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EDTL 7100

**Sequencing Rationale**

The curriculum design for the seventh grade mathematics course is split into two branches, content standards and process standards. In mathematics all students should be able to incorporate the process standards within each of the content standards. Because of this, there is no specific sequence in which these process standards should be taught. They are to be infused within the learning of the concept standards. The content concepts of seventh grade mathematics are unique in that much of the material will spiral together and the core units will overlap in their learning. Although multiple approaches can be taken in sequencing a mathematics curriculum, student comprehension must be taken into consideration. The arrangement of the units being presented suggests a logical order of concepts to provide the best scenario for success for the students.

 The first unit, numbers and operations, is a logical starting point for this course, as students will be asked to utilize much of the skills learned here throughout the other units. The students will be asked to understand and utilize the functions of fractions, decimals, percents, and all real numbers. Students will also be exploring number functions and their connections with mathematics in daily living. This unit provides the foundation of skills that will be further used in connection with other units.

 The next unit, algebra, is the next rational unit in the seventh grade mathematics curriculum because of the connections it has with the numbers and operations unit. Students will gain experiences in studying tables, graphs, expressions, and equations. The students will use patterns and functions to represent and solve real life problems.

 The third unit, geometry, is placed here in the sequencing as much of the knowledge to be gained in this unit is a prerequisite for the next unit of measurement. Students will describe and compare properties of geometric figures and identify relationships among shapes. Students will also explore the transformations of geometric figures. The explorations of these geometric shapes can then be used to develop connections to the next unit.

 Measurement is the next unit in for this curriculum. This unit is most sensible here in the sequencing as it uses skills learned in the first three units to continue to develop the measurement skills. Students will extend their understanding of the process of measuring by being able to select appropriate measurements and tools. Students will also explore the advantages and disadvantages of both systems of measurements to help deepen their understanding of using these measurements.

 The final unit, data analysis and probability, is appropriate because the students have developed many of the process standards that help make this unit meaningful to the students. Students will explore questions and interpret data to give them the tools that will make them well-informed citizens. These questions and interpretations will enable students to make predictions and decisions in real-world situations. Students will become actively involved in determining the theoretical and experimental probabilities of events to make predictions. Even though this unit is places last in the sequencing of this course it actually brings us back to full circle as is uses many concepts learned from the first unit of numbers and operations.