

Northpoint Horizons

CAVS (Content Academic Vocabulary System) Math – 3-5 Correlated to the Florida State Mathematic Content Standards

Grade 5

This document provides a sampling of the extensive math directives offered throughout the *CAVS* program that meet the Florida Mathematics Content Standards.

Math Content Standard	CAVS Math Grades 3-5 Teacher’s Guide Lessons
BIG IDEA 1: Develop an understanding of and fluency with division of whole numbers.	
MA.5.A.1.1 Describe the process of finding quotients involving multi-digit dividends using models, place value, properties and the relationship of division to multiplication.	Students use the math vocabulary words: <i>division, dividend, divisor, quotient, and remainder</i> to divide whole numbers with and without a remainder; understand the meaning of division; identify and label the divisor, dividend, quotient, and remainder; and describe examples of division in: Lesson 4 – TG p. 19 <i>How do we make equal groups?</i>
MA.5.A.1.2 Estimate quotients or calculate them mentally depending on the context and numbers involved.	Students use the math vocabulary words: <i>division, dividend, divisor, quotient, and remainder</i> to divide whole numbers with and without a remainder; understand the meaning of division; identify and label the divisor, dividend, quotient, and remainder; and describe examples of division in: Lesson 4 – TG p. 19 <i>How do we make equal groups?</i>
MA.5.A.1.3 Interpret solutions to division situations including those with remainders depending on the context of the problem.	Students use the math vocabulary words: <i>division, dividend, divisor, quotient, and remainder</i> to divide whole numbers with and without a remainder; understand the meaning of division; identify and label the divisor, dividend, quotient, and remainder; and describe examples

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	of division in: Lesson 4 – TG p. 19 <i>How do we make equal groups?</i>
MA.5.A.1.4 Divide multi-digit whole numbers fluently, including solving real-world problems, demonstrating understanding of the standard algorithm and checking the reasonableness of results.	Students use the math vocabulary words: <i>division, dividend, divisor, quotient, and remainder</i> to divide whole numbers with and without a remainder; understand the meaning of division; identify and label the divisor, dividend, quotient, and remainder; and describe examples of division in: Lesson 4 – TG p. 19 <i>How do we make equal groups?</i>
BIG IDEA 2: Develop an understanding of and fluency with addition and subtraction of fractions and decimals.	
MA.5.A.2.1 Represent addition and subtraction of decimals and fractions with like and unlike denominators using models, place value or properties.	Students use the math vocabulary words: <i>fraction, numerator, denominator, improper fraction, and mixed number</i> to identify a fraction and its numerator and its denominator; understand that an improper fraction is a value greater than one; and to know that a mixed number consists of a whole number and a fraction: Lesson 5 – TG p. 25 <i>How do you show that a number is not a whole?</i> Students use the math vocabulary words: <i>decimal, percent, and equivalent</i> to identify and write decimals; to identify and write percents; to interpret decimals and percents from a picture; to convert percents into decimals; and to convert decimals into percents (tenths, hundredths, thousandths): Lesson 6 – TG p. 31 <i>How else can you show less than one whole?</i>
MA.5.A.2.2 Add and subtract fractions and decimals fluently and verify the reasonableness of results, including in problem situations.	Students use the math vocabulary words: <i>fraction, numerator, denominator, improper fraction, and mixed number</i> to identify a fraction and its numerator and its denominator; understand that an improper

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	<p>fraction is a value greater than one; and to know that a mixed number consists of a whole number and a fraction: Lesson 5 – TG p. 25 <i>How do you show that a number is not a whole?</i></p> <p>Students use the math vocabulary words: <i>decimal</i>, <i>percent</i>, and <i>equivalent</i> to identify and write decimals; to identify and write percents; to interpret decimals and percents from a picture; to convert percents into decimals; and to convert decimals into percents (tenths, hundredths, thousandths): Lesson 6 – TG p. 31 <i>How else can you show less than one whole?</i></p>
<p>MA.5.A.2.3 Make reasonable estimates of fraction and decimal sums and differences, and use techniques for rounding.</p>	<p>Students use the math vocabulary words: <i>fraction</i>, <i>numerator</i>, <i>denominator</i>, <i>improper fraction</i>, and <i>mixed number</i> to identify a fraction and its numerator and its denominator; understand that an improper fraction is a value greater than one; and to know that a mixed number consists of a whole number and a fraction: Lesson 5 – TG p. 25 <i>How do you show that a number is not a whole?</i></p> <p>Students use the math vocabulary words: <i>decimal</i>, <i>percent</i>, and <i>equivalent</i> to identify and write decimals; to identify and write percents; to interpret decimals and percents from a picture; to convert percents into decimals; and to convert decimals into percents (tenths, hundredths, thousandths): Lesson 6 – TG p. 31 <i>How else can you show less than one whole?</i></p>
<p>MA.5.A.2.4 Determine the prime factorization of numbers.</p>	<p>Students use the math vocabulary words: <i>factor</i> and <i>prime number</i> to determine the factors of an equation, and to define and recognize prime numbers. Lesson 3 – TG p. 13</p>

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<i>How do we count large amounts?</i>	
BIG IDEA 3: Describe three-dimensional shapes and analyze their properties, including volume and surface area.	
<p>MA.5.G.3.1 Analyze and compare the properties of two-dimensional figures and three-dimensional solids (polyhedra), including the number of edges, faces, vertices, and types of faces.</p>	<p>Students examine 2-dimensional shapes in: Lesson 16 – TG p. 91 <i>How do we describe shapes with straight sides?</i></p> <p>Students use the math vocabulary words: <i>angle, ray, vertex, right angle, acute angle, obtuse angle, equilateral triangle, and isosceles triangle</i> to identify triangles; classify triangles by their attributes, and to construct triangles: Lesson 17 – TG p. 97 <i>How do we describe shapes with three sides?</i></p> <p>Students identify and compare attributes of 2 – dimensional shapes: Lesson 18 – TG p. 103 <i>How do we draw different shapes?</i></p> <p>Students use the vocabulary words: <i>3-dimensional shape, prism, face, edge, rectangular prism, cube, pyramid, and cylinder sphere</i> to examine 3-dimensional shapes: Lesson 19 - TG p. 109 <i>What attributes do solid shapes share?</i></p>
<p>MA.5.G.3.2 Describe, define and determine surface area and volume of prisms by using appropriate units and selecting strategies and tools.</p>	<p>Students use the vocabulary words: <i>3-dimensional shape, prism, face, edge, rectangular prism, cube, pyramid, and cylinder sphere</i> to examine 3-dimensional shapes: Lesson 19 - TG p. 109 <i>What attributes do solid shapes share?</i></p>
SUPPORTING IDEAS: Algebra	
<p>MA.5.A.4.1 Use the properties of equality to solve numerical and real world situations.</p>	<p>Lesson 9 – TG p. 49 <i>How can math rules help you solve equations?</i></p>

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<p>MA.5.A.4.2 Construct and describe a graph showing continuous data, such as a graph of a quantity that changes over time.</p>	<p>Lesson 7 – TG p. 37 <i>What is a pattern?</i></p> <p>Lesson 9 – TG p. 49 <i>How can math rules help you solve equations?</i></p> <p>Lesson 21 – TG p. 121 <i>Why do you need information?</i></p>
SUPPORTING IDEAS: Geometry and Measurement	
<p>MA.5.G.5.1 Identify and plot ordered pairs on the first quadrant of the coordinate plane.</p>	<p>Lesson 8 – TG p. 43 <i>How can you use models?</i></p>
<p>MA.5.G.5.2 Compare, contrast, and convert units of measure within the same dimension (length, mass, or time) to solve problems.</p>	<p>Lesson 10 – TG p. 55 <i>What do you use to measure things?</i></p> <p>Lesson 11 - TG p. 61 <i>How do you measure?</i></p> <p>Lesson 12 - TG p. 67 <i>How do you measure flat shapes?</i></p> <p>Lesson 13 – TG p. 73 <i>How do you measure solid shapes?</i></p> <p>Lesson 14 – TG p. 79 <i>What are units of measure?</i></p> <p>Lesson 15 – TG p. 85 <i>How long does it take?</i></p>
<p>MA.5.G.5.3 Solve problems requiring attention to approximation, selection of appropriate measuring tools, and precision of measurement.</p>	<p>Lesson 10 – TG p. 55 <i>What do you use to measure things?</i></p> <p>Lesson 11 - TG p. 61 <i>How do you measure?</i></p>

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	<p>Lesson 12 - TG p. 67 <i>How do you measure flat shapes?</i></p> <p>Lesson 13 – TG p. 73 <i>How do you measure solid shapes?</i></p> <p>Lesson 14 – TG p. 79 What are units of measure?</p> <p>Lesson 15 – TG p. 85 <i>How long does it take?</i></p>
<p>MA.5.G.5.4 Derive and apply formulas for areas of parallelograms, triangles, and trapezoids from the area of a rectangle.</p>	<p>Students identify and understand perimeter and area: Lesson 12 - TG p. 67 <i>How do you measure flat shapes?</i></p>
<p>SUPPORTING IDEAS: Numbers and Operations</p>	
<p>MA.5.A.6.1 Identify and relate prime and composite numbers, factors and multiples within the context of fractions.</p>	<p>Students use the math vocabulary words: <i>multiplication, factor, product, array, prime number, and multiples</i> to determine the factors of an equation; to understand and define multiples of a number; and to define and recognize prime numbers: Lesson 3 – TG p. 13 <i>How do we count large amounts?</i></p> <p>Students use the math vocabulary words: <i>fraction, numerator, denominator, improper fraction, and mixed number</i> to identify a fraction and its numerator and its denominator; understand that an improper fraction is a value greater than one; and to know that a mixed number consists of a whole number and a fraction: Lesson 5 – TG p. 25 <i>How do you show that a number is not a whole?</i></p>
<p>MA.5.A.6.2 Use the order of operations to simplify expressions which include exponents and parentheses.</p>	<p>Students use the order of operations to solve equations: Lesson 9 – TG p. 49 <i>How can math rules help you solve equations?</i></p>

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MA.5.A.6.3 Describe real-world situations using positive and negative numbers.	Students recognize and use positive and negative numbers: Lesson 1 – TG p. 1 <i>How can you put numbers in order?</i>
MA.5.A.6.4 Compare, order, and graph integers, including integers shown on a number line.	Students use Lesson 1 – TG p. 1 <i>How can you put numbers in order?</i>
MA.5.A.6.5 Solve non-routine problems using various strategies including “solving a simpler problem” and “guess, check, and revise.”	During each <i>CAVS</i> Math Lesson, the teacher helps students determine the approach, materials, and strategies to be used to solve problems using the <i>5-E</i> Instructional Approach while highlighting math content academic vocabulary. The <i>5-E</i> Approach: <i>Engage</i> : Concept Posters and Math Vocabulary Cards are used to introduce the math concept and vocabulary as a whole group activity. <i>Explore</i> and <i>Learn</i> : Students use hands-on Activity Placemats with manipulatives as a small group inquiry activity. Students complete the Record Sheet and then discuss the activity and compare observations with classmates. <i>Explain</i> Concepts and Vocabulary: Teacher and students and/or student pairs read and discuss the academic vocabulary words in context on the Reader Cards. Reader Card A is targeted to the reading levels of Beginning/Emerging English language learners. Reader Card B is targeted to the reading levels of the Intermediate/Expanding English language learners and native English speakers. <i>Elaborate</i> : Students apply newly learned concepts when working with a partner to complete the Concept Webs. As a small group or paired activity, students practice listening to, reading, writing, and speaking each academic vocabulary word with the Radius Audio System™. <i>Evaluate</i> : Teachers review the lesson's academic

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	vocabulary words through Interactive Transparencies (whole group activity) and assess each lesson through the Lesson Review sheets (individual activity).
SUPPORTING IDEAS: Data Analysis	
MA.5.S.7.1 Construct and analyze line graphs and double bar graphs.	Lesson 21 – TG p. 121 <i>Why do you need information?</i>
MA.5.S.7.2 Differentiate between continuous and discrete data and determine ways to represent those using graphs and diagrams.	Lesson 21 – TG p. 121 <i>Why do you need information?</i> Lesson 22 – TG p. 127 <i>How do you compare facts and information?</i> Lesson 23 – TG p. 133 <i>Do you think it will happen?</i> Lesson 24 – TG p. 139 <i>How do you solve problems?</i>