**Math 2017 – 2018**

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Welcome to the next chapter in your mathematical explorations! I am thrilled to share this opportunity with you this year and look forward to an exciting and thought-provoking year. This course description should serve as your first resource should you have any questions, concerns, or need guidance in what is expected of you. Email is the best way to get in touch with me and I will do everything I can to return your email within 24 hours.

**Website**

You can access our class website through the Algebra 1 page on our class website: <http://teamyellowstone.weebly.com/math.html> . I will post assignments for each week (typically on Monday morning for the upcoming week). Should you miss class, lose a handout, need a copy of notes, the website is your first place to look. We will also utilize Google Classroom, which will be the primary location for you to submit digital work. The website should serve as a resource for work done at home and to help keep communication lines open.

**Curriculum**We will be using a variety of resources to teach the Critical Concepts (as outlined by Bozeman School District) of the Common Core State Standards. I will organize lessons, activities, and resources that relate to the topics listed below and work with students individually or in small groups to help them demonstrate mastery of each concept before moving on to the next topic. Items listed in **bold** below are indicated as priority; as such, students will spend significantly more time on these concepts than others. We may deviate from this plan slightly, but the Critical Concepts for the year are listed below:

*7th Grade Critical Concepts*

1. Angles and Triangles
2. **Signed Numbers and Absolute Value**
3. Scaling of Geometric Figures
4. **Proportional Relationships**
5. **Linear Equations**
6. **3-Dimensional Geometry**
7. **Circles**
8. Data Analysis
9. Probability Exponents

*8th Grade Critical Concepts*

1. Cube and **Square Roots**
2. Scientific Notation
3. **Rational and Irrational Numbers**
4. **Linear Equations**
5. Systems of Linear Equations
6. **Functions**
7. **Linear Functions**
8. **Concepts of Functions**
9. Volume
10. **Transformations**, Similarity, and Congruence
11. Angles of Two-Dimensional Figures
12. **Pythagorean Theorem**
13. Bivariate Categorical Data
14. **Bivariate Measurement Data**

**Mathematical Practices:**

The following eight mathematical practices will be developed and applied in every unit:

* Make sense of problems and persevere in solving them.
* Reason abstractly and quantitatively.
* Construct viable arguments and critique the reasoning of others.
* Model with mathematics.
* Use appropriate tools strategically.
* Attend to precision.
* Look for and make use of structure.
* Look for and express regularity in repeated reasoning

**Class Participation & Behavior**
It is critical to the functioning of our work together that you complete all assigned projects and assignments in order to participate fully in class discussions and activities. It is also critical that you remain engaged, respectful and alert. We will often start each day with a review of the homework, a quick lesson from me (as needed), and then the majority of the class period will be working in small groups to progress through the investigations. My hope is that students spend the majority of our time together actually *doing* math versus listening to me *talk* about math.

As Team Yellowstone students, I expect you to use the academic and social skills that you have learned so far to lead by example for your classmates. All SMS rules and polices are effective (check your agenda for clarification). If your behavior goes astray, you will need to leave the room until you are ready to fully engage. Remember, you mind is like a parachute: it only works if it is open. Your attitude and willingness to try new things, risk mistakes, working with your classmates, and trying hard will go a long way towards achieving success.

**Grades & Evaluations**
Grades are based on proficiency of the State of Montana Mathematics Standards through the use of assessments (quizzes, tests and summative exams) and projects. Grades will be available online to students and parents through PowerSchool so that everyone can keep track of academic progress. We will utilize the Standards Based Grading System as a way to demonstrate mastery of learning towards specific standards and learning targets. Grades are feedback on your work from me to you and an opportunity for growth more than an end unto themselves.

**Homework**
You should expect to have math homework most nights of the week. In math, one of the most important habits to develop is your ability to show your work, and explain your thinking. The nightly work assigned to complete outside of class is meant to help establish those habits so that when you encounter more challenging problems, you have the habits of work to tackle those problems. **My general rule is if you spend more than 30 minutes at night working on the homework problems, you should STOP working and EMAIL me.** That way, we can figure out how to problem solve your stumbling blocks together at school the next day.

We will review portions of the homework in class each day, with a significant amount of time dedicated to students exploring and investigating independently and in groups. I will occasionally assign challenge problems as optional extension exercises for homework. Students wishing to dive deeper into the curriculum may choose to do these problems, but they are not required.

**Assessments**
We will have quizzes, midterm tests and summative exams to assess mastery of specific learning targets. For any quiz that you do not establish proficiency, you will be required to complete test corrections. Test corrections are optional for those who meet the proficient level (more to come on this soon). **All midterm test scores and final exam scores are final.**

**Quiz Re-Take Policy**

Students may retake quizzes, provided they meet the following requirements:

1. Complete all homework assignments related to the quiz.
2. Make corrections to the initial quiz attempt.
3. Schedule a time to meet with the teacher (during lunch, before or after school) for feedback on corrections and homework.
4. Schedule the retake (during lunch, before or after school) with the teacher.
5. Reassessment is not available for midterms and semester exams.

**Missed & Late Work**
If you are absent YOU are responsible for tracking down the work you missed out. Your first stop should be the website, your classmates, your agenda, and the HW board. I strongly recommend coming before or after school or during lunch to clarify questions or complete activities. It is inevitable that, at some point this year, you will be unsure about what is expected of you, OR how to meet that expectation. Also, life happens. If, for any reason, you cannot complete an assignment, I encourage you to come discuss it with me *before* it is due. Without a dialog, we can’t learn from each other. I am available to you for help outside of class time – just ask & we will find time to meet.

**Required Materials**
All students should come to class each day with the following supplies ready to use:

* Composition Notebook (preferably with graph paper)
* Calculator (something similar to the TI-34)
* Pencils and pens
* Colored pencils
* Glue Stick
* Dry Erase Marker (preferably blue or black)
* Textbook

You will record and keep all your notes, classwork investigations, homework and assessments in your math notebook. Your math notebook will be evaluated at least twice a trimester for completion, neatness, and organization. You will receive feedback throughout the year with suggestions for improvement. Coming to school prepared each day with the necessary materials is critical to your academic success. All your writing must be in pencil. Anything that is typed should be size 12, with 1-inch margins and Times New Roman font, spell checked (both by you and the computer) and double-spaced.

**Looking Ahead to Algebra**

Bozeman High School Math Department established the following criteria for recommending middle school students for Algebra:

* Successful completion of 8th Grade math content at the proficient level (or above).
* Trimester/Midterm/Final exam grades for 8th grade math (proficiency or higher recommended).
* STAR Score (Winter Benchmark): 800 or above recommended (85th percentile).
* Proficiency on all Priority Standards.

**I have read & understand this document \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

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