Northpoint Horizons

CAVS (Content Academic Vocabulary System
Correlated to the
Common Core State Standards for Mathematics

Grade K

This document provides a sampling of the math directives offered throughout the *CAVS (Content Academic Vocabulary System)* program that meet the Common Core State Standards for Mathematics.

Core Standards for Mathematics	***CAVS* Math Grade K-2 Teacher's Guide Examples/Lessons**
Counting & Cardinality	
Know number names and the count sequence	**Lessons 1 and 2**
1. Count to 100 by ones and by tens.	Lesson 1 – TG pp. 1-6 *How do you count?*
2. Count forward beginning from a given number within the known sequence (instead of having to begin at 1).	Lesson 1 – TG pp. 1-6 *How do you count?*
3. Write numbers from 0 to 20. Represent a number of objects with a written numeral 0-20 (with 0 representing a count of no objects).	Lesson 1 – TG pp. 1-6 *How do you count?* Lesson 2 – TG pp. 7-12 *What are some kinds of numbers?*
Count to tell the number of objects.	**Lessons 1, 2, 3**
4. Understand the relationship between numbers and quantities; connect counting to cardinality.	Lesson 2 – TG pp. 7-12 *What are some kinds of numbers?*
When counting objects, say the number names in the standard order, pairing each object with one and only one number name and each number name with one and only one object.	Lesson 1 – TG pp. 1-6 *How do you count?* Lesson 2 – TG pp. 7-12 *What are some kinds of numbers?*
Understand that the last number name said tells the number of objects counted. The number of objects is the same regardless of their arrangement or the order in which they were counted.	Lesson 1 – TG pp. 1-6 *How do you count?* Lesson 2 – TG pp. 7-12 *What are some kinds of numbers?*

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Understand that each successive number name refers to a quantity that is one larger.	Lesson 1 – TG pp. 1-6 *How do you count?* Lesson 2 – TG pp. 7-12 *What are some kinds of numbers?* Lesson 3 – TG pp. 13-18 *How do numbers work together?*
5. Count to answer "how many?" questions about as many as 20 things arranged in a line, a rectangular array, or a circle, or as many as 10 things in a scattered configuration; given a number from 1–20, count out that many objects.	Lesson 1 – TG pp. 1-6 *How do you count?* Lesson 2 – TG pp. 7-12 *What are some kinds of numbers?* Lesson 3 – TG pp. 13-18 *How do numbers work together?*
Compare numbers	**Lessons 1, 2, 3**
6. Identify whether the number of objects in one group is greater than, less than, or equal to the number of objects in another group, e.g., by using matching and counting strategies. (Include groups with up to ten objects.)	Lesson 3 – TG pp. 13-18 *How do numbers work together?*
7. Compare two numbers between 1 and 10 presented as written numerals.	Lesson 1 – TG pp. 1-6 *How do you count?* Lesson 2 – TG pp. 7-12 *What are some kinds of numbers?* Lesson 3 – TG pp. 13-18 *How do numbers work together?*
Operations & Algebraic Thinking	
Understand addition as putting together and adding to, and understand subtraction as taking apart and taking from.	**Lessons 4 and 5**
1. Represent addition and subtraction with objects, fingers, mental images, drawings1, sounds (e.g., claps), acting out situations, verbal explanations, expressions, or equations.	Lesson 4 – TG pp. 19-24 *Why do you add numbers?* Lesson 5 – TG pp. 25-30 *Why do you subtract numbers?*
2. Solve addition and subtraction word problems, and	Lesson 4 – TG pp. 19-24

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add and subtract within 10, e.g., by using objects or drawings to represent the problem.	*Why do you add numbers?* Lesson 5 – TG pp. 25-30 *Why do you subtract numbers?*
3. Decompose numbers less than or equal to 10 into pairs in more than one way, e.g., by using objects or drawings, and record each decomposition by a drawing or equation (e.g., 5 = 2 + 3 and 5 = 4 + 1).	Lesson 4 – TG pp. 19-24 *Why do you add numbers?* Lesson 5 – TG pp. 25-30 *Why do you subtract numbers?*
4. For any number from 1 to 9, find the number that makes 10 when added to the given number, e.g., by using objects or drawings, and record the answer with a drawing or equation.	Lesson 4 – TG pp. 19-24 *Why do you add numbers?*
5. Fluently add and subtract within 5.	Lesson 4 – TG pp. 19-24 *Why do you add numbers?* Lesson 5 – TG pp. 25-30 *Why do you subtract numbers?*
Number & Operations in Base Ten	
Work with numbers 11-19 to gain foundations for place value	**Lessons 4 and 5**
1. Compose and decompose numbers from 11 to 19 into ten ones and some further ones, e.g., by using objects or drawings, and record each composition or decomposition by a drawing or equation (such as 18 = 10 + 8); understand that these numbers are composed of ten ones and one, two, three, four, five, six, seven, eight, or nine ones.	Lesson 4 – TG pp. 19-24 *Why do you add numbers?* Lesson 5 – TG pp. 25-30 *Why do you subtract numbers?*
Measurement & Data	
Describe and compare measurable attributes.	**Lesson 11, 12 and 14**
1. Describe measurable attributes of objects, such as length or weight. Describe several measurable attributes of a single object.	Lesson 11 – TG pp. 61-66 *How far? How long?* Lesson 12 – TG pp. 67-72 *How do you tell how far or how long?* Lesson 14 – TG pp. 79-84 *How much does it weigh?*

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2. Directly compare two objects with a measurable attribute in common, to see which object has "more of"/"less of" the attribute, and describe the difference. *For example, directly compare the heights of two children and describe one child as taller/shorter.*	Lesson 11 – TG pp. 61-66 *How far? How long?* Lesson 12 – TG pp. 67-72 *How do you tell how far or how long?* Lesson 14 – TG pp. 79-84 *How much does it weigh?*
Classify objects and count the number of objects in each category.	**Lessons 3 and 6**
3. Classify objects into given categories; count the numbers of objects in each category and sort the categories by count. (Limit category counts to be less than or equal to 10.)	Lesson 3 – TG pp. 13-18 *How do numbers work together?* Lesson 6 – TG pp. 31-36 *How are objects the same?*
Geometry	
Identify and describe shapes (squares, circles, triangles, rectangles, hexagons, cubes, cones, cylinders, and spheres).	**Lessons 16, 17, 18, 19, 20, 21**
1. Describe objects in the environment using names of shapes, and describe the relative positions of these objects using terms such as above, below, beside, in front of, behind, and next to.	Lesson 16 – TG pp. 91-96 *Where are you?* Lesson 17 – TG pp. 97-102 *Where are you now?* Lesson 18 – TG pp. 103-108 *Which way do you go?*
2. Correctly name shapes regardless of their orientations or overall size.	Lesson 19 – TG pp. 109-114 *What are some common shapes?* Lesson 20 – TG pp. 115-120 *How can you describe shapes?* Lesson 21 – TG pp. 121-126 *How can you change shapes?*
3. Identify shapes as two-dimensional (lying in a plane, "flat") or three-dimensional ("solid").	Lesson 19 – TG pp. 109-114 *What are some common shapes?* Lesson 20 – TG pp. 115-120 *How can you describe shapes?* Lesson 21 – TG pp. 121-126

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	How can you change shapes?
Analyze, compare, create, and compose shapes.	**Lessons 19, 20, 21**
4. Analyze and compare two- and three-dimensional shapes, in different sizes and orientations, using informal language to describe their similarities, differences, parts (e.g., number of sides and vertices/"corners") and other attributes (e.g., having sides of equal length).	Lesson 19 – TG pp. 109-114 *What are some common shapes?* Lesson 20 – TG pp. 115-120 *How can you describe shapes?* Lesson 21 – TG pp. 121-126 *How can you change shapes?*
5. Model shapes in the world by building shapes from components (e.g., sticks and clay balls) and drawing shapes.	Lesson 19 – TG pp. 109-114 *What are some common shapes?* Lesson 20 – TG pp. 115-120 *How can you describe shapes?* Lesson 21 – TG pp. 121-126 *How can you change shapes?*
6. Compose simple shapes to form larger shapes. *For example, "Can you join these two triangles with full sides touching to make a rectangle?"*	Lesson 19 – TG pp. 109-114 *What are some common shapes?* Lesson 20 – TG pp. 115-120 *How can you describe shapes?* Lesson 21 – TG pp. 121-126 *How can you change shapes?*