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

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| **Kindergarten Quarter 4 (45 Days)** | | | | | |
| **Numbers 10-20 and Counting to 100**  **Approximately 25 Instructional Days – March 21st – April 26th**  Up to this point in Grade K, students have worked intensively within 10 and have often counted to 20 using the Rekenrek during fluency practice. This work sets the stage for students to clarify the meaning of the 10 ones and some ones within a teen number and extend that understanding to count to 100. | | | | | |
| **Major Clusters:** | | | **K.CC.A – Know number names and the count sequence. K.CC.B – Count to tell the number of objects.**  **K.NBT.A – Work with numbers 11-19 to gain foundations for place value.** | | |
| Supporting Clusters: | | |  | | |
| Vocabulary | | | Say ten counting by tens to 100, Regular counting from 11-20, Regular counting by tens to 100, Hide Zero cards, 10 and some ones, Teen numbers, 10 and , 10 plus | | |
| **Domain** | **Cluster** | **Standard** | **Arizona’s College and Career Ready Standards** | **Explanations & Examples** | **Notes & Resources** |
| **K.CC** | **A** | **1** | Count to 100 by ones and by tens.  *K.MP.7.* Look for and make use of structure.  *K.MP.8.* Look for and express regularity in repeated reasoning. | The emphasis of this standard is on the counting sequence.  When counting by ones, students need to understand that the next number in the sequence is one more. When counting by tens, the next number in the sequence is “ten more” (or one more group of ten).  Instruction on the counting sequence should be scaffolded (e.g., 1-10, then 1-20, etc.).  Counting should be reinforced throughout the day, not in isolation.  **Examples**:   * Count the number of chairs of the students who are absent. * Count the number of stairs, shoes, etc. * Counting groups of ten such as “fingers in the classroom” (ten fingers per student).   When counting orally, students should recognize the patterns that exist | **Engage NY**  M5 Lessons 1-9, 15-  24  **enVision**  Topic 6  <http://www.bwcs.k12.az.us/> |

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|  |  |  |  | from 1 to 100. They should also recognize the patterns that exist when counting by 10s. |  |
| **K.CC** | **A** | **2** | Count forward beginning from a given number within the known sequence (instead of having to begin at 1).  *K.MP.7.* Look for and make use of structure. | The emphasis of this standard is on the counting sequence to 100. Students should be able to count forward from any number, 1-99. | **Engage NY**  M5 Lessons 1-5, 15-  24  **enVision**  Topic 4,5  <http://www.bwcs.k12.az.us/> |
| **K.CC** | **A** | **3** | Write numbers from  0–20. Represent a number of objects with a written numeral 0–20 (with 0 representing a count of no 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 be given multiple opportunities to count objects and recognize that a number represents a specific quantity. Once this is established, students begin to read and write numerals (numerals are the symbols for the quantities). The emphasis should first be on quantity and then connecting quantities to the written symbols.  **Examples**:   * A sample unit sequence might include:   1. Counting up to 20 objects in many settings and situations over several weeks.   2. Beginning to recognize, identify, and read the written numerals, and match the numerals to given sets of objects.   3. Writing the numerals to represent counted objects.   Since the teen numbers are not written as they are said, teaching the teen numbers as one group of ten and extra ones is foundational to understanding both the concept and the symbol that represents each teen number. For example, when focusing on the number “14,” students should count out fourteen objects using one-to-one correspondence and then use those objects to make one group of ten and four extra ones.  Students should connect the representation to the symbol “14.” | **Engage NY**  M5 Lessons 6-19  **enVision**  Topic 1,2,3  <http://www.bwcs.k12.az.us/> |

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| **K.CC** | **B** | **4** | Understand the relationship between numbers and quantities; connect counting to cardinality.   1. 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. 2. 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. 3. Understand that each successive number name refers to a quantity that is one larger.   *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. | This standard focuses on one-to-one correspondence and how cardinality connects with quantity.  **Example:**   * When counting three bears, the student should use the counting sequence, “1-2-3,” to count the bears and recognize that “three” represents the group of bears, not just the third bear. A student may use an interactive whiteboard to count objects, cluster the objects, and state, “This is three”.   In order to understand that each successive number name refers to a quantity that is one larger, students should have experience counting objects, placing one more object in the group at a time.  **Examples:**   * Using cubes, the student should count the existing group, and then place another cube in the set. Some students may need to re-count from one, but the goal is that they would count on from the existing number of cubes. S/he should continue placing one more cube at a time and identify the total number in order to see that the counting sequence results in a quantity that is one larger each time one more cube is placed in the group. * A student may use a clicker (electronic response system) to communicate his/her count to the teacher. | **Engage NY**  M5 Lessons 1-24  **enVision**  Topic 1,2,3,5  <http://www.bwcs.k12.az.us/> |
| **K.CC** | **B** | **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.  *K.MP.2.* Reason abstractly and | Students should develop counting strategies to help them organize the counting process to avoid re-counting or skipping objects.  **Examples**:   * If items are placed in a circle, the student may mark or identify the starting object. * If items are in a scattered configuration, the student may move the objects into an organized pattern. | **Engage NY**  M5 Lessons 1-24 |

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|  |  |  | quantitatively.  *K.MP.7.* Look for and make use of structure.  *K.MP.8.* Look for and express regularity in repeated reasoning. | * Some students may choose to use grouping strategies such as placing objects in twos, fives, or tens (note: this is not a kindergarten expectation). * Counting up to 20 objects should be reinforced when collecting data to create charts and graphs. * A student may use a clicker (electronic response system) to communicate his/her count to the teacher. | **enVision**  Topic 1,6  <http://www.bwcs.k12.az.us/> |
| **K.NBT** | **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 (e.g., 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.MP.1.* Make sense of problems and persevere in solving them.  *K.MP.2*. Reason abstractly and quantitatively.  *K.MP.4*. Model with mathematics. *K.MP.7*. Look for and make use of structure.  *K.MP.8*. Look for and express regularity in repeated reasoning. | Special attention needs to be paid to this set of numbers as they do not follow a consistent pattern in the verbal counting sequence.   * Eleven and twelve are special number words. * “Teen” means one “ten” plus ones. * The verbal counting sequence for teen numbers is backwards – we say the ones digit before the tens digit. For example “27” reads tens to ones (twenty-seven), but 17 reads ones to tens (seven-teen). * In order for students to interpret the meaning of written teen numbers, they should read the number as well as describe the quantity. For example, for 15, the students should read “fifteen” and state that it is one group of ten *and* five ones and record that 15 = 10 + 5.   Teaching the teen numbers as one group of ten and extra ones is foundational to understanding both the concept and the symbol that represent each teen number. For example, when focusing on the number “14,” students should count out fourteen objects using one-to-one correspondence and then use those objects to make one group of ten ones and four additional ones. Students should connect the representation to the symbol “14.” Students should recognize the pattern that exists in the teen numbers; every teen number is written with a 1 (representing one ten) and ends with the digit that is first stated. | **Engage NY**  M5 Lessons 1-24  **enVision**  Topic 10,11  <http://www.bwcs.k12.az.us/> |

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| **Analyzing, Comparing, and Composing Shapes**  **Approximately 10 Days – April 27th – May 10th**  Kindergarten comes to a close with another opportunity for students to explore geometry. Throughout the year, students have built an intuitive understanding of two- and three-dimensional figures by examining exemplars, variants, and non-examples. They have used geometry as a context for exploring numerals as well as comparing attributes and quantities. To wrap up the year, students further develop their spatial reasoning skills and begin laying the groundwork for an understanding of area through composition of geometric figures. | | | | | |
| **Major Clusters:** | | | **K.CC.B – Count to tell the number of objects.** | | |
| Supporting Clusters: | | | K.G.B – Analyze, compare, create and compose shapes. | | |
| Vocabulary | | | Ordinal numbers – first, second, third, fourth, fifth, sixth, seventh, eighth, ninth, tenth | | |
| **K.CC** | **B** | **4** | Understand the relationship between numbers and quantities; connect counting to cardinality.   1. 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. 2. 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. 3. Understand that each successive number name refers to a quantity that is one larger.   *K.MP.2.* Reason abstractly and quantitatively.  *K.MP.7.* Look for and make use of | This standard focuses on one-to-one correspondence and how cardinality connects with quantity.  **Example:**   * When counting three bears, the student should use the counting sequence, “1-2-3,” to count the bears and recognize that “three” represents the group of bears, not just the third bear. A student may use an interactive whiteboard to count objects, cluster the objects, and state, “This is three”.   In order to understand that each successive number name refers to a quantity that is one larger, students should have experience counting objects, placing one more object in the group at a time.  **Examples:**   * Using cubes, the student should count the existing group, and then place another cube in the set. Some students may need to re-count from one, but the goal is that they would count on from the existing number of cubes. S/he should continue placing one more cube at a time and identify the total number in order to see that the counting sequence results in a quantity that is one larger each time one more cube is placed in the group. | **Engage NY**  M6 Lessons 1-4  **enVision**  Topic 1,2,3,5  <http://www.bwcs.k12.az.us/> |

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|  |  |  | structure.  *K.MP.8.* Look for and express regularity in repeated reasoning. | * A student may use a clicker (electronic response system) to communicate his/her count to the teacher. |  |
| K.G | B | 5 | Model shapes in the world by building shapes from components (e.g., sticks and clay balls) and drawing shapes.  *K.MP.1.* Make sense of problems and persevere in solving them.  *K.MP.4.* Model with mathematics. *K.MP.7.* Look for and make use of structure. | Because two-dimensional shapes are flat and three-dimensional shapes are solid, students should draw two-dimensional shapes and build three- dimensional shapes. Shapes may be built using materials such as clay, toothpicks, marshmallows, gumdrops, straws, etc. | **Engage NY**  M6 Lessons 1-4  **enVision**  Topic 16  <http://www.bwcs.k12.az.us/> |
| 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.MP.1.* Make sense of problems and persevere in solving them.  *K.MP.3.* Construct viable arguments and critique the reasoning of others.  *K.MP.4.* Model with mathematics.  *MP.7.* Look for and make use of structure. | Students use pattern blocks, tiles, or paper shapes and technology to make new two- and three-dimensional shapes. Their investigations allow them to determine what kinds of shapes they can join to create new shapes. They answer questions such as “What shapes can you use to make a square, rectangle, circle, triangle? …etc.”  Students may use a document camera to display shapes they have composed from other shapes. They may also use an interactive whiteboard to copy shapes and compose new shapes. They should describe and name the new shape. | **Engage NY**  M6 Lessons 5-8  **enVision**  Topic 16  <http://www.bwcs.k12.az.us/> |