



MATH SYLLABUS OUTLINE

Teacher	Phone #	Email Address	Study Session
Mrs. Sawaged	720-972-8302	Mervat.Sawaged@adams12.org	Tuesday 8:30-9:00
Mr. Kyle Hartman	720-972-5113	har012601@adams12.org	Thursday 4:15 - 4:45
Ms. Frances Bell	720-972-8286	bel024468@adams12.org	Tuesday 1:18-1:49
Holly Christus (Co-teaches with Sawaged & Hartman)	720-972-5096	Holly.Christus@adams12.org	When requested
Mr. Rodney Harrison		har019436@adams12.org	When requested
Co-teacher with Ms. Bell			

COMMUNICATION

- Parents can access real-time grades and attendance on the Parent Portal of Infinite Campus:
<http://northglennm.adams12.org/home/for-parents/parent-portal>
- Homework can be found on the school website by core
- If a student is not performing to his/her ability or if the student has unacceptable behavior that is disruptive to class, we will contact a parent or guardian by phone or email.
- Phone calls and/or emails will be returned within 24 hours

BEHAVIOR EXPECTATIONS

- Students should be respectful of themselves, others and property
 - Students are expected to complete/attempt homework to the best of their abilities.
 - students should bring their math book, notebook, **calculator** and writing utensils to class daily.

GRADING

This course assesses on common district criteria aligned to state standards. The rubric achievement levels are each 1 - 4. We will grade all summative assessments with rubrics. In all courses, the higher the rubric score on a summative assessment, the better the student's demonstration of knowledge. At the end of the semester and year, we will issue a final trend mark for each criterion. We will determine the final trend mark by the knowledge the student demonstrates throughout the semester and year in each criterion. As your teacher, we will consider summative assessments, formative assessments, observations, and student circumstances when giving a final trend mark.



Missing assignments for a student that has not completed any work, has not turned in a project, or has not attempted an assessment will become part of the overall demonstration of knowledge that we will consider for a final trend mark. Every student has the right to take a summative assessment once. However, retakes/redo will not be permitted until all classwork has been completed and a study session attended. We will evaluate exceptions on a case-by-case basis. Students who complete 95% of classwork will be allowed to retake/redo assessments provided that the student attends a help/study session with the teacher. The study session requirements will be an agreement between the teacher and the student. Re-takes/re-dos of assessments must be completed by the end of the next unit. In addition, all makeup work must be completed by the end of the next unit. Students will always receive the highest grade they achieve on a test regardless of the number of times attempted.

HOMEWORK POLICY

- Amount of Homework to expect each night 20-30 minutes
- Homework is a means for students to practice their learning and therefore will not be utilized when determining a student's proficiency level. Students will receive feedback on their homework and completion of it will be monitored.
- If a student works on homework for more than 45 minutes, they should bring a list of questions and evidence of their attempted work.
- No late homework will be accepted after the next unit test is given.

Math Book:

Students will be given a math book to keep all year long. It is their responsibility to bring the book back to school daily. By the end of the year students will return math books to school to be used by next year math students. There will be approximately **\$88 charge** for missing or damaged books.

Student Access: Students also have access to the Big Ideas online materials. Students access the site by following the steps,

1. Go to www.clever.com/in/ad12portal
2. Click on Students: Grades 6-8
3. If you are logged into your Adams 12 Google, you will automatically be logged into Clever. (Skip to Step 7)
4. If you are not logged into Google, you will be taken to a generic Google login page.
5. Enter your entire email address including the adams12.org using your universal username (i.e. mon013485@adams12.org)
6. This will take you to the Adams 12 Google login. Enter your universal username and password.
7. The first time you log into Clever only, it will ask your permission to access your Google Account. Click on Allow.
8. Click on the Big Ideas logo. You will now be in Big Ideas.



Grade Level Mathematics Units

Unit	Equations	Transformations	Angles and Triangles	Graphing and Writing Linear Equations	Systems of Linear Equations	Data Analysis and Displays	Functions	Exponents and Scientific Notation	Real Numbers and the Pythagorean Theorem	Volume and Similar Solids
Days	12-14 days	17-19 days	11-13 days	17-19 days	11-13 days	12-14 days	13-15 days	17-19 days	15-17 days	11-13 days
New Summary Statement	<p>Students will extend their knowledge of solving equations to multi-step equations. They will also include using their solving skills to work with literal equations.</p> <p>MRL Grade 8: Chapter 1</p>	<p>Students formalize their understanding of transformations. They use this knowledge to determine if figures are similar or congruent.</p> <p>MRL Grade 8: Chapter 2</p>	<p>Students will understand the relationship between different types of angles. They will use this information to write equations and solve simple problems regarding angles.</p> <p>MRL Grade 8: Chapter 3</p>	<p>Students will be introduced to the concept of slope which connects to proportional relationships. In addition, they will learn to graph and write linear equations in equivalent forms.</p> <p>MRL Grade 8: Chapter 4</p>	<p>Students will extend their knowledge of linear equations to comparing two linear functions, creating a system. They will explore these systems both graphically and algebraically.</p> <p>MRL Grade 8: Chapter 5</p>	<p>Students apply their knowledge of linear equations to scatterplots and lines of best fit. In addition, they begin to explore two-way tables to display data.</p> <p>MRL Grade 8: Chapter 6</p>	<p>Students will gain a conceptual understanding of functions. They will connect this understanding to linear functions.</p> <p>MRL Grade 8: Chapter 7</p>	<p>Students will explore the properties of integer exponents. They will apply this knowledge to operations with scientific notation.</p> <p>MRL Grade 8: Chapter 8</p>	<p>Students will formalize their understanding of irrational numbers including square roots and cube roots. They will use squares and square roots to explore the Pythagorean Theorem.</p> <p>MRL Grade 8: Chapter 9</p>	<p>Students will extend their previous knowledge of volume to 3D figures involving circles. They will also explore how the ratio of side lengths, area, and volume are connected.</p> <p>MRL Grade 8: Chapter 10</p>



8th Grade Honors Mathematics Units

Unit	Solving Linear Equations	Solving Linear Inequalities	Graphing Linear Functions	Writing Linear Functions	Solving Systems of Linear Equations	Exponential Functions and Sequences
Days	11-13 Days	10-12 Days	10-12 Days	11-13 Days	15-17 Days	16-18 days
Summary Statement	A study of solving linear, absolute value, and literal equations.	A study of writing, graphing and solving multi-step, compound and absolute value inequalities.	A study of function, function notation and function transformation in the context of linear models.	A study of linear models through point-slope form, slope-intercept form, best fit line for a data set, and arithmetic sequences.	A study of solution methods and special cases for systems of linear equations and inequalities.	A study of exponential models through growth, decay, geometric sequences and how exponential models are similar to, and different from linear models.

Unit	Data Analysis and Displays	Basics of Geometry	Reasoning and Proofs	Parallel and Perpendicular lines	Transformations	Congruent Triangles
Days	14-15 Days	10-12 Days	11-13 Days	10-12 Days	8-10 Days	16-18 Days
Summary Statement	A study of center, spread and visual displays in the analysis, comparison, or transformation of data sets.	A study of basic geometric vocabulary, concepts and measurement as a foundation for use in developing an axiomatic system.	A study of logic, axioms, and reasoning in the development of proofs about geometric relationships.	A study of angle and distance relationships related to parallel and perpendicular lines through vocabulary, proofs, coordinates and constructions.	A study of rigid transformations, their properties and their relationship to congruent figures.	A study of the angles of triangles, congruence theorems, triangle congruence proofs and congruent triangle applications.



Middle School Math Content Rubric

Grade 8 Math GRC's

• The Number System (NS) • Expressions and Equations (EE) • Functions (F) • Geometry (G) • Statistics and Probability (SP)

Advanced Understanding 4	Meets the Standard 3	Approaching Standard 2	Does Not Meet 1
<ul style="list-style-type: none">• The student uses appropriate mathematical concepts and skills to solve application problems in both familiar and unfamiliar situations with limited scaffolds & supports. and/or• The student solves problems that <i>require connections among multiple concepts</i> without scaffolded prompts.	<ul style="list-style-type: none">• The student uses appropriate mathematical concepts and skills to solve application problems in familiar situations with <i>scaffolds & support</i>. and/or• The student solves problems that require <i>connections among multiple concepts</i> with scaffolded prompts.	<ul style="list-style-type: none">• The student uses appropriate mathematical concepts and skills to solve routine problems but is unsuccessful <i>with applications to real life contexts</i>. and/or• The student solves problems <i>involving concepts in isolation</i>.	<ul style="list-style-type: none">• The student demonstrates limited success in the use of appropriate mathematical concepts and skills to solve <i>routine problems and applications to real life contexts</i>. and/or• The student has limited success solving problems with concepts in isolation.



Middle School Math Communication Rubric

Advanced Understanding 4	Meets the Standard 3	Approaching Standard 2	Does Not Meet 1
<ul style="list-style-type: none"> ○ The student demonstrates the ability to <i>explain, construct</i> and <i>critique</i> mathematical reasoning with <i>concise, detailed, logical and complete arguments.</i> ○ The student demonstrates the ability to <i>effectively communicate conceptual understanding and contextual interpretation</i> of results. ○ The student <i>consistently uses accurate mathematical content language</i> with sophistication appropriate to prompt and level of course. 	<ul style="list-style-type: none"> ○ Student explanations are <i>complete and logical but may lack details, and/or coherent flow</i> in presentation. ○ Conceptual or contextual <i>understanding is inferred but not explicit.</i> ○ The student is <i>accurate but inconsistent in the use of mathematical content language</i> appropriate to prompt and level of course. 	<ul style="list-style-type: none"> ○ Student <i>explanations are fragmented</i> with omissions in logic, details or coherent flow. ○ Concept/context explanations are <i>vague, incomplete or inconsistent.</i> ○ <i>Basic</i> mathematical language is present <i>but not at levels appropriate</i> to the prompt or level of course. 	<ul style="list-style-type: none"> ○ Students provide only <i>superficial</i> explanations <i>or</i> explanations that <i>do not match solutions.</i> ○ Concept/context connections are <i>absent or inappropriate</i> to prompt. ○ Mathematical language is <i>missing or generally inappropriate</i> to the task.

Middle School Math Procedural Fluency Rubric

Advanced Understanding 4	Meets the Standard 3	Approaching Standard 2	Does Not Meet 1
<ul style="list-style-type: none"> ● The student demonstrates fluency in carrying out procedures <i>flexibly, accurately, efficiently and with clarity in organization.</i> ● The student <i>consistently</i> selects and applies <i>appropriate and efficient strategies</i> to make deductions and solve problems. 	<ul style="list-style-type: none"> ● Student procedural work is appropriate to task but may contain <i>minor errors in execution or organization.</i> ● The student <i>often</i> selects and applies <i>appropriate and efficient strategies</i> to make deductions and solve problems. 	<ul style="list-style-type: none"> ● Student procedural work <i>lacks coherent organization</i>, omits key steps or contains <i>multiple errors in execution.</i> ● The student selects and applies <i>rote strategies</i> to make deductions and solve problems. 	<ul style="list-style-type: none"> ● Student <i>procedural work is incoherent, missing or inappropriate</i> to task. ● The student demonstrates <i>limited success in applying rote strategies</i> to make deductions and solve problems.

