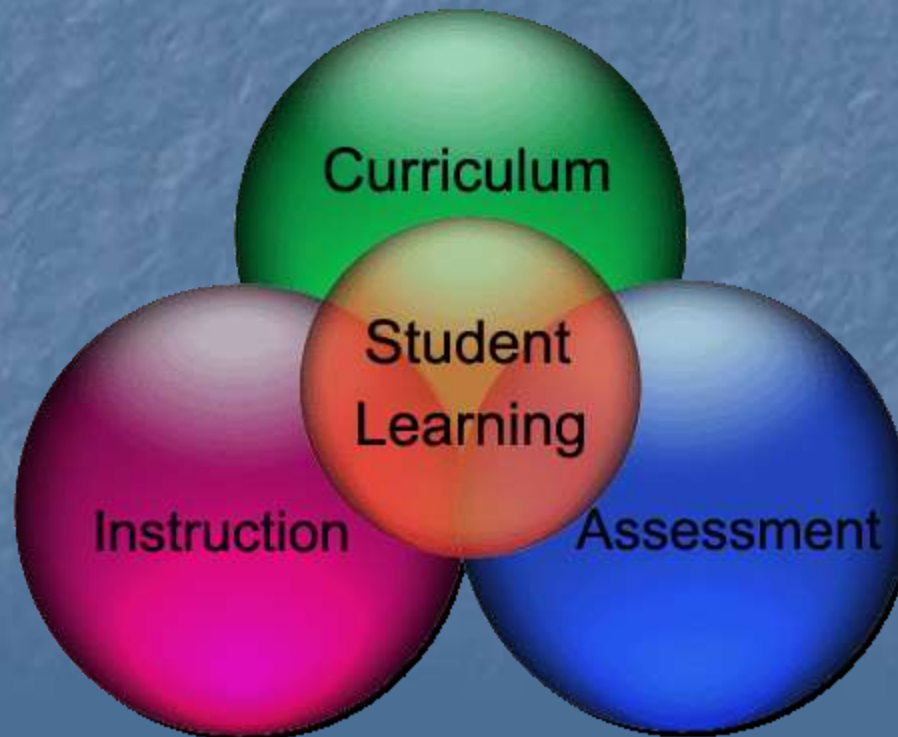


Mountainside School District

Curriculum Update, 2016



Presentation Overview

- **TC Readers and Writers Workshop (K-8)**
- **Go Math (K-5) & Big Ideas (6-8)**
- **Pre-Algebra(Grade 6 and 7), Algebra I (Grade 7 & 8) & Geometry (Grade 8)**
- **Discovery Science (Grade 6-8)**
- **Technology Curriculum (K-5)/ Chromebook (6-8)**
- **Assessment for Targeted Instruction**
- **Academic Achievement & Support Programs**

Philosophy of Readers & Writers Workshop



- Reading and writing skills and strategies are taught in the context of “real” reading and writing throughout the school day by reading and discussing varied genres, fiction and nonfiction text, as well as producing various kinds of writing.



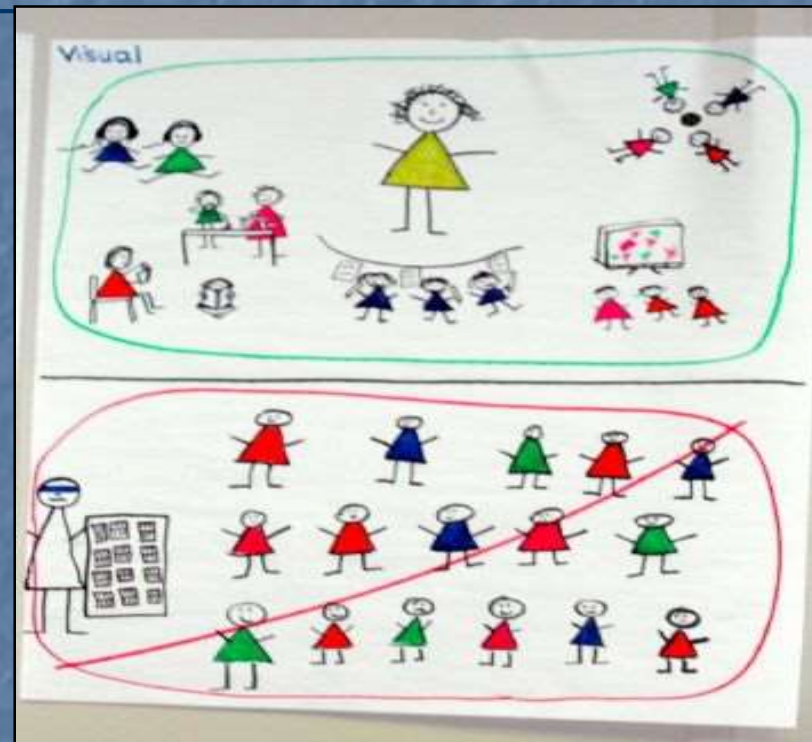
Components of Readers & Writers Workshop Model

Whole-Class Instruction

- Mini-lessons
- End of workshop shares
- Interactive writing
- Shared reading

Small Group Instruction

- Partner reading
- Guided reading lessons
- Strategy lessons
- Individual conferences
- Table conference with a group of students in one area



What your child's class looks like now...

- **Student centered classroom protocols/structure**
- **Flexible groupings**
 - **Differentiated assessments**
 - **Increased reading – informational text and non-fiction**
 - **Differentiated homework assignments**



Additional Components to Support Language Arts/Readers Workshop

- **Assessment – Fountas and Pinnell**
- **Spelling – Words Their Way**





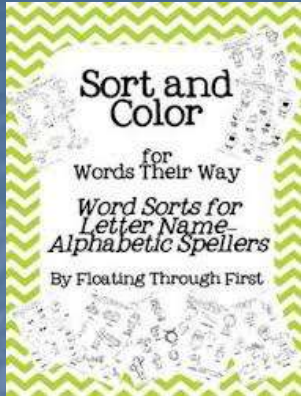
Words Their Way

- **What is the Purpose?**
 - **Develop a general knowledge of English spelling**
 - **Increase students' specific knowledge of words (relates to the spelling and meaning of individual words)**

Words Their Way cont.



- **Developmental Stages (describe students' spelling behavior as they move from one level of word knowledge to the next)**
 - **Emergent (Pre-K – mid 1st grade): students are not yet reading conventionally. They may not have been exposed to formal reading instruction**
 - **Letter Name-Alphabetic Spelling (K – to mid 2nd grade): Students have been formally instructed in reading**



Words Their Way (cont.)

- **Within Word Pattern (1st grade – mid 4th grade): Students spell most single-syllable, short vowel words correctly**
- **Syllables and Affixers (3rd grade – 8th grade): Students can spell most one-syllable, short and long vowel words correctly**
- **Derivational Relations (5th grade – 12 grade): Students spell most words correctly. They learn how to sort words by pattern and meaning with an emphasis on meaning and related word parts**

Words Their Way Sample Activities



Short o/Long o (o_e) Sort

o	o_e	Can you also match each short o/long o pair?
not	code	rob
tote	slop	lobe
con	note	pop
mope	slope	cone
robe	cod	lob
mop	tot	pope

www.thirdgradegameplans.com

Word Sort 16
Adding Suffixes: Vowel Alteration
(with spelling change)

base -m/-n	derived -ation	base -e	derived -ption
proclaim	proclamation	receive	reception
explain	explanation	resume	resumption
reclaim	reclamation	consume	consumption
		presume	presumption
		deception	deceive

Math Programs that are Language Arts Based

- **Go Math (K-5)**
- **Big Ideas (6-8)**



Go Math



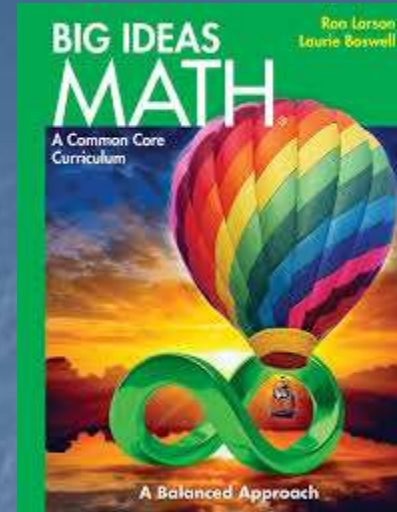
ESSENTIAL QUESTION:

How do you break apart addends to add tens and then add ones?

You write each addend as the sum of its tens and ones. You find the sum of the tens and the sum of the ones. Then you find the total sum.
CC.2.NBT.6 Lesson 4.3



Big Ideas Math Sample Activities



Prior Knowledge Questions (Do these BEFORE using the Gizmo.)

Suppose you want to buy a new t-shirt for \$15. So far, you have saved \$9 from your allowance.

1. Write an equation to model the situation. Let x be the amount you need, _____
2. How much more money do you need? _____ Explain, _____

Gizmo Overview

An equation can be used to model real-life situations. An **equation** is a mathematical sentence that states that two expressions are equal. In the *Modeling One-Step Equations Gizmo™*, you will solve an equation using tiles to isolate the variable. The **solution** is the value or values that make the equation true. The Gizmo provides you with step-by-step instructions.

Here's how the Gizmo looks at first. The equation for you to solve is given at the top left.

Read your instructions in the Gizmo.

To add a zero pair to one side, drag the pair from here. A **zero pair** is a pair of values whose sum is zero.

To add a 1-tile or a -1-tile to each side, click on the tile here:

$x + 3 = 7$

To solve for x , get the x -tile by itself on the left hand side of the equation.

You have the same types of tiles on both sides of the equation.

Drag a tile away from each side, and a matching tile on the other side will be removed as well.

drag a zero pair to one side

click to add a tile to each side

Select multiple tiles at once by dragging a selection box around them. Drag zero pairs out of a box, or the same tiles out of both boxes.

1. **Extended Response** Your class has a plant that needs light. To reach the sunlight from the window, you stack books under the plant. The table shows the types of books in the classroom.

Book	Thickness
Earth science	$\frac{7}{8}$ in.
Biology	$\frac{5}{4}$ in.
Physical science	$\frac{3}{2}$ in.

- a. You use 2 physical science books and 2 Earth science books. How tall is the stack?
- b. You increase the stack to 3 physical science books, 4 Earth science books, and 3 biology books. How tall is this stack?
- c. There are only two more of each book available. Can you make a stack that is at least 32 inches tall? If not, what is the least number of Earth science books you need borrow from another classroom? Explain how you found your answer.

ANS:

a. $4\frac{3}{4}$ in.

b. $11\frac{3}{4}$ in.

- c. No, You have 6 Earth science books, 5 biology books, and 5 physical science books with a total height of 19 inches. You need at least $32 - 19$ or 13 more inches. Using *Guess, Check, and Revise* you need to borrow 15 Earth science books.

PTS: 1 DIF: Level 3 NAT: 6.NS.1

KEY: multiply | fractions | whole numbers | application

MSC: Analysis

What is NGSS?

- **Next Generation Science Standards are aligned to:**
 - **Advances in science and technology**
 - **Advances in understanding of learning**
 - **Integration of practices and core ideas**
 - **Assessment of real world scientific performance (not just recall)**
 - **Integration of Language Arts and Mathematics**
 - **Emphasis on engineering & design elements**
 - **Creating independent thinkers**
- **College and Career Readiness**
 - **More authentic Science Learning**
 - **STEM integration**
 - **Global competitiveness and job market**

Old Standards vs. New Standards

Existing State Standards	Next Generation Science Standards
Provide separate lists of content students should know and processes that they should be able to do	Provide a set of performance expectations that integrate practices, core ideas, and crosscutting concepts
Based on the Benchmarks for Science Literacy (1993) and the National Science Education Standards (1996)	Based on the Framework for K-12 Science Education (2012)
Often assessed with multiple choice questions that emphasized definitions	Designed to be assessed in real world contexts
Engineering often excluded	Engineering integrated with science
Expectations for what some students need to learn	Expectations to prepare all students for college, career, and citizenship
No connections to mathematics and English language arts	Explicit connections to mathematics and English language arts included

Middle School Content-Enhanced Areas

- **Design and Engineering**
- **Cross-Cutting Concepts**
- **Spiraling Units**

Mountainside Science Curriculum Goals

- **Organizing critical concepts to be taught and assessed at each grade level (move to spiral studies 6-8)**
- **1:1 Technology program at Deerfield School**
- **Integration of the cross-curricular connections**
- **Design & Engineering Focus**
- **Performance-based labs**

What will the students learn?

	Grade 6	Grade 7	Grade 8
Life Science - Biology	<ul style="list-style-type: none">• Structure, Function & Information Processing• Growth & Reproduction	<ul style="list-style-type: none">• Body Systems• Inheritance & Variations of Traits• Organization for Matter & Energy	<ul style="list-style-type: none">• Evidence of Common Ancestry• Selection & Adaptation
Earth & Space Sciences	<ul style="list-style-type: none">• Matter & Energy in Organisms and Ecosystems• Interdependent Relationships• Weather & Climate (EOY)	<ul style="list-style-type: none">• Stability & Change in Earth/Earth Systems	<ul style="list-style-type: none">• Human Impact• Astronomy
Physical Sciences	<ul style="list-style-type: none">• Forces and Interaction of Matter• Energy In Matter	<ul style="list-style-type: none">• Structure & Property of Matter• Changes in Matter• Chemical Reactions	<ul style="list-style-type: none">• Relationships Among Energy Forms• Thermal Energy• The Electromagnetic Spectrum

Technology Curriculum K-5

■ Kindergarten

- Introduction to keyboarding and layout and online resources

■ 1st Grade

- Computer Operations, Using Operations, Keyboarding, Online Resources & Introduction to Research, Technology Education, Engineering and Design, and Computational Thinking

2nd Grade

- Digital Literacy and Citizenship, Keyboarding, Introduction to Computer Programming with Visual Coding

Technology Curriculum K-5

■ 3rd Grade

- Digital Literacy and Citizenship, Keyboarding, Introduction to Computer Programming with Visual Coding, Online Resources & Research

■ 4th Grade

- Using Computer Applications, Keyboarding, Online Resources & Research

■ 5th Grade

- Continue with Computer Applications, Keyboarding, Online Resources & Research

1:1 Chromebook Update

Full Implementation

- **2014 - 2016 - Grades 6, 7, & 8 have received the 1:1 Chromebook Program**
- **Google Classroom**
- **Discovery Education “Techbook” in Science**
- **World Book Online**
- **Learning Apps for instruction, assessment and practice**

Technology Privacy and Security

■ In School

- WiFi Filters are in place**
- District control of the apps**
- Digital Citizenship Expectations**

■ At home

- WiFi filters are recommended**
- Chromebooks are not to be used for personal accounts**
- Not permitted to install any additional apps**

Technology Privacy and Security (con't)

- **Google (and all apps are vetted)**
 - **Compliant with COPA laws**
 - **No outside access to demographic information regarding students**
 - **Every Chromebook has an extension installed - Privacy Badger (Electronic Frontier Foundation) Blocks tracking sites**

Assessments for Targeted Instruction

- **MAP (Measurement of Academic Progress)**
 - **K – 8 computer-based (PARCC) standardized testing Language Arts, Math, and Science. Taken 3x a year.**
- **Fountas & Pinnell (Reading Assessment)**
 - **K-6 & 7 & 8 3x a year**
- **Benchmark Assessments (District Based)**
 - **3x a year to give data on Math, Reading, and Writing levels**
- **PARCC (3 – 8)**
 - **Language Arts, Math, Algebra, and Geometry**

Fountas & Pinnell Reading Assessment – a comprehensive system to assess an individual student’s range of reading levels.

Fountas & Pinnell Reading Level	Grade Level Equivalent
A	Kindergarten
B	
C	
D	
E	Grade One
F	
G	
H	Grade Two
I	
J	Grade Three
K	
L	
M	
N	Grade Four
O	
P	
Q	Grade Five
R	
S	
T	
U	Grade Six
V	
W	
X	Grades Seven & Eight
Y	
Z	

Special Pull-Out Programs

Academic Achievement

- **TEP (The Enrichment Program) – Grade levels 3-8**
Students are selected based on MAP, Benchmark assessments, math/writing/reading levels, and teacher recommendations.
 - **Educational programs before and after school**
 - **Educational programs held during students' cycle classes**
- **Rogate – Students are selected based on PARCC scores and academic grades to attend a college or university lecture and to take the SAT's.**

Special Pull-Out Programs

Academic Support

- **AIM (Achievement Intervention Measurement) -Goal is to help support those students (who are identified through a variety of standardized and local assessments) as needing extra support in certain skills or subject areas.**
 - **Teacher provides alternate methods of instruction of the material.**
 - **Push-In – An additional teacher goes into the classroom to help support the student in the identified area of weakness.**
 - **Pull-out – Student is pulled out of the classroom to receive intensive academic intervention/strategies on a particular skill .**
 - **AIM reconvenes to discuss if CST recommendation is needed.**

Questions

