**Blackwater Community School Curriculum Map 2016-2017**

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| **Kindergarten Quarter 2 (45 Days)** | | | | | | |
| **Two-Dimensional and Three-Dimensional Shapes**  **Approximately 10 Instructional Days – October 7th – October 31st**  Students learn about flat and solid shapes independently as well as how they are related to each other and to shapes in their environment. Students begin to use position words when referring to and moving shapes. Students learn to use their words to distinguish between examples and non-examples of flat and solid shapes. | | | | | | |
| **Major Clusters:** | | | K.MD.B – Classify objects and count the number of objects in categories.  K.G.A – Identify and describe shapes.  K.G.B.4 – Analyze, compare, create and compose shapes. | | | |
| Supporting Clusters: | | |  | | | |
| Vocabulary | | | Above, Below, Beside, In front of, Next to, Behind, Circle, Cylinder, Face, Flat, Hexagon, Rectangle, Solid, Sphere, Square, Triangle, Cube, Cone. Review Vocabulary: Match, Sort | | | |
| **Domain** | **Cluster** | **Standard** | **Arizona’s College and Career Ready Standards** | **Explanations & Examples** | **Notes & Resources** | |
| K.MD | B | 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).  *K.MP.2.* Reason abstractly and quantitatively.  *K.MP.7.* Look for and make use of structure. | Possible objects to sort include buttons, shells, shapes, beans, etc. After sorting and counting, it is important for students to:   * explain how they sorted the objects; * label each set with a category; * answer a variety of counting questions that ask, “How many …”; * compare sorted groups using words such as, “most”, “least”, “alike” and “different”. | **Engage NY**  M2 Lessons 1-10  **enVision**  Topic 13  <http://www.bwcs.k12.az.us/> | |
| **Domain** | **Cluster** | **Standard** | **Arizona’s College and Career Ready Standards** | **Explanations & Examples** | **Notes & Resources** | |
| 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.MP.7.* Look for and make use of structure. | Examples of environments in which students would be encouraged to identify shapes would include nature, buildings, and the classroom using positional words in their descriptions.  Teachers should work with children and pose four mathematical questions: Which way? How far? Where? And what objects? To answer these questions, children develop a variety of important skills contributing to their spatial thinking.  Examples:  • Teacher holds up an object such as an ice cream cone, a number cube, ball, etc. and asks students to identify the shape. Teacher holds up a can of soup and asks,” What shape is this can?” Students respond “cylinder!”  • Teacher places an object next to, behind, above, below, beside, or in front of another object and asks positional questions. Where is the water bottle? (water bottle is placed behind a book) Students say “The water bottle is behind the book.”  • Students should have multiple opportunities to identify shapes; these may be displayed as photographs, or pictures using the document camera or interactive whiteboard. | **Engage NY**  M2 Lessons 1-10  **enVision**  Topic 15  <http://www.bwcs.k12.az.us/> |

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| K.G | A | 2 | Correctly name shapes regardless of their orientations or overall size.  *K.MP.7.* Look for and make use of structure. | Students should be exposed to many types of triangles in many different orientations in order to eliminate the misconception that a triangle is always right-side-up and equilateral.    Students should also be exposed to many shapes in many different sizes.  **Examples:**   * Teacher makes pairs of paper shapes that are different sizes. Each student is given one shape and the objective is to find the partner who has the same shape. * Teacher brings in a variety of spheres (tennis ball, basketball, globe, ping pong ball, etc.) to demonstrate that size doesn’t change the name of a shape. | **Engage NY**  M2 Lessons 1-10  **enVision**  Topic 14  <http://www.bwcs.k12.az.us/> |
| K.G | A | 3 | Identify shapes as two-dimensional (lying in a plane, “flat”) or three-dimensional (“solid”).  *K.MP.7.* Look for and make use of structure. | Student should be able to differentiate between two dimensional and three dimensional shapes.  Student names a picture of a shape as two dimensional because it is flat and can be measured in only two ways (length and width).  Student names an object as three dimensional because it is not flat (it is a solid object/shape) and can be measured in three different ways (length, width, height/depth). | **Engage NY**  M2 Lessons 9-10  **enVision**  Topic 14  <http://www.bwcs.k12.az.us/> |

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| **Domain** | **Cluster** | **Standard** | **Arizona’s College and Career Ready Standards** | **Explanations & Examples** | **Notes & Resources** |
| 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/“corners”) and other attributes (e.g., having sides of equal length).  *K.MP.6.* Attend to precision. *K.MP.7.* Look for and make use of structure. | Students analyze and compare two- and three-dimensional shapes by observations. Their visual thinking enables them to determine if things are alike or different based on the appearance of the shape. Students sort objects based on appearance. Even in early explorations of geometric properties, they are introduced to how categories of shapes are subsumed within other categories. For instance, they will recognize that a square is a special type of rectangle.  Students should be exposed to triangles, rectangles, and hexagons whose sides are not all congruent. They first begin to describe these shapes using everyday language and then refine their vocabulary to include sides and vertices/corners. Opportunities to work with pictorial representations, concrete objects, as well as technology helps student develop their understanding and descriptive vocabulary for both two- and three- dimensional shapes. | **Engage NY**  M2 Lessons 1-10  **enVision**  Topic 16  <http://www.bwcs.k12.az.us/> |

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| **Comparison of Length, Weight, Capacity, and Numbers to 10**  **Approximately 30 instructional Days – November 1st – December 21st**  After students observed, analyzed, and classified objects by shape into pre-determined categories, they will now compare and analyze length, weight, volume, and, finally, number . Utilizing students’ understanding of amounts and their developing number sense students will explore, each of the following attributes: length, weight, and volume. | | | | | |
| **Major Clusters:** | | | **K.CC.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.**  **K.CC.7 – Compare numbers.**  **K.MD.A – Describe and compare measureable attributes.** | | |
| Supporting Clusters: | | |  | | |
| Vocabulary | | | Balance scale, Capacity, Compare, Endpoint, Enough, Not enough, Heavier than, Lighter than, Height, Length, Longer than, Shorter than, More than, Fewer than, Less than, Taller than, The same as, Weight | | |
| **K.CC** | **C** | **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).  *K.MP.2*. Reason abstractly and quantitatively.  *K.MP.7*. Look for and make use of structure.  *K.MP.8*. Look for and express regularity in repeated reasoning. | Students should develop a strong sense of the relationship between quantities and numerals before they begin comparing numbers.  **Examples:**   * Matching: Students use one-to-one correspondence, repeatedly matching one object from one set with one object from the other set to determine which set has more objects. * Counting: Students count the objects in each set, and then identify which set has more, less, or an equal number of objects. * Observation: Students may use observation to compare two quantities (e.g., by looking at two sets of objects, they may be able to tell which set has more or less without counting). * Observations in comparing two quantities can be accomplished through daily routines of collecting and organizing data in displays. Students create object graphs and pictographs using data relevant to their lives (e.g., favorite ice cream, eye color, pets, etc.). Graphs may be constructed by groups of students as well as by individual students. * Benchmark Numbers: This would be the appropriate time to introduce the use of 0, 5 and 10 as benchmark numbers to help students further develop their sense of quantity as well as their ability to compare numbers. | **Engage NY**  M3 Lessons 4-7, 16-  32  **enVision**  Topic 2,4  <http://www.bwcs.k12.az.us/> |

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| **Domain** | **Cluster** | **Standard** | **Arizona’s College and Career Ready Standards** | **Explanations & Examples** | **Notes & Resources** |
|  |  |  |  | O Students state whether the number of objects in a set is more, less, or equal to a set that has 0, 5, or 10 objects. |  |
| **K.CC** | **C** | **7** | Compare two numbers between 1 and 10 presented as written numerals.  *K.MP.2*. Reason abstractly and quantitatively. | Given two numerals, students should determine which is greater or less than the other. | **Engage NY**  M3 Lessons 20-32  **enVision**  Topic 4  <http://www.bwcs.k12.az.us/> |
| K.MD | A | 1 | Describe measurable attributes of objects, such as length or weight. Describe several measurable attributes of a single object.  *K.MP.7.* Look for and make use of structure. | In order to describe attributes such as length and weight, students must have many opportunities to informally explore these attributes.  Students should compare objects verbally and then focus on specific attributes when making verbal comparisons for *K.MD.2*. They may identify measurable attributes such as length, width, height, and weight. For example, when describing a soda can, a student may talk about how tall, how wide, how heavy, or how much liquid can fit inside. These are all measurable attributes. Non-measurable attributes include: words on the object, colors, pictures, etc.  An interactive whiteboard or document camera may be used to model objects with measurable attributes. | **Engage NY**  M3 Lessons 1-15,  29-32  **enVision**  Topic 12  <http://www.bwcs.k12.az.us/> |
| 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.MP.6.* Attend to precision. *K.MP.7.* Look for and make use of structure. | When making direct comparisons for length, students must attend to the “starting point” of each object. For example, the ends need to be lined up at the same point, or students need to compensate when the starting points are not lined up (conservation of length includes understanding that if an object is moved, its length does not change; an important concept when comparing the lengths of two objects).  Language plays an important role in this standard as students describe the similarities and differences of measurable attributes of objects (e.g., shorter than, taller than, lighter than, the same as, etc.).  An interactive whiteboard or document camera may be used to compare objects with measurable attributes. | **Engage NY**  M3 Lessons 1-15,  20-24, 29-32  **enVision**  Topic 12  <http://www.bwcs.k12.az.us/> |