**2022-23 BIE Navajo Year-at-a-Glance Mathematics Curriculum Map**

School: Dennehotso Boarding School

Grade Level (K-8) or Course: Kindergarten

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| **Unit (# of Days)** | **Unit 1 (75 days)** | **Unit 2 (24 days)** | **Unit 3 (53 days)** | **Unit 4 (47 days)** | **Unit 5 (30 days)** |
| **Title** | Numbers to 10 | Two-Dimensional and Three-Dimensional Shapes | Comparison of Length, Weight, Capacity, and Numbers to 10 | Number Pairs, Addition and Subtraction to 10 | Numbers 10–20 and Counting to 100 |
| **Overview** | Kindergarten students start out classifying and categorizing objects, leading to making one group (e.g., “I made a group of 9  goldfish. Look how I can count them in a line, in rows, and in a circle”). Students learn the way each number from 0 to 10 relates to five using fingers, cubes, drawings, 5-groups (pictured below) and the Rekenrek, an abacus with a color change after the fifth bead (pictured below). The materials  support students in seeing all numbers to ten in relationship to five, as they also see them on their fingers, the best manipulative of all! This renders  6, 7, 8, 9, and 10 more friendly as they see, for example, the 3 and 5 embedded within 8. Notice how the distribution of 8 beads as 5 beads and 3  beads sets the stage for the distributive property in Grade 3 (“8 fours = 5 fours + 3 fours, so (5 × 4) + (3 × 4) = 20 + 12 = 32”). Students close the  module by investigating patterns of 1 more and 1 less (excluding the word than) using models such as the number stairs (pictured below right) with a  color change after the fifth cube. | Students take a needed break from numbers to analyze their environment and describe and identify squares, circles, triangles, rectangles, hexagons, cubes, cones, cylinders, and spheres. During both Modules 2 and 3, students also practice their fluency by counting and manipulating numbers to 10 during their fluency practice, giving them ample time to prepare for the addition and subtraction of Module 4. | Students directly compare two quantities, first learning to identify the attribute being compared. The use of the word than is carefully developed first in the context of length (e.g., taller than, shorter than), then weight (heavier than, lighter than), and finally capacity. Notice how more than and less than are used to compare capacities (e.g., “The bucket holds more than the cup”). This transitions students smoothly into comparing numbers (e.g., “9 chairs is more than 6 chairs”). | comparison flows into addition and subtraction, as it does in all the elementary grades (e.g., “7 is more than 3” leads to, “7 = 3 + 4,” and “3 + 4 = 7”). Students represent add to, take away, and put together stories with blocks, drawings, and equations. Toward the end of the module, | students start to reorient from 5 toward 10 ones with “How much more does 7 need to make ten?” |
| [**Critical Areas (K-8**](https://docs.google.com/document/d/11tTIMjwEi83IXYf5P493Qvn6PLjItgZxCpmDDDFajTs/edit?usp=sharing)**)** | K.CA.1 | K.CA.2 | K.CA.1 | K.CA.1 | K.CA.1 |
| [**BIE Standards**](https://www.bie.edu/landing-page/standards) **Addressed** | K.CC.3  K.CC.4  K.CC5  K.OA.3  K.MD.3 | K.MD.3  K.G.1  K.G.2  K.G.3  K.G.4 | K.CC.6  K.CC.7  K.MD.1  K.MD.2 | K.OA.1  K.OA.2  K.OA.3  K.OA.4  K.OA.5 | K.CC.1  K.CC.2  K.CC.3  K.CC.4  K.CC.5  K.NBT.1 |
| [**Mathematical Practices**](http://www.corestandards.org/Math/Practice/) | MP.2  MP.3  MP.4  MP.7  MP.8 | MP.1  MP.3  MP.6  MP.7 | MP.1  MP.2  MP.4  MP.5  MP.6 | MP.1  MP.2  MP.4  MP.5  MP.7  MP.8 | MP.2  MP.3  MP.4  MP.7 |
| **Curriculum Resources** | Eureka Math Module 1, Topics A-H, Lessons 1-37 | Eureka Math Module 2, Topics  A-C, Lessons 1-10   * Application Problems * Problem Sets | Eureka Math Module 3, Topics A-H, Lessons 1-31   * Application Problems * Problem Sets | Eureka Math Module 4, Topics A-H, Lessons 1-41   * Sprints * Application Problems * Problem Sets | Eureka Math Module 5, Topics  A-E, Lessons 1-24   * Sprints * Application Problems * Problem Sets * Exit Tickets |
| **Other Resources** | Rulers  Five dot mat  Five-frame and ten-frame cards  Number path  Left hand mat  Two Hands mat  5-group cards  Rekenrek | 3-D Shapes (cone, sphere, cylinder, and cube)  2-D Shapes (circle, hexagon, rectangle, square, and triangle) | Ruler  Balance scale  Rice  Linking cubes | 5-group dot cards  Hula hoops  Linking cubes  Number bonds  Number path  Number towers  Sets of objects  Showing fingers the Math Way | 50 sticks or straws  Student-made Rekenrek  Hide Zero cards  Objects  Single and double 10 frames  Linking cubes  Number bond template |
| **BIE Assessments/Date Window** | Fall NWEA |  | Winter NWEA |  | Spring NWEA |
| **Other Common Assessments (provide source for each)** | Mid-Module Assessment Task after Topic D (Eureka)  End-of-Module Assessment Task after Topic H (Eureka)  Culminating Task Lesson 37 (Eureka) | End-of-Module Assessment Task after Topic C (Eureka) 2 days  Culminating Task Lesson 10 (Eureka) | Mid-Module Assessment Task after Topic D (Eureka) 3 days  End-of-Module Assessment Task after Topic H 2 days | Mid-Module Assessment Task after Topic D 3 days  End-of-Module Assessment Task after Topic H 3 days  Culminating Task Lesson 41 | Mid-Module Assessment Task after Topic C 3 days  End-of-Module Assessment Task after Topic E 3 days  Culminating Task Lesson 24 |
| **Notes/Additional Considerations**   * Cross Curricular * Cultural Connection * Possible Challenges |  |  |  |  |  |

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| **Unit #/Dates** | **Unit 6 (10 days)** | **Unit 7 (\_\_days)** | **Unit 8 (\_\_days)** | **Unit 9 (\_\_days)** | **Unit 10 (\_\_days)** |
| **Title** | Analyzing, Comparing, and Composing Shapes |  |  |  |  |
| **Overview** | Students build shapes from components, analyze and compare them, and discover that they can be composed of smaller shapes, just as larger numbers are composed of smaller numbers. |  |  |  |  |
| [**Critical Areas (K-8**](https://docs.google.com/document/d/11tTIMjwEi83IXYf5P493Qvn6PLjItgZxCpmDDDFajTs/edit?usp=sharing)**)** | K.CA.2 |  |  |  |  |
| [**BIE Standards**](https://www.bie.edu/landing-page/standards) **Addressed** | K.CC.5  K.G.5  K.G.6 |  |  |  |  |
| [**Mathematical Practices**](http://www.corestandards.org/Math/Practice/) | MP.1  MP.4  MP.6  MP.7 |  |  |  |  |
| **Curriculum Resources** | Eureka Math Module 6, Topics A-B, Lessons 1-8 |  |  |  |  |
| **Other Resources** | Pattern block activity cards or attribute block activity cards  3-D shapes: cone, sphere, cylinder, and cube.  2-D shapes: circle, hexagon, rectangle, square, triangle |  |  |  |  |
| **BIE Assessments/Date Window** |  |  |  |  |  |
| * **Other Common Assessments (provide source for each)** | Eureka End-of-Module Assessment Topics A-B 2 days  Culminating Task Lesson 8 |  |  |  |  |