



# 6<sup>th</sup> Grade Advanced Math

## Course 1 Advanced Mathematics - Year at a Glance

Course # 1205020, 1205090

**A Note to Parents:** The Florida state standards require math teachers plan lessons that build knowledge of various mathematical concepts, develop the ability to apply these concepts, and engage students in critical thinking and discourse. All standards in the state course description are designed to be learned by the end of the course.

**Please note the units of study listed below indicate the course sequence. Instructional pacing may vary. Specific questions regarding when content will be addressed in a specific course are best answered by the individual teacher.**

### Course Description

In this Grade 6 Advanced Mathematics course, instructional time should focus on six critical areas: (1) connecting ratio and rate to whole number multiplication and division and using concepts of ratio and rate to solve problems; (2) completing understanding of division of fractions and extending the notion of number to the system of rational numbers, which includes negative numbers; (3) writing, interpreting, and using expressions and equations; (4) developing understanding of statistical thinking; (5) developing understanding of and applying proportional relationships; and (6) developing understanding of operations with rational numbers and working with expressions and linear equations.

Advanced courses require a greater demand on students through increased academic rigor. Academic rigor is obtained through the application, analysis, evaluation, and creation of complex ideas that are often abstract and multi-faceted. Students are challenged to think and collaborate critically on the content they are learning. Honors level rigor will be achieved by increasing text complexity through text selection, focus on high-level qualitative measures, and complexity of task. Instruction will be structured to give students a deeper understanding of conceptual themes and organization within and across disciplines. Academic rigor is more than simply assigning to students a greater quantity of work.

### CPALMS Link

Please follow the link below to learn more about the course expectations, the course standards, and to access student resources. The student resources include Florida Department of Education recommended resources that students can use to learn the concepts and skills in this course.

<https://www.cpalms.org/PreviewCourse/Preview/10284>

	Unit of Study	Unit Sequence
<b>Quarter 1</b> Aug 10 – Oct 12	Unit 1: Numerical Expressions	<ul style="list-style-type: none"> <li>• Whole Number Operations</li> <li>• Powers and Exponents</li> <li>• Order of Operations</li> <li>• Prime Factorization</li> <li>• Greatest Common Factor</li> <li>• Least Common Multiple</li> </ul>
	Unit 2: Integers	<ul style="list-style-type: none"> <li>• Integers</li> <li>• Comparing and Ordering Integers</li> <li>• Absolute Value</li> <li>• Integers and Absolute Value</li> <li>• Adding Integers</li> <li>• Subtracting Integers</li> <li>• Multiplying Integers</li> <li>• Dividing Integers</li> <li>• Integers with Exponents</li> </ul>
	Unit 3: Fractions	<ul style="list-style-type: none"> <li>• Fractions and Decimals on the Number Line</li> <li>• Adding and Subtracting Fractions</li> <li>• Multiplying Fractions</li> <li>• Dividing Fractions</li> <li>• Dividing Mixed Numbers</li> <li>• Convert Fractions to Terminating Decimals</li> </ul>
	Unit 4: Decimals	<ul style="list-style-type: none"> <li>• Adding and Subtracting Decimals</li> <li>• Multiplying Decimals</li> <li>• Dividing Decimals</li> <li>• Rational Numbers</li> </ul>
<b>Quarter 2</b> Oct 13 – Dec 22	Unit 5: Ratios and Proportions	<ul style="list-style-type: none"> <li>• Ratios</li> <li>• Ratio Tables</li> <li>• Rates</li> <li>• Comparing and Graphing Ratios</li> <li>• Converting Measures</li> <li>• Proportions</li> <li>• Graphing Proportional Relationships</li> <li>• Writing Proportions</li> <li>• Solving Proportions</li> </ul>
	Unit 6: Percent	<ul style="list-style-type: none"> <li>• Percent</li> <li>• Solving Percent Problems</li> <li>• The Percent Equation</li> <li>• Percent of Increase and Decrease</li> <li>• Discounts and Markups</li> <li>• Simple Interest</li> </ul>
	Unit 7: Algebraic Expressions	<ul style="list-style-type: none"> <li>• Algebraic Expressions</li> <li>• Writing Expressions</li> <li>• Factoring Expressions</li> <li>• The Distributive Property</li> </ul>
<b>Quarter 3</b> Jan 11 – Mar 11	Unit 8: Inequalities	<ul style="list-style-type: none"> <li>• Writing and graphing Inequalities</li> <li>• Solving Inequalities Using Addition or Subtraction</li> <li>• Solving Inequalities Using Multiplication or Division</li> </ul>

	Unit 9: Equations	<ul style="list-style-type: none"> <li>• Writing Equations in One Variable</li> <li>• Solving Equations Using Addition or Subtraction</li> <li>• Solving Equations Using Multiplication or Division</li> <li>• Writing Equations in Two Variables</li> <li>• Solving Equations Using Addition or Subtraction (Rationals)</li> <li>• Solving Equations Using Multiplication or Division (Rationals)</li> <li>• Solving Two-Step Equations</li> </ul>
	Unit 10: Areas of Polygons and The Coordinate Plane	<ul style="list-style-type: none"> <li>• Areas of Parallelograms</li> <li>• Areas of Triangles</li> <li>• Areas of Trapezoids</li> <li>• Areas of Composite Figures</li> <li>• The Coordinate Plane</li> <li>• Reflecting Points in the Coordinate Plane</li> <li>• Polygons in the Coordinate Plane</li> </ul>
	Unit 11: Surface Area and Volume	<ul style="list-style-type: none"> <li>• Three-Dimensional Figures</li> <li>• Surface Areas of Prisms</li> <li>• Surface Areas of Pyramids</li> <li>• Volume of Rectangular Prisms</li> </ul>
<b>Quarter 4</b> Mar 22 – May 27	Unit 12: Statistical Measure	<ul style="list-style-type: none"> <li>• Introduction to Statistics</li> <li>• Measures of Center</li> <li>• Mean</li> <li>• Mean Absolute Deviation</li> <li>• Measures of Variation</li> </ul>
	Unit 13: Data Displays	<ul style="list-style-type: none"> <li>• Box-and-Whisker Plots</li> <li>• Histograms</li> <li>• Shapes of Distribution</li> <li>• Choosing Appropriate Measures</li> </ul>
	Unit 14: Rational Numbers	<ul style="list-style-type: none"> <li>• Adding Rational Numbers</li> <li>• Subtracting Rational Numbers</li> <li>• Multiplying and Dividing Rational Numbers</li> </ul>

### Course Resources

**Core Textbook:**

Big Ideas - Students have online access through [My.SarasotaCountySchools.net](http://My.SarasotaCountySchools.net)

**Supplemental Resources:**

i-Ready - Students log in through [My.SarasotaCountySchools.net](http://My.SarasotaCountySchools.net)

[Khan Academy](#)

[FSA Portal](#)

For additional supplemental resources, please see your child's course syllabus.