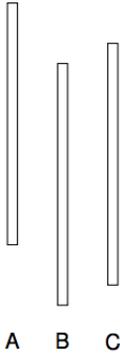
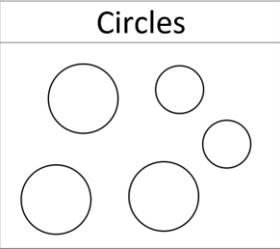
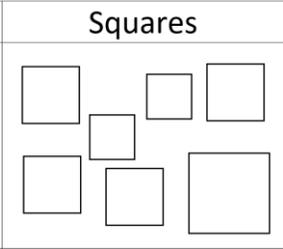
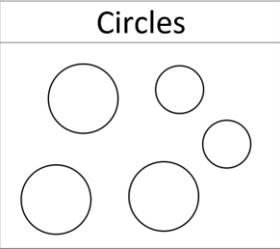
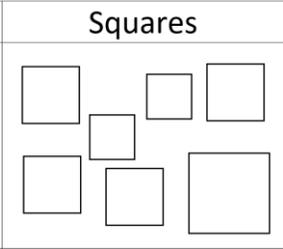


Describe and compare measurable attributes of objects (Standards K.MD.1–2)	
Standard K.MD.1 Describe measurable attributes of objects, such as length or weight. Describe several measurable attributes of a single object.	
Concepts and Skills to Master	
<ul style="list-style-type: none"> • Understand that objects are measured using different attributes (length, width, capacity and weight) • Understand that one object may have more or less of an attribute than another object (see Suggested Models below) • Describe several measurable attributes of a single object • Distinguish the difference between attributes and apply vocabulary appropriately (while a tower may be described as big or small, it may be more appropriate to describe the tower as tall or short) 	
Teacher Note: Students may informally work with area, volume, and capacity. Although these concepts are not explicitly introduced in kindergarten, students may begin to informally address these attributes. For example, students may identify the area of a paper to see if it could be used to draw a “big” or “small” picture. Students in kindergarten are not expected to use the formal terms of area, volume, and capacity.	
Related Standards: Current Grade Level	Related Standards: Future Grade Levels
K.MD.2 Directly compare two objects with a measurable attribute in common K.MD.3 Classify objects into given categories	1.MD.1 Order three objects by length 1.MD.2 Express the length of an object as a whole number of units 2.MD.1 Measure the length of an object by selecting and using appropriate tools
Critical Background Knowledge	
<ul style="list-style-type: none"> • Students may have had informal experience labeling items as tall, short, big, small, heavy, etc. 	
Academic Vocabulary	
measure, attribute, size, big, small, length, long, short, height, tall, weight, heavy, light This list is non-exhaustive. Students should be exposed to other similar terms such as wide, thin, etc.	
Suggested Models	Suggested Strategies
 <p>A student may describe a bowling ball as “big and heavy,” and a feather as “light and long.”</p>	<ul style="list-style-type: none"> • Give students an object and have them describe attributes of the object that can be measured • Use measurement vocabulary when talking about an object • Represent measurable attributes with drawings or manipulatives • Describe measurable attributes using gestures (hold arms out to describe an objects as big or long)

Describe and compare measurable attributes of objects (Standards K.MD.1–2)	
Standard K.MD.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. <i>For example, directly compare the length of two pencils and describe one as shorter or longer.</i>	
Concepts and Skills to Master	
<ul style="list-style-type: none"> ● Understand that two objects may have different amounts of the same attribute ● Align endpoints of objects when comparing length or height ● Consider conservation of length when comparing objects (For example, a length of string that is bent compared to a length of string that is straight, or a straw that is orientated vertically versus a pencil that is orientated horizontally) ● Describe which object has more or less of an attribute (For example, the red pencil is longer than the blue pencil) 	
Related Standards: Current Grade Level	Related Standards: Future Grade Levels
K.MD.1 Describe measurable attributes of objects, such as length or weight. Describe several measurable attributes of a single object.	1.MD.1 Order three objects by length 1.MD.2 Express the length of an object as a whole number of units 2.MD.2 Measure the length of an object using different units, describe how the measurements relate to the size of the unit chosen 2.MD.4 Determine how much longer one objects is than another
Critical Background Knowledge	
<ul style="list-style-type: none"> ● Related Standards: Current Grade Level (see above) ● Students may have had informal experience comparing themselves to their peers and surroundings (For example, comparing their height, hair length, etc.) 	
Academic Vocabulary	
length, height, weight, size, compare, measure, attribute, taller, longer, shorter, heavier, lighter, bigger, smaller, more of, less of	
Suggested Models	Suggested Strategies
<p>Sticks whose endpoints are not aligned</p>  <p>A B C</p> <p>The larger bear is heavier than the smaller bear</p>  <p>When shown this figure and asked which is "the longest stick," students may point to A because it "sticks out the farthest." Similarly, they may recognize a 12-inch vertical line as "tall" and a 12-inch horizontal line as "long" but not recognize that the two are the same length.</p>	<ul style="list-style-type: none"> ● Manipulate objects to prove or disprove comparisons (see Suggested Models at the left) ● Use language such as "it looks longer, but it isn't because the other object is bent," to discuss conservation of length ● Use a third object to indirectly compare two objects (for example a tower of connecting cubes can be used to compare the height of a desk leg and the height of a window)
Image Source: https://commoncoretools.files.wordpress.com/2012/07/ccss_progression_gm_k5_2012_07_21.pdf	

Classify objects and count the number of objects in each category (Standard K.MD.3).					
Standard K.MD.3 Classify objects into given categories; count the numbers of objects in each category and sort the categories by count. Limit the category counts to less than or equal to 10.					
Concepts and Skills to Master					
<ul style="list-style-type: none"> Identify similarities and differences between objects Classify objects into given categories Count the number of objects in each category (up to 10) Sort categories by count (up to 10) 					
Related Standards: Current Grade Level	Related Standards: Future Grade Levels				
<p>K.MD.1-2 Describe and compare measurable attributes of objects</p> <p>K.CC.1, K.CC.4, K.CC.5 Count to tell the number of objects</p> <p>K.CC.6 Use matching or counting strategies to identify whether the number of objects in one group is greater than, less than, or equal to the number of objects in another group</p> <p>K.CC.7 Compare two numbers between 1 and 10 using “greater than,” “less than,” or “equal to”</p>	<p>1.MD.4 Organize, represent, and interpret data with up to three categories</p> <p>2.MD.10 Draw a picture graph and a bar graph with single-unit scale to represent a data set with up to four categories</p>				
Critical Background Knowledge					
<ul style="list-style-type: none"> Related Standards: Current Grade Level (see above) Students may have prior knowledge with informally classifying and sorting objects. 					
Academic Vocabulary					
classify, sort, groups, categories, count					
Suggested Models	Suggested Strategies				
<table border="1" style="width: 100%; text-align: center;"> <thead> <tr> <th style="width: 50%;">Circles</th> <th style="width: 50%;">Squares</th> </tr> </thead> <tbody> <tr> <td></td> <td></td> </tr> </tbody> </table> <p>“There are 5 circles and 7 squares. There are more squares than circles.”</p>	Circles	Squares			<ul style="list-style-type: none"> Sort collections of objects in a variety of ways (shape, size, color, etc.) Use buttons, manipulatives, shapes, cereal, etc. to sort Sort objects into categories of choice and describe how collections have been sorted Count objects in each collection
Circles	Squares				
