

Good Morning NCTM!
Learning Support for Title I Students:
Teaching Mathematics

Greywolf Elementary
171 Carlsborg Rd. Sequim, WA 98382
360-582-3300



- | | |
|--|---------------------------|
| ■ Kristi Coe, OSPI | Kristi.Coe@k12.wa.us |
| ■ Donna Hudson, Principal | dHUDSON@sequim.k12.wa.us |
| ■ Pam Landoni, Instructional Coach | plandoni@sequim.k12.wa.us |
| ■ Shannon Green, 3 rd Grade Teacher | sgreen@sequim.k12.wa.us |

Learning Support for Title I Students: Teaching Mathematics



“Every Child. Every Moment. Every Day.”

GREYWOLF ELEMENTARY

Our School has Grit!

Kids At Hope



2018 NCTM Convention
“Moving Greywolf from Good to Great!”
Principal Donna Hudson

**OH, YOU ARE FROM
WASHINGTON?**





SBA 2016-17 Gains

- SBA Math scores (2016) for ALL students, and for students in SWD and Low Income subgroups (at grade 3, grade 4, and grade 5) showed significant increases in each category when compared to SBA scores from 2015.
- *Proficiency gains in the SWD category exceed the gains in the ALL category at the 3rd, 4th, and 5th grade levels.*



Highlights and Celebrations

- GWE Earned our 5th Washington Achievement Award
- Named a National Title 1 School of Distinction
- Visit by Senator Murray
 - Senator Murray wanted to see a school with sustained success and systems



To Achieve Excellent and Equitable Learning Results, Leaders Must Improve:

1. How students and teachers relate to each other and share beliefs (school culture)
2. How teaching occurs (instructional effectiveness)
3. What is taught (curricular rigor)
 - Common language and models



School Demographics

- 591 Students
- 66 Staff Members
- 48% F&R
- Classroom Counts
 - Kinder 100
 - 1st 110
 - 2nd 96
 - 3rd 91
 - 4th 88
 - 5th 105
- 114 Students served by LAP (a Tier 2 intervention)
- 63 Students on IEPs
- School-wide Title 1 Program



The hard truths...

2010-2011 ▼ Olympic Educational Service District 114 ▼ Sequim ▼ Greywolf Elementary School ▼

School Details

Name: Greywolf Elementary School
Code: 4378
Type: Public
Category: Elementary School
District: Sequim
ESD: Olympic Educational Service District 114

PERFORMANCE LEVEL	RATING RANGE	
	From	To
HIGHEST ↑ ↓ LOWEST	7.85	10.00
	6.81	<7.85
	5.86	<6.81
	4.84	<5.86
	3.77	<4.84
	1.00	<3.77

Achievement Index

Awards and Designations

Performance Details

Proficiency						
	Reading	Math	Writing	Science	Average	Proficiency Average
All Students	8.00	7.00	6.00	6.00	6.75	5.75
Targeted Subgroups	4.50	3.50	6.00	5.00	4.75	
Growth					Average	Growth Average
	Reading	Math				
All Students	5.00	4.00			4.50	3.75
Targeted Subgroups	4.00	2.00			3.00	
2011 INDEX RATING						4.55

[Printable Index Data Report](#)

Washington State Board of Education - Achievement Index

[Index Help](#) [Printing Help](#)

Use the ESD or District dropdowns to filter the available schools. Select a School or enter a School Code below.

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Achievement Index

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Performance Details

	Proficiency				Growth	
	Rating based on Percent Proficient				Rating based on Median Growth Percentiles	
	Reading	Math	Writing	Science	Reading	Math
All Students	8.00	7.00	6.00	6.00	5.00	4.00
Targeted Subgroup Average	4.50	3.50	6.00	5.00	4.00	2.00
Targeted Subgroups						
American Indian/Alaska Native						
Pacific Islander/Native Hawaiian						
Black/African American						
Hispanic						
English Language Learners (ELLs)						
Former ELL						
Students with Disabilities	3.00	2.00				
Free and Reduced Price Lunch	6.00	5.00	6.00	5.00	4.00	2.00
Non-Targeted Subgroups						
Asian						
White	8.00	7.00	6.00	6.00	6.00	4.00
Two or More Races						

Indicates fewer than 20 student records.

Facing our “Hard Truths”

- Getting the right people on the bus...
- Did our learning targets reflect the standards?
- We needed to be “Data Driven” not “We’ve always done this” driven...
- We needed to look at our Attitudes/Beliefs
“Are all kids capable of success?”
- We could not focus on a deficit model
- We needed to establish a sense of urgency..

4 years later....



... moving from good to GREAT!

Washington State Board of Education - Achievement Index

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2015-2016 ▼ Olympic Educational Service District 114 ▼ Sequim ▼ Greywolf Elementary School ▼

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2015-2016 Smarter Balanced Assessment Participation Rate		
ELA	98.80%	School Met Federal Accountability Participation Requirements
Math	100.00%	

PERFORMANCE LEVEL	RATING RANGE	
	From	To
HIGHEST ↑	7.83	10.00
	6.77	<7.83
	5.67	<6.77
	4.15	<5.67
	3.86	<4.15
LOWEST ↓	1.00	<3.86

[Achievement Index](#)[Awards and Designations](#)[Performance Details](#)

Proficiency					
	ELA	Math	Science	Average	Proficiency Average
All Students	8.00	8.00	9.00	8.33	7.94
Targeted Subgroups	6.67	7.00	9.00	7.56	
Growth					
	ELA	Math	Average	Growth Average	
All Students	9.00	10.00	9.50	9.75	
Targeted Subgroups	10.00	10.00	10.00		
2016 INDEX RATING					9.03

[Printable Index Data Report](#)

Participation Rates

Students who do not participate in required assessments are assigned a score of zero for the calculation of the school's Achievement Index rating.

[Learn more about Index ratings.](#)

Washington State Board of Education - Achievement Index

[Index Help](#) [Print](#)

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	ELA	Math	Science	ELA	Math
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Targeted Subgroups					
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White	8.00	8.00	9.00	9.00	10.00
Two or More Races	8.00	8.00			

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[Learn more about Index ratings.](#)

SBA 2016-17 Scores

2016-2017 WA Testing Results	Washington State Average	Greywolf	Above State Average	Points +/- State Average
3 rd - English / Language Arts	52.6	60.9	Yes!	+8.3
4 th - English / Language Arts	55.2	79.9	Yes!	+24.7
5 th - English / Language Arts	58.6	70.5	Yes!	+11.9
3 rd - Math	57.8	81.3	Yes!	+23.5
4 th - Math	54.3	87.8	Yes!	+33.5
5 th - Math	48.6	71.2	Yes!	+22.6
5 th - Science	63.4	74.7	Yes!	+11.3

STUDENTS Passing SBA Math

3RD GRADE

(85 kids)

81%



4TH GRADE

(98 kids)

88%



5TH GRADE

(94 kids)

71%



NATIONAL TITLE 1
**DISTINGUISHED
SCHOOL**

Greywolf Elementary School
Washington



Closing the achievement gap between student groups

Transformational Cultural Innovations at Greywolf

- Schedule



Community Partnerships: Recognition Assemblies, Read Across America



Family Engagement

- Family Engagement Nights
- Family Math Night & PTA Provided Dinner
- Early Bird Reader
- Family Movie Night



System Solutions

- Intentional Practices
 - Lunchtime Slide shows- filling gaps whenever we can
 - Gym Walls- a culture of success
 - Bathroom doors- Nothing is off limits!
 - Encouraging bulletin board displays

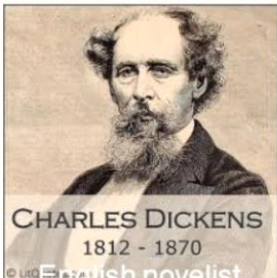


Lunch time slide show. . .

October Disability Awareness



Margaux Hemingway –
Model and Actress



CHARLES DICKENS
1812 - 1870
English novelist

Look to the future. Nothing will stop
me not even...
Epilepsy

Epilepsy is a common chronic neurological
that is characterized by recurrent unprovoked
It is usually controlled, but not cured, with
although surgery may be considered in di



Theodore Roosevelt –
26th President of the U.S.



Chanda Peters –
American ice hockey player

The History of our Nation

Our 38th President: Gerald R. Ford

1974-1977



Did you know?

- He was born **Leslie Lynch King, Jr.**
- Ford was the first president to be an **Eagle Scout**.
- Ford was on the **University of Michigan football team** from 1931 to 1934. He was offered tryouts by both the **Green Bay Packers** and the **Detroit Lions**.
- Ford's daughter **Susan Ford** was a member of the **U.S. House of Representatives**.

The History of our Nation

National Women's History Month

Women Who Made History



Did you know?

Amelia Earhart (1897-1937)

Amelia Earhart was the first woman to ever fly solo
the Atlantic in 1932 and she became the first woman
in 1935 to fly solo from Hawaii to California. She embarked
upon her lifelong dream of flying across the world in 1937,
however, her flight went missing on that trip and she was
never seen again. **How old was she when she went missing?**

School Skill: Following Directions

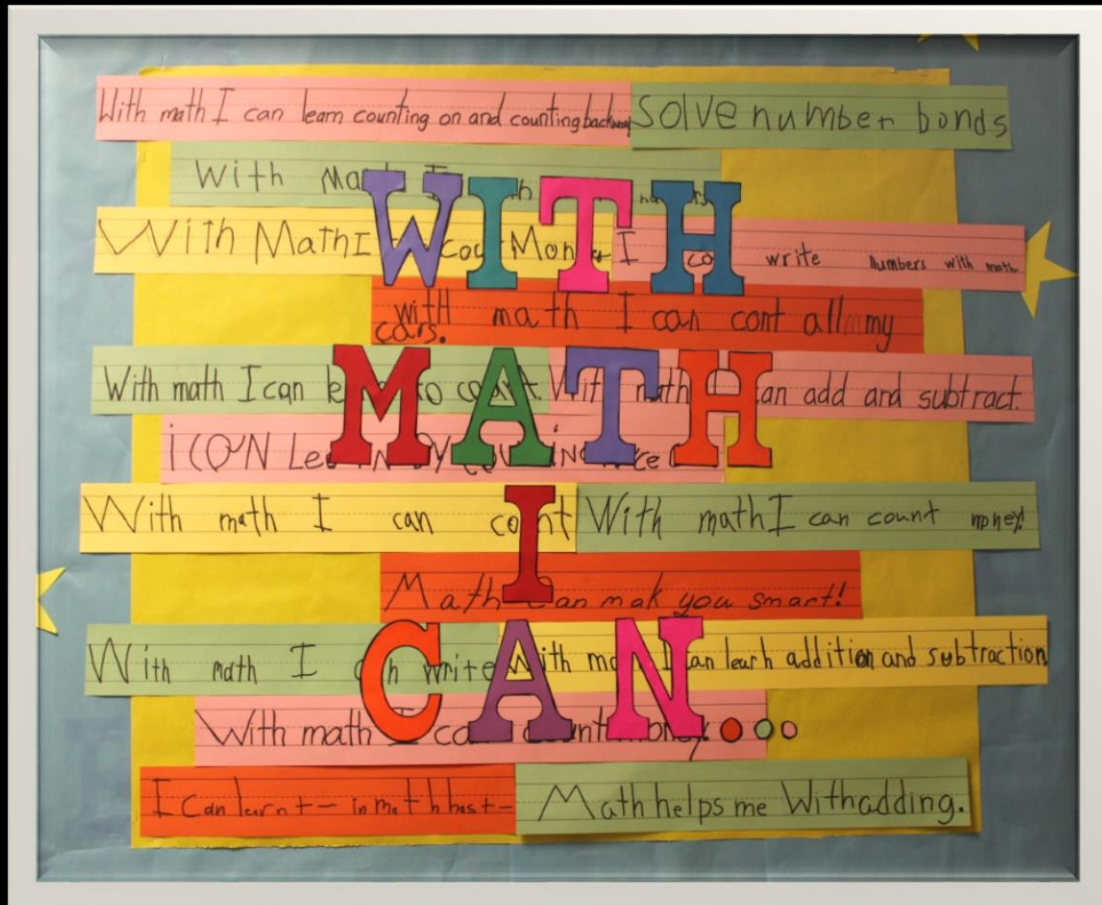


1. ? _____ carefully to the direction.
2. Ask ? _____ about anything you don't understand.
3. ? _____ the direction to the person (or to yourself.)
4. ? _____ ? _____ ? _____

Greywolf hallway bulletin boards... builing on Hope!

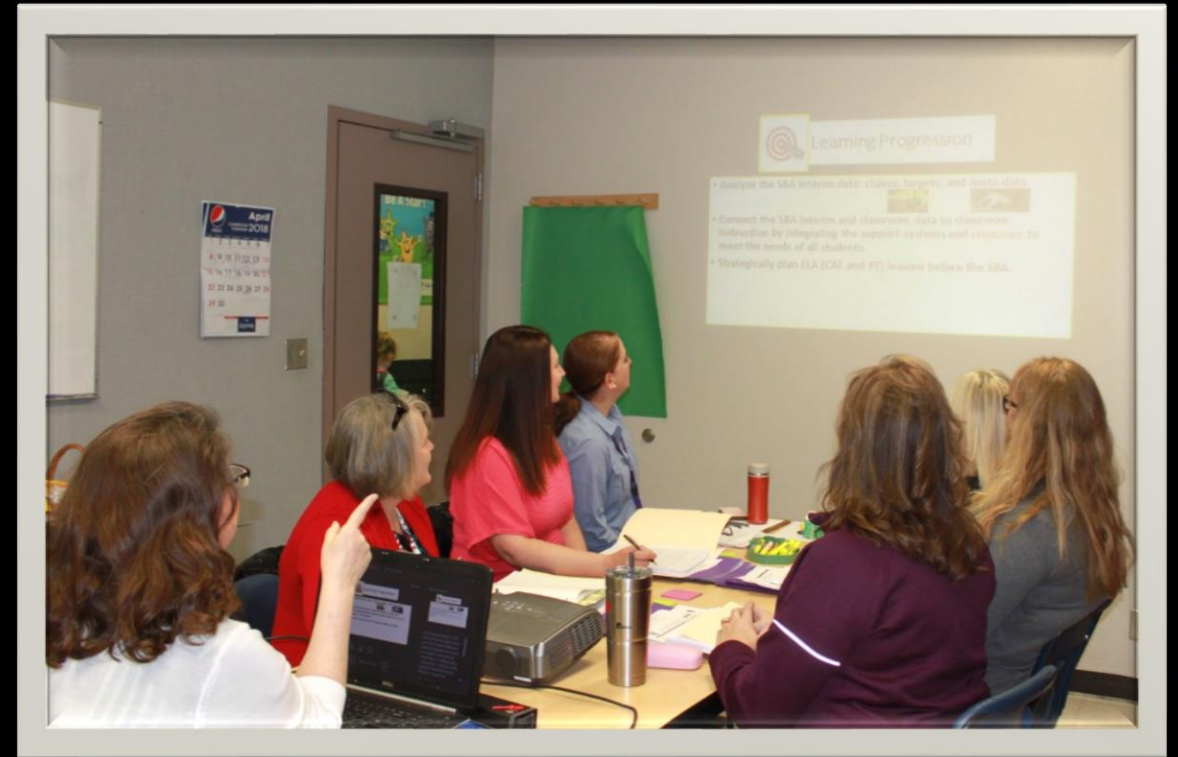


Instilling a Growth Mindset . . .



System Solutions

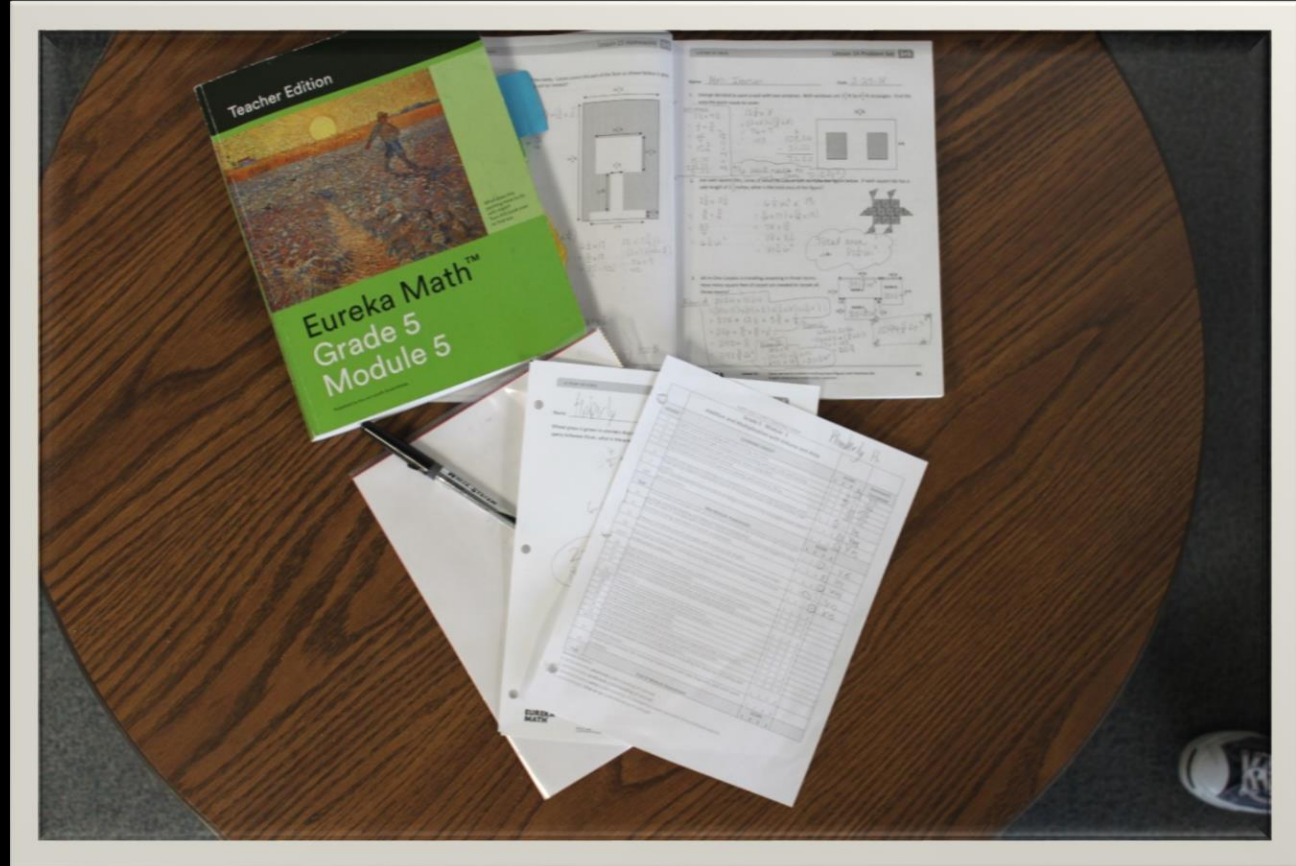
- Systems solutions to real school problems-
 - Monday Meetings
 - Building Connections between Tier 1,2,3 programs
 - On Demand Professional Development
 - Working collaboratively to reduce the teaching and learning cycle



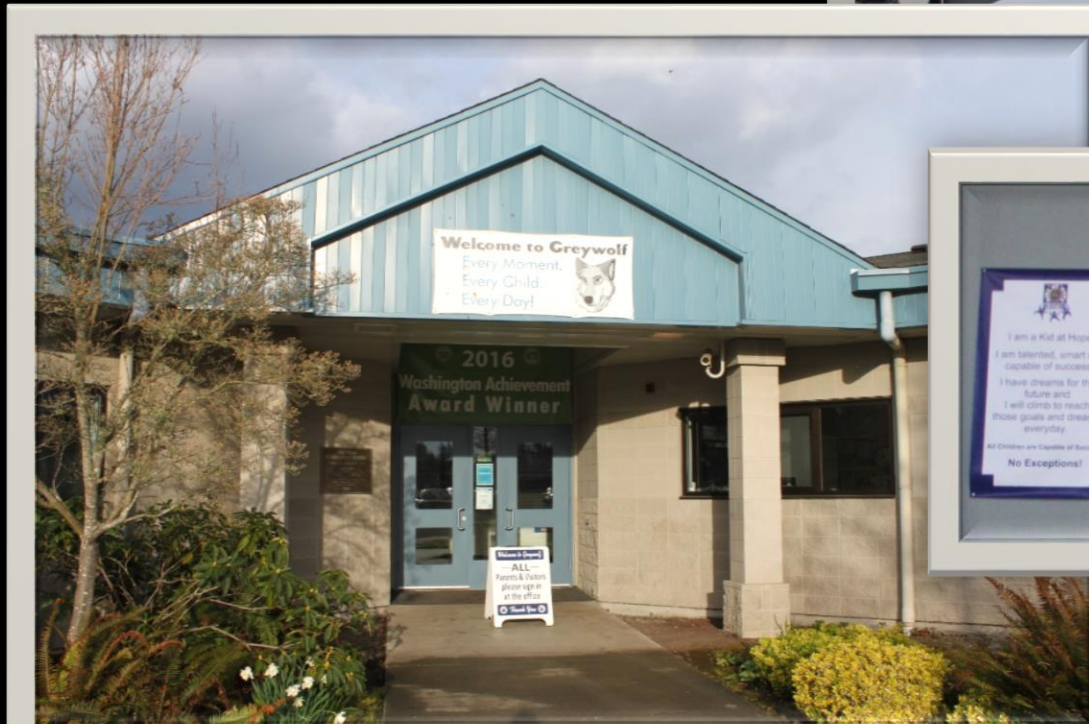
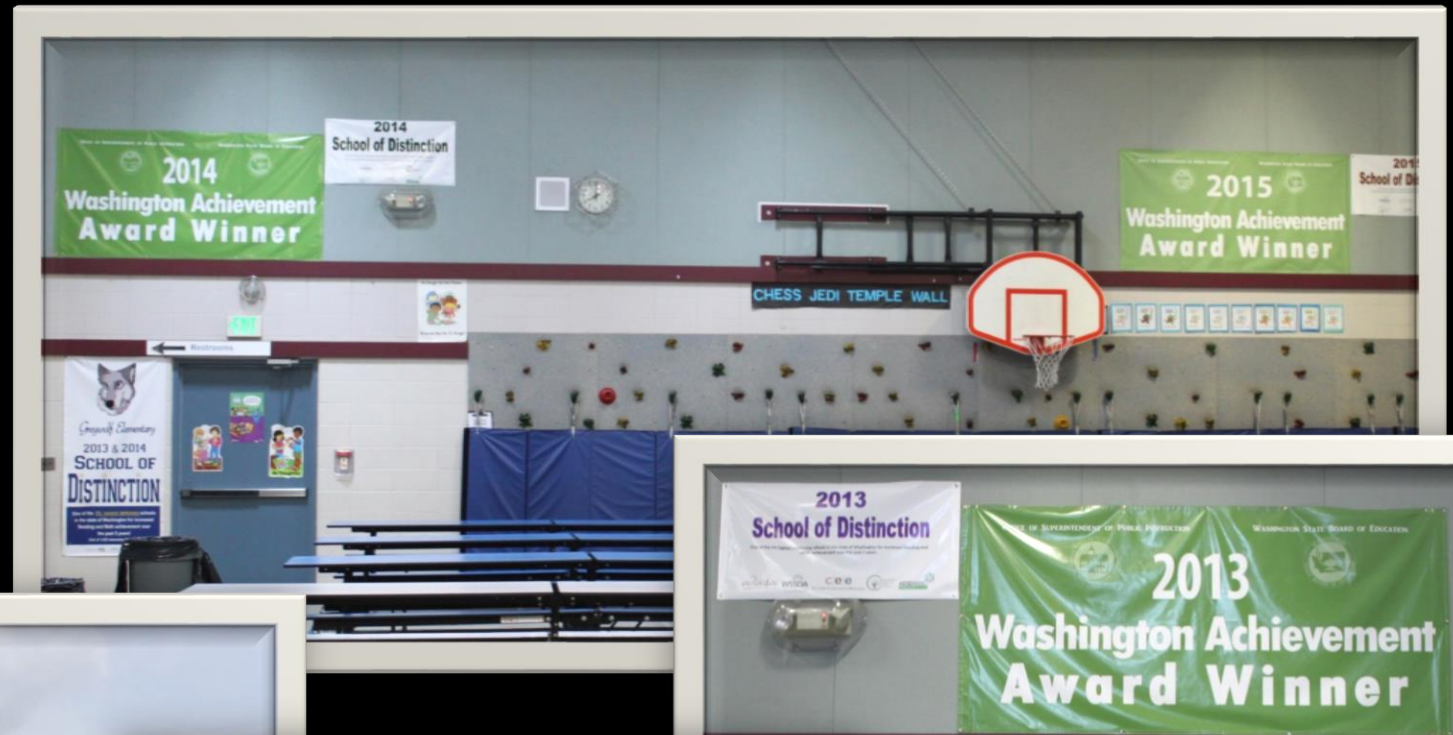
System Solutions

Doing fewer things better

- Strong, highly aligned math curriculum - Eureka
- Inclusion Model
- Title Math teacher teaming with our teachers



Culture of Success: We are a “Math” School



Empowering School Characteristics

**Challenging
Curricula**

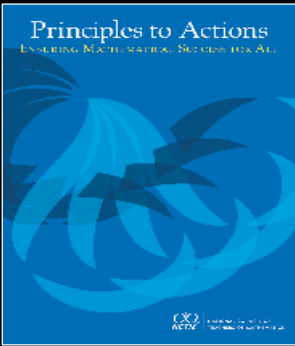
**Effective
Instruction**

**Positive
Transformational Culture**

Greywolf didn't improve culture, and THEN work towards improving instruction and student learning. They changed culture *through* the work.

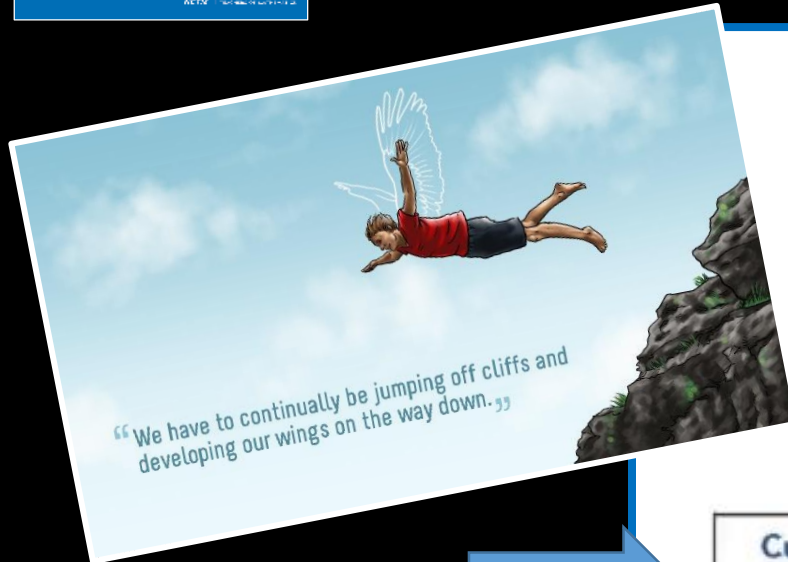
The likelihood of progress increases when we use a systems approach to align our efforts.





Principles to Actions: Ensuring Mathematical Success for All

Guiding Principles for School Mathematics



NATIONAL COUNCIL OF
TEACHERS OF MATHEMATICS

Guiding Principles for School Mathematics

Teaching and Learning. An excellent mathematics program requires effective teaching that engages students in meaningful learning through individual and collaborative experiences that promote their ability to make sense of mathematical ideas and reason mathematically.

Access and Equity. An excellent mathematics program requires that all students have access to a high-quality mathematics curriculum, effective teaching and learning, high expectations, and the support and resources needed to maximize their learning potential.

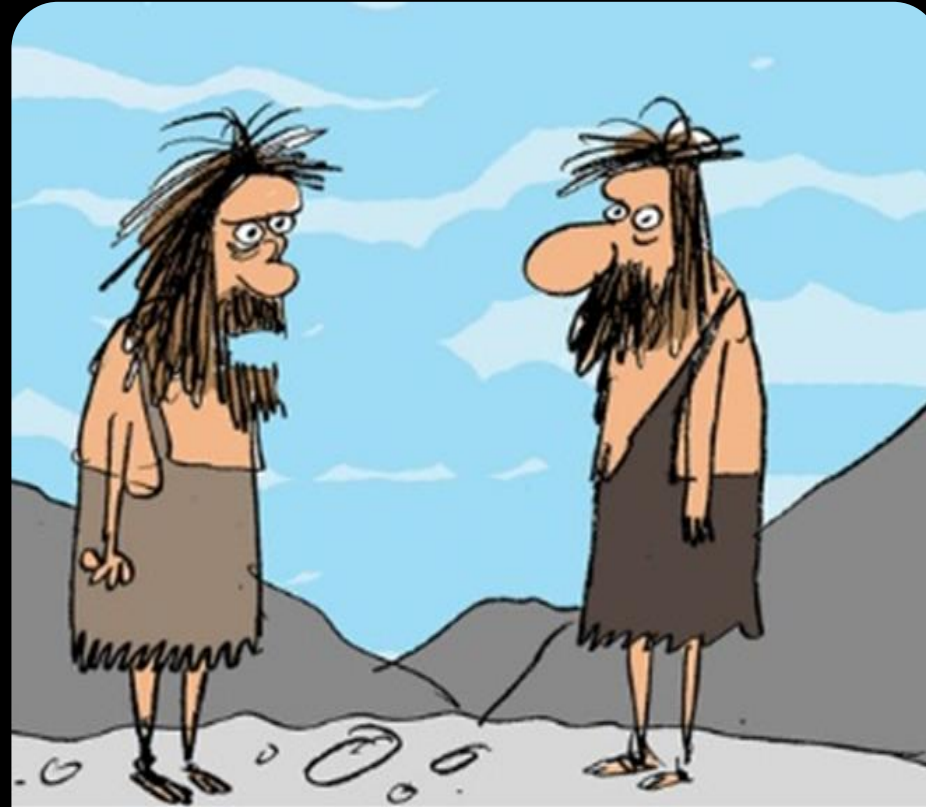
Curriculum. An excellent mathematics program includes a curriculum that develops important mathematics along coherent learning progressions and develops connections among areas of mathematical study and between mathematics and the real world.

mathematical tools and technology as essential resources to help students learn and make sense of mathematical ideas; reason mathematically, and communicate their mathematical thinking.

Assessment. An excellent mathematics program ensures that assessment is an integral part of instruction, provides evidence of proficiency with important mathematics content and practices; includes a variety of strategies and data sources, and informs feedback to students, instructional decisions, and program improvement.

Professionalism. In an excellent mathematics program, educators hold themselves and their colleagues accountable for the mathematical success of every student and for their personal and collective professional growth toward effective teaching and learning of mathematics.

Our Story



"I'm not much of a hunter or gatherer. I'm more of a borrower."

You replied on 8/27/2013 7:46 PM.

Action Items

Hello! I hope you had a great summer. I did.

I was wondering if you were available for some help anytime in the next week or so.

I have a vague idea of how this is all going to work. I was thinking math stations. A 5-10 min entry task/ story problem. An instructional period of 30/40 min with a time for correcting work and then four 20 min rotations of the following ;

Work pertaining to instruction

Mountain math

1st pertaining to instruction

Math fact practice/ Problem solving/challenge work

The problems I think I will have are;

Whole group assessment

Monitoring behavior

Lack of time

As a group we are going to plan out 4th grade math for sep on Tuesday. [Would you like to come?](#)

Some resources I would love are, advice, problem solving questions related to common core, stretch activities for the higher kids, and pacing.

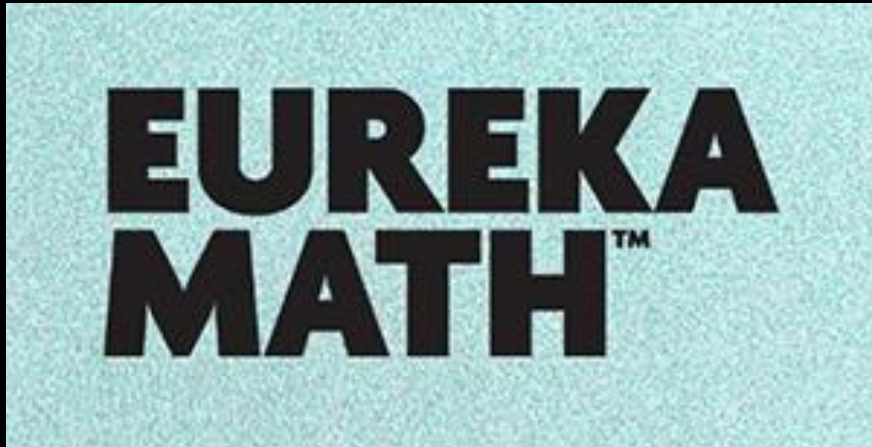
Thanks!

Aaron

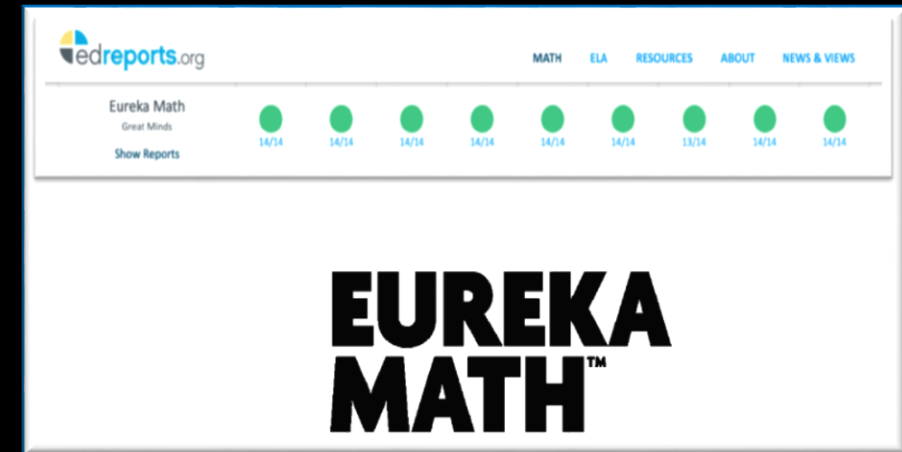
What is taught?

Greywolf Elementary has achieved excellent and equitable learning results through high-quality, rigorous, standards-aligned math curriculum.

**Eureka Math
Adopted K-5**



EdReports.org



Instructional materials are a serious lever for change. Research is clear that *challenging instruction materials* contributes to student learning , narrows the achievement gaps, and empowers students.

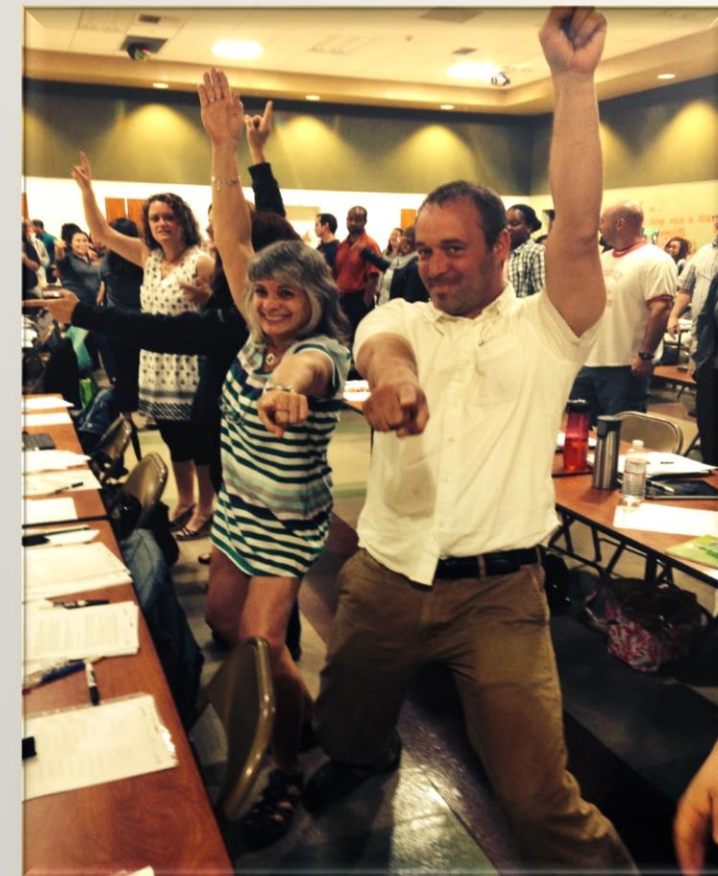
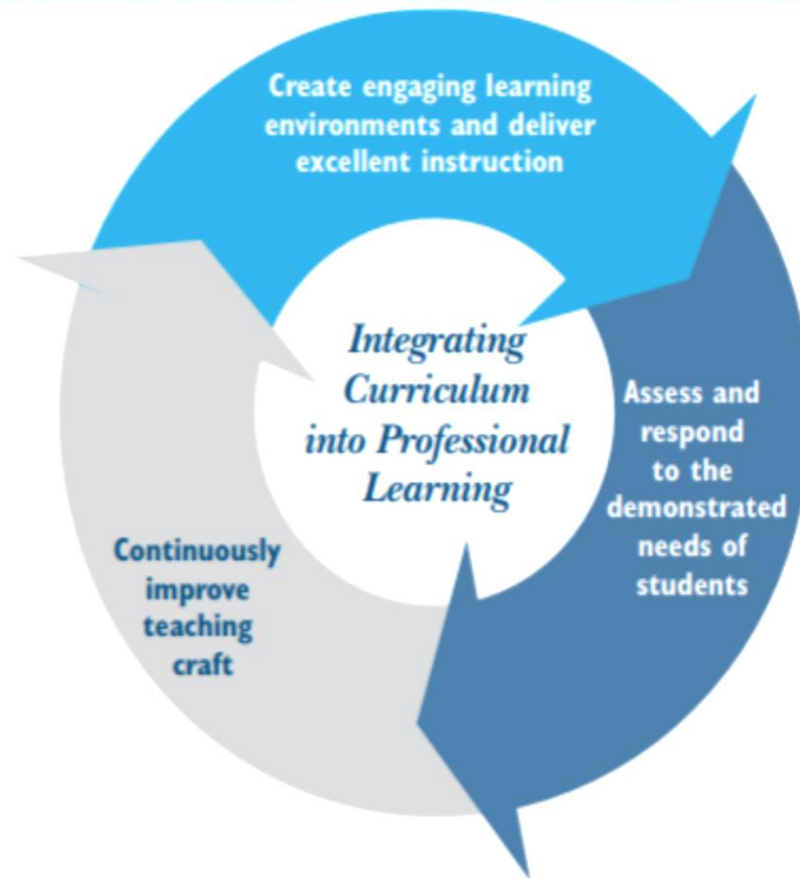


Learning Together as Teachers



To improve teaching and learning we weave together the curriculum and standards students engage with every day with targeted and systematic PD.

By integrating curriculum into professional learning, Greywolf teachers can focus on their essential roles: creating engaging learning environments and delivering excellent instruction, assessing and responding to the demonstrated needs of their students, and continuously improving their craft.



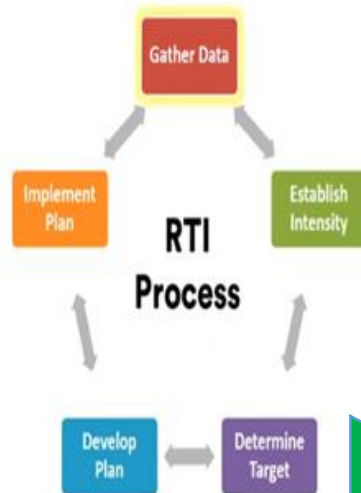
PD linked to curriculum can lead to transformational changes in teaching and learning.

We believe:

Real change starts with DATA,
DATA is a tool for surgical planning and instruction,
The shorter the delay between recognizing a learning gap and taking action, the more likely the gap closes.

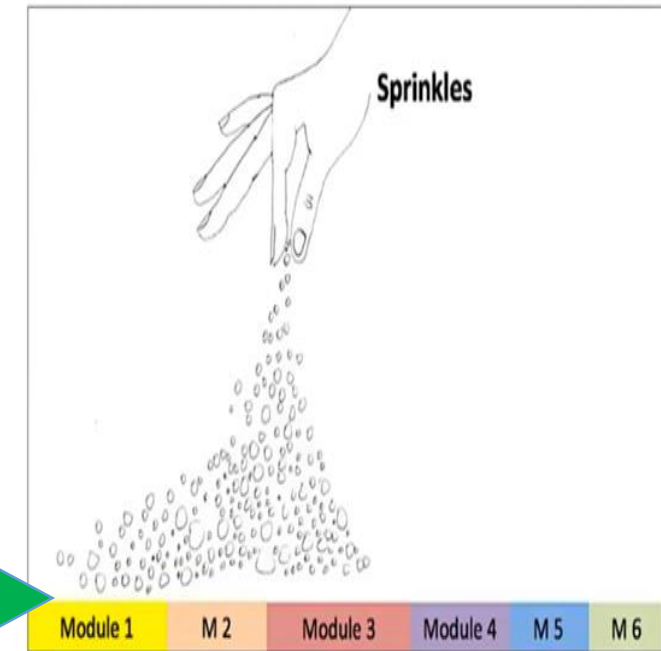
Gather Data

- Observation
 - Fluency
 - Classwork
 - Debrief
- Exit Tickets
- Topic Quizzes
- Module Assessments



Exit Ticket

- Got It
- Almost There
- Not Yet



All students can engage with grade-level work even with gaps in prior grade level skills. Some prior grade-level content is prerequisite work, while other prior grade-level content can be mastered while studying on-grade-level content.

We believe all students need to spend as much time as possible engaging with on grade-level content!



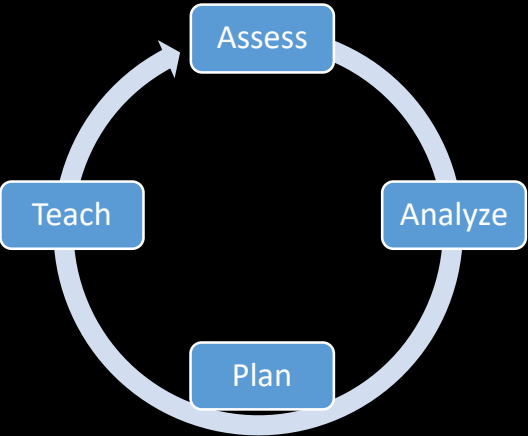
MATH EXIT TICKET

(barometer for student success)

STUDENT AND TEACHER TRACKING

Grade 2 Module 7 Problem Solving with Length, Money, and Data		SCORE			
LESSON	LEARNING TARGET	1	2	3	4
1	Sort and record data into a table using up to four categories; use category counts to solve word problems	1	2	3	4
2	Draw and label a picture graph to represent data with up to four categories.	1	2	3	4
3	Draw and label a bar graph to represent data; relate the count scale to the number line.	1	2	3	4
4	Draw a bar graph to represent a given data set.	1	2	3	4
5	Solve word problems using data presented in a bar graph.	1	2	3	4
6	Recognize the value of coins and count up to find their total value.	1	2	3	4
7	Solve word problems involving the total value of a group of coins.	1	2	3	4
8	Solve word problems involving the total value of a group of bills.	1	2	3	4
9	Solve word problems involving different combinations of coins with the same total value.	1	2	3	4
10	Use the fewest number of coins to make a given value.	1	2	3	4
11	Use different strategies to make \$1 or make change from \$1.	1	2	3	4
12	Solve word problems involving different ways to make change from \$1.	1	2	3	4
13	Solve two-step word problems involving dollars or cents with totals within \$100 or \$1.	1	2	3	4
Test	Mid-Module Assessment				
14	Connect measurement with physical units by using iteration with an inch tile to measure.	1	2	3	4

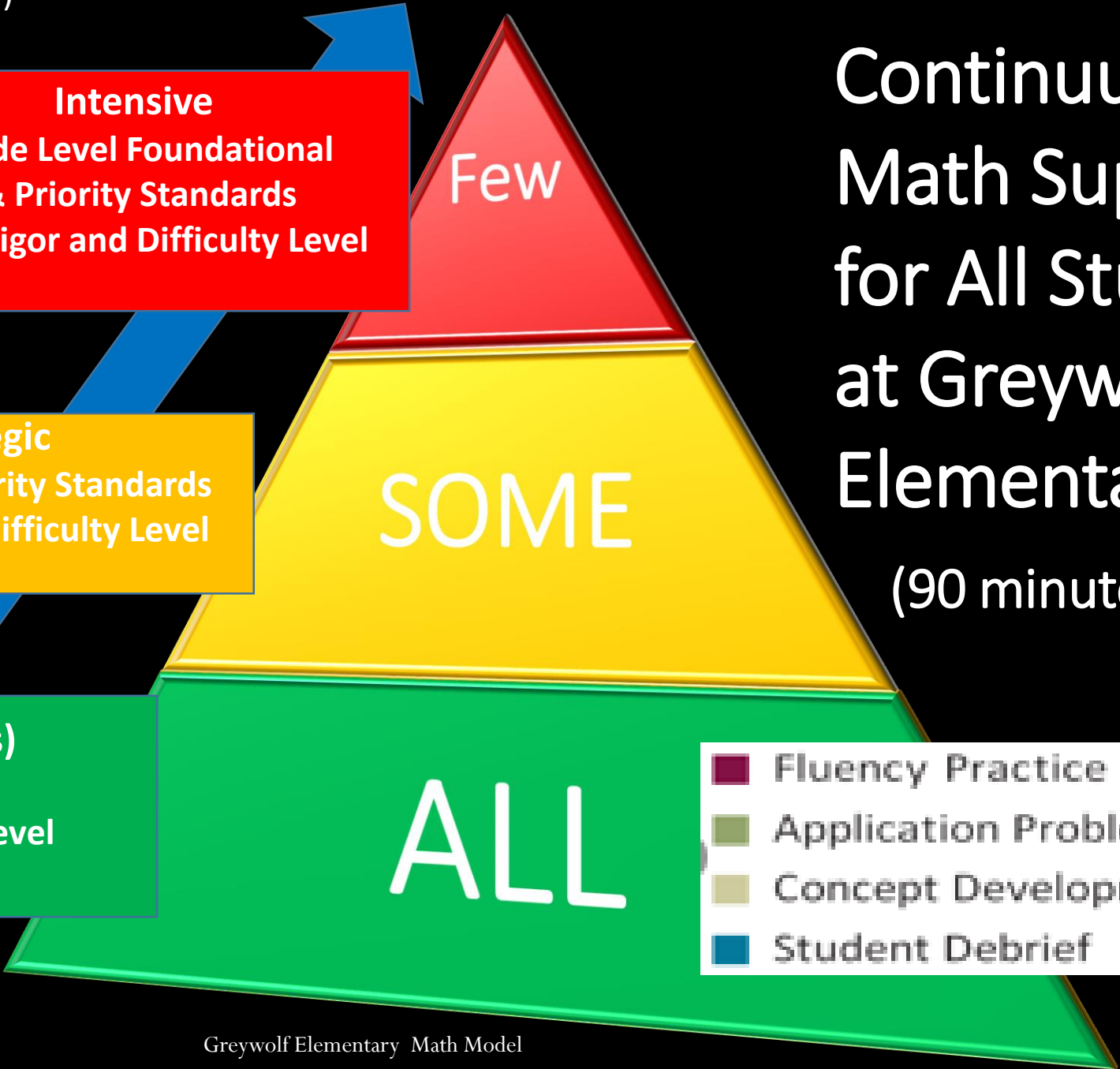
STUDENT	SCORE	1	2	3	4								
		3.OA.B.6, 5.NF.B.7a, 5.NF.B.7c R	5.NF.B.7c	6.NS.A.1	6.NS.A.1	6.NS.A.1	6.NS.A.1	6.NS.A.1	6.NS.A.1	6.NS.A.1	6.NS.B.3		
Remediation													
Major Work													
Supporting Work													
Additional Work													
Enrichment													
STANDARD													
OVERALL													
LESSON													
1	38	4	2	4	2	2	4	4	4	4	4	4	4
2	40	3	3	2	1	3	1	2	2	2	3	4	4
3	57	4	2	2	2	4	2	3	3	2	2	2	2
4	2.42	2	2	2	2	4	3	2	2	2	2	2	2
5	3.16	4	2	2	2	4	4	2	4	4	4	4	4
6	3.13	4	4	2	2	2	4	4	4	4	4	3	3
7	2.48	3			1	3		3	2	2	2	2	2
8	2.89	4	2	2	2	4	4	3	4	4	4	4	4
9	3.00	3	3	4	4	2	2	3	2	2	4	4	4
10	2.93	3	3	3	4	4	4	2	2	2	3	3	3
11	3.16	4	3	3	2	4	3	3	4	4	4	4	4
12	2.15	1	2	1	2	3	3	3	2	3	3	3	3
13	2.71	3	2	2	2	3	4	3	2	2	4	4	4
14	2.81	3	2		2	4	2	3	2	2	4	4	4
15	2.16	3	2	2	2	3	2	3	2	2	2	2	2
16	2.88	3	4										
17	1.62	1		1	1	2	2	2	1	1	1	1	1
18	3.38	4	3	4	4	4		4	2	2	4	4	4
19	1.53	2	1	1	1	2	2		1	1	1	1	1
20	2.56	1	2	4	2	2	3	2	2	2	3	3	3
21	2.57	4	3	2	2	2	1	2	2	2	3	3	3
22	2.50	2	2	2	2			3	4	2	2	2	2
23	2.89	3	2	2	2	4	4	3	2	2	3	3	3
24	2.69	3	4	2	2	3	2	3	2	2	4	4	4
25	2.69	3	2	2	4	2	3	3	2	2	4	4	4
26	2.61	4	2	2	4	2	2	3	2	2	2	2	2



Intensive
Grade Level Foundational
& Priority Standards
High Rigor and Difficulty Level

Strategic
Grade Level Priority Standards
High Rigor and Difficulty Level

Universal (60 minutes)
Grade Level Standards
High Rigor and Difficulty Level

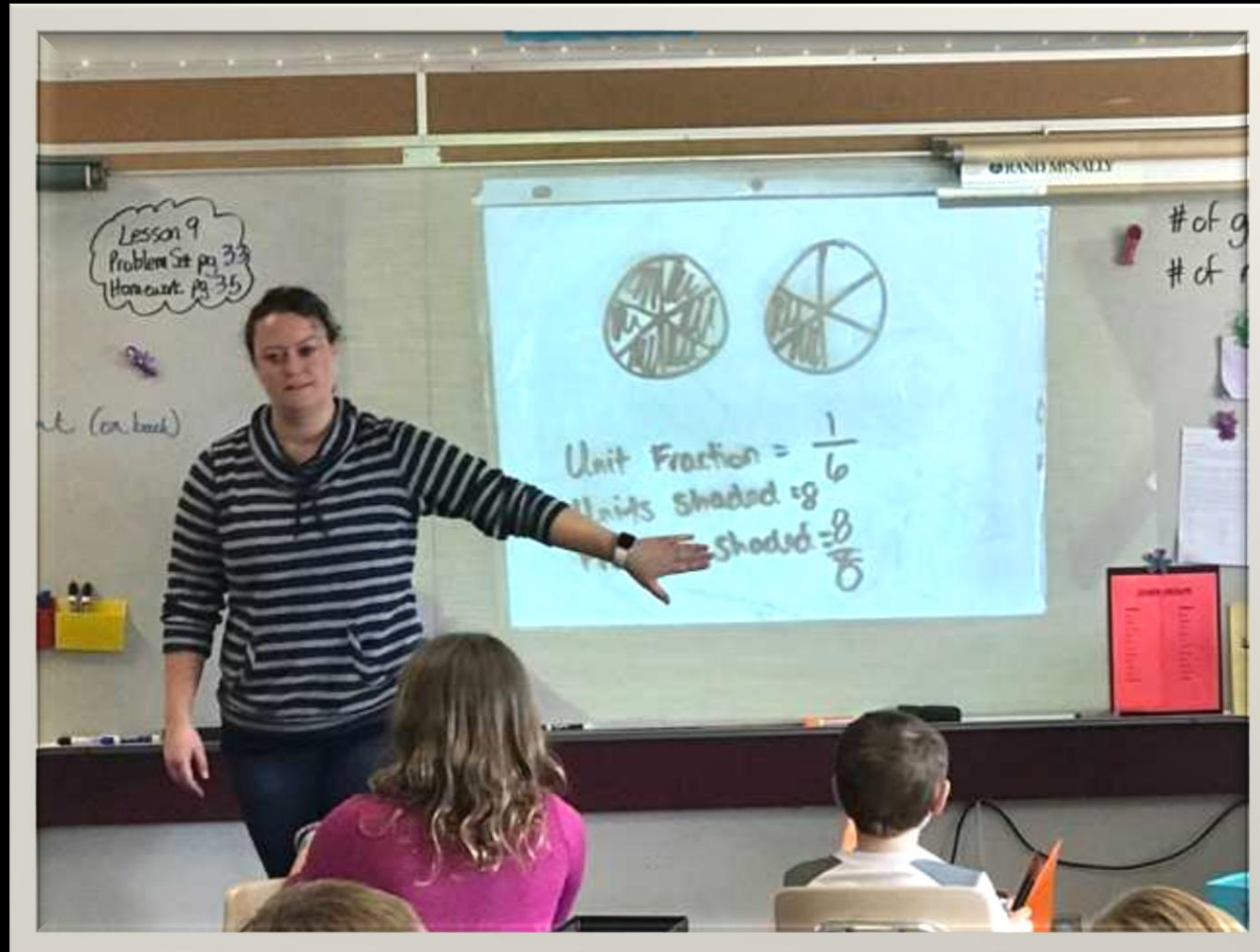


Continuum of
Math Support
for All Students
at Greywolf
Elementary
(90 minutes)

- Fluency Practice
- Application Problems
- Concept Development
- Student Debrief

Shannon Green

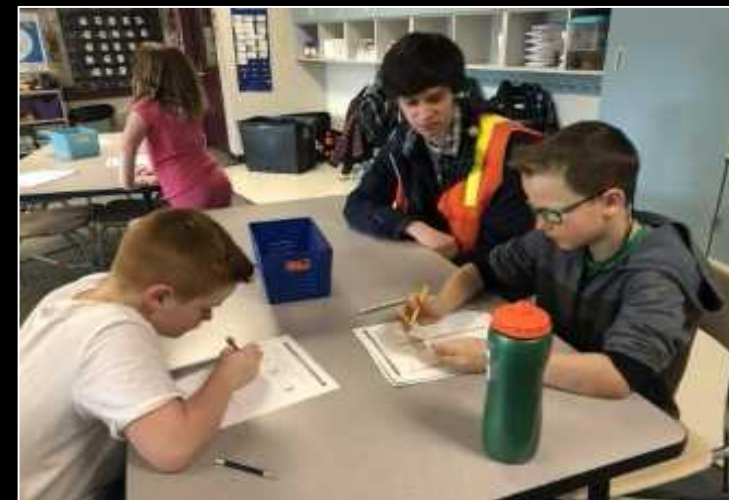
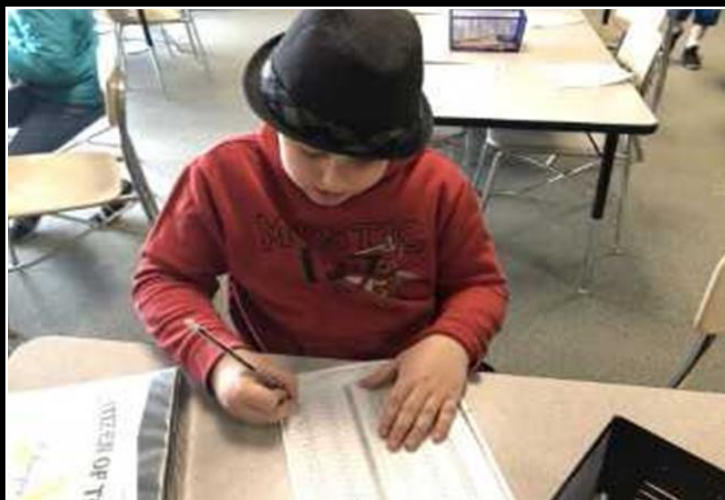
Greywolf 3rd Grade Teacher





Principles to Actions: Ensuring Mathematical Success for All

Guiding Principals for School Mathematics

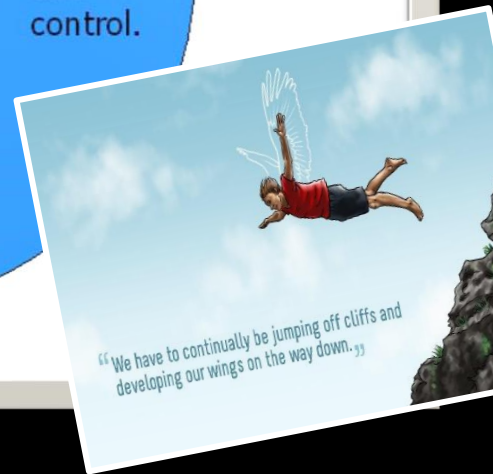
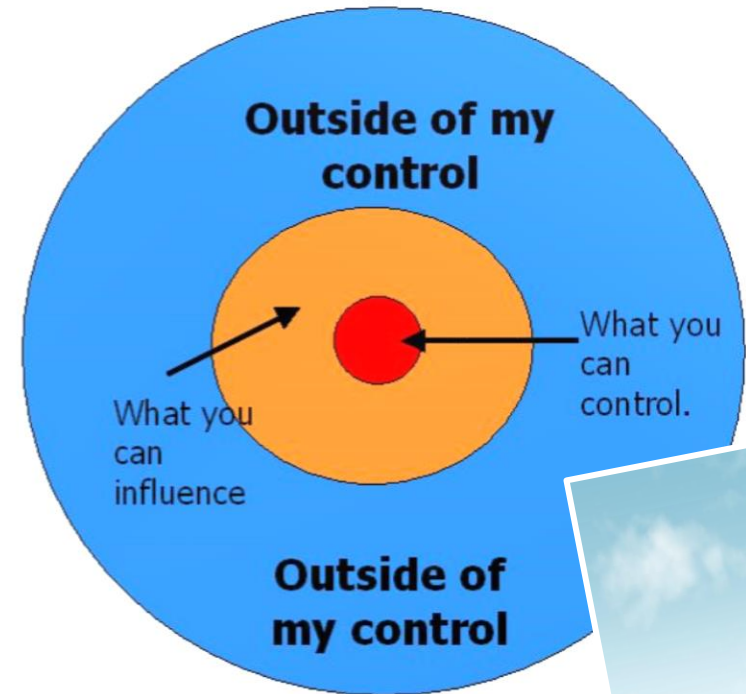




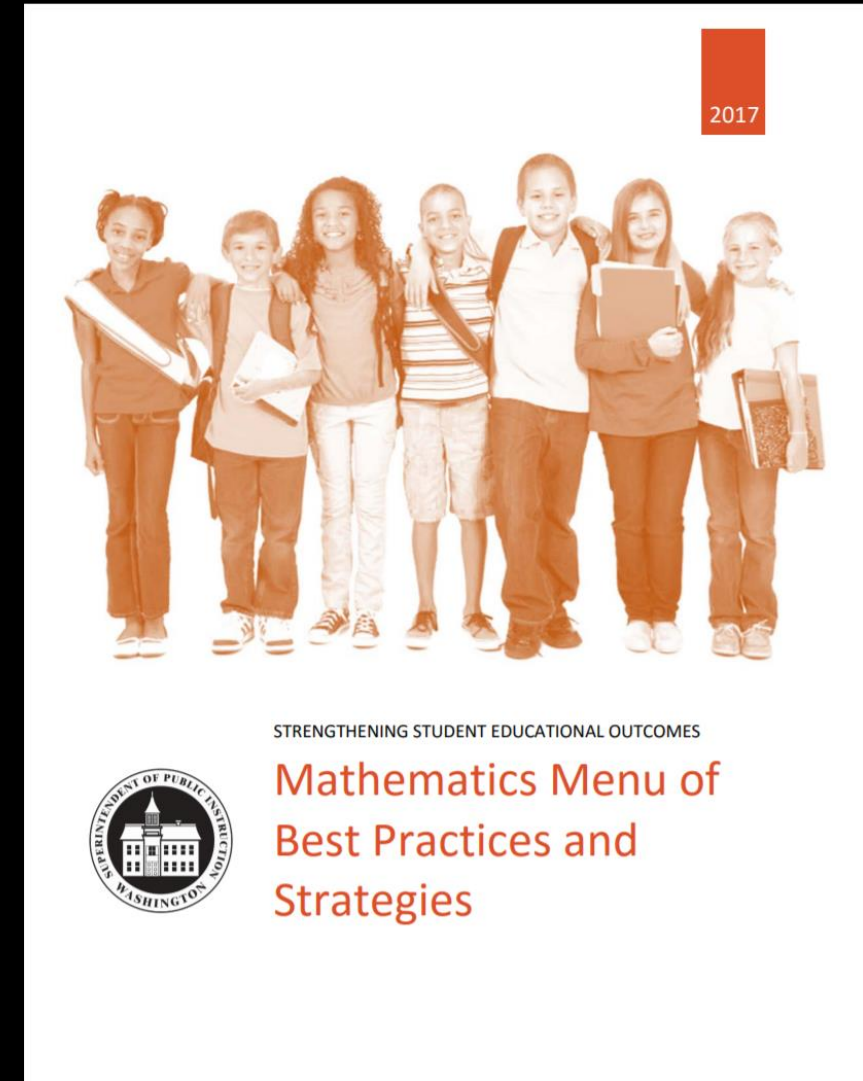
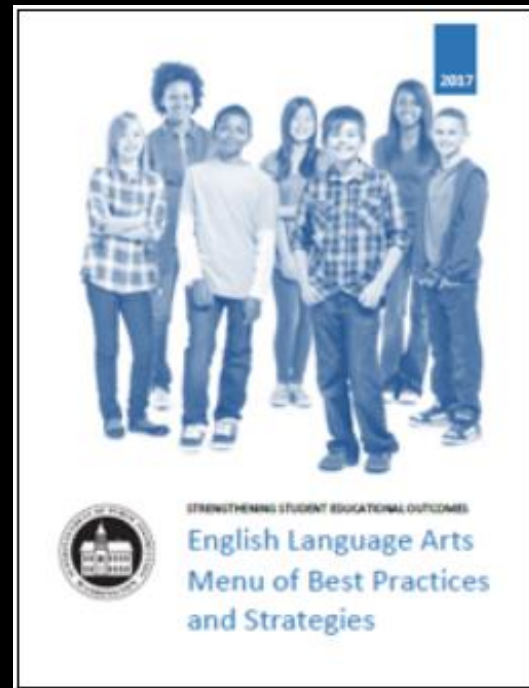
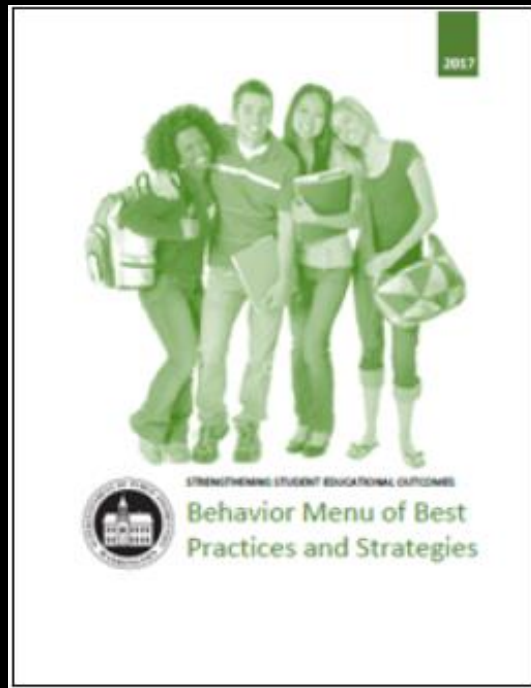
How Will You Put the Principles to Actions: Ensuring Mathematical Success for All Your Students?



The 3 Spheres of Control



State Menus of Best Practices



QUESTIONS

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