5th Grade Unit 2: Building Conceptual Understanding of Place Value Using Measurement and Data Reasoning

Overview:

In this unit, students will explore and explain patterns when multiplying and dividing by powers of 10. In fourth grade students learned the value of multi-digit whole numbers through the hundred-thousand place. Extending their fourth grade understanding that a digit in one place represents ten times the value of the same digit in the place to its right and their work with fraction multiplication in earlier units, students can build on this reasoning as they learn that a digit in one place represents 1 10 of what that same digit represents in the place to its left. Students will also ask and answer statistical questions using the statistical reasoning framework which includes collecting, organizing, and interpreting data.

Learning Targets:

In Unit 2, students will:

- Use place value understanding to solve real-life, mathematical problems.
- Explain that in a multi-digit number, a digit in one place represents 10 times as much as it represents in the place to its right and 1 10 of what it represents in the place to its left.
- Explain patterns in the placement of digits when multiplied or divided by a power of 10. Use whole number exponents to denote powers of 10, up to 10^3.
- Solve problems involving customary measurements, metric measurements, and time and analyze graphical displays of data to answer relevant questions.
- Explore real-life problems involving different units of measurement, including distance, weight, volume, and time.
- Ask questions and answer them based on gathered information, observations, and appropriate graphical displays to solve problems relevant to everyday life.

Key Vocabulary:

conversion/convert	metric and customary system	weight
length	measurement	mass
line plot	numerical patterns	powers of ten
liquid volume		

Supporting Resources:

http://ctlslearn.cobbk12.org/   Units of Measurement – Study Jams

https://gavirtual.instructure.com/courses/34730#modules   Powers of ten | 5th grade | Math | Khan Academy

MATHEMATICS