press.
- Stanovich, K. E. (1986). Matthew effects in reading: Some consequences of individual differences in the acquisition of literacy. Reading Research Quarterly, 21(4), 360-407.
- Steele, D. M., & Cohn-Vargas, B. (2013). Identity safe classrooms: Places to belong and learn. Corwin.
- Steiner, D. (2023). A nation at thought: Restoring wisdom in America's schools. Rowman & Littlefield.
- Strickland, D. S. (2011). Teaching phonics today: Word study strategies through the grades. International Reading Association.
- Suggate, S., Schaughency, E., McAnally, H. Reese, E. (2018). From infancy to adolescence: The longitudinal links between vocabulary, early

- literacy skills, oral narrative, and reading comprehension. Cognitive Development, 47, 82-95. https://doi.org/10.1016/j.cogdev.2018.04.005
- Sweller, J., Ayres, P., & Kalyuga, S. (2011). Intrinsic and extraneous cognitive load. Cognitive load theory. Explorations in the Learning Sciences, Instructional Systems and Performance Technologies (Vol 1, pp. 57-69). Springer. https://doi.org/10.1007/978-1-4419-8126-4 5
- Sweller, J., van Merriënboer, J. J., & Paas, F. (2019). Cognitive architecture and instructional design: 20 years later. Educational Psychology Review, 31, 261-292.
- Taylor, K., & Rohrer, D. (2010). The effects of interleaved practice. Applied Cognitive Psychology, 24(6), 837-848.
- Tennessee Department of Education (2016). Setting the foundation. A report on elementary grades reading in Tennessee. Nashville, TN: Office of Research and Strategy.
  - https://files.eric.ed.gov/fulltext/ED572952.pdf
- Texas Education Agency (n.d.). Strategies that promote comprehension. Reading Rockets. https://www.readingrockets.org/topics/backgroundknowledge/articles/strategies-promotecomprehension
- Tierney, R. J., & Shanahan, T. (1991). Research on the reading-writing relationship: Interactions, transactions, and outcomes. In R. Barr, M. L. Kamil, P. B. Mosenthal, & P. D. Pearson (Eds.), Handbook of reading research (Vol. 2, pp. 246-280). Lawrence Erlbaum Associates, Inc.
- Tomlinson, C. A. (2022). Everybody's classroom: differentiating for the shared and unique needs of diverse students. Teachers College Press.
- Topping, K. J., Douglas, W., Robertson, D., & Ferguson, N. (2021). Effectiveness of online and blended learning from schools: A systematic review. Review of Education, 10(2), e3353. https://doi.org/10.1002/rev3.3353
- Torgesen, J. K. (2004). Preventing early reading failure. American Educator, 28(3), 6-9.

- Tracy, B., Reid, R., & Graham, S. (2009). Teaching young students strategies for planning and drafting stories: The impact of self-regulated strategy development. The Journal of Educational Research, 102(5), 323-332.
- Troia, G. (2014). Evidence-based practices for writing instruction. University of Florida, Collaboration for Effective Educator, Development, Accountability, and Reform Center.
- Tucker, C., & Wycoff, T. (2019). Breaking the mold with blended coaching. ASCD Express: Coaching for Success, 15(06), https://www.ascd.org/el/articles/breaking-the-moldwith-blended-coaching.
- Underwood, B. J. (1961). Ten years of massed practice on distributed practice. Psychological Review, 68(4), 229-247.
- U.S. Department of Education. (2017). Reimagining the role of technology in education: 2017 National Education Technology Plan Update. Office of Educational Technology.
- U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics. National Assessment of Educational Progress (NAEP), various years, 1992-2019 Reading Assessments. https://www.nationsreportcard.gov/reading/?grade= 4
- Valencia, S., & Buly, M. (2004). Behind test scores: What struggling readers really need. The Reading Teacher, 57(6), 520-531.
- Valencia Goodall, M., Gomez, M., & Webster, D. (2024, May/June). Effective instruction: The intersection of structured literacy and second-language acquisition for multilingual learners [Special section]. The Reading League Journal.
- Vargas, I., Hall, C., & Solari, E. (2021). Brick by brick: Landmark studies on reading development, assessment, and instruction for students who are English learners. The Reading League Journal, 2(3), 37–41. https://www.thereadingleague.org/wp-

- content/uploads/2021/10/Sept-Oct2021-TRLJ-Sneak-Peek-web.pdf
- Vaughn, S., & Fletcher, J. (2023). The practice gap. Perspectives on Language and Literacy, 49(1), 15http://www.onlinedigeditions.com/publication/?i=80 4143
- Vaughn, S., Linan-Thompson, S., Mathes, P. G., Cirino, P. T., Carlson, C. D., Pollard-Durodola, S. D., Cardenas-Hagan, E., & Francis, D. J., (2006.) Effectiveness of Spanish intervention for first-grade English language learners at risk for reading difficulties. Journal of Learning Disabilities; 39(1), 56-73. https://doi.org/10.1177/00222194060390010601
- Walqui, A. & Heritage, M. (2018, Fall). Meaningful classroom talk: Supporting English learners' oral language development. American Educator, 42(3), 18-23, 39.
  - https://www.aft.org/ae/fall2018/walqui\_heritage
- Wang M. T., & Degol, J. (2014). Staying engaged: Knowledge and research needs in student engagement. Child Development Perspectives 8(3), 137-143. https://doi.org/10.1111/cdep.12073
- Wanzek, J., Vaughn, S., Scammacca, N., Gatlin, B., Walker, M. A., & Capin, P. (2016). Meta-analyses of the effects of Tier 2 type reading interventions in grades K-3. Educational Psychology Review, 25(3), 402-424. https://doi.org/10.1007/s10648-015-9321-7
- Washington, J. A., & Craig, H. K. (2004). A langue screening protocol for use with young African American children in urban settings. American Journal of Speech-Language Pathology, 13,(4) 329-340. https://doi.org/10.1044/1058-0360(2004/033)
- Wei, R., Darling-Hammond, L., Andree, A., Richardson, N., & Orphanos, S. (2009). Professional learning in the learning profession: A status report on teacher professional development in the United States and abroad (technical report). National Staff Development Council.

- Wiliam, D., & Thompson, M. (2017). Integrating assessment with learning: What will it take to make it work? In C. Dwyer (Ed.). The future of assessment (pp. 53-82). Routledge.
- Willingham, T. (2006, Spring). How knowledge helps: It speeds and strengthens reading comprehension, learning-and thinking. American Educator, 3(1), 30-34, 36-37. https://www.aft.org/ae/spring2006/willingham
- Willingham, T. (2015). How knowledge helps: It speeds and strengthens reading comprehension, learning—and thinking. Literacy ladders (pp. 42-46). Albert Shanker Institute, American Federation of Teachers, & Core Knowledge Foundation.
- Willingham, D. T. (2016). Knowledge and practice: The real keys to critical thinking. Knowledge matters: Restoring wonder and excitement to the classroom. Issue Brief #1. Knowledge Matters Campaign. https://knowledgematterscampaign.org/wpcontent/uploads/2016/05/Willingham-brief.pdf
- Willingham, D. (2017). The reading mind: A cognitive approach to understanding how the mind reads. Jossey-Bass.
- Willingham, D. (2023, December 1). Beyond comprehension. Educational Leadership, 81(4). https://ascd.org/el/articles/beyond-comprehension
- Witte, P. G. (2016). Teaching first graders to comprehend complex texts through readalouds. The Reading Teacher, 70(1), 29-38. https://doi.org/10.1002/trtr.1467
- Wolf, B., Abbott, R. D., & Berninger, V. W. (2017). Effective beginning handwriting instruction: Multimodal, consistent format for 2 years, and linked to spelling and composing. Reading and Writing, 30(2),299-317. https://doi.org/10.1007/s11145-016-9674-4
- Wolf, M. (2007). Proust and the squid: The story and science of the reading brain. Harper.
- Wright, T. S. (2018). Reading to learn from the start: The power of interactive read-alouds. American

- Educator, 42(4), 4-10. https://www.aft.org/ae/winter2018-2019/wright
- Yarrow, F., & Topping, K. J. (2001). Collaborative writing: The effects of metacognitive prompting and structured peer interaction. British Journal of Educational Psychology, 71, 261–282. Zhang, D. (2005). Interactive multimedia-base e-learning: A study of effectiveness. The American Journal of Distance Education, 19(3), 149-162. https://doi.org/10.1207/s15389286ajde1903\_3
- Zhang, D. (2005). Interactive multimedia-base elearning: A study of effectiveness. The American Journal of Distance Education, 19(3), 149–162. https://doi.org/10.1207/s15389286ajde1903\_3
- Zhao, Y., & Watterston, J. (2021). The changes we need: Education post COVID-19. Journal of Educational Change, 22, 3–12.

## **Contributors**

**Terry Salinger, PhD**, Institute Fellow at American Institutes for Research

Kimberly Munroe, PhD, President, Prosody, Inc.

Renee Behring, EdM, Education Research Director of K-12 Core Literacy, HMH

Deborah Martínez, MEd, Senior Product Manager of Core Solutions K-6 Literacy, HMH

Ashley Burell Burns, MEd, VP, Learning Experience Design, Core Solutions K-6 Literacy, HMH

Francie Alexander, MA, SVP Efficacy Research, NWEA Learning Sciences, HMH

Amy Endo, PhD, Education Research Director of Supplemental and Intervention Services, HMH

Grant Atkins, PhD, Education Research Director of Professional Services, HMH

## HMH research publications

## Research-based, evidence-proven



#### **Research Evidence Base**

Research Evidence Base papers provide an in-depth account of the theoretical underpinnings, evidence base, and expert opinions that guide the design and development of new and revised programs. These papers map known research and design principles to practical applications of the program.



#### Research Professional Paper

Research Professional Papers highlight an important theoretical construct, practical application, program component, or other topic related to learning in the context of HMH programs. They are authored by experts in the field, researchers, and thought leaders within the industry.



#### **Research Results**

Research Results papers summarize the findings from research studies conducted on HMH programs, including research conducted internally by HMH and externally by third-party research firms. Research Results papers document the efficacy of a program in terms of ESSA evidence levels: strong evidence, moderate evidence, promising evidence, and evidence that demonstrates a rationale for program effectiveness.

To learn more about HMH's dedication to research and efficacy, visit <a href="https://hmhco.com/research">hmhco.com/research</a>.

# Research Evidence Base

Browse our library of research at <a href="https://html.ncb.com/researchlibrary">hmhco.com/researchlibrary</a>.

