
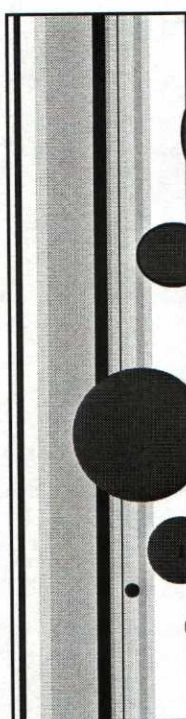


**IMPLEMENTING COMMON  
CORE MATHEMATICS  
SUCCESSSES & CHALLENGES  
IN RIALTO UNIFIED SCHOOL  
DISTRICT**



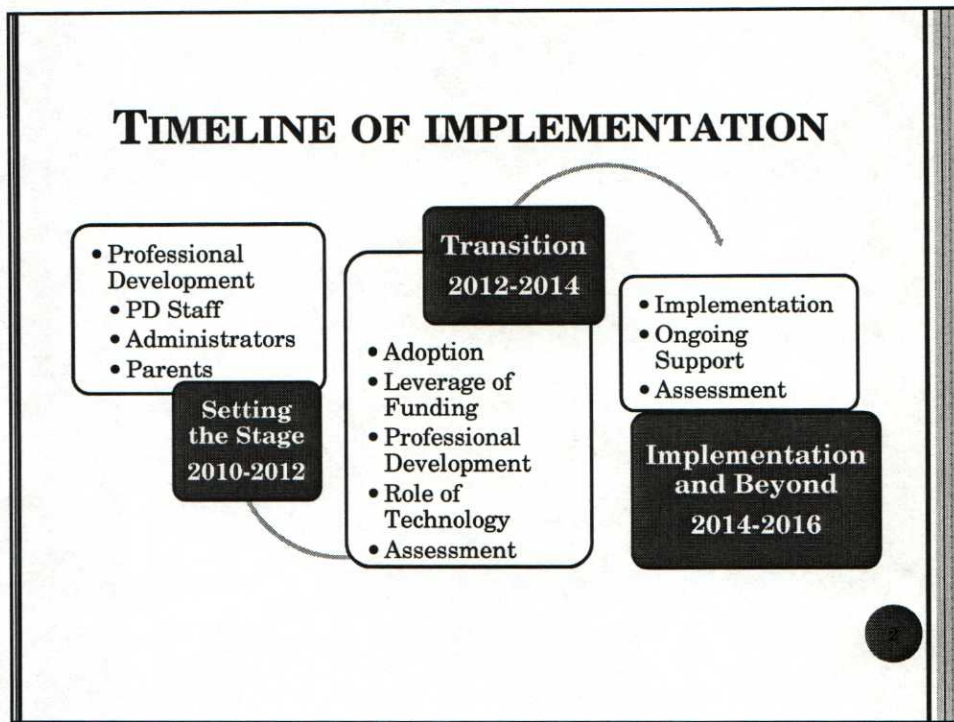
**CMC-South  
Leadership  
Conference  
October 24, 2014**





CMC-South  
Leadership  
Conference  
October 23, 2014

**IMPLEMENTING COMMON CORE  
MATHEMATICS  
SUCSESSES & CHALLENGES  
IN RIALTO UNIFIED SCHOOL DISTRICT**

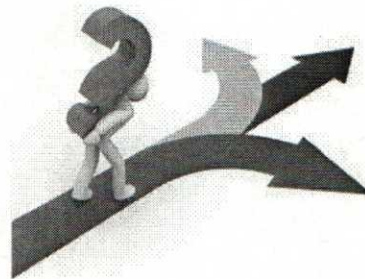


## 2010-2012: SETTING THE STAGE

- Building a Professional Development Model
  - Funding
  - Billing/ Categoricals
- Professional Development
  - Mathematical Practices
  - Accountable Talk
  - DOK in Math
- Building Common Understanding
  - Principal Learning Network Meetings
  - Teachers
    - BTSA
    - DOK
    - Student Engagement
- Parent Introduction
  - DADs Night
  - Parent University
  - Parent Summit

## 2012-2013: THE TRANSITION, A SLOW BEGINNING

- School Board CCSS Overview Presentation
  - Instructional Shifts
  - Course Models
- Sustaining the Professional Development Model
  - Transition to LCFF
- Professional Development
  - LCFF
  - K-12 role out
  - Emphases on:
    - Preschool
    - K-1
  - Drawing Tools
  - Looking at Functions
- K-2 Textbook Supplement





## 2013-2014: TRANSITION CONTINUES MAKING UP FOR LOST TIME

- LCAP
  - Priority Areas
- Integrating Technology
  - 1<sup>st</sup> in Math
- Textbook Process
  - Pilot
  - Adoption
- Modifying Assessments
  - Performance Tasks
  - Triangulation using CSU/UC Math Diag. Testing Project
- Professional Development
  - Webcasts/ Webinars
  - PLN: DOK, AT in Math
  - K-8 Strategies & Focus Content
  - Statistics & Probability
  - “Support Meetings”
  - SBAC Fieldtesting
- Integrated Math
  - Making the Case
  - Voting
  - Transitional 8<sup>th</sup> Grade Course



## 2014-2015: IMPLEMENTATION SUCSESSES AND CHALLENGES

- Professional Development
  - STEM
  - Transformational Geometry
  - Ongoing Support
    - Demos
    - Lesson Study
  - Planning for Uniform Grading
    - Grading policy committee
- Modifying Assessments
  - Chapter Tests
  - Benchmarks
- Technology Integration
  - 1<sup>st</sup> in Math
  - ALEKs
  - Think Central
  - Graphing Calculators
  - Computer Labs
  - iPads
  - Webinars/ Webcasts





**2015-2016: LOOKING BEYOND  
IMPLEMENTATION**

- Professional Development
  - Instructional Strategies
  - Content Support
  - Addressing Gaps
- LCAP
  - Current Plan Analysis
  - Maintaining a climate of Professional Learning
- Sequencing/ Assessment
  - Modifications
  - Rubric Calibration
  - Critical Area Performance Tasks
  - Smarter Balanced Benchmarks
- Technology
  - Instructional Practices
  - SAMR Implementation
  - Infrastructure

420 **Student Engagement Strategies**

421 Building a robust list of student engagement strategies is essential for all teachers.

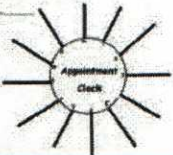
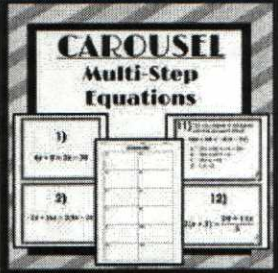


422 When students are engaged in the classroom, they remain focused and on-task. This

423 also provides for good classroom management and effective teaching and learning. The

424 table below, provided by the Rialto Unified School District, illustrates several student




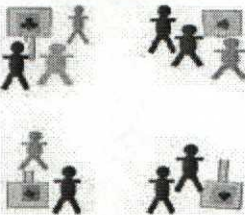
425 engagement strategies for the mathematics classroom:

426

Student Engagement Strategies	Description	Math Example
<p data-bbox="289 695 524 726"><b>Appointment Clock</b></p> 	<p data-bbox="605 695 889 827">Partnering to make future discussion/work appointments. (good grouping strategy)</p>	<p data-bbox="906 695 1320 858">Student are given a page with a clock printed on it that they use to set appointment times to meet with other students to discuss math problems.</p>
<p data-bbox="261 888 553 919"><b>Carousel-Museum Walk</b></p> 	<p data-bbox="605 888 889 1188">Each group posts sample work on the wall and the leader for that group stands near the work, as the rest of the group rotates around the room, looking at all the samples.</p>	<p data-bbox="906 888 1320 1188">Each group is given a poster paper &amp; Math problem to work on. Once the groups are finished, paper is posted on the walls around the classroom. The leader stays with the poster to explain the work, while the other students walk around the room looking at the other students' work.</p>
<p data-bbox="345 1205 475 1236"><b>Charades</b></p> 	<p data-bbox="605 1205 889 1304">Students individually, or with a team, act out a scenario.</p>	<p data-bbox="906 1205 1320 1304">Students work in teams to act out word problems while others try to solve the problem.</p>
<p data-bbox="277 1440 537 1472"><b>Clues (Barrier Games)</b></p> 	<p data-bbox="605 1440 889 1709">One partner has a picture of information the other student does not have. Sitting back-to-back or using a visual barrier, students communicate to complete the task.</p>	<p data-bbox="906 1440 1320 1709">Working in teams of 2, each student has a different problem to communicate to the other student, who is to try and solve the problem from the information provided by the first student. The students sit with a barrier between them during the activity.</p>

The *Mathematics Framework* was adopted by the California State Board of Education on November 6, 2013. The *Mathematics Framework* has not been edited for publication.



<p><b>Coming to Consensus</b></p> 	<p>Sharing their individual ideas, the group comes to a consensus to share with the whole class.</p>	<p>Each member of the group shares their answer to a given problem, the steps they used etc. When the group comes to a consensus, they share out with the whole class.</p>												
<p><b>Explorers &amp; Settlers</b></p> 	<p>Assign half the students to be explorers and half settlers. Explorers seek out a settler to discuss a question. Students can change roles and repeat process.</p>	<p>Half of the students are explorers who have a Math term or problem. The other half is settlers who have the definitions or answers. Explorers seek out the settler with the correct answers and discuss the information.</p>												
<p><b>Find My Rule</b></p> <table border="1" data-bbox="324 718 479 913"> <thead> <tr> <th>IN</th> <th>OUT</th> </tr> </thead> <tbody> <tr> <td>2</td> <td>4</td> </tr> <tr> <td>4</td> <td>6</td> </tr> <tr> <td>9</td> <td>11</td> </tr> <tr> <td>12</td> <td></td> </tr> <tr> <td>10</td> <td></td> </tr> </tbody> </table> <p>What's My Rule?</p>	IN	OUT	2	4	4	6	9	11	12		10		<p>Using cards, students are given cards and must find the person that matches their card. One person has a card with a rule, and the other has an example of that rule, as they find their partner.</p>	<p>A great strategy for inductive/deductive reasoning. Works well for grouping students randomly and developing problem-solving skills. Cards are prepared one with a problem and the other with the "rule." Students circulate throughout the room to match the cards that are connected or related by the "rule." Once all members of the group have been found, group members will articulate the rule and how the group is connected.</p>
IN	OUT													
2	4													
4	6													
9	11													
12														
10														
<p><b>Find Your Partner</b></p> 	<p>Each student is given a card that matches another student's card in some way.</p>	<p>Examples: Math problem with steps to solution Concept + example</p>												
<p><b>Four Corners</b></p> 	<p>Assign each corner of the room a category related to a topic. Students write which category they are most interested in, giving reasons, and then form groups in those corners.</p>	<p>Students are divided in 4 groups and sent to a corner which is numbered 2 - 5 Teacher then asked a problem with the answer being a multiple of 2 - 5. Students in a corner that is a factor of that number will move to another corner. If teacher calls out 6, students in corners labeled 2 and 3 will move the activity ends with a prime number answer and students return to their seats.</p>												

The *Mathematics Framework* was adopted by the California State Board of Education on November 6, 2013. *The Mathematics Framework* has not been edited for publication.



# Getting Ready for the Common Core

<p><b>English Language Arts</b></p> <ol style="list-style-type: none"> <li>1. Can you give us some evidence from the text, that supports your assertion?</li> <li>2. Using evidence from the text, what next action should the main character take to resolve the situation?</li> <li>3. What is the purpose of the metaphors used throughout the text?</li> </ol>	<p><b>Mathematics</b></p> <ol style="list-style-type: none"> <li>1. Can is this variable important? Can you explain why it is or isn't?</li> <li>2. What information is essential to the problem?</li> <li>3. Could you explain how your solution to the problem worked?</li> </ol>
<p><b>Accountable Talk</b></p>	
<p><b>Science</b></p> <ol style="list-style-type: none"> <li>1. What are the steps in your scientific method?</li> <li>2. What are the advantages of this solution? Can you provide some evidence?</li> <li>3. What science rules should be followed in...?</li> </ol>	<p><b>Social Studies</b></p> <ol style="list-style-type: none"> <li>1. Can I'm not sure I see the relevance of this point in your conclusion... Can you help me understand it? How is it important?</li> <li>2. What tensions (political, economic, social, racial, etc.) existed at that time?</li> <li>3. What are five key words in this primary document and what do they mean?</li> </ol>

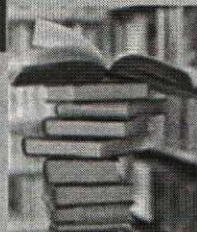
## ACCOUNTABLE TALK

- All grade levels , all content areas, all teachers
- Will be modeled in the Common Core trainings

**Common Core State Standards**

Introducing the CCSS for ELA and Literacy in History/Social Studies Science and Technical Subjects.

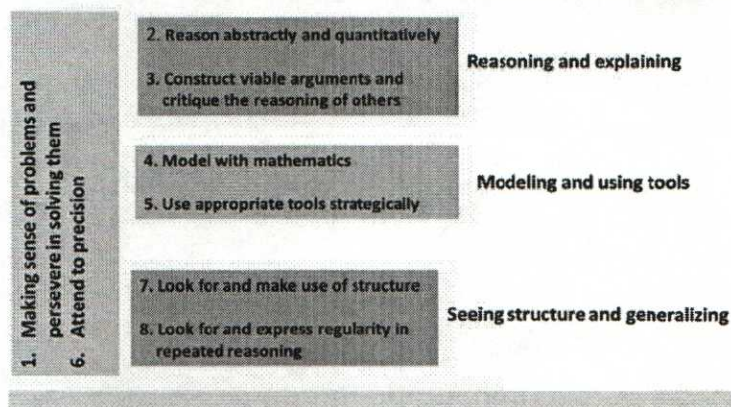
**Close & Critical Reading Lessons**



## CLOSE & CRITICAL READING

- Incorporated in all trainings
- Incorporated in all disciplines

### The Mathematical Practice Standards



## STANDARDS FOR MATHEMATICAL PRACTICE

- Will be utilized in all math trainings
- Essential to be part of every mathematics class K-12
- Will help to get our students working like mathematicians

## MATHEMATICS CONTENT

2013-2014: Statistics and Probability have been included in all mathematics courses grades 6,7,8 and Common Core Algebra I, Geometry, Algebra as well as Math1, Math 2, and Math 3. It is therefore imperative that teachers get trained in this content which is entirely new content for secondary schools.



**Principals please always check  
PDC generated PSRs' for  
invited teachers and accuracy.**

**Staff Development - 2013-2014**

- All workshops will be offered at the PDC unless the table below gives another location
- “Group 1 Elementary schools”: Bemis, Curtis, Dunn, Henry, Hughbanks, Kelley, Kordyak, Morgan, Morris, Trapp
- “Group 2 Elementary schools”: Boyd, Casey, Dollahan, Fitz, Garcia, Myers, Preston, Simpson, Werner
- Special Education teachers will be included in one of the grade level trainings.

<b>Date/Time</b>	<b>Grade Span/Grade Level</b>	<b>Title of Workshop</b>
August 13, 2013 8:00 a.m. -10:00 a.m.	Middle School- ELA Math/Dept. Chairs	Lesson Study Training
August 14, 2013 8:00 a.m. -3:00 p.m.	Middle School- Grade 8	Eighth Grade Common Core Transitional Mathematics Training (Round 1)
August 20, 2013 8:00 a.m. – 3:00 p.m.	Middle School- Grade 6- Math/Science teachers only & some self- contained	Sixth Grade Common Core Training- Math/Science- includes new STEM course
August 21, 2013 8:00 a.m. – 3:00 p.m.	Elementary School - Grade 3 <b>(Schools –Designated as Group 1 schools)</b>	Common Core Training in ELA/Math-Grade 3-
September 3, 2013 August 22, 2013 8:00 a.m. – 3:00 p.m.	Elementary School- Grade 3 <b>(Schools –Designated as Group 2 schools)</b>	Common Core Training in ELA/Math- Grade 3 <b>NOTE: Change in day due to minimum day on August 22</b>
August 27, 2013 8:00 a.m. – 3:00 p.m.	Middle School- Grade 6- Social Studies/ELA teachers only & some self- contained	Sixth Grade Common Core Training- Social Science/ELA (includes new STEM course)
August 28, 2013 8:00 a.m. – 3:00 p.m.	Elementary School- Grade 4 <b>(Schools –Designated as Group 1 schools)</b>	Common Core Training in ELA/Math-Grade 4
August 29, 2013 8:00 a.m. – 3:00 p.m.	Elementary School- Grade 4 <b>(Schools –Designated as Group 2 schools)</b>	Common Core Training in ELA/Math- Grade 4
September 4, 2013 8:00 a.m. – 3:00 p.m.	Elementary School- Grade 5 <b>(Schools –Designated as Group 1 schools)</b>	Common Core Training in ELA/Math-Grade 5
September 5, 2013 8:00 a.m. – 3:00 p.m.	Elementary School- Grade 5 <b>(Schools –Designated as Group 2 schools)</b>	Common Core Training in ELA/Math- Grade 5
September 5, 2013 3:30p.m. – 5:00 p.m.	High School- Addressing the Common Core Mathematical Practice Standards	Open to all teachers and collaborating teachers on My Learning Plan <b>CANCELLED</b> (1.5 hours of extra duty pay)
September 10, 2013 (see times on right side)	Middle School Session 1: - Grade 7: Social St. & SDC//SED Middle School Session 2: - Grade 8: Social St. & SDC/SED <b>NEW (Science is NOT COMING THAT DAY)</b>	Session 1: 8:00 a.m. – 10:30 p.m. Session 2: 12:00 noon -2:30 p.m.
September 11, 2013 8:00 a.m. – 3:00 p.m.	Elementary School- Grade 2 (Round 2) <b>(Schools –Designated as Group 1 schools)</b>	Common Core Training in ELA/Math- Grade 2
September 12, 2013 8:00 a.m. – 3:00 p.m.	Elementary School- Grade 2 (Round 2) <b>(Schools –Designated as Group 2 schools)</b>	Common Core Training in ELA/Math- Grade 2
September 18, 2013 8:00 a.m. – 3:00 p.m.	Middle School- Next Generation Science Standards- Grades 7/8	NGSS- Grades 7/8 Science
September 19, 2013 8:00 a.m. – 3:00 p.m.	Middle School- Next Generation Science Standards- Grades 7/8	NGSS- Grades 7/8 Science
September 24, 2013 8:00 a.m. – 2:30 p.m.	Middle School- Grade 7/8 ELA SS Leads for lesson Study	ELA teachers: 8:00 a.m. – 10:30 p.m. Social Studies leads - Lesson Study: 12:00 noon -2:30 p.m.
September 25, 2013 8:00 a.m. – 2:30 p.m.	Elementary School- Grade K (Round 3) <b>(Schools –Designated as Group 1 schools)</b>	Common Core Training in ELA/Math- Grade K
September 26, 2013 8:00 a.m. – 2:30 p.m.	Elementary School- Grade K (Round 3) <b>(Schools –Designated as Group 2 schools)</b>	Common Core Training in ELA/Math- Grade K
October 1, 2013 3:00 – 5:00 p.m.	High Schools- Close and Critical Reading	Open to any high school teachers on My Learning Plan (1.5 hours of extra duty pay)
October 1, 2013 Moved to Oct 15, 2013	<del>High School ELA (Morning 8:00– 10:30 a.m.)</del> <del>High School Math (afternoon: 12 noon – 2:30 p.m.)</del>	<del>ELA teachers: 8:00 a.m. – 10:30 a.m.</del> <del>Math teachers: 12:00 noon – 2:30 p.m.</del> <b>DATE CHANGE DUE TO</b>
October 2, 2013 Moved to Oct 16, 2013	<del>High School ELA (Morning 8:00– 10:30 a.m.)</del> <del>High School Math (afternoon: 12 noon – 2:30 p.m.)</del>	<del>ELA teachers: 8:00 a.m. – 10:30 a.m.</del> <del>Math teachers: 12:00 noon – 2:30 p.m.</del> <b>CAHSEE Testing</b>
October 3, 2013 8:00 a.m. – 3:00 p.m.	Elementary School- Grade 3 (Round 2) <b>(Schools –Designated as Group 1 schools)</b>	Common Core Training in ELA/Math- Grade 3
October 8, 2013 8:00 a.m. – 3:00 p.m.	Elementary School- Grade 1 (Round 3) <b>(Schools –Designated as Group 1 schools)</b>	Common Core Training in ELA/Math- Grade 1
October 9, 2013 8:00 a.m. – 3:00 p.m.	Elementary School- Grade 1 (Round 3) <b>(Schools –Designated as Group 2 schools)</b>	Common Core Training in ELA/Math- Grade 1



<b>Date/Time</b>	<b>Grade Span/Grade Level</b>	<b>Title of Workshop</b>
October 10, 2013 8:00 a.m. – 3:00 p.m.	Elementary School- Grade 3 (Round 2) <b>(Schools –Designated as Group 2 schools)</b>	Common Core Training in ELA/Math- Grade 3
October 15, 2013	High School ELA (Morning 8:00- 10:30 a.m.) High School Math (afternoon: 12 noon – 2:30 p.m.) <del>High Schools– Probability and Statistics (1 of 2)</del> Moved to Jan 21	Eisenhower and Carter ( check list -all ELA teachers in the morning and Math teachers in the afternoon)
October 16, 2013 8:00 a.m. – 3:00 p.m.	<del>High Schools– Probability and Statistics(2 of 2)</del> Moved to Jan 23	<del>Common Core Training in Math for the following schools: Eisenhower and Carter (all math teachers)</del>
October 17, 2013(Oct 24) 8:00 a.m. – 3:00 p.m. Moved to Jan 28, 2014	High Schools– Probability and Statistics (Part 1 of 2)	Common Core Training in Math for: Rialto High, Milor High and Zupanic High(all math teachers)
October 17, 2013 3:00 – 5:00 p.m.	Special Education Teachers- Grades K-6	Writing Training
October 22, 2013 8:00 a.m. – 3:00 p.m.	Middle Schools - Probability and Statistics- Grade 7,8 and Algebra I	Common Core Training in Math for all middle schools Grade 7,8 and Algebra I teachers
October 24, 2013	High School ELA (Morning 8:00- 10:30 a.m.) High School Math (afternoon: 12 noon – 2:30 p.m.) <del>High Schools– Probability and Statistics (Part 2 of 2)- Moved to Jan 29, 2014</del>	Rialto, Milor/Zupanic (all ELA teachers in the morning and Math teachers in the afternoon)  Common Core Training in Math for the following schools: Rialto High, Milor and Zupanic High
November 5, 2013 3:00 – 5:00 p.m.	High School- Accountable Talk	Open to any high school teacher 1.5 hours of ex <b>CANCELLED</b> y Learning Plan
November 12, 2013 8:00 a.m. – 3:00 p.m.	Elementary School- Grade 4 (Round 2) <b>(Schools –Designated as Group 1 schools)</b>	Common Core Training in ELA/Math- Grade 4
November 13, 2013 8:00 a.m. – 3:00 p.m.	Elementary School- Grade 4 (Round 2) <b>(Schools –Designated as Group 2 schools)</b>	Common Core Training in ELA/Math- Grade 4
November 14, 2013 8:00 a.m. – 3:00 p.m.	Middle Schools – Transitional 8 <sup>th</sup> grade Common Core Math	Common Core Training in Math for all middle schools grade 8 teachers teaching Transitional 8 <sup>th</sup> grade Common Core Math (Round 2)
November 19, 2013 8:00 a.m. – 3:00 p.m.	Elementary School- Grade 5 (Round 2) <b>(Schools –Designated as Group 1 schools)</b>	Common Core Training in ELA/Math- Grade 5
November 20, 2013 8:00 a.m. – 3:00 p.m.	Elementary School- Grade 5 (Round 2) <b>(Schools –Designated as Group 2 schools)</b>	Common Core Training in ELA/Math- Grade 5
January 9 , 2014 3:00 p.m. – 5:00 p.m.	Special Education teachers Grades K-6	Writing Training – Grade K-6 (Round 1)
January 16, 2014 8:00 a.m. – 3:00 p.m.	Middle Schools – Transitional 8 <sup>th</sup> grade Common Core Math	Common Core Training in Math for all middle schools grade 8 teachers teaching Transitional 8 <sup>th</sup> grade Common Core Math (Round 3)
January 21, 2014 8:00 a.m. – 3:00 p.m.	High Schools- Probability and Statistics (1 of 2)	<b>Common Core Training in Math for the following schools: Eisenhower and Carter (all math teachers)</b>
January 23, 2014 8:00 a.m. – 3:00 p.m.	High Schools- Probability and Statistics (2 of 2)	<b>Common Core Training in Math for the following schools: Eisenhower and Carter (all math teachers)</b>
January 28, 2014 8:00 a.m. – 3:00 p.m.	High Schools- Probability and Statistics (1 of 2)	Common Core Training in Math for: Rialto High, Milor High and Zupanic High(all math teachers)
January 30, 2014 8:00 a.m. – 3:00 p.m.	High Schools- Probability and Statistics (2 of 2)	Common Core Training in Math for: Rialto High, Milor High and Zupanic High (all math teachers)
January 28, 29 & 30 9:00 a.m.-11:00a.m.	Parent University	CCSS Overview
January 29, 2014 8:00a.m.-10:00a.m.	Think Together	Accountable Talk
February 3 & 5 8:00 a.m. – 3:00 p.m.	Middle School Lesson Study 6 <sup>th</sup> Grade Math- Kolb	CCSS Math Lesson Study



<b>Date/Time</b>	<b>Grade Span/Grade Level</b>	<b>Title of Workshop</b>
February 4, 2014 3:00p.m.- 5:00 p.m.	K-12 Teachers	Classroom Management: Pressing the Restart Button (Session 2)
February 11, 2014 8:00 a.m. – 3:00 p.m.	Middle School 6 ( 7&8 makeup)- Statistics and Probability	Common Core Training in Math
February 12, 2014	High School Soc St. (Morning 8:00- 10:45 a.m.)	Rialto HS, Milor/Zupanic all Hist/SS
February 13, 2014	High School Soc St. (Morning 8:00- 10:45 a.m.)	Carter & Eisenhower all Hist/SS teachers
February 13 , 2014 3:00 p.m. – 5:00 p.m.	Special Education Teachers Grades K-6	Writing Training- Grades K-6 (Round 3)
February 20, 2014 9:00-11:00	Parent University	Empowerment Through Testing Strategies
February 20, 2014 3:30p.m.-5:00p.m.	Elementary K-5	6+1 Traits of Writing: Word Choice
February 24 &26, 2014	Middle School Lesson Study 6 <sup>th</sup> Grade Math -Frisbie	CCSS Math Lesson Study
February 24, 2014 2:15p.m.-4:15p.m.	Elementary Writing Training K-5: Garcia, Preston &Casey	Step Up to Writing
February 25 & 26, 2014 8:00a.m.-2:00p.m.	PLC Writing Coaching: Garcia, Preston & Casey	Step Up to Writing & 6 Traits
February 27, 2014 9:00a.m.-10:30 a.m.	Think Together	Math Talk
March 3, 2014 3:00p.m.-4:30p.m.	High School Foreign Language, VAPA, and CTE Teachers	Accountable Talk
March 3 & 5, 2014 8:00 a.m. – 3:00 p.m.	Middle School Lesson Study 6 <sup>th</sup> Grade Math –Rialto Middle School	CCSS Math Lesson Study
March 3, 2014 2:30p.m.-3:30p.m.	Elementary Writing Training K-5:Morgan, Kelley, & Bemis	Step Up to Writing
March 4, 2014 9:00a.m.-11:00a.m.	Parent University	Knowledge is Power!
March 4 & 5, 2014 8:00a.m.-2:00p.m.	PLC Writing Coaching: Morgan, Kelley, & Bemis	Step Up to Writing & 6 Traits
March 6, 2014 9:00a.m.-11:00a.m.	Parent University	Math: Yes you Can!
March 6, 2014 3:30-5:00	Special Education teachers Grades K-6	Writing Training- Grades K-6 (Round 4)
April 9, 2014 9:00a.m.-10:30a.m.	Think Together	Step Up To Writing w/Thinking Maps
April 29, 2014 3:00p.m.-5:00p.m.	K-12 Teachers	Classroom Management: Pressing the Restart Button (Session 3)

**Specific for Elementary Schools**

<b>Date</b>	<b>Topic</b>	<b>Location</b>
September 19, 2013 3:30 p.m.– 5:00 p.m.	6+1 Traits of Writing Voice	K-5 teachers sign-up on My Learning Plan to get 1.5 hours of extra duty.
November 14, 2013 3:30 p.m.– 5:00 p.m.	6+1 Traits of Writing Sentence Fluency	K-5 teachers sign-up on My Learning Plan to get 1.5 hours of extra duty.
February 20, 2014 3:30 p.m.– 5:00 p.m.	6+1 Traits of Writing Word Choice	K-5 teachers sign-up on My Learning Plan to get 1.5 hours of extra duty.



**Specific for Middle Schools**

Date	Topic	Location
October 7, 2013 1:45 p.m.– 3:00 p.m.	Argumentative Writing for ELA teachers only grades 6, 7, and 8	Jehue (Kolb): ELA/SS: MPR Math/Science, Special Education
October 28, 2013 1:45p.m. – 3:00 p.m.	Close and Critical Reading (SS) Journaling in Math and Science	RMS (Kolb): ELA/SS: MPR Math/Sc: Assigned rooms
November 18, 2013 1:45p.m. – 3:00 p.m.	TBD	Kolb (Jehue): ELA/SS: Multi-purpose room Math/Sc: Assigned rooms

**Middle School Common Core Lesson Studies (2013-2014)  
ELA and Mathematics**

**Possible Lesson Study Dates ELA 6<sup>th</sup> Grade:**

Site Dates	Prep Day 2hrs. After School	Full Day Lesson Study (subs provided)
Jehue	September 23	September 25
Kucera	October 14	October 16
Kolb	October 21	October 23
Frisbie	November 4	November 6
RMS	December 2	December 4

**Possible Lesson Study Dates Math 6<sup>th</sup> Grade:**

Site Dates	Prep Day 2hrs. After School	Full Day Lesson Study (subs provided)
Jehue	January 13	January 15
Kucera	January 27	January 29
Kolb	February 3	February 5
Frisbie	February 24	February 26
RMS	March 3	March 5

**Possible Lesson Study Dates ELA 7<sup>th</sup> & 8<sup>th</sup> Grade:**

Site Dates	Prep Day 2.5 hours per grade level Subs Rotate	7 <sup>th</sup> Grade	8 <sup>th</sup> Grade
		Full Day Lesson Study	Full Day Lesson Study
Jehue	August 20	August 21	August 22
Kolb	September 17	September 18	September 19
Kucera	October 8	October 9	October 10
Frisbie	October 29	October 30	October 31
RMS	November 12	November 13	November 14

**Possible Lesson Study Dates Math 7<sup>th</sup> & 8<sup>th</sup> Grade:**

Site Dates	Prep Day 2.5 hours per grade level Subs Rotate	7 <sup>th</sup> Grade	8 <sup>th</sup> Grade
		Full Day Lesson Study	Full Day Lesson Study
Kolb	August 27	August 28	August 29
Kucera	September 10	September 11	September 12
Jehue	September 24	September 25	September 26
Frisbie	October 29	October 30	October 31
RMS	December 3	December 4	December 5

**Middle School- Transitional Math Support**

Second Monday of Each Month (except months that trainings have been scheduled)


The support will address : (a) accountable talk and the questions to pose for the particular lessons for that month and (b) activities/ lessons that are on the pacing chart for that month (c) provide any clarifications needed

Month	Date
September	September 9, 2013: 1:15 – 2:45 p.m.
October	October 14, 2013: 1:15 – 2:45 p.m.
November	No training on 2 <sup>nd</sup> Monday- Training schedule for Nov 14
December	December 9, 2013: 1:15 – 2:45 p.m.
January	No training on 2 <sup>nd</sup> Monday- Training schedule for Jan 16
February	February 10, 2014: 1:15 – 2:45 p.m.
March	March 10, 2014: 1:15 – 2:45 p.m.
April	April 14, 2014: 1:15 – 2:45 p.m.
May	May 12, 2014: 1:15 – 2:45 p.m.

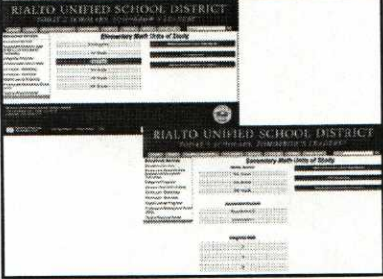


# Resource Examples

### Technology Integration for CCSS

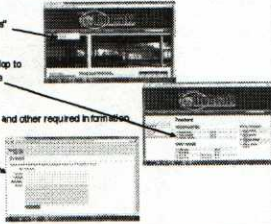


### Available Technology





### Schoolloop

1. Click on "Teachers"
2. Click on the envelop to the left of their name
3. Enter your e-mail and other required information

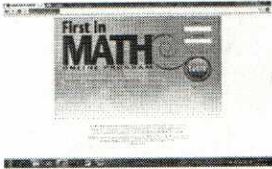


### Parent Portal



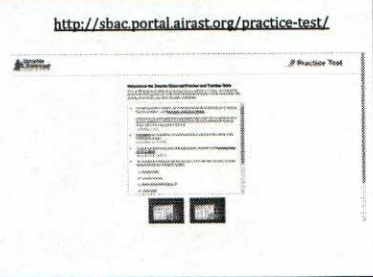
[www.pvue.rialto.k12.ca.us](http://www.pvue.rialto.k12.ca.us)

### Math



[www.firstinmath.com](http://www.firstinmath.com)

<http://sbac.portal.airsat.org/practice-test/>




[www.typingclub.com](http://www.typingclub.com)





	Traditional Pathway			Integrated Pathway		
Conceptual Category	CC Algebra I	CC Geometry	CC Algebra II	CC Math I	CC Math 2	CC Math 3
<b>Number &amp; Quantity (N)</b>	N-RN1, NRN-2, N-RN3 N-Q1, N-Q2, N-Q3		N-CN1, N-CN 2, N-CN 7, N-CN8+, N-CN 9+	N-Q1*, N-Q2*, N-Q3*	N-RN1, N-RN2, N-RN3, N-CN1, N-CN2, N-CN7, N-CN8+, N-CN9+	N-CN8+, N-CN9+
<b>Algebra (A)</b>	A-SSE1a,* A-SSE 1b*, A-SSE2*, A-SSE3a*, A-SSE3b*, A-SSE3c* A-APR1 A-CED1*, A-CED2*, ACED3*, A-CED4* A-REI1, A-REI 3, <u>A-REI 3.1</u> , A-REI 4a, A-REI4b, A-REI 5, A-REI 6, A-REI 7, A-REI 10, A-REI 11*, A-REI 12		A-SSE1a+, A-SSE1b* A-SSE2, A-SSE4 A-APR 1, A-APR 2, A-APR 3, A-APR4, A -APR 5, A-APR 6, A-APR7+, A-CED1*, A-CED2*, A-CED3*, A-CED4* A-REI2, <u>A-REI 3.1</u> , A-REI11	A-SSE 1a*, A-SSE1b*, A-SSE3*, A-SSE4*, A-REI1, A-REI3, A- REI3.1, A-REI5, A-REI 6, A-REI10, A-REI11*, A-REI 12	A-SSE-1a*, A-SSE1b*, A-SSE2, A-SSE3a, A-SSE3b, A-SSE3c A-APR 1, A-CED 1* A-CED2*, A-CED 4 A-REI4a, A-REI4b, A-REI7	A-SSE1a, A-SSE1b, A-SSE2, A-SSE4 A-APR1, A-APR2, A-APR3, A-APR4, A-APR 5+*, A-APR6, A-APR7 A-CED1*, A-CED2*, A-CED3, A-CED4 A-REI2, A-REI11
<b>Functions (F)</b>	F-IF 1, F-IF2, F-IF3, F-IF 4 F-IF5*, F-IF 6*, F-IF7a*, F-IF7b*, F-IF7e*, F-IF8a, F-IF 8b, F-IF9 F-BF 1a*, F-BF 1b*, F-BF2*, F-BF3, F-BF 4 F-LE1a*, F-LE1b*, F-LE1c* F-LE2*, F-LE3*, F-LE5*		F-IF4, F-IF5, F-IF6 F-IF7b*, F-IF7c*, F-IF7e F-IF8, F-IF9 F-BF1b*, F-BF3, F-BF4a F-LE4, <u>F-LE4.1</u> , <u>F-LE4.2</u> , <u>F-LE4.3</u> F-TF1, F-TF2, <u>F-TF2.1</u> , F-TF5*, F-TF8	F-IF1, F-IF2, F-IF3, F- IF4*, F-IF5*, F-IF6*, F- IF7a*, F-IF7e*, F-IF9 F-BF1a*, F-BF 1b*, F- BF2*, F-BF3 F-LE1a*, F-LE 1b*, F- LE1c*, F-LE2*, F-LE3* F-LE5*	F-IF4*, F-IF5*, F-IF6* F-IF7a*, F-IF7b*, F-IF8a*, F-IF8b, F-IF9 F-BF1a*, F-BF1b*, F-BF3, F-BF4a F-LE3*, <u>F-LE6*</u> F-TF8	F-IF4*, F-IF5*, F-IF6*, F-IF7b*, F-IF7c*, F-IF7e*, F-IF8, F-IF9 F-BF1b*, F-BF2, F-BF 4, F-LE4, <u>F-LE 4.1</u> , <u>F-LE 4.2</u> , <u>F-LE 4.3</u> F-TF1, F-TF2, <u>F-TF2.1</u> , F-TF5*
<b>Geometry (G)</b>		G-CO1, G-CO2, G-CO3, G-CO4, G-CO5, G-CO6, G-CO7, G-CO8, G-CO9, G-CO9, G-CO10, G-CO11, G-CO12, G-CO13 G-SRT1, G-SRT2, G-SRT3, G-SRT4, G-SRT5, G-SRT6, G-SRT7, G-SRT8*, <u>G-SRT8.1</u> , G-SRT9+, G-SRT10+, G-SRT11+ G-C1, G-C2, G-C3, G-C4+, G-C5 G-GPE 1, G-GPE2, G-GPE4, G-GPE5, G-GPE6, G-GPE7* G-GMD1, G-GMD3*, G-GMD4, <u>G-GMD5</u> , <u>G-GMD6</u> G-MG1*, G-MG2*, G-MG3*	<u>G-GPE3.1</u>	G-CO1, G-CO2, G-CO3, G- CO4, G-CO5, G-CO6, G- CO7, G-CO8, GCO12, G- CO13 G-GPE4, G-GPE5, G-GPE7*	G-CO9, G-CO10, G-CO11, G-SRT1a, G-SRT1b, G-SRT2, G-SRT3, G-SRT4, G-SRT-5, GSRT-6, G-SRT7, G-SRT8, G-SRT8.1 G-C1, G-C2, G-C3, G-C 4+, G-C 5 G-GPE', G-GPE2, G-GPR4, G-GMD1, G-GMD3*, <u>G-GMD5* (rev)</u> <u>G-GMD 6(rev)</u>	G-SRT9+, G-SRT10+, G-SRT11+ G-GMD4 G-MG1, G-MG2*, G-MG3* <u>G-GPE3.1</u>
<b>Statistics &amp; Probability (S)</b>	S-ID1*, S-ID2*, S-ID3*, S-ID6a*, S-ID6b*, S-ID6c*, S-ID7, S-ID8, S-ID9*	S-CP1*, S-CP2*, S-CP3*, S-CP4*, S- SP5*, S-SP6*, S-SP7*, S-SP8*, S-SP9* S-MD6*, S-MD7*	S-ID4*, S-IC1*, S-IC2* S-IC3*, SIC4*, S-IC5*, S-IC6*, S-MD6+*, S-MD 7+*	S-ID1*, S-ID2, S-ID 3, S-ID 5, S-ID6a, S-ID 6b, S-ID 6c, S-ID 7, S-ID 8, S- ID 8, S-ID 9	S-CP1*, S-CP2*, S-CP3*, S-CP4*, S-CP5*, S-CP6*, S-CP7*, S-CP8, S-CP9 S-MD-6*, S-MD7*	S-ID4*, S-IC1*, S-IC2*, S-IC3* S-IC4*, S-IC5*, S-IC6* S-IC6*, S-IC7*



**Elementary Mathematics Pilot**  
**Chapters to be Piloted**  
 (Please keep notes in your Mathematics Tool Kit documenting your evidence)

<b>Grade Level</b>	<b>Concept To be Field Tested</b>	<b>My Math</b> (McMillan- McGraw Hill)-(MMH)	<b>Go Math!</b> (Houghton Mifflin Harcourt)
Kindergarten	Cardinality	Ch4: Compose and Decompose Numbers to 10	Ch4: Represent and Compose Numbers to 10
First Grade	Addition	Ch3: Addition Strategies to 20	Ch3: Addition Strategies
Second Grade	Subtraction	Ch4: Subtract Two Digits	Ch5: Two digit Subtraction
Third Grade	Multiplication	Ch4: Understanding Multiplication	Ch4: Multiplication Facts and Strategies
Fourth Grade	Division	Ch3: Understanding Multiplication and Division	Ch4: Dividing by one digit numbers
Fifth Grade	Addition & Subtraction of Fractions	Ch9: Adding and Subtracting Fractions	Ch6: Adding and Subtracting Fractions with Unlike Denominators

Pilot teachers please bring back evidence of using the online assessment component for each program and how student and parent friendly they were. The programs are Aleks (McMillan McGraw) and Knewton. (HMH).



# 2013 Parent Summit STEM Workshop Sessions

Room	Title	Presenter
<b>I-101</b> Session 2: 10:20 Session 3: 11:20	<b>STEM: Science</b> <b>Hands-On Experiences in Science</b>	<b>Juanita Chan, Dianne Austin</b> Instructional Strategists RUSD Professional Development
<b>I-103</b> Session 2: 10:20 Session 3: 11:20	<b>STEM: Science</b> <b>From Life Science to AP Biology–</b> What does your student need to do to take an AP Biology class at high school?	<b>Robin Pearce, Teacher, AP Biology,</b> Carter High School
<b>C-112</b> Session 2: 10:20 Session 3: 11:20	<b>STEM: Technology &amp; The Common Core</b>  Common Core– Laying out our technology plan for schools	<b>Beth Ann Scantlebury, Chief Technology Officer</b> <b>Raul Maciel, Network Services Manager</b> Rialto Unified School District
<b>C-113</b> Session 2: 10:20 Session 3: 11:20	<b>STEM: Technology for Students</b> Technology as a communication tool– What is School Loop and how does it help you as a parent.	<b>John Roach, Director Special Programs</b> Rialto Unified School District
<b>I-102</b> Session 2: 10:20 Session 3: 11:20	<b>STEM: Engineering</b> <b>Come learn more about the MESA program at Rialto High School</b>	<b>Mikal Thompson, Physics Teacher</b> <b>Julien Ansermet, Mathematics Teacher</b> Rialto High School – MESA Program
<b>I-104</b> Session 2: 10:20 Session 3: 11:20	<b>STEM: Engineering</b> <b>Come learn more about the MESA program at Kolb Middle School</b>	<b>Catherine Sanchez, Science Teacher</b> <b>Lizbeth Mariscal, Science Teacher</b> Kolb Middle School – MESA Program
<b>C-115</b> Session 2: 10:20 Session 3: 11:20	<b>STEM: Mathematics</b> <b>Common Core in Mathematics, what is it , and how does it benefit our students?</b>	<b>Jeff Burke, Mathematics Coordinator</b> San Bernardino County Superintendent of Schools
<b>C-116</b> Session 2: 10:20 Session 3: 11:20	<b>STEM: Mathematics</b> <b>Common Core in Mathematics, what is it , and how does it benefit our students?</b>	<b>Teressa Brown, Coordinator</b> <b>Elizabeth Curtiss, Coordinator</b> RUSD Professional Development



August 4, 2014

Dear Parent:

As Rialto USD transitions from the California Mathematics Standards to the Common Core (CC) Mathematics Standards for the 2014-2015 school year, we are pleased to inform you that your student was selected to be in the Accelerated Math Pathway based on his/her previous grade in mathematics, student placement test, benchmark scores and/or teacher recommendation. This means that he/she will be completing four years of mathematics in three years. Below is a schematic of the general pathway, honors pathway and the accelerated pathway from 6<sup>th</sup> grade to high school:

Grade Level	Grade 6	Grade 7	Grade 8	Grade 9	Grade 10	Grade 11	Grade 12
General Pathway	Course 1	Course 2	Course 3	Math 1	Math 2	Math 3	Statistics
Honors Pathway	Course 1(H)	Course 2(H)	Course 3(H)	Math 1H	Math 2H	Math 3H	Pre-Cal(H) AP Stats
Accelerated Pathway	Course 2(Acc) + (needed Course 1 Stds.)	Course 3(Acc) + (needed Course 2 Stds.)	Math 1H + (needed Course 3 Stds.)	Math 2H	Math 3H	Pre-Cal(H)	AP Calculus AP Stats

The **Accelerated** Pathway that Rialto USD is utilizing, aims to advance talented math students (not necessarily GATE) who met the criteria listed above, are dedicated and hardworking, have a love of mathematics and are willing to challenge themselves and excel. The reason why "Needed Course Standards" was added to each of the accelerated courses is that even though the students are accelerated by one grade level, the state still requires them to be tested at their grade level.

The **Honors Pathway** is for GATE students who are highly performing but not necessarily accelerated in math. They will still have the honors pathway that will take them to advanced math in the high school.

The **General Pathway** also takes students to three years of math (Math 3) at the high school with the option to take a fourth year in high school.

What is important to understand is the following:

- ❖ In order to compare and increase math achievement in the US, it was important that all states adopt similar standards (46 out of 50 states have done that), so that important research can be conducted as to what works in the teaching and learning of mathematics which in turn will affect the way students are taught and assessed.
- ❖ California Algebra I, Geometry and Algebra II no longer exist. Instead the Common Core Algebra I, Geometry and Algebra II or the Common Core Integrated I, Integrated II and Integrated III now exist. The Common Core courses all include Statistics in them and the difference between the two common core sequence of classes is that Algebra and Geometry and Statistics are intertwined together in the integrated series.
- ❖ At the high school level, ALL students will be tested in mathematics **ONLY** at the 11<sup>th</sup> grade on all the standards that they have studied in the 9<sup>th</sup>, 10<sup>th</sup> and 11<sup>th</sup> grades. This test will also play a big role in determining which students have met "Early Assessment Progress (EAP) Status" at a UC/CSU institution, and do not have to take a remedial math course at the college level.
- ❖ Rialto USD, adopted the integrated math standards at the high school for two reasons (a) the integrated standards spiral each year building on earlier material (b) given that there is a single assessment in the 11<sup>th</sup> grade that is high stakes and is integrated, and that ALL 11<sup>th</sup> grade students have to take, students will naturally do better after taking an integrated course sequence.

Given these facts, it is important to realize that as your student has been accelerated, he/she will be required to do additional work in mathematics and have a more compacted course than other students at his/her grade level. It is therefore imperative that you monitor your student's progress in that class. This year, parents will be given access to the Parent Portal in Synergy to view their students' progress. More information on the Parent Portal will be given to you at back-to-school night.



In the case, where your student cannot keep up with the work due to extenuating factors, they can still go into the Honors track. The important factor is that your student is successful on the 11<sup>th</sup> grade test and the honors track will have the depth and complexity allowing your student to be successful on the 11<sup>th</sup> grade math test.

As these courses are extremely rigorous, it is important that you are informed that if your student does not perform and earns less than a B in the course each quarter, they will be transferred back into either the General or the Honors offerings of Math Classes. It is therefore imperative that you ensure that your student keeps up with the work assigned from this class and that you meet /inquire regularly how your student is progressing in this class. This consistent parent-teacher communication helps immensely to monitor your student's progress so that you can intervene when necessary and provide the extra support when needed so that your student can keep up with the course work and be successful.

Finally, a word regarding student testing. During the 2014-2015 school year California will be moving away from assessing students solely using multiple-choice tests but instead will have students take their assessments that will be either online or paper and pencil that will involve Performance Assessments, Enhanced Multiple-Choice, Enhanced Computer testing, Short Answer tasks and Multiple choice tests. Instead of bubbling their answers, students now will have to provide reasons and justification for their work. Some of Rialto USD's assessments will be of the same format, so please make sure that you ask your student for his/her assessments to review with them how they have answered the questions. Examples of questions can be obtained at <http://www.smarterbalanced.org/smarter-balanced-assessments/>

While this is an initial letter, explaining to you why your student was selected to be in the advanced math class, more information will be coming at Parent College nights, Parent Summit, and the Parent University. Please take advantage of these offerings so that you have a complete picture of what your student needs to do in order to be "College and Career Ready".

We greatly appreciate your cooperation and look forward to working with your student and you to advance them in the field of mathematics. Please fill out the attached form indicating that you have read and agreed to the conditions spelled out in this letter.

Sincerely,



## ACCELERATION AGREEMENT IN MATHEMATICS

- ❖ I have read the attached letter indicating that my student will be in the Accelerated Mathematics Program for the 2014-2015 school year. I understand that my student has to maintain a B or better in this class.
- ❖ In the event, that my student is NOT progressing in this class, there will be a parent-teacher meeting set up on a pre-agreed date to discuss why there is a lack of progress and develop a mutual action plan of intervention
- ❖ If at the end of the quarter, the student has NOT earned a B or better in mathematics, they will be put in the general or honors class for that grade level- An Accelerated Grade 6 student will return to Math 6 or Math 6 (Honors) . Similarly, an Accelerated 7<sup>th</sup> grade students will return to Math 7 or Math 7 (Honors) and an Accelerated 8<sup>th</sup> grade student will return from Math 1 to Math 8 or Math 8 (Honors).
- ❖ I have read the attached letter and understand the criteria for the accelerated mathematics program being offered. Please check boxes below:
  - I understand the purpose for acceleration
  - I understand that my student needs to maintain a “B” or better in this class
  - If my student does not earn a B or better, there will be an initial parent conference to develop an action plan
  - If the student does not progress after that they will be put in the regular or honor mathematics class for that grade level

Name of Student: \_\_\_\_\_ Math Class: \_\_\_\_\_

Name of Parent/Guardian: \_\_\_\_\_

Phone Number: \_\_\_\_\_

E-mail address: \_\_\_\_\_

Parent/ Guardian Signature: \_\_\_\_\_



2014-2015

## 5th Grade Math Unit of Study

### Critical Area 1 (Chapter 1-5): Fluency with Whole Numbers & Decimals

**Domains:** Number & Operations in Base Ten, Operations & Algebraic Thinking, Number & Operation-Fractions

Suggested Number of Days	Days: 66-76
<b>Meaning</b>	
<p><b>Understandings (U)</b> Students will understand how to:</p> <ul style="list-style-type: none"> <li>• extend division to two digit divisors</li> <li>• integrate decimal fractions into the place value system</li> <li>• develop the understanding of operations with decimals to the hundredths</li> <li>• develop fluency with whole number and decimal operations</li> <li>• solve decimal multiplication problems</li> <li>• solve decimal division problems</li> </ul>	<p><b>Essential Question(Q)</b> Students will keep considering...</p> <ol style="list-style-type: none"> <li>1. How to use place value multiplication and expressions to represent and solve problems?</li> <li>2. How to divide whole numbers?</li> <li>3. How to add and subtract decimals?</li> <li>4. How to solve decimal and multiplication problems?</li> <li>5. How to solve decimal division problems?</li> </ol>
<b>Acquisition</b>	
<p><b>Students will know (Knowledge)</b></p> <ul style="list-style-type: none"> <li>• Understand the Place Value System (5.NBT.1, NBT.2, NBT.3, NBT.4)</li> <li>• Write and interpret numerical expressions (5.OA.1, OA.2)</li> <li>• Perform operations with multi digit whole numbers &amp; with decimals to the hundredths (5.NBT.5, NBT.6, NBT.7)</li> <li>• Apply and extend previous understandings of multiplication and division to multiply and divide decimals (5.NF.3)</li> </ul>	<p><b>Students will be skilled and be able to (Demonstrate)</b></p> <ul style="list-style-type: none"> <li>• Draw diagrams to solve operational problems</li> <li>• Use base ten blocks to model operations</li> <li>• Use patterns in the placement of the decimal point to multiply by power of 10</li> <li>• Use models to find the product of a decimal and a whole number and the product of two decimals to hundredths</li> <li>• Use models to divide whole numbers with and without remainders</li> <li>• Add and subtract decimals using a quick picture and base ten blocks</li> <li>• Student partner to describe to another pair the answer to the essential questions</li> <li>• Draft a rule to answer the essential question</li> <li>• <b><u>Use math journals to demonstrate understanding of learned concepts</u></b></li> </ul>



### Quarter 1 (August 4<sup>th</sup> – October 3<sup>rd</sup>)

#### Unit 1: Ratios and Proportional Relationships Chapter 1: Ratios and proportional Reasoning Time: August 4<sup>th</sup> – August 26<sup>th</sup>

<ul style="list-style-type: none"> <li>❖ How can you show that two objects are proportional?</li> <li>❖ Why are unit rates helpful to being a smart consumer?</li> <li>❖ Explain how to simplify complex fractions.</li> <li>❖ Why does the ratio <math>\frac{3 \text{ ft}}{1 \text{ yd}}</math> have a value of one?</li> <li>❖ How do you determine if two ratios are proportional?</li> <li>❖ What is the difference between a ratio, unit rate, and a proportion?</li> <li>❖ Is there another way to determine if the relationship is proportional or not proportional?</li> <li>❖ Does the order of the ratios matter?</li> <li>❖ How is the information found in a table related to the information found in a graph?</li> <li>❖ How is rate of change related to slope?</li> <li>❖ How does slope help verify that a function is linear?</li> <li>❖ What is the difference between direct variation and indirect variation?</li> </ul>	<ul style="list-style-type: none"> <li>• Inquiry Lab</li> <li>• Lesson 1-1: Rates [7.RP.2, 2b]</li> <li>• Lesson 1-2: Complex Fractions and Unit Rates [7.RP.1; 7.NS.3]</li> <li>• Lesson 1-3: Convert Unit Rates [7.RP.2, 3]</li> <li>• Lesson 1-4: Proportional and Nonproportional Relationships [7.RP.2, 2a, 2b]</li> <li>• <b>PSI – The Four-Step Plan</b></li> <li>• <b>Mid-Chapter Check</b></li> <li>• Lesson 1-5: Graph Proportional Relationships [7.RP.2, 2a]</li> <li>• Lesson 1-6: Solve Proportional Relationships [7.RP.2, 2b, 2c, 3]</li> <li>• Lesson 1-7: Constant Rate of Change [7.RP.2, 2b, 2d]</li> <li>• Lesson 1-8: Slope [7.RP.2, 2b]</li> <li>• Lesson 1-9: Direct Variation [7.RP.2, 2a, 2b]</li> <li>• Chapter 1 Review and Test (form 3A) <b>[Test by August 26<sup>th</sup>]</b></li> </ul>
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**Notes:**

**Open Task:** Introduce the chapter by going over the Unit Project on page 183-184. Use the Vocabulary Review, Comic Strip, and Are You Ready to open the chapter.

- Introduce the 4 types of slope (positive, negative, zero, and undefined) in 1-8.
- In 1-6: Label units to lessen confusion.

#### **End of Chapter PT (Road Trip) on page 93.**

1. A brief history of mathematics can be found here:  
<http://www.storyofmathematics.com/index.html>



Math I  
(2014-2015)

**Math I-Big Ideas**

This course needs to be taught around “Big Ideas”. Unlike previous courses where chapters and skills were taught in isolation and it was not apparent why students studied certain skills, there is a need to connect concepts and skills and teach them in multiple perspectives. So for example, a “Big Idea” would be on Functions. Functions can be linear or non-linear. All functions involve five perspectives that are taken into consideration: Data Tables, Equations, Graphs, Word Problems, and Pictorial Representations. So students would take this “Big Idea” and apply it to linear, quadratic, exponential, step, logarithmic and trigonometric functions. Therefore there is a purpose and a connection made around these perspectives rather than teaching each function as something totally separate. Keeping this in mind, as you incorporate the Big Ideas that are listed below. Be sure to explicitly model the Standards for Mathematical Practice listed in the next pages. When students explain their reasoning have them justify their responses by using the Standards for Mathematical Practice they become familiar with them.

<b>Big Idea # 1: Linear Functions &amp; Inequalities</b>
Key Question: How do you get the other four perspectives of a linear function, given one perspective?
Chapters : Ch1, Ch2, Ch3, Ch4, Ch 5
<b>Big Idea #2: Systems</b>
Key Question: How are systems of equations or inequalities used to determine multiple unknowns?
Chapters: 6
<b>Big Idea #3: Non-Linear Functions</b>
Key Questions: How do you distinguish a linear from a non-linear function?
What is the difference between a geometric progression and an arithmetic progression?
Chapters: 7 & 8
<b>Big Idea # 4: Looking at data and developing models</b>
Key Questions: How do you applying a linear model to data that exhibits a linear trend?
How do you use regression techniques to describe approximately linear relationships among quantities
How do you use graphical representations and knowledge of the context to make judgments about the appropriateness of linear models
How do you look at residuals to analyze the goodness of fit for linear models
Chapter: 9
<b>Big Idea # 5: Becoming an Algebraic “Geometrist”</b>
Key Questions: How to apply the Pythagorean Theorem to the coordinate plane
How do you use coordinate geometry to prove real geometric proofs on lines ( both parallel and perpendicular), special triangles and quadrilaterals
Chapters: 10,11,12 and 13
<b>Big Idea #6: Establishing criteria for congruence based on rigid motions</b>
Key Questions: What is rigid motion?
How is rigid motion used to establish triangle congruence
Chapter: 14



## Elementary Math Critical Area PT

### Timeline

Grade Level	Critical Area 1	Critical Area 2	Critical Area 3	Critical Area 4
K	Feb. 6 <sup>th</sup>	April 24 <sup>th</sup>	May 15 <sup>th</sup>	
1 <sup>st</sup>	Nov. 21 <sup>st</sup>	Feb. 20 <sup>th</sup>	April 10 <sup>th</sup>	May 22 <sup>nd</sup>
2 <sup>nd</sup>	Oct. 3 <sup>rd</sup>	Feb. 17 <sup>th</sup>	May 15 <sup>th</sup>	June 2 <sup>nd</sup>
3 <sup>rd</sup>	Dec. 12 <sup>th</sup>	April 10 <sup>th</sup>	June 3 <sup>rd</sup>	
4 <sup>th</sup>	Nov. 21 <sup>st</sup>	March 13 <sup>th</sup>	May 22 <sup>nd</sup>	
5 <sup>th</sup>	Dec. 12 <sup>th</sup>	April 10 <sup>th</sup>	June 3 <sup>rd</sup>	

#### K Critical areas

- 1: Counting and cardinality, operations and algebraic thinking, number and operations in base ten
- 2: Identifying and describing two and three dimensional shapes
- 3: Measurement, classify and sort data

#### 1<sup>st</sup> Grade Critical areas

- 1: Addition and subtraction concepts and strategies and their relationship.
- 2: Count, model and compare numbers, 2 digit addition and subtraction.
- 3: Measurement and data representation.
- 4: 2 & 3 dimensional geometry

#### 2<sup>nd</sup> Grade critical areas

- 1: Numbers, Operations and algebraic thinking.
- 2: Numbers, Operations and algebraic thinking.
- 3: Measurement and data representation.
- 4: geometry

#### 3<sup>rd</sup> Grade critical areas

- 1: Numbers, Operations and algebraic thinking



## Elementary Math Critical Area PT

### Timeline

2: Numbers, Operations Fractions, and algebraic thinking

3: Measurement, data representation and geometry

#### **4<sup>th</sup> Grade critical areas**

1: Numbers, Operations and algebraic thinking.

2: Numbers, Operations Fractions, and algebraic thinking.

3: Measurement, data representation, geometry and algebraic thinking.

#### **5<sup>th</sup> Grade critical areas**

1: Numbers, Operations Fractions, and algebraic thinking.

2: Numbers, Operations Fractions, and algebraic thinking.

3: Measurement, data representation, geometry and algebraic thinking.



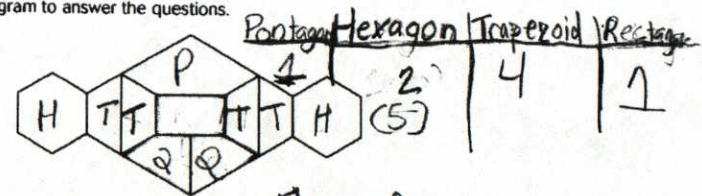
## Performance Task Rubric

### MAKING A QUILT

A level 3 response	<ul style="list-style-type: none"><li>• Indicates that the student has made sense of the task, modeled accurately and persevered</li><li>• Shows an ability to accurately recognize 2-dimensional shapes and their attributes, and to draw quadrilaterals</li><li>• Demonstrates an understanding of how to partition shapes into parts with equal areas</li><li>• Addresses all aspects of the task using diagrams and sound mathematical concepts</li></ul>
A level 2 response	<ul style="list-style-type: none"><li>• Indicates that the student has made sense of the task, modeled accurately and persevered</li><li>• Shows an ability to accurately recognize 2-dimensional shapes and their attributes, and to draw quadrilaterals</li><li>• Demonstrates an understanding of how to partition shapes into parts with equal areas</li><li>• Addresses most elements of the task, using diagrams and mathematically sound procedures</li><li>• May include a minor error of omission</li></ul>
A level 1 response	<ul style="list-style-type: none"><li>• Shows that the student has made sense of at least some elements of the task</li><li>• Shows evidence of recognizing some 2-dimensional shapes</li><li>• May not indicate a complete understanding of more complex tasks such as how to partition shapes into parts with equal areas</li></ul>
A level 0 response	<ul style="list-style-type: none"><li>• Shows little evidence that the student has made sense of the problems of the task</li><li>• Reflects a lack of understanding of 2-dimensional shapes and their attributes</li><li>• Shows little evidence of addressing the elements of the task</li></ul>



3. Darnell uses block prints to make this design for the quilt. Study the diagram to answer the questions.



- a. How many shapes have right angles? Three 3
- b. How many shapes have perpendicular lines? Three 3

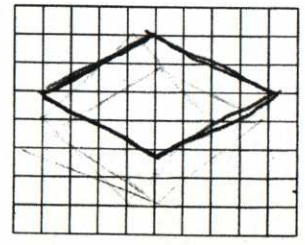
c. Put a T on the trapezoids. Are the trapezoids also quadrilaterals? Explain.  
Yes, because trapezoids has 4 sides just like a quadrilateral.

d. Put an H on the hexagons. Are the hexagons also quadrilaterals? Explain.  
No, because a hexagon has 6 sides and 6 angles.

e. Classify the shapes. Complete the chart to show how many there are of each shape.

Triangles	Quadrilaterals	Rhombuses	Pentagons
0	7	0	1

4. Ricky makes a design for the quilt. The shape is a quadrilateral that is not a square. It has 4 sides that are of equal length. Draw the quadrilateral on the grid. Name the shape.  
Rhombus



**Making Quilts**

The third grade art class is making quilts. Solve the problems below using what you know about geometric shapes.

1. Carly wants to make a block print for the quilt. She wants to draw a closed shape with 5 line segments and two right angles. Draw the shape. Label the right angles. Name the shape.  
The shape Carly wants is a Pentagon.



- a. How many angles in the shape are greater than a right angle? Two 2
- b. How many angles in the shape are less than a right angle? one 1
- c. How many sets of perpendicular lines did you draw? Two 2
- d. How many sets of parallel lines did you draw? one 1
- e. Did you draw any intersecting lines? Explain.  
Yes there are 5 intersecting lines and they form 1 acute and 2 obtuse angle and 2 right angles.

2. Carly wants to change the shape to make a hexagon. Explain how she can do this.  
Carly can open up the pentagon and add another line segment. She will have her hexagon and will have 6 line segments.





# ALGEBRA READINESS TEST

This is a diagnostic test of topics needed for success in a first course in algebra.

**CALCULATORS MAY NOT BE USED  
WHEN TAKING THIS TEST.**

**AR – A**  
2010

A suggested time for this test is approximately 45 minutes.

## INSTRUCTIONS

1. Wait until you are told to start before beginning the test.
2. The test booklet, the answer sheet, and all scratch paper must be turned in when the test is finished. **DO NOT WRITE IN THIS BOOKLET.**
3. Work each problem and select the best response from the given choices. On the answer sheet, bubble the choice that corresponds to your answer.
4. For you and your teacher to make the best use of the test results, you should not guess. If you cannot answer a question, leave it blank.
5. If you find certain problems very time consuming, leave them temporarily. Come back to them after you have gone through the entire test if you have time.
6. Calculators are not needed and may not be used when taking this test.

**YOU MUST USE A # 2 PENCIL. Do not use ink pens or mechanical pencils.**

## COMPLETELY FILL IN THE BUBBLE.

Bubbles may not be read if filled in too lightly or partially; if marked with a dot, check, or X; or if more than one bubble is marked. To change a response, completely erase the bubble previously filled in. See the examples shown to the right.

Correct



Incorrect





ALGEBRA READINESS TEST - 45 QUESTIONS - 45 MINUTES

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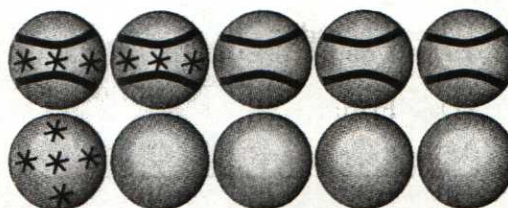
1.  $4.7 - 0.304 + 2.06 =$

- (A) 6.356 (B) 6.456 (C) 6.464 (D) 6.466
- 

2. The prime factorization of 18 is

- (A)  $2 \times 9$  (B)  $3 \times 6$  (C)  $2 \times 2 \times 3$  (D)  $2 \times 3 \times 3$
- 

3. Rosa chooses one ball at random from the ten shown to the right. What is the probability the ball she chooses has both stripes and stars?



- (A)  $\frac{1}{10}$  (B)  $\frac{1}{5}$  (C)  $\frac{1}{2}$  (D)  $\frac{3}{5}$
- 

4. What integer is closest to  $\frac{31}{7}$ ?

- (A) 1 (B) 3 (C) 4 (D) 5
- 

5. Pat drove her car 147 miles on a trip. At the end of the trip the car's total mileage was 3,835. What was the mileage of the car at the beginning of Pat's trip?

- (A) 3,982 (B) 3,688 (C) 3,588 (D) 2,688
- 

6.  $(3a)(8ab) =$

- (A)  $11ab$  (B)  $11a^2b$  (C)  $24ab$  (D)  $24a^2b$
- 




GO ON TO THE NEXT PAGE.





# Educational Services

## CCSS Walkthrough 14/15

### CORE FOCUS 4: SPEAKING & LISTENING

INDICATORS	EVIDENCE OBSERVED OR GATHERED	
1. A language objective tied to the lesson is posted	 1                      2                      3                      4 No language objective                      Language objective(s) is/are clear & evident	<p style="text-align: center;"><u>What to look for:</u></p> <ul style="list-style-type: none"> <li>*Teachers plan with a language objective in mind</li> <li>*Language Objective is posted for each lesson</li> </ul>
2. Students orally share thoughts and add on to or critique others' thoughts	 1                      2                      3                      4 Students are not speaking                      Students share thoughts and critique others with ease	<p style="text-align: center;"><u>What to look for:</u></p> <ul style="list-style-type: none"> <li>*Teachers plan for students discussions</li> <li>*Students are encouraged to participate in discussions</li> <li>*Accountable Talk stems are taught (Posters on wall, frames in students' hands) and expected to be used in discussions</li> </ul>
3. Students are offered language support structures such as Accountable Talk frames, sentence frames, response frames, etc. to aid in discussion.	 1                      2                      3                      4 No support structures in place                      Students have and are encouraged to use frames for discussion	<p style="text-align: center;"><u>What to look for:</u></p> <ul style="list-style-type: none"> <li>*Teachers plan for student discussions</li> <li>*Frames are taught (Posters on wall, frames in students' hands) and expected to be used orally in class</li> </ul>

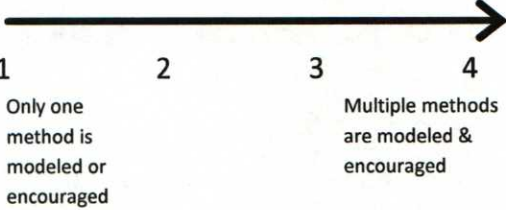
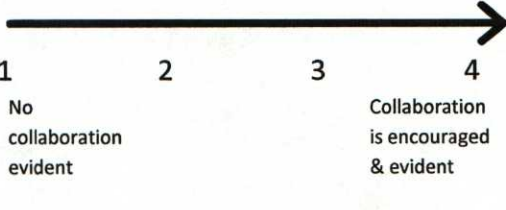
### CORE FOCUS 5: MATH

INDICATORS	EVIDENCE OBSERVED OR GATHERED	
1. Mathematical practices are posted and referred to by teachers	 1                      2                      3                      4 No evidence of Mathematical practices                      Mathematical Practices are posted & referred	<p style="text-align: center;"><u>What to look for:</u></p> <ul style="list-style-type: none"> <li>*Teachers introduce and use mathematical practices in daily lessons</li> <li>*Teachers highlight a MP in that day's lesson.</li> <li>*Students are able to articulate which MP they are using if asked</li> <li>* Mathematical practice posters are evident in the room</li> <li>* Students are USING Manipulatives</li> </ul>
2. Students explain results and critique others	 1                      2                      3                      4 Students do not share results                      Students explain results and critique others	<p style="text-align: center;"><u>What to look for:</u></p> <ul style="list-style-type: none"> <li>*Teacher plans for student discussion and communication of reasoning and justification</li> <li>*Students talk about numbers in terms</li> </ul>



# Educational Services

## CCSS Walkthrough 14/15

		<p>of units or objects (what do these quantities represent?)</p> <ul style="list-style-type: none"> <li>*Students use manipulatives or drawings to explain their thinking to others</li> <li>*Students and teachers use the academic language of the discipline</li> <li>*Students restate the thinking of others</li> <li>*Students give feedback and ask questions of others' solutions</li> </ul>
<p>3. Students are encouraged to find multiple ways of solving problems and use different tools/methods to solve</p>	 <p>1                      2                      3                      4</p> <p>Only one method is modeled or encouraged</p> <p>Multiple methods are modeled &amp; encouraged</p>	<p style="text-align: center;"><u>What to look for:</u></p> <ul style="list-style-type: none"> <li>*Teachers model more than 1 representation that are conceptually relevant</li> <li>*Students are using manipulatives, drawing and writing</li> <li>*Students are leading discussions and/or using document cameras</li> <li>*Students are encouraged to think past just one solution</li> <li>*Teacher encourages multiple representations and solutions</li> </ul>
<p>4. Students are encouraged to collaboratively problem solve</p>	 <p>1                      2                      3                      4</p> <p>No collaboration evident</p> <p>Collaboration is encouraged &amp; evident</p>	<p style="text-align: center;"><u>What to look for:</u></p> <ul style="list-style-type: none"> <li>*Teachers focus on word problems and/or real world problems</li> <li>*Students frequently work with partners and/or groups</li> <li>*Structure for student collaboration is evident (ie group members have roles: partner a/b, "sage/scribe", etc.)</li> <li>*Teacher is moving about the room, monitoring conversation and noting misconceptions (via clipboard, ipad, etc.)</li> <li>*Students are creating word problems from "real world" scenarios</li> </ul>





School: \_\_\_\_\_

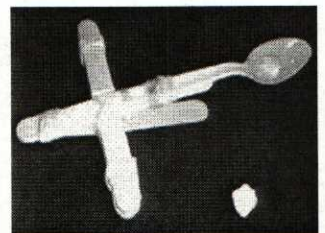
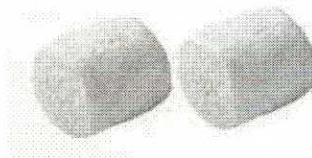
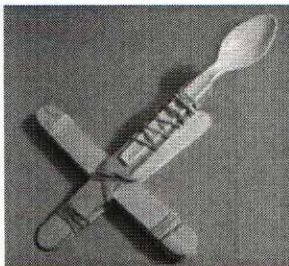
Team Members

1. \_\_\_\_\_
2. \_\_\_\_\_
3. \_\_\_\_\_
4. \_\_\_\_\_

## STEM BOWL 2014



# Ready, Aim, Marshmallows!





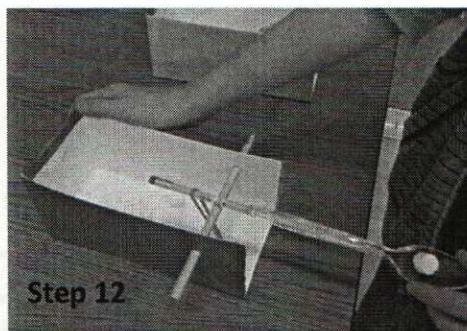
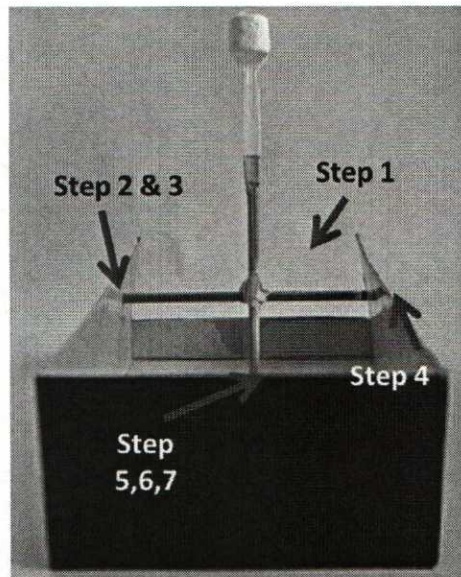
# Ready, Aim, Marshmallows

## Key Question

Which catapult will launch the marshmallow the furthest?

### Materials Needed

- Shoe Box
- Ruler
- Marker
- Plastic Knife
- Masking Tape ( 100cm)
- 1- inch rubber bands ( 2)
- 3 pencils
- Plastic Spoon
- Marshmallows
- Meter Stick





# DIRECTIONS

1. Cut out one of the back(narrower) ends of the shoe box with your plastic knife, leaving a 1 inch strip across the bottom
2. Starting from one of the wide ends of the box, mark a point 1 inch from the top and 2.5 inches from the back end that you just cut out in Step 1
3. At the marked point, use your plastic knife to cut a hole and enlarge it to fit the diameter of your pencil
4. Repeat Step 3 again on the other wide side and pass Pencil #1 through both holes
5. Mark an X on the bottom of the shoe box exactly below the midpoint of the pencil
6. Now make a hole at the X mark so that a pencil can go through it and stand up
7. Take a 2<sup>nd</sup> pencil and use your masking tape to tape the back of the plastic spoon to the pencil
8. Now take a rubber band and pass it through the hole on the bottom as shown in the diagram
9. Now pass pencil # 3 through the rubber band loop on the base of the box as shown in the diagram. Tape the pencil with your tape to the bottom of the box.
10. Now cross Pencil #2 with Pencil #1 using the rubber band as shown in the picture
11. Now use the elastic at the bottom to loop Pencil # 2 through it. If the elastic is not tight enough you can twist it a few times to make it tighter.
12. Now put the catapult contraption at one end of the table, load the catapult with a marshmallow and pull back the spoon. Record the distance the marshmallow travels. If it shoots off the table calculate the straight distance it has travelled from the table



## DATA

Trial	Distance Traveled (cm)	Time taken to hit the table/ground (sec)
1		
2		
3		
	Average distance travelled	Average time taken

If the speed of an object is determined by using the formula given below- determine the marshmallow's speed. Be sure to write the correct unit for the speed?

$$\text{Speed} = \text{Distance} \div \text{Time}$$

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## Reflections

Give a reason why a rubber band is used in this experiment?

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What type of energy change is occurring in this experiment?

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Does the mass of the marshmallow matter in determining how far it travels?

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