

Compacted Math 7/8

Mr. Berreth & Mr. Henry



Teacher Commitment

Your teachers' primary goal is to provide a respectful, student-focused environment where responsibility is practiced and all students are challenged and engaged in meaningful learning. We strongly believe that all students can be successful when in the appropriate setting. Students can expect us to provide an environment that supports flexibility to shift from teacher directed, student to student, and self directed activities based on the needs of individuals. Rituals and routines will be fundamental in an atmosphere where support is continuously available for all students.

We also recognize that students enter the classroom with an array of life experiences, including various exposures to mathematical concepts. Our objective is to gauge each student's interests, knowledge, and preconceptions in order to plan rigorous lessons for students at all levels of understanding, focusing on the processes that will lead to future success in math.

Course Description

Math 7/8: An accelerated, compacted course

To prepare students for high school mathematics in eighth grade, districts are encouraged to have a well-crafted sequence of **compacted courses**. The term "compacted" means to compress content, which requires a faster pace to complete, as opposed to skipping content. The compacted traditional sequence, or, "Accelerated Traditional," compacts grades 7, 8, and High School Algebra I into two years: "Accelerated 7th Grade" and "8th Grade Algebra I." Upon successful completion of this pathway, students will be ready for Geometry in high school. (Taken from Common Core State Standards in Math: Appendix A)

Using the Common Core State Standards curriculum we will be studying a range of topics this year, including:

- Expressions and equations (integer operations, absolute value, two-step equations, algebraic notation, etc.)
- The number system (apply and extend understandings of operations with fractions to add, subtract, multiply and divide rational numbers)
- Proportionality (single and multi-step problems involving proportional relationships, scale drawings, proportionality in tables, graphs, equations, unit rates, conversions between measurements systems, etc.)
- Geometry (draw, construct, and describe geometrical figures and describe the relationships between them; solve problems involving angle measures, area, surface area, and volume.)
- Statistics and Probability (evaluate different displays of data; investigate chance processes and develop, use, and evaluate probability models.)
- Grade 8 "Thinking with Mathematical Models" (algebra used to model real problem situations)
- Grade 8 "Looking for Pythagoras" (Pythagorean Theorem; exploration of Real numbers)
- Grade 8 "Butterflies, Pinwheels, and Wallpaper" (congruence, similarity, and transformations)

Emphasis of instruction and assessment will be on

- Current Mathematical Concepts: Comprehension, application, and appropriate use of mathematical vocabulary
- Problem Solving: Ability to understand and solve problems and communicate strategies and explanations effectively
- Number Agility: Capacity for computation of numbers

Student and Teacher Expectations:

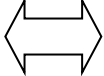
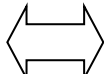
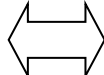
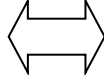
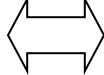
In this classroom you will be given the privilege and the large responsibility to take a great deal of ownership over how your time is spent in class. Planning and managing your time and workload takes self-control and motivation. These skills are essential for student success in high school and college, as well as being a contributing member of our society.

Classroom Expectations for Students and Teachers

- Respect the rights and property of others.
- Do not interfere with others' right to learn.
- Come to class prepared and on time

In addition, the school's general expectations will be observed.

The comparisons below will give you an idea of what we can expect of each other on any given day:

Students		Teacher
Focus on the process of learning while doing daily work, homework, reflections, explanations, and preparing for tests.		Focuses on planning learning outcomes for students and instructional strategies to help students achieve standards & benchmarks.
Plans and manages class time and homework to meet deadlines and due dates for units of study. Seek help and ask for clarification when unclear about what to do.		Clearly communicates assignments and due dates for students to meet in a unit of study. Supports students with time management and prioritizing when necessary.
Hold selves and each other accountable for routines and procedures as well as explanations, reflections, and extensions.		Clearly establishes routines and procedures that provide opportunities to support students in whole group, small group, and one on one learning situations.
Take ownership of learning as evidenced by a willingness to carry out their own inquiries.		Differentiates individual assignments to meet the needs of particular needs. Learning outcomes and standards remain common.
Understand that their work is never "done". Seek opportunities for extensions.		Understands that his work is never "done". Challenges students to dig deeper into concepts.

Standards Based Classroom

Practice: Students will have homework most nights in math. We recognize that students reach mastery at different points in time within a unit, but practice brings about fluidity. As we progress in a unit, we will often provide opportunities for students to choose a more advanced level of independent practice as they demonstrate readiness.

Assessment: Our goal is for students/families to have a clear understanding of each student's strengths and challenges when it comes to the topics we will be covering in math this year. You'll notice on progress reports that assessments are listed by skill (learning target) rather than by title of the unit/quiz and therefore are very specific. Students will have the opportunity to improve assessment scores by continuing to work in those areas and demonstrating improved levels of proficiency before the end of the semester. Each skill will be assessed, multiple times, using a 4 point scale as seen below:

4	Mastery!! -beyond meeting standard
3	You've got it! Meeting Standard
2	Not quite there (yet)
1	No evidence of progress

We look forward to a tremendous year. Please feel free to contact us with any questions or comments.

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