Mission Statement

Austin Road Middle School strives to develop a nurturing school community that encourages academic success for each student through a rigorous curriculum and extracurricular opportunities supported by dedicated teachers and staff.

Vision

Austin Road Middle School will cultivate an environment for creativity, innovation and leadership where we exceed expectations every day.

AUSTIN ROAD MIDDLE SCHOOL

6th Grade Math Course Syllabus 2017-2018

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Course Description

Welcome to the 2017-2018 school year!   6th Grade mathematics uses Georgia Standards of Excellence which focus on actively engaging students in the development of mathematical understanding by using manipulatives and a variety of representations, working independently and cooperatively to solve problems, estimating and computing efficiently, and conducting investigations and recording findings. In our mathematics classrooms, students will learn to think critically in a mathematical way with an understanding that there are many different ways to a solution. There is a strong emphasis on vocabulary building strategies this year.

GSE Mathematics Grade 6 Unit Descriptions:

The Number System (1st Nine Weeks)

Students will continue to work with whole numbers, dividing multi-digit numbers using the standard algorithm. All four operations with decimals, as well as dividing fractions by fractions, are emphasized from a hands-on approach in order to build understanding, not rely on memorization of rules and procedures. Students will also find common factors and multiples as they progress in their understanding of composition and decomposition of numbers and become fluent in number sense. Finally, up to this point, students have only encountered numbers with values greater than or equal to zero (Natural Numbers, Counting Numbers, Whole Numbers). Students will be introduced to *negative* numbers, numbers with a *value less than zero-* the set of Integers. Operations with Integers are deliberately postponed to seventh grade, but by introducing students to Integers in sixth grade, they have the opportunity to explore situations appropriately represented by negative numbers, and graph points in all four quadrants of the coordinate plane. Using a number line, students learn about numbers and their "opposites", and absolute value (distance from zero).

Expressions and Equations (2nd Nine Weeks)

The formal study of algebra begins in earnest in sixth grade, as students move from arithmetic understandings to algebraic expressions. Students learn to translate verbal phrases into algebraic expressions and utilize exponential notation in appropriate situations. Students will also reason about and solve one-variable equations and inequalities. Mathematics is all about answering questions, finding the solutions to unknowns, and making sense of real-life situations. Students also learn that often two things are not balanced or equal, but are unequal, and they explore inequalities using tools such as number lines to become fluent in grasping the magnitude of numbers.

Ratios and Proportional Relationships (2nd Nine Weeks)

Ratios and rational relationships form an important undergirding of the entire sixth grade mathematics curriculum. Understanding ratio and "rational thinking" is critical to all future mathematics courses, students will revisit and continue to use the skills developed in this unit as they explore other topics throughout the year. Their work with ratios includes unit rate and using rate to solve real-world problems.

Geometry3rd Nine Weeks)

The study of geometry is interesting and fun for many students, as it is often more concrete and visual than some other domains of mathematics. Sixth grade students extend their understanding of the meaning of area and volume from elementary grades, now often having fractional edge lengths to work with instead of only whole number lengths. This represents the types of measurements they very often encounter in real-life, and helps students understand magnitude and applications of operations on fractional numbers.

Additionally, students find area by composing and decomposing figures into familiar shapes, triangles and rectangles. They also use nets of three-dimensional figures to find surface area.

Statistics and Probability (3rd Nine Weeks)

Sixth grade provides the first formal introduction to the study of statistics. Students begin by learning what questions are statistical in nature. That is, they are questions which will generate a range of responses. Students are introduced to the idea that data can be collected to answer a statistical question, then described by its center, spread, and overall shape. Statistical measures allow the description of a set of data and the spread of the data in single number summary, and tasks acquaint students with this new domain.

Resources:

- Pearson envision Math 2.0 is a digital comprehensive mathematics curriculum that supports coherent, focused, and rigorous mathematics.
- Triumph Learning: **ARMS scholars may order the following resource through their Math teacher at the beginning of the school year.** *576GASE Georgia Coach, GSE Edition, Mathematics Grade 6*-Cost: $15.00 (Cash or money order only)
- www.georgiastandards.org
- Khanacademy.org
- **Henry County Schools GSE Sixth Grade Mathematics Flexbook http://www.ck12.org/user%3Adg93yw5kys5qyw1lc0bozw5yes5rmtiuz2eudxm./book/Henry-County-Schools-GSE-Sixth-Grade-Mathematics-Flexbook/**

Rationale:

I believe we engage in mathematics not only for its application but also for its inherent beauty and interest. Together, we will become skilled mathematicians as well as confident problem solvers. As we study the mathematical content in this course, let's always ask questions like "Why?", "What if?", "Always?" After all, new ideas and inventions come from just such questions!

Required Materials:

- Composition notebook (interactive notebook)
- Pencils
- Basic calculator
- Glue sticks for interactive notebook
- Colored Pencils

Grading Policy

A = 100 – 90   B = 89 – 80   C = 79 – 74   D = 73 – 70   F = below 70

Category Weights

- **Practice Work: Max 25%**

Labs/Classwork 15%
Homework 5%
Notebook 5%
- **Assessment: Max 60%**
Tests/Projects 20%
Quizzes 20%
CSA (Common Summative Assessments) 20%
- **Final Exam: 15%**

Henry County Schools provides high school and middle school parents and students access to grades via the Internet. Using the Internet, parents and students are able to log on to **Infinite Campus** to view grades. Please contact the school counselors and/or secretary to obtain your password.

Homework Policy

Homework is designed to enable students to assess their own knowledge of a given standard. Homework helps students learn! Students are expected to return to class with completed assignments and with questions about specific problems. We use homework as a tool to help us learn.

Students must spend time outside of class completing daily homework assignments, reviewing class notes, or other assignments and projects that may be assigned.   Teachers use a variety of different on-line sites such as Google Classroom, Pearson envision Math 2.0 digital textbook, Khanacademy, Odesseyware, and Thatquiz.org to name a few. Students are required to maintain an organized notebook in all classes. Students should communicate with their teacher as soon as possible if they are having trouble.

We are very excited about our new school year. Please communicate with your teacher if you have any questions or concerns.

** It is the student's responsibility to find out what they miss when they are absent! **

Time Outside of Class:

You cannot expect to accomplish what you should from this course without spending time with math outside of class. As well as completing daily homework assignments, you need to stay organized, spend time reviewing notes and assignments, carefully reflect on problems previously missed, etc. It is my expectation that you spend approximately 15 – 30 minutes each evening (Monday through Thursday) with homework and use the weekend to study, work on projects, review, get caught up, organize, etc. Please communicate with me as soon as possible if you are having trouble managing your time or if you are spending significantly more than 15 – 30 minutes an evening working on math. I truly want to help you get the most out of this course as you can.

Tutoring Availability:

The Math Lab is open to all students to receive tutoring on Tuesday and Wednesday mornings 7:55-8:25.