# 6<sup>th</sup> Grade Mathematics - Accelerated Math 6 Course Syllabus

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The focus of our courses is on making mathematics meaningful and connected inextricably to the real world. Through an integrated curriculum that promotes problem solving, conceptual understanding, and mathematical modeling, students develop a robust understanding of mathematics and an enhanced ability to retrieve and apply it.

While meaning and connections are a focus, students also explore interesting mathematical situations, reflect on solution methods, make comparisons, and examine why methods work. Students learn to effectively communicate their thinking, reflect on their learning, and connect newly developed mathematical ideas to prior understandings. These experiences help students build a deep understanding of mathematical concepts. A major focus of 6<sup>th</sup> grade is the development of both conceptual understanding and computational fluency in rational numbers, a topic described by the National Mathematics Panel as being essential for success in high school mathematics.

In 6<sup>th</sup> grade, our focus is on addressing the mathematics concepts from 6<sup>th</sup> grade mathematics as described in the Common Core State Standards for Mathematics (CCSSM). We will delve deeply into these topics, exploring them more thoroughly than in regular 6<sup>th</sup> grade classes. We will address the following topics (note that timing and order may change):

### Quarter 1

- Review concepts & skills from 5<sup>th</sup> grade: whole number computation, order of operations, and graphing on a coordinate plane
- The Real Number System
- Computation with integers, including absolute value

#### Quarter 3

- Basic algebraic concepts simplify expressions, write expressions in algebraic form, solve simple equations and inequalities.
- Geometry properties of 2- and 3-dimensional figures, graph 2-d figures on a coordinate plane, area, volume, surface area, spheres

### Quarter 2

- Number Theory (primes, composites, factors, multiples, divisibility, exponents, GCF, LCM)
- Fraction sense and computation with fractions
- Decimal sense and computation with decimals

#### Quarter 4

- Ratio and proportion concepts, scale, unit rates, and computation Understanding of percent and computation with percent
- Statistics & Probability appropriate graphs depicting various types of data, variability, center and spread

Please monitor the amount of time your student spends on any math assignment this year. I anticipate that assignments should take about 30 minutes nightly, assuming your student is staying up with the work we are doing in class. If your student needs a lot more time than 30 minutes, please discuss with me.

\*\* A special note about pre-assessments: I will occasionally pre-assess students' knowledge and skills prior to a topic. Pre-assessments may be sent home as homework. It is <u>very</u> important that students do their own work on pre-assessments. I use the results of pre-assessments to help me determine the content that needs to be addressed during a unit; in some cases, I'll use the results to excuse students from a unit and provide enrichment activities to support deeper learning. As a result, it is <u>essential</u> that your student do his/her own work on pre-assessments without the aid of a calculator, computer, the internet, tutor, sibling, or parent. Students will not be penalized for not knowing a concept on a pre-assessment – that's the purpose for giving the pre-assessment, but please do <u>NOT</u> help your student on these papers. Encourage your student to do his/her best on the pre-assessment and to identify problems he/she absolutely does not know how to approach.

## **Classroom Expectations:**

- Be prepared come to class with all required materials and completed homework
- Be on time- in your seat and ready to work when the bell rings
- Be respectful to everyone and everything in the class. This includes listening carefully to your peers' ideas and responding respectfully.
- Be responsible ask questions and try your hardest
- Be accountable follow all the school and classroom rules and understand the consequences.
- Be positive develop an attitude that promotes learning in our classroom.

Grading Policy		Grading Scale	
Assessments (QuizzesTests/Projects)	65%	90% & above	Α
Homework/Classwork	15%	80% - 89%	В
Final Exam (given each semester)	20%	70% - 79%	С
		60% - 69%	D
		59% & below	F

**Homework**: Students will encounter three types of homework in this class – practice homework intended to give students opportunities to practice previously-learned skills, explorations that start with a problem (problem-based learning) in which students probably know little about the topic but are to mess around and explore the mathematics prior to instruction, and problem solving which consists of non-routine problems that may take some concentrated time to solve. It's ok if students struggle with these last two types of homework – in fact, that's part of the purpose of these assignments. The practice homework may also be different from what students are accustomed to since the emphasis isn't just on practice but on thinking about the mathematics.

#### Textbooks:

Most of our work in class will come from a variety of sources other than the textbook. Students will have online access to *GoMath*, and occasional assignments will be made from the online textbooks. Students can access the textbooks at <a href="https://www.washoeschools.net">https://www.washoeschools.net</a> "Students and Parents" link.

**Assessments:** Quizzes are in-class checks intended to help the student self-assess their understanding of the course content.

Tests are in-class assessments of the student's understanding of the content in the unit. While these also help the student self-assess his/her understanding of the course content, they are primarily intended to provide a measure of a student's overall mastery of the unit content. It is expected that students will provide quality work on test corrections and complete the After Test Reflection on their objectives.

**Late Work Policy:** Please refer to district regulations and the Griswold Base Policies and Procedures for information on late work and making up work when absent.