| **Grade** | **Big Idea** | **Essential Questions** | **Concepts** | **Competencies** | **Standard** | **Eligible Content** | **Vocabulary** |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **5** | Mathematical relationships among numbers can be represented, compared, and communicated.  Mathematical relationships can be represented as expressions, equations, and inequalities in mathematical situations.  Numerical quantities, calculations, and measurements can be estimated or analyzed by using appropriate strategies and tools.  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?  What does it mean to estimate or analyze numerical quantities?  When is it is appropriate to estimate versus calculate?  What makes a tool and/or strategy appropriate for a given task?  How can patterns be used to describe relationships in mathematical situations? | Place Value and Properties of Operations | Demonstrate an understanding of rounding as it pertains to whole numbers and decimals.  Read, write and compare decimals.  Use whole numbers and decimals to compute accurately. | CC.2.1.5.B.1  CC.2.1.5.B.2 | M05.A-T.1.1.1 M05.A-T.1.1.2 M05.A-T.1.1.3 M05.A-T.1.1.4 M05.A-T.1.1.5  M05.A-T.2.1.1 M05.A-T.2.1.2 M05.A-T.2.1.3 | Braces  Brackets  Coordinate Plane  Cubic Units  Decimal Place Value (through thousandths)  Measurement Systems  Measurement Units  Numerical Expressions  Order of Operations  Origin  Parentheses  Scaling (resizing)  Unit Fraction  Volume  X-axis  X-coordinate  Y-axis  Y-coordinate |
| **5** | Mathematical relationships among numbers can be represented, compared, and communicated.  Mathematical relationships can be represented as expressions, equations, and inequalities in mathematical situations.  Numerical quantities, calculations, and measurements can be estimated or analyzed by using appropriate strategies and tools. | How is mathematics used to quantify, compare, represent, and model numbers?    How can mathematics support effective communication?  How are relationships represented mathematically?  What does it mean to estimate or analyze numerical quantities?  What makes a tool and/or strategy appropriate for a given task? | Fractions | Add, Subtract, Multiply and Divide fractions to solve problems.  Explain operations as they pertain to fractions. | CC.2.1.5.C.1  CC.2.1.5.C.2 | M05.A-F.1.1.1  M05.A-F.2.1.1 M05.A-F.2.1.2 M05.A-F.2.1.3 M05.A-F.2.1.4 |  |
| **5** | Mathematical relationships among numbers can be represented, compared, and communicated.  Mathematical relationships can be represented as expressions, equations, and inequalities in mathematical situations.  Numerical quantities, calculations, and measurements can be estimated or analyzed by using appropriate strategies and tools. | How is mathematics used to quantify, compare, represent, and model numbers?  How can mathematics support effective communication?  How are relationships represented mathematically?  What does it mean to estimate or analyze numerical quantities?  When is it is appropriate to estimate versus calculate? | Decimals | Read, write and compare decimals.  Use whole numbers and decimals to compute accurately. | CC.2.1.5.B.2 | M05.A-T.2.1.1 M05.A-T.2.1.2 M05.A-T.2.1.3 |  |
| **5** | Mathematical relationships among numbers can be represented, compared, and communicated.  Mathematical relationships can be represented as expressions, equations, and inequalities in mathematical situations. | How is mathematics used to quantify, compare, represent, and model numbers?  How can mathematics support effective communication?  How can expressions, equations, and inequalities be used to quantify, solve, model, and/or analyze mathematical situations? | Numerical Expressions | Write and interpret numerical expressions. | CC.2.2.5.A.1 | M05.B-O.1.1.1 M05.B-O.1.1.2 |  |
| **5** | Mathematical relationships among numbers can be represented, compared, and communicated.  Mathematical relationships can be represented as expressions, equations, and inequalities in mathematical situations. | How is mathematics used to quantify, compare, represent, and model numbers?    How can mathematics support effective communication?  How can expressions, equations, and inequalities be used to quantify, solve, model, and/or analyze mathematical situations? | Order of Operations | Evaluate expressions using the order of operations. | CC.2.2.5.A.1 | M05.B-O.1.1.1 M05.B-O.1.1.2 |  |
| **5** | Patterns exhibit relationships that can be extended, described, and generalized.  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. | How can patterns be used to describe relationships in mathematical situations?  How can recognizing repetition or regularity assist in solving problems more efficiently?  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?  How can probability and data analysis be used to make predictions? | Patterns | Generate, analyze and compare patterns. | CC.2.2.5.A.4 | M05.B-O.1.1.2 M05.B-O.2.1.1 M05.B-O.2.1.2 |  |
| **5** | Geometric relationships can be described, analyzed, and classified based on spatial reasoning and/or visualization. | How are spatial relationships, including shape and dimension, used to draw, construct, model, and represent real situations or solve problems?  How can geometric properties and theorems be used to describe, model, and analyze situations? | Coordinate Plane | Describe and interpret points given an ordered pair.   Plot points in quadrant I.  Describe and interpret points given an ordered pair.  Identify parts of a coordinate grid. | CC.2.3.5.A.1 | M05.C-G.1.1.1 M05.C-G.1.1.2 |  |
| **5** | 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 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? | Two-Dimensional Figures | Classify two-dimensional figures based on their properties. | CC.2.3.5.A.2 | M05.C-G.2.1.1 |  |
| **5** | Geometric relationships can be described, analyzed, and classified based on spatial reasoning and/or visualization. | 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? | Volume and  Three-Dimensional Solids | Apply concepts of volume to solve problems.  Relate volume to multiplication and to addition. | CC.2.4.5.A.5 | M05.D-M.3.1.1 M05.D-M.3.1.2 |  |
| **5** | 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. | What does it mean to estimate or analyze numerical quantities?    When is it is appropriate to estimate versus calculate?  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 precise do measurements and calculations need to be? | Measurement | Solve problems using simple conversions. | CC.2.4.5.A.1 | M05.D-M.1.1.1 |  |
| **5** | 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?  How can probability and data analysis be used to make predictions? | Data Displays | Organize and display data in order to answer questions.   Represent and interpret data using appropriate scale.  Solve problems involving computation with fractions using information obtained from data displays. | CC.2.4.5.A.2  CC.2.4.5.A.4 | M05.D-M.2.1.2  M05.D-M.2.1.1 |  |
| **5** | 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. | What makes a tool and/or strategy appropriate for a given task?  In what ways are the mathematical attributes of objects or processes measured, calculated, and/or interpreted? | Volume  Three-Dimensional Solids | Apply concepts of volume to solve problems.  Relate volume to multiplication and to addition. | CC.2.4.5.A.4  CC.2.4.5.A.5 | M05.D-M.2.1.1  M05.D-M.3.1.1 M05.D-M.3.1.2 |  |