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EDTL 7100

**Unit Learner Outcomes**

**Number Sense Unit**

* Extend understanding of number systems to include rational and irrational numbers and locate them on a number line – *synthesis*
* Review and strengthen the understanding of the conventional order of operations rules in the context of problems – *knowledge*
* Evaluate expressions by applying the rules of order of operations and properties – *application*
* Represent fractions as decimals and percents and decimals as fractions and percents – *knowledge*
* Make sense of expressions involving addition, subtraction, multiplication, and division – *analysis*
* Apply proportional reasoning to solve for the unknown part – *application*

**Algebra**

* Use patterns in the data to find equations that model relationships between variables and numbers – *comprehension*
* Solve linear equations with one unknown – *application*
* Construct coordinate graphs to represent data – *synthesis*
* Compare mathematical quantities using inequality notation – *analysis*
* Use slope to solve real-life problems – *comprehension*

**Geometry**

* Analyze characteristics of polygons and plane figures and classify them – *analysis*
* Recognize representations of three-dimensional geometric objects from different views – *knowledge*
* Perform transformations of two-dimensional figures using a variety of methods – *application*
* Discover and apply the Pythagorean Theorem – *application*
* Recognize and use properties of shapes to make mathematical arguments – *synthesis*

**Measurement**

* Build a range of benchmarks to relate the measures of unfamiliar objects to the measures of objects that are personally meaningful – *analysis*
* Identify, use, and perform operations with metric and customary unit of measures – *application*
* Understand relationships between units and convert from another unit within the same system as well as between the two systems – *knowledge*
* Develop and use formulas to find the perimeter and area of polygons and circles – *synthesis*
* Develop and use formulas to find the surface area and volume of three-dimensional shapes – *synthesis*

**Data Analysis and Probability**

* Analyze data using tables, stem-and-leaf plots, histograms, bar graphs, circle graphs, line graphs, box-and-whisker plots and scatter plots – *analysis*
* Design a process of statistical investigation to explore problems – *synthesis*
* Apply selected concepts from probability to understand the concept of randomness – *application*
* Generate a survey, focusing on how questions are asked as to not create biased data collection -  *synthesis*