

Accelerated Math 6/7
Mt. Elden Middle School ~ 2014-2015 School Year

Teacher Information:

Ms. Hesper Petersen
hpetersen@fusd1.org

- *Math 6 & Accelerated Math 6/7*
- *Bachelor of Science - Elementary Education, NAU 2002*
- *Master of Arts - Elementary Education, NAU 2013*
- *6-8th Grade Math Teacher, 2003-present*
- *Math Program Specialist & Professional Development Coordinator for Coconino County Education Service Agency – Create & deliver mathematics professional development for K-12 teachers in Arizona College & Career Ready Standards, 2010-present*

Course Description:

Accelerated 6/7 Math is the first course in the accelerated middle school mathematics pathway. Students should be prepared to move through and apply concepts at a rapid pace. This course incorporates all of the AZ College and Career Ready Standards-Mathematics (AZCCRS) for grade 6 and half of grade 7. These standards include a deep understanding of the number system, rational number operations, extensive study of rates, ratios and proportional relationships, and equations and inequalities. Appropriate technology and modeling will be used to enhance mathematical understanding, application of concepts and problem solving.

Prerequisite: Exceeds on 5th grade AIMS or teacher recommendation.

Accelerated 6/7 Math is only open to 6th grade students.

Curriculum:

We are using Engage NY as our district curriculum. This curriculum can be found at <https://www.engageny.org/resource/grade-6-mathematics> (first semester) and <https://www.engageny.org/resource/grade-7-mathematics> (second semester). You can find student and teacher guides at this site for each module.

Pacing – 1st Semester:

We will cover all of the 6th grade curriculum in the first semester.

- Module 1: Ratios & Unit Rates
- Module 2: Arithmetic Operations Including Dividing a Fraction by a Fraction
- Module 3: Rational Numbers
- Module 4: Expressions & Equations
- Module 5: Area, Surface Area, and Volume
- Module 6: Statistics

Pacing – 2nd Semester:

We will cover half of the 7th grade curriculum in the second semester. Students who complete Math 6/7 with a C or higher *and* an 80% or higher on the 6th grade end of year common summative assessment will move onto Accelerated Math 7/8 in 7th grade where they will complete the second half of the 7th grade curriculum and all of the 8th grade curriculum. This will prepare them to take high school Algebra as 8th graders.

- Module 1: Ratio & Proportional Relationships
- Module 2: Rational Numbers
- Module 3: Expressions & Equations

Homework Expectations:

Students can expect to have between 10-30 minutes of math homework (HW) Monday-Thursday nights on content learned each day. Daily HW assignments are worth 5 points for each assignment and are categorized as “Practice” in the gradebook. We grade homework at the beginning of each class after Bell Work is finished. Students earn 100% on homework that has scored 80% or better. Students must Edit & Resubmit homework scoring less than 80% to earn their points.

Students will also have a weekly Family Math (FM) assignment that must be completed with a parent/guardian and signed to verify it was worked on together. Each FM assignment is worth 10 points (under “Practice” in gradebook) and late FM is not accepted. ETL will not be assigned for FM; students will just not earn their point. Extenuating circumstances, such as student or parent absence, do not apply to this policy. FM is usually assigned on Monday and due the following Monday.

Finally, students will have a weekly writing assignment (WA). This will be assigned on Mondays and due the following Monday. This will start the week of September 8. Research has shown that writing is an essential part of learning mathematics (<http://files.eric.ed.gov/fulltext/ED544239.pdf>). WA are classified under “Performance” in the gradebook.

Classwork Expectations:

Classwork points are divided into the following:

- Bell Work (BW): Students receive a bell work sheet on Monday they must keep for the entire week and turn in on Friday. These are problems completed at the beginning of class in groups and as a class. BW is worth 5 points each day (under “Practice” in the gradebook).
- Class Notes (CN): We do not have a textbook, so the notes packets received and filled out in class must be kept like textbooks. Students will receive 25 points (in “Practice” in gradebook) on their class notes upon completion of a Module. They will be turned in and checked on the day of the test. Students are responsible for completing their notes when they are absent. They can either copy the notes from a classmate or complete the notes using my guides on my website. (<http://www.fusd1.org/Domain/661>)
- Class Work (CW): Sometimes there is work completed in class that is not in the notes. These will be coded in the grade book as “Practice” or “Performance”, depending on the task.

Assessment:

Students will have quizzes and tests classified under "Measurement" in the gradebook.

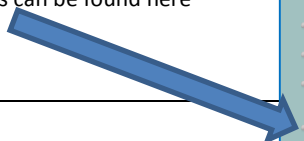
- **Bell Work/Lesson Quizzes:** Every Friday, students will take a Bell Work Quiz that assesses the topics covered in Bell Work in the week and the topics covered in the lessons and homework. These are typically worth between 2-5 points every Friday. Students who are not able to demonstrate mastery of the concepts by scoring 80% or higher will be required to Edit & Resubmit their quiz and come in at lunch, after school, or during Thursday Intervention/Pathways time to retake the quiz. The new quiz score will replace the lower score.
- **Mid-Module Assessments:** Half-way through a module, students will take a mid-module assessment. These are typically worth 20-30 points. Students who score less than 80% are expected to come to after-school tutoring (Tuesdays and Thursdays starting week of 9/8) to complete re-teaching lessons and re-take the assessment. The higher score will replace the lower score.
- **End-of-Module Assessments:** Students take these at the end of the module. These are typically worth 40-50 points. Students who score less than 80% are expected to come to after-school tutoring (Tuesdays and Thursdays starting week of 9/8) to complete re-teaching lessons and re-take the assessment. The higher score will replace the lower score.

Support:

I am willing to support all of my students to be successful learning math! Here are some of the supports I have in place:

- Tutoring
 - Before school - 7:20-7:35
 - Lunch – lunchtime daily. Just see me before you go to lunch to get a hall pass.
 - After school – Tutoring is available on Tuesdays and Thursdays from 2:20-4:10 in my classroom. This will start the week of September 8.
- Evening/Weekend Phone Help – I have given students my cell phone number and they can call each night until 8pm. I won't always answer the phone but they can leave a message. I do require that they try to start the problem first and be ready to tell me what they *do* understand before they tell me what they *don't* understand.
- Thursday Pathway/Intervention – I do not have a Pathway class on Thursdays because I have Intervention in my classroom. If a student is not assigned to Intervention due to low grades or low test scores, he/she can request that I place him/her on the Intervention list on Wednesday before they leave at 1pm.
- Website – I am constantly trying to make my website more accessible and helpful to both students and parents. I will try to have Lesson summaries posted for each lesson once the lesson has been completed on the website. My website can be accessed at <http://www.fusd1.org/Domain/661>.

Lesson Summaries can be found here



H. PETERSEN

- Ms. Petersen's Overview
- Team 6-1/Pre-AP Newsletter & Updates
- Math Skills and Concepts Practice Links
- Ms. Petersen's Homework Calendar
- Math 6
- Accelerated Math 6/7
- 6th Grade Math Module 1: Ratios & Unit Rates
- Accelerated 6/7 Math Module 1: Ratios & Unit Rates

Mount Elden Middle ▶ Staff Pages ▶ Petersen, H ▶ Ms. Petersen's Overview

Welcome to Ms. Petersen's Page

Name: Ms. H. Petersen
Title: Math Teacher, Team 6-1
Email Address: hpetersen@fusd1.org
Phone number: 928-773-8152

Welcome to my webpage! I teach on Team 6-1 at MEMS, along with Mr. Craig, Ms. Irby, and Ms. Epperson. My specialty is math. Ms. Irby's is social studies, and Mr. Craig specializes in science. Ms. Epperson is our resource teacher. She offers support for students with special educational needs.

This website is intended to communicate information about our team and my classes to students and their parents. Please do not hesitate to contact me if you have any questions or concerns.

MEMS Honors Pre-AP Academy & Accelerated Math 6/7

Team 6-1 also includes the Pre-Advanced Placement Academy (Pre-AP). Students in this academy have applied for and been accepted to this program. If you feel your child should be placed in the Pre-AP Academy, please contact us for an application. Additionally, students recommended for Accelerated Math from other teams (6-2, Alpine Academy, or Puente de Hozho's Language Academy) are also in my Math 6/7 classes. For information on this class, please see the tab on Accelerated Math 6/7.

Productive Struggle:

"I have not failed. I've just found 10,000 ways that won't work." Thomas Edison

Teachers, particularly math teachers, know that most learning occurs in the midst of struggle and overcoming struggle. But all students' life they've been assessed and encouraged to solve rote problems quickly. How can we undo years of low-complexity problems? How might we develop students' desire, ability, and disposition to struggle? What should students be doing? What should teachers be doing? What kind of tasks should kids be engaged with to encourage positive struggle behavior? (Excerpt from <http://emergentmath.com/2012/12/16/the-struggle-for-productive-struggle/>.)

I pulled this quote and excerpt because it is an important part of how I try to frame my teaching. Many students have learned to love math because they think there is always one right answer to get. Others may have learned to dislike math because they know there is always one right answer to get, but they can't seem to get there. In either case, students can be easily frustrated when they aren't able to arrive at the answer easily.

I explain to the students that we aren't learning if it isn't at least a little bit uncomfortable. Just as we build muscles by exercising in new ways that might be painful to those muscles, we build the connections in our brain's ability to solve unfamiliar problems when it is a struggle to figure out the problem. If we give students all of the steps in an easy-to-follow format to arrive at the correct answer, we are **not** actually teaching them **math** needed to arrive at the solution - we are only teaching them the steps to get the answer.

The shift from teaching "answer getting" to teaching the **math** needed to get the answer is a huge one in mathematics instruction and learning in this country. As a teacher I am working on making this transition for both my students and myself. This means students may struggle with their homework or classwork – but in this struggle we learn more than if we just follow a set of simple steps to arrive at the solution. This is not to say that students will not genuinely need help from time to time. It does mean, however, that we need to shift our thinking in how struggle in mathematics could lead to much deeper understanding of the concepts with which we struggle.

I encourage parents to view the following videos and links to learn more about productive struggle in mathematics.

- <http://vimeo.com/79916037>
- <http://emergentmath.com/2012/12/16/the-struggle-for-productive-struggle/>
- <http://www.edutopia.org/math-underachieving-mathnext-rutgers-newark>
- <http://repositories.lib.utexas.edu/handle/2152/ETD-UT-2011-12-4527>
- <http://mathk-12.wiki.hhh.k12.ny.us/Productive+Struggle>
- <http://anniemurphyphypaul.com/2014/02/when-and-how-to-let-learners-struggle/>