Everyday Mathematics®, published by Wright Group/McGraw-Hill, is a core curriculum for students in prekindergarten through grade 6. At each grade level, the Everyday Mathematics® curriculum provides students with multiple opportunities to learn concepts and practice skills. Across grade levels, concepts are reviewed and extended in varying instructional contexts. The distinguishing features of Everyday Mathematics® are its focus on real-life problem solving, student communication of mathematical thinking, and appropriate use of technology. This curriculum also emphasizes balancing different types of instruction (including collaborative learning), using various methods for skills practice, and fostering parent involvement in student learning.

One study of Everyday Mathematics® that falls within the scope of the Elementary School Math review protocol meets What Works Clearinghouse (WWC) evidence standards with reservations. The study included 3,436 elementary students in third through fifth grades in a large urban school district in Texas. The district used the first edition of Everyday Mathematics®. Based on this study, the WWC considers the extent of evidence for Everyday Mathematics® on elementary students to be small for math achievement.

1. This report has been updated to include reviews of 11 studies that have been released since 2005. Of the additional studies, ten were not within the scope of the Elementary School Math protocol, and one (Cummins-Colburn, 2007) was within the scope of the protocol but did not meet evidence standards. Additionally, three studies that met standards with reservations in the previous version no longer meet evidence standards. In Carroll (1998) and Riordan and Noyce (2001), the intervention and comparison groups are not shown to be equivalent at baseline. (The protocol for the Elementary School Math area was revised to specify that groups must be equivalent on the pretest for a quasi-experimental design.) Woodward and Baxter (1997) was previously included as meeting standards with reservations, though the results from the study cannot be solely attributed to the intervention as there was only one comparison school. A complete list and disposition of all studies reviewed are provided in the references.
2. The descriptive information for this program was obtained from publicly available sources: the distributor’s website (http://www.wrightgroup.com) and http://ucsm.p.uchicago.edu/, both downloaded June 2010. The WWC requests developers to review the program description sections for accuracy from their perspective. Further verification of the accuracy of the descriptive information for this program is beyond the scope of this review. The literature search reflects documents publicly available by August 2008.
3. This review refers to studies of Everyday Mathematics® in kindergarten through fifth grade. Studies of Everyday Mathematics® conducted in prekindergarten or sixth grade were out of the scope of the Elementary School Math protocol.
4. The studies in this report were reviewed using WWC Evidence Standards, Version 1.0 (see the WWC Standards), as described in protocol Version 1.1.
5. The evidence presented in this report is based on available research. Findings and conclusions may change as new research becomes available.
Everyday Mathematics® was found to have potentially positive effects on math achievement for elementary students.

### Effectiveness

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### Additional program information

#### Developer and contact

#### Scope of use
Curriculum development for the Everyday Mathematics® elementary curriculum began in 1985. The developer reports that the curriculum is used in more than 175,000 classrooms by approximately three million students. A second edition of the curriculum became available in 2001–02 (with an update in 2004), and a third edition became available in 2007. The second and third editions are both available for purchase.

#### Teaching
The third edition of Everyday Mathematics® is structured around 15 Program Goals, identical across all grades, which articulate the mathematical content that students are expected to master. The goals are derived from research, as well as state and national standards, and are set within the following topic headings: numbers and numeration; operations and computations; data and chance; measurement and reference frames; geometry; and patterns, functions, and algebra. For every grade, teachers are offered lesson plans, resource materials for teachers and parents, assessments, student assignments, and Minute Math activities for transition periods or quick practice. For grades K–6, there is also a differentiation handbook that helps teachers tailor lessons to a diverse group of students, as well as online tools that allow teachers to plan lessons and track student assessments and performance.

Finally, the publisher offers multiple professional development options, such as user conferences and institutes, onsite professional development programs, and online courses.

#### Cost
Curriculum sets are bundled by grade and are available for prekindergarten through grade 6. For elementary grades, the Classroom Resource Package costs $258.93 and includes Teacher’s Lesson Guides, Teacher’s Reference Manual, Assessment Handbook, Differentiation Handbook, Home Connection Handbook, Math Masters, Minute Math, posters, and one set of Student Materials (student math journals 1 and 2, reference book, and pattern block template). The pre-K and kindergarten classroom resource sets are $162.24 and $201.02, respectively. Student texts and consumables, supplemental materials, manipulatives, and online components (for planning and assessment tracking) are available separately and vary in price.

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6. This number shows the student-level improvement index based on the findings in the one study that meets WWC evidence standards with reservations. That one study examined the effectiveness of the first edition of Everyday Mathematics®.

7. The study that meets evidence standards with reservations examined the first edition of Everyday Mathematics®.

8. Prices were obtained from the publishers’ website in June 2010 (http://www.wrightgroup.com).
Everyday Mathematics® September 2010

**Research**

Seventy-two studies reviewed by the WWC investigated the effects of *Everyday Mathematics®* on elementary students. One study (Waite, 2000) is a quasi-experimental design that meets WWC evidence standards with reservations. The remaining 71 studies do not meet either WWC evidence standards or eligibility screens.

Waite (2000) included 732 third-, fourth-, and fifth-grade students in six schools using *Everyday Mathematics®* and a comparison group of 2,704 third-, fourth-, and fifth-grade students in 12 similar schools, matched on baseline math achievement scores, student demographics, and geographical location. The schools in the intervention group were in their first year of implementing the first version of *Everyday Mathematics®*.

**Extent of evidence**

The WWC categorizes the extent of evidence in each domain as small or medium to large (see the WWC Procedures and Standards Handbook, Appendix G). The extent of evidence takes into account the number of studies and the total sample size across the studies that meet WWC evidence standards with or without reservations.9

The WWC considers the extent of evidence for *Everyday Mathematics®* for elementary students to be small for math achievement.9

**Effectiveness**

**Findings**

The WWC review of interventions for Elementary School Math addresses student outcomes in math achievement. The findings below include both the author's estimates and WWC-calculated estimates of the size and the statistical significance of the effects of *Everyday Mathematics®* on elementary students.10

Waite (2000) reported a statistically significant positive effect of *Everyday Mathematics®* on overall math achievement. In WWC calculations, this effect was not statistically significant. However, the WWC determined that the effects on math achievement were large enough to be considered substantively important (that is, an effect size of 0.25 or greater). Based on this one study, the WWC categorized the effect of *Everyday Mathematics®* on overall math achievement as being a substantively important positive effect.

Waite (2000) also reported statistically significant positive subtest results (concepts, operations, and problem solving). In WWC calculations, the effects for each subtest were not statistically significant. However, the effects on each subtest were large enough to be considered substantively important. The subtest analyses do not factor into the intervention's rating of effectiveness, as they are already represented as part of the full sample results.

**Rating of effectiveness**

The WWC rates the effects of an intervention in a given outcome domain as positive, potentially positive, mixed, no discernible effects, potentially negative, or negative. The rating of effectiveness takes into account four factors: the quality of the research design, the statistical significance of the findings, the size of the difference between participants in the intervention and the comparison conditions, and the consistency in findings across studies (see the WWC Procedures and Standards Handbook, Appendix E).

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9. The extent of evidence categorization was developed to tell readers how much evidence was used to determine the intervention rating, focusing on the number and size of studies. Additional factors associated with a related concept (external validity, such as the students' demographics and the types of settings in which studies took place) are not taken into account for the categorization. Information about how the extent of evidence rating was determined for *Everyday Mathematics®* is in Appendix A6.

10. The level of statistical significance was reported by the study authors or, when necessary, calculated by the WWC to correct for clustering within classrooms or schools and for multiple comparisons. For an explanation, see the WWC Tutorial on Mismatch. For the formulas the WWC used to calculate the statistical significance, see WWC Procedures and Standards Handbook, Appendix C for clustering and WWC Procedures and Standards Handbook, Appendix D for multiple comparisons. In the case of Waite (2000), a correction for clustering was needed, so the significance levels may differ from those reported in the original study.
The WWC found *Everyday Mathematics*® to have potentially positive effects for math achievement for elementary students

**Improvement index**
The WWC computes an improvement index for each individual finding. In addition, within each outcome domain, the WWC computes an average improvement index across studies (see WWC Procedures and Standards Handbook, Appendix F). The improvement index represents the difference between the percentile rank of the average student in the intervention condition and the percentile rank of the average student in the comparison condition. Unlike the rating of effectiveness, the improvement index is entirely based on the size of the effect, regardless of the statistical significance of the effect, the study design, or the analysis. The improvement index can take on values between –50 and +50, with positive numbers denoting favorable results for the intervention group.

Based on the one study that meets WWC standards with reservations, the improvement index for math achievement is +12 percentile points.

**Summary**
The WWC reviewed 72 studies on *Everyday Mathematics*® for elementary students. One of these studies meets WWC evidence standards with reservations; the remaining 71 studies do not meet either WWC evidence standards or eligibility screens. Based on this study, the WWC found potentially positive effects in math achievement for elementary students. The conclusions presented in this report may change as new research emerges.

**References**

**Meets WWC evidence standards with reservations**

**Studies that fall outside the Elementary School Math review protocol or do not meet WWC evidence standards**
Allen, C. (2007). *An action based research study on how using manipulatives will increase students’ achievement in mathematics*. Unpublished research study, Marygrove College, Detroit, MI. The study is ineligible for review because it does not use a comparison group.
The study is ineligible for review because it does not examine the effectiveness of an intervention.


Briars, D. J. (2004, July). *The Pittsburgh story: Successes and challenges in implementing standards-based mathematics programs*. Paper presented at the meeting of the UCSMP *Everyday Mathematics* Leadership Institute, Lisle, IL. The study does not meet WWC evidence standards because the intervention and comparison groups are not shown to be equivalent at baseline.


Carroll, W. M. (1993). *Mathematical knowledge of kindergarten and first-grade students in* *Everyday Mathematics*. Chicago: University of Chicago School Mathematics Project. The study does not meet WWC evidence standards because the intervention and comparison groups are not shown to be equivalent at baseline.


Carroll, W. M. (1996a). *A follow-up to the fifth-grade field test of Everyday Mathematics: Geometry and mental and written computation*. Chicago: University of Chicago School Mathematics Project. The study does not meet WWC evidence standards because the intervention and comparison groups are not shown to be equivalent at baseline.

Carroll, W. M. (1996b). Mental computation of students in a reform-based mathematics curriculum. *School Science and Mathematics, 96*(6), 305–311. The study does not meet WWC evidence standards because the intervention and comparison groups are not shown to be equivalent at baseline.

Carroll, W. M. (1996c). Use of invented algorithms by second graders in a reform mathematics curriculum. *Journal of Mathematical Behavior, 15*(2), 137–150. The study is ineligible for review because it does not use a comparison group.


Carroll, W. M. (2000). Invented computational procedures of students in a standards-based curriculum. *Journal of Mathematical Behavior, 18*(2), 111–121. The study does not meet WWC evidence standards because the intervention and comparison groups are not shown to be equivalent at baseline.


Carroll, W. M., & Isaacs, A. (2003a). Achievement of students using the University of Chicago School Mathematics Project’s *Everyday Mathematics*. (Study: Mental computation and number sense of fifth graders.) In S. L. Senk & D. R. Thompson (Eds.), *Standards-based school mathematics curricula: What are they? What do students learn?* (pp. 79–108). Mahwah, NJ: Lawrence Erlbaum Associates, Inc. The study does not meet WWC evidence standards because the intervention and comparison groups are not shown to be equivalent at baseline.


because the intervention and comparison groups are not shown to be equivalent at baseline.


Cummins-Colburn, B. J. L. (2007). Differences between state-adopted textbooks and student outcomes on the Texas Assessment of Knowledge and Skills examination. *Dissertation Abstracts International, 68*(06A). (UMI No. 1682299) The study does not meet WWC evidence standards because the intervention and comparison groups are not shown to be equivalent at baseline.


Fuson, K. C., & Carroll, W. M. (n.d.). *Summary of comparison of Everyday Mathematics (EM) and McMillan (MC): Evanston student performance on whole-class tests in grades 1, 2, 3, and 4.* Unpublished manuscript. The study does not meet WWC evidence standards because the intervention and comparison groups are not shown to be equivalent at baseline.

**Additional source:**


References (continued)

Research in Mathematics Education, 31(3), 277–295. The study does not meet WWC evidence standards because the intervention and comparison groups are not shown to be equivalent at baseline.


McCabe, K. J. (2001). Mathematics in our schools: An effort to improve mathematics literacy. Masters Abstracts International, 40(04), 835. (UMI No. 1407560) The study does not meet WWC evidence standards because the intervention and comparison groups are not shown to be equivalent at baseline.


New math curriculum formula for success. (2007, November). Curriculum Review, 47, 3. The study is ineligible for review because it does not examine the effectiveness of an intervention.


Riordan, J. E., & Noyce, P. E. (2001). The impact of two standards-based mathematics curricula on student achievement in Massachusetts. Journal for Research in Mathematics Education, 32(4), 368–398. The study does not meet WWC evidence standards because the intervention and comparison groups are not shown to be equivalent at baseline.

Additional source:


SRA/McGraw-Hill. (2001a). Everyday Mathematics student achievement studies: Volume 3. (Study: California SAT-9.) Chicago: Author. The study does not meet WWC evidence standards because the intervention and comparison groups are not shown to be equivalent at baseline.

SRA/McGraw-Hill. (2001b). Everyday Mathematics student achievement studies: Volume 3. (Study: Florida Comprehensive Assessment Test.) Chicago: Author. The study does not meet WWC evidence standards because the intervention and comparison groups are not shown to be equivalent at baseline.

SRA/McGraw-Hill. (2001c). Everyday Mathematics student achievement studies: Volume 3. (Study: Illinois Standards Achievement Test.) Chicago: Author. The study does not meet WWC evidence standards because the intervention and comparison groups are not shown to be equivalent at baseline.

SRA/McGraw-Hill. (2001d). Everyday Mathematics student achievement studies: Volume 3. (Study: Kentucky Commonwealth Accountability Testing System.) Chicago: Author. The study does not meet WWC evidence standards because the intervention and comparison groups are not shown to be equivalent at baseline.

SRA/McGraw-Hill. (2001e). Everyday Mathematics student achievement studies: Volume 3. (Study: Massachusetts Comprehensive Assessment System.) Chicago: Author. The study does not meet WWC evidence standards because the intervention and comparison groups are not shown to be equivalent at baseline.

SRA/McGraw-Hill. (2001f). Everyday Mathematics student achievement studies: Volume 3. (Study: MAT-7 in Wichita, Kansas.) Chicago: Author. The study does not meet WWC evidence standards because the intervention and comparison groups are not shown to be equivalent at baseline.

SRA/McGraw-Hill. (2001g). Everyday Mathematics student achievement studies: Volume 3. (Study: Michigan Educational Assessment Program.) Chicago: Author. The study is ineligible for review because it does not use a comparison group.

SRA/McGraw-Hill. (2001h). Everyday Mathematics student achievement studies: Volume 3. (Study: Pennsylvania State Assessment System.) Chicago: Author. The study does not meet WWC evidence standards because the intervention and comparison groups are not shown to be equivalent at baseline.

SRA/McGraw-Hill. (2001i). Everyday Mathematics student achievement studies: Volume 3. (Study: SAT-9 in Santa Ana, California.) Chicago: Author. The study does not meet WWC evidence standards because the intervention and comparison groups are not shown to be equivalent at baseline.

SRA/McGraw-Hill. (2001j). Everyday Mathematics student achievement studies: Volume 4. (Study: Florida Comprehensive Assessment Test.) Chicago: Author. The study does not meet WWC evidence standards because the intervention and comparison groups are not shown to be equivalent at baseline.

SRA/McGraw-Hill. (2001k). Everyday Mathematics student achievement studies: Volume 4. (Study: Illinois Standards Achievement Test.) Chicago: Author. The study does not meet WWC evidence standards because the intervention and comparison groups are not shown to be equivalent at baseline.

SRA/McGraw-Hill. (2001l). Everyday Mathematics student achievement studies: Volume 4. (Study: Kentucky Core Content Test.) Chicago: Author. The study does not meet WWC evidence standards because the intervention and comparison groups are not shown to be equivalent at baseline.

meet WWC evidence standards because the intervention and comparison groups are not shown to be equivalent at baseline.

SRA/McGraw-Hill. (2001n). Everyday Mathematics student achievement studies: Volume 4. (Study: North Carolina ABCs Accountability Model.) Chicago: Author. The study is ineligible for review because it does not use a comparison group.

SRA/McGraw-Hill. (2001o). Everyday Mathematics student achievement studies: Volume 4. (Study: South Carolina Palmetto Achievement Challenge Test.) Chicago: Author. The study is ineligible for review because it does not use a comparison group.


SRA/McGraw-Hill. (2001q). Everyday Mathematics student achievement studies: Volume 4. (Study: Tennessee Comprehensive Assessment Program.) Chicago: Author. The study does not meet WWC evidence standards because the intervention and comparison groups are not shown to be equivalent at baseline.

Woodward, J., & Baxter, J. (1997). The effects of an innovative approach to mathematics on academically low-achieving students in inclusive settings. Exceptional Children, 63(3), 373–388. The study does not meet WWC evidence standards because the measures of effect cannot be attributed solely to the intervention—there was only one unit of analysis in one or both conditions.