

Northpoint Horizons

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

Grade 4

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 quick recall of multiplication facts and related division facts and fluency with whole number multiplication.	
MA.4.A.1.1 Use and describe various models for multiplication in problem-solving situations, and demonstrate recall of basic multiplication and related division facts with ease.	Lesson 3 – TG p. 13 <i>How do we count large amounts?</i> Lesson 4 – TG p. 19 <i>How do we make equal groups?</i>
MA.4.A.1.2 Multiply multi-digit whole numbers through four digits fluently, demonstrating understanding of the standard algorithm, and checking for reasonableness of results, including solving real-world problems.	Students define and understand simple multiplication; determine the factors and the product of an equation; understand multiples of a number; and understand, read, and draw arrays: Lesson 3 – TG p. 13 <i>How do we count large amounts?</i>
BIG IDEA 2: Develop an understanding of decimals, including the connection between fractions and decimals.	
MA.4.A.2.1 Use decimals through the thousandths place to name numbers between whole numbers.	Lesson 6 – TG p. 31 <i>How else can you show less than one whole?</i>
MA.4.A.2.2 Describe decimals as an extension of the base-ten number system.	Lesson 6 – TG p. 31 <i>How else can you show less than one whole?</i>
MA.4.A.2.3 Relate equivalent fractions and decimals with and without models, including locations on a number line.	Students find equivalent fractions, decimals and percents: Lesson 6 – TG p. 31 <i>How else can you show less than one whole?</i>

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<p>MA.4.A.2.4 Compare and order decimals, and estimate fraction and decimal amounts in real-world problems.</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>
BIG IDEA 3: Develop an understanding of area and determine the area of two-dimensional shapes.	
<p>MA.4.G.3.1 Describe and determine area as the number of same-sized units that cover a region in the plane, recognizing that a unit square is the standard unit for measuring area.</p>	<p>Lesson 12 - TG p. 67 <i>How do you measure flat shapes?</i></p>
<p>MA.4.G.3.2 Justify the formula for the area of the rectangle "area = base x height."</p>	<p>Lesson 12 - TG p. 67 <i>How do you measure flat shapes?</i></p>
<p>MA.4.G.3.3 Select and use appropriate units, both customary and metric, strategies, and measuring tools to estimate and solve real-world area 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>
SUPPORTING IDEAS: Algebra	

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MA.4.A.4.1 Generate algebraic rules and use all four operations to describe patterns, including nonnumeric growing or repeating patterns.	Lesson 7 – TG p. 37 <i>What is a pattern?</i> Lesson 9 – TG p. 49 <i>How can math rules help you solve equations?</i>
MA.4.A.4.2 Describe mathematics relationships using expressions, equations, and visual representations.	Lesson 7 – TG p. 37 <i>What is a pattern?</i> Lesson 9 – TG p. 49 <i>How can math rules help you solve equations?</i>
MA.4.A.4.3 Recognize and write algebraic expressions for functions with two operations.	Lesson 9 – TG p. 49 <i>How can math rules help you solve equations?</i>
SUPPORTING IDEAS: Geometry and Measurement	
MA.4.G.5.1 Classify angles of two-dimensional shapes using benchmark angles (i.e. 45° , 90° , 180° , and 360°).	Students examine 2-dimensional shapes in: Lesson 16 – TG p. 91 <i>How do we describe shapes with straight sides?</i> 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>
MA.4.G.5.2 Identify and describe the results of translations, reflections, and rotations of 45, 90, 180, 270, and 360 degrees, including figures with line and rotational symmetry.	Lesson 18 – TG p. 103 <i>How do we draw different shapes?</i> Lesson 20 – TG p. 115 <i>How can you change shapes?</i>
MA.4.G.5.3 Identify and build a three-dimensional object from a two-dimensional representation of that object and vice versa.	Students identify and compare attributes of 2 – dimensional shapes: Lesson 18 – TG p. 103 <i>How do we draw different shapes?</i>

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	Students examine 3-dimensional shapes: Lesson 19 - TG p. 109 <i>What attributes do solid shapes share?</i>
SUPPORTING IDEAS: Numbers and Operations	
MA.4.A.6.1 Use and represent numbers through millions in various contexts, including estimation of relative sizes of amounts or distances.	Students have opportunities to use and represent numbers throughout <i>CAVS</i> lessons. Here are some examples from the <i>CAVS</i> program: Students Identify place value to ten thousands, and round numbers to the nearest thousand: Lesson 1 – TG p. 1 <i>How can you put numbers in order?</i> Students use math content vocabulary: <i>multiplication, factor, product, array, prime number, and multiples</i> to solve simple multiplication problems: Lesson 3 – TG p.13 <i>How do we count large amounts?</i> Students use math content vocabulary: <i>perimeter, area, circumference, diameter, and radius</i> to identify and understand radius, diameter, and circumference; to identify and understand perimeter and area; and to measure and calculate perimeter and area: Lesson 12 - TG p. 67 <i>How do you measure flat shapes?</i> Students learn estimation skills: Unit 24 – TG p. 139 <i>How can you solve problems?</i>
MA.4.A.6.2 Use models to represent division as: <ul style="list-style-type: none"> • the inverse of multiplication • as partitioning • as successive subtraction 	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,

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	dividend, quotient, and remainder; and describe examples of division in: Lesson 4 – TG p. 19 <i>How do we make equal groups?</i>
MA.4.A.6.3 Generate equivalent fractions and simplify fractions.	Students find equivalent fractions, decimals and percents: Lesson 6 – TG p. 31 <i>How else can you show less than one whole?</i>
MA.4.A.6.4 Determine factors and multiples for specified whole numbers.	Lesson 3 – TG p. 13 <i>How do we count large amounts?</i>
MA.4.A.6.5 Relate halves, fourths, tenths, and hundredths to decimals and percents.	Lesson 6 – TG p. 31 <i>How else can you show less than one whole?</i>
MA.4.A.6.6 Estimate and describe reasonableness of estimates; determine the appropriateness of an estimate versus an exact answer.	Unit 24 – TG p. 139 <i>How can you solve problems?</i>