North Carolina Essential Standards – Approved September, 2009
Mathematics – Kindergarten

Note on Numbering: **N**–Number and Operations, **A**–Algebra, **G**–Geometry, **M**–Measurement, **S**–Statistics and Probability and **D**–Discrete Mathematics

Number and Operations

	Essential Standard	Clarifying Objectives	
K.N.1	**Use counting to determine how many (to at least 30).**	K.N.1.1	Implement correct procedures by matching one object to one object (one-to-one correspondence).
		K.N.1.2	Implement correct counting procedures by pointing to one object at a time (one-to-one tagging) using one counting word for every object (synchrony), while keeping track of objects that have and have not been counted.
		K.N.1.3	Recognize that the last number tells the quantity of the set (cardinality).
		K.N.1.4	Recognize zero as the count of "no objects".
		K.N.1.5	Use the 0-9 sequence in a fixed order when counting to recall the forward number sequence to at least 30 and the backward number sequence from 10.
K.N.2	**Understand that there are relationships between and among numbers (to at least 10).**	K.N.2.1	Recognize that the number said when the last object of a set is counted includes all of the objects previously counted (inclusion).
		K.N.2.2	Compare sets of objects and numbers using appropriate vocabulary (more, less, same/equal, one more, one less, first, second, third, etc.).
		K.N.2.3	Recognize sets of objects in common patterned arrangements (0-6) to tell how many without counting (subitizing).
		K.N.2.4	Explain numbers (0-10) in relationship to benchmark numbers 5 and 10.
		K.N.2.5	Explain how subsets relate to the set as a whole (part-part-whole).
		K.N.2.6	Use numerals to represent physical models and representations.
		K.N.2.7	Use estimation to determine if a set of objects is "more than 10," "less than 10," or "about the same as ten."
K.N.3	**Understand the concepts of joining and separating through modeling (to at least 10).**	K.N.3.1	Use informal language (and, minus/subtract, the same as) to describe the joining situations (putting together) and separating situations (breaking apart).
K.N.4	**Use fair shares (equipartition) to solve story problems.**	K.N.4.1	Share fairly (equipartition) collections of up to 10 items between 2 or 4 people, and reassemble.

Algebra

	Essential Standard	Clarifying Objectives	
K.A.1	**Understand the concepts of equality.**	K.A.1.1	Recognize that any given group of objects (up to 10) can be separated into sub groups in multiple ways that are equivalent in number to the original group.
		K.A.1.2	Explain equivalent relationships using words (and, minus/subtract, the same as), numbers and objects, rather than symbols (+, -, =).
K.A.2	**Understand the meaning of repeating patterns.**	K.A.2.1	Represent repeating patterns using actions, words or objects.
		K.A.2.2	Use repeating patterns to make predictions and extend simple repeating patterns.

Geometry

	Essential Standard	Clarifying Objectives	
K.G.1	**Classify two-dimensional figures as circles, rectangles (including squares) and triangles and three-dimensional shapes as spheres, cubes, cylinders and cones.**	K.G.1.1	Use geometric properties (open, closed, sides and angles) to identify and compare two-dimensional and three-dimensional figures.
		K.G.1.2	Construct a design or figure using its parts.
		K.G.1.3	Recognize parts of figures to identify sides and angles of 2-D figures.
K.G.2	**Use spatial reasoning to solve problems.**	K.G.2.1	Use positional and directional terms to describe locations and movement of objects.
		K.G.2.2	Use spatial reasoning to move objects to fill shapes.
		K.G.2.3	Use spatial reasoning to model objects in the environment.

Measurement

	Essential Standard	Clarifying Objectives	
K.M.1	**Recognize that length and weight* are attributes and can be measured.** ***More properly mass, but most commonly understood as weight at this grade band.**	K.M.1.1	Compare two objects using direct comparison in terms of length and weight.
		K.M.1.2	Use appropriate vocabulary to describe differences in length and weight (e.g. longer, shorter, taller, heavier and lighter).
K.M.2	**Understand the concept of time as it relates to sequences and personal referents.**	K.M.2.1	Use the words "day, morning, afternoon, night (evening), today, tomorrow and yesterday" to refer to personal activities and events.
		K.M.2.2	Understand that certain tools (such as daily schedule, calendar, clock and timer) are used to keep track of time, personal activities and events.
		K.M.2.3	Recognize that the days of the week, months of the year and seasons occur in a sequence that repeat.

Statistics and Probability

	Essential Standard	Clarifying Objectives	
K.S.1	**Classify objects according to one attribute.**	K.S.1.1	Use attribute vocabulary to describe how objects or groups of objects are alike and different.
		K.S.1.2	Sort objects according to color, size, shape, texture and other age-appropriate attributes.
K.S.2	**Understand that data can be collected, organized and displayed in a way that provides information about a question.**	K.S.2.1	Use concrete objects or pictures to create cluster graphs and picture graphs to organize and represent data.
		K.S.2.2	Analyze collected data to determine the answer to the question posed.