Kindergarten
Mathematic Standards for the Archdiocese of Detroit

Counting & Cardinality

Know number names and the count sequence.	
K.CC.A.1	Count to 100 by ones, two's, fives, and by tens.
K.CC.A.2	Count forward beginning from a given number within the known sequence (instead of having to begin at 1).
K.CC.A.3	Write numbers from 0 to 30. Represent a number of objects with a written numeral 0-20 (with 0 representing a count of no objects).
K.CC.A.4	Count objects in sets up to 30

Count to tell the number of objects

K.CC.B.5	Understand the relationship between numbers and quantities; connect counting to cardinality.
K.CC.B.5a	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.
K.CC.B.5b	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.
K.CC.B.5c	Understand that each successive number name refers to a quantity that is one larger.
K.CC.B.6	Count to answer "how many?" questions about as many as 30 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 1–30, count out that many objects.
K.CC.B.7	Use one-to-one correspondence to compare and order sets of objects to 30 using phrases such as "same number," "more than," less than"
K.CC.B.8	Read and write numbers to 30 and connect them to the quantities they represent.

Compare numbers

K.CC.C.9	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.
K.CC.C.10	Compare two numbers between 1 and 30 presented as written numerals.

Operations & Algebraic Thinking

Understand addition, and understand subtraction.

K.OA.A.1	Represent addition and subtraction with objects, fingers, mental images, drawings, sounds (e.g., claps), acting out situations, verbal explanations, expressions, or equations.
K.OA.A.2	Solve addition and subtraction word problems, and add and subtract within 10, e.g., by using objects or drawings to represent the problem.
K.OA.A.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).
K.OA.A.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.
K.OA.A.5	Fluently add and subtract within 10.
K.OA.A.6	Record mathematical thinking by writing simple addition and subtraction sentences
K.OA.A.7	Create, describe and extend simple number patterns

Number & Operations in Base Ten

Work with numbers 11-19 to gain foundations for place value.

K.NOBT.A.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.
K.NOBT.A.2	Understand the numbers 1 to 30 as having one, or two, or three groups of ten and some ones.

Measurement & Data

Describe and compare measurable attributes.

K.MD.A.1	Describe measurable attributes of objects, such as length, weight, and volume. Describe several measurable attributes of a single object
K.MD.A.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*
K.MD.A.3	Compare two or more objects by length and weight

Classify objects and count the number of objects in each category.

K.MD.B.4	Classify objects into given categories; count the numbers of objects in each category and sort the categories by count.

Explore Concepts of Time

K.MD.C.5	Know and use the common words for the parts of the day (morning, afternoon, evening) and relative time (yesterday, today, tomorrow)
K.MD.C.6	Identify tools that measure time (clocks and calendars)
K.MD.C.7	Identify landmark times to the nearest hour and half hour

Work with Unit Fractions

K.MD.D.8	Recognize and understand difference between half and whole objects
K.MD.D.9	Recognize that 2 halves make up a whole

Work with Money

K.MD.E.10	Identify different denominations of coins and bills

Use Pictographs

K.MD.F.12	Collect and organize data to use in a pictograph
K.MD.F.13	Read and interpret pictograph

K.MD.F.14	Make graph of given data using both vertical and horizontal form of graph; scale should be in units of one and include symbolic representations

Geometry

Identify and describe shapes.	
K.G.A.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*.
K.G.A.2	Correctly name shapes regardless of their orientations or overall size.
K.G.A.3	Identify shapes as two-dimensional (lying in a plane, "flat") or three-dimensional ("solid").
Analyze, compare, create, and compose shapes.	
K.G.B.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/"angles") and other attributes (e.g., having sides of equal length).
K.G.B.5	Model shapes in the world by building shapes from components (e.g., sticks and clay balls) and drawing shapes.
K.G.B.6	Compose simple shapes to form larger shapes. *For example, "Can you join these two triangles with full sides touching to make a rectangle?"*
K.G.B.7	Create, describe and extend simple geometric patterns