| **Grade** | **Big Idea** | **Essential Questions** | **Concepts** | **Competencies** | **Standard** | **Eligible Content** | **Vocabulary** |
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| **Pre-K** | Mathematical relationships among numbers can be represented, compared, and communicated. | How is mathematics used to quantify, compare, represent, and model numbers?  How can mathematics support effective communication? | Numerical Sequence | Rote count to 20.  Name numerals up to 10.  Represent a number of objects with a written numeral 0-10. | CC.2.1.PREK.A.1 |  | Above  Addition  Below  Beside  Between  Circle  Cone  Cube  Cylinder  Equal  Greater than  Length  Less than  Measure  Numeral  Rectangle  Sphere  Square  Subtraction  Three dimensional shapes  Triangle  Two dimensional shapes  Weight |
| **Pre-K** | Mathematical relationships among numbers can be represented, compared, and communicated.  Patterns exhibit relationships that can be extended, described, and generalized. | How is mathematics used to quantify, compare, represent, and model numbers?  How can mathematics support effective communication?  How can patterns be used to describe relationships in mathematical situations? | Object Quantity | Recognize small quantities up to 6.  Use a one-to-one correspondence when counting to 10.  State the total number of objects counted, demonstrating understanding that that number named tells the number of objects counted. | CC.2.1.PREK.A.2 |  |
| **Pre-K** | Mathematical relationships among numbers can be represented, compared, and communicated. | How is mathematics used to quantify, compare, represent, and model numbers?  How can mathematics support effective communication? | Number Comparison | Identify whether the number of objects in one group is greater than, less than or equal to the number of objects in another group up to 10.  Compare two numbers between 1 and 5 when presented as written numerals. | CC.2.2.PREK.A.3 |  |
| **Pre-K** | Mathematical relationships among numbers can be represented, compared, and communicated.  Mathematical relationships can be represented as expressions, equations and inequalities in mathematical situations.  Patterns exhibit relationships that can be extended, described, and generalized. | How is mathematics used to quantify, compare, represent, and model numbers?  How can mathematics support effective communication?  How are relationships represented mathematically?  How can recognizing repetition or regularity assist in solving problems more efficiently? | Addition and Subtraction | Represent addition and subtraction with objects, fingers, mental images, and drawings, sounds, acting out situations, verbal explanations, expressions, or equations.  Explain adding and subtracting sets of objects up to and including six. | CC.2.2.PREK.A.1 |  |  |
| **Pre-K** | Mathematical relationships among numbers can be represented, compared, and communicated.  Mathematical relationships can be represented as expressions, equations and inequalities in mathematical situations.  Patterns exhibit relationships that can be extended, described, and generalized. | How is mathematics used to quantify, compare, represent, and model numbers?  How can mathematics support effective communication?  How are relationships represented mathematically?  How can recognizing repetition or regularity assist in solving problems more efficiently? | Addition and Subtraction | Represent addition and subtraction with objects, fingers, mental images, and drawings, sounds, acting out situations, verbal explanations, expressions, or equations.  Explain adding and subtracting sets of objects up to and including six. | CC.2.3.PREK.A.1 |  |  |
| **Pre-K** | Patterns exhibit relationships that can be extended, described, and generalized.  Geometric relationships can be described, analyzed, and classified based on spatial reasoning and/or visualization. | How can patterns be used to describe relationships in mathematical situations?  How can recognizing repetition or regularity assist in solving problems more efficiently?  How are spatial relationships, including shape and dimension, used to draw, construct, model, and represent real situations or solve problems?  How can the application of the attributes of geometric shapes support mathematical reasoning and problem solving?  How can geometric properties and theorems be used to describe, model, and analyze situations? | Shape Identification and Description | Identify shapes as two-dimensional or three-dimensional.  Describe objects in the environment using names of shapes and describe the relative positions of these objects. | CC.2.3.PREK.A.2 |  |  |
| **Pre-K** | Numerical quantities, calculations, and measurements can be estimated or analyzed by using appropriate strategies and tools.  Measurement attributes can be quantified, and estimated using customary and non-customary units of measure.  Mathematical relations and functions can be modeled through multiple representations and analyzed to raise and answer questions. | What does it mean to estimate or analyze numerical quantities?  What makes a tool and/or strategy appropriate for a given task?  Why does “what” we measure influence “how” we measure?  In what ways are the mathematical attributes of objects or processes measured, calculated and/or interpreted?  How can data be organized and represented to provide insight into the relationship between quantities? | Measureable Attributes | Describe measurable attributes of objects, such as length and weight. Sort and order by one attribute.   Compare two objects with a measureable attribute in common and describe the difference. | CC.2.4.PREK.A.1 |  |  |
| **Pre-K** | Numerical quantities, calculations, and measurements can be estimated or analyzed by using appropriate strategies and tools.  Mathematical relations and functions can be modeled through multiple representations and analyzed to raise and answer questions.  Data can be modeled and used to make inferences. | What does it mean to estimate or analyze numerical quantities?  What makes a tool and/or strategy appropriate for a given task?  How can data be organized and represented to provide insight into the relationship between quantities?  How does the type of data influence the choice of display? | Object Classification and Count | Classify up to 10 objects using one attribute into categories; display the number of objects in each category; count and compare the quantities of each category. | CC.2.4.PREK.A4 |  |  |