

Math Syllabus - Mr. Prato

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Subject to change due to our new district initiated Illustrative Math Pilot Program, new iB grading protocols, and new bell schedules.

What is the New Math Curriculum? (Illustrative Mathematics)

"IM Math is a problem-based core curriculum designed to address content and practice standards to foster learning for all. Students learn by doing math, solving problems in mathematical and real-world contexts, and constructing arguments using precise language. Teachers can shift their instruction and facilitate student learning with high-leverage routines to guide learners to understand and make connections between concepts and procedures." <https://illustrativemathematics.org/math-curriculum/>

Class Expectations

- Be on time and prepared for class ready to learn. Engaging during class will count towards attendance and student learning. Students are expected to be in their seat ready for instructions when the bell rings.
- During lecture/activities, **students are expected to engage and participate regardless of their comfort level in the material. That's how you learn!** Students should be ready to make mistakes, **ask questions**, take notes, **participate**, and complete classwork. **Please use your resources or ask questions if you need help.**
- Student behavior should not interfere with other students' ability to learn or their own ability to learn. Consequences will be given to those students disrupting the learning environment. Be Safe, Be Responsible, and Be Respectful.
- You are responsible for all class work whether present in class that day or not. You can find missed work on my calendar and website. You have 2 days for each excused absence to make up work.
- Not all class periods will complete the day's learning objectives at the same time; Hence assignments may be modified to reflect this.
- The classroom should be kept clean.
- Only water is allowed in the classroom. No food and No candy. Gum will be at teacher discretion.
- Be safe, be responsible, be respectful, be engaged.

Required Supplies

- Pencils
- Dry Erase Markers
- Earbuds/Headphones (Required for video notes and learning. Available for \$1 from the main office. I do not have loaner earbuds. Gross!)
- Chromebook - charged each day.
- Composition Book (Graph is best)
- Calculator
- Ruler (inches and centimeters)

- Math Workbook (Handed out in class)
- Loose Leaf Paper - I think graph paper is the best, but not required.
- Pencils
- Grading Pen
- Planner/Agenda to keep track of daily assignments and important dates if digital means of tracking items is too difficult.
- Did I mention pencils and dry erase markers?

Grading

- [Summit Ridge Grading Policy](#)
- Test Corrections/Retakes: Students will get **one** opportunity to make corrections and/or take a retake. In order to raise their proficiency up to a 3 to 4 on the iB scale students will need to correct their assessment in a different color **and** be able to explain their mistakes and corrections verbally. In order to score 5 to 7 students must make corrections to their assessment, proof that they have studied the material, and pass a retake assessment on their own without help. Due to our bell schedule only certain class periods can be used for test retakes. Students may come get an Advisement Pass from Mr. Prato the morning of Advisement to come in and work. The Advisement passes are first come first served due to occupancy constraints.
- You are responsible for all class work whether present in class that day or not. You have two days for each excused absence to make up work. After you are absent, you need to check my calendar/google classroom/website to find out what you missed. School policy allows two days for every excused absence. Tests and quizzes need to be made up immediately. Students are responsible for finding missed assignments. See google classroom or the daily unit slides. Khan topics are due on the due date, whether the student is in school or not. Students have multiple days to complete khan assignments, so no extra time is granted due to absences.
- Extra Credit: There are no extra work opportunities. Please complete the regular work, on-time, and be prepared for assessments.
- Being well prepared and participating during class and excelling on assessments is the best way for students or parents to obtain higher grades.
- Grades can be monitored online by logging onto the Parent Portal website. I encourage you to check grades at least once per week.
- Khan Academy: Students are to get a minimum of a 70% score on all topics assigned for a specific due date for full credit.

Math Help

- Please see our unit daily slides for math help resources.

- See Google Classroom, my website for useful links and videos for additional help!

Overview of Course Material

General: You may find that 7th or 8th Grade Math may give you a struggle for the first time in learning mathematics. This is normal. In order to succeed students should be patient, ENGAGE in learning, ask questions, and PRACTICE.

Math 7/MYP 2 course overview:

From my IM resource: *"As in grade 6, students start grade 7 by studying scale drawings, an engaging geometric topic that supports the subsequent work on proportional relationships in the second and fourth units. It also makes use of grade 6 arithmetic understanding and skill, without arithmetic becoming the major focus of attention at this point. Geometry and proportional relationships are also interwoven in the third unit on circles, where the important proportional relationship between a circle's circumference and its diameter is studied. By the time students reach the fifth unit on operations with rational numbers, both positive and negative, students have had time to brush up on and solidify their understanding and skill in grade 6 arithmetic. The work on operations on rational numbers, with its emphasis on the role of the properties of operations in determining the rules for operating with negative numbers, is a natural lead-in to the work on expressions and equations in the next unit. Students then put their arithmetical and algebraic skills to work in the last two units, on angles, triangles, and prisms, and on probability and sampling."*

OLD VERBIAGE:

- Integers & Rational Numbers – Add, subtract, multiply, and divide rational numbers including integers, fractions, and decimals
- Equations & Inequalities – Set up, solve, and graph multi-step equations and inequalities
- Ratios & Proportions – Identify relationships between tables, equations, and graphs in terms of proportional reasoning
- 2D & 3D Geometry – Set up and solve equations to solve for surface area, volume, and missing angle measurements
- Statistics & Probability – Calculate measures of center and deviation, and probabilities of compound events

Math 8/MYP 3 course overview:

From my IM resource: *"Students begin grade 8 with transformational geometry. They study rigid transformations and congruence, then dilations and similarity (this provides background for understanding the slope of a line in the coordinate plane). Next, they build on their understanding of proportional relationships from grade 7 to study linear relationships. They express linear relationships using equations, tables, and graphs, and make connections across these representations. They expand their ability to work with linear equations in one and two variables. Building on their understanding of a solution to an equation in one or two variables, they understand what is meant by a solution to a system of equations in two variables. They learn that linear relationships are an example of*

a special kind of relationship called a function. They apply their understanding of linear relationships and functions to contexts involving data with variability. They extend the definition of exponents to include all integers, and in the process codify the properties of exponents. They learn about orders of magnitude and scientific notation in order to represent and compute with very large and very small quantities. They encounter irrational numbers for the first time and informally extend the rational number system to the real number system, motivated by their work with the Pythagorean Theorem. They wrap up the year with a study of the volumes of cones, cylinders, and spheres."

OLD VERBIAGE:

- Integers & Rational Numbers – Add, subtract, multiply, and divide rational numbers including integers, fractions, and decimals.
- Equations & Inequalities – Set up, solve, and graph multi-step equations and inequalities. Graph and Solve systems of linear equations.
- Ratios & Proportions – Identify relationships between tables, equations, and graphs in terms of proportional reasoning
- 2D & 3D Geometry – Set up and solve equations to solve for surface area, volume, and missing angle measurements
- Statistics & Probability – Calculate measures of center and deviation, and probabilities of compound events.
- Functions – Identify characteristics of functions including domain and range
- Transformations, Congruence, & Similarity – Apply properties of transformations to determine relationships between geometric figures, and apply the Pythagorean Theorem
- Exponents & Scientific Notation – Apply rules of exponents to simplify complex algebraic expressions, and use scientific notation to perform calculations with very large and very small numbers