

Homework Help for Math Out of the Box

Developing Measurement Benchmarks: Large and Small

Information about homework assignments is provided to help parents and other homework helpers with the mathematics ideas that are being developed. The homework help includes definitions of key vocabulary, questions to ask that will help students connect to the classroom investigations, problem solving examples, and other helpful explanations.

Homework 2A1 follows Lesson 2

Nonstandard units of measurement include everyday objects that are used to provide estimates of length. Second grade students explore objects such as pennies, paperclips, and beans as nonstandard units of measurement during lessons.

Standard units of measurement include the US Customary System and the metric system of measurement. The lesson that this homework follows deals primarily with the customary system. The customary units are a system of weights and measures used in the United States that are based on an earlier system developed in England. The basic units of length are the inch, foot, yard, and mile.

Second grade students should have many opportunities to estimate and measure lengths of objects and distances in both standard and nonstandard units of measurement to develop a sense of benchmarks for measurement.

Homework 2A2 follows Lesson 6

Perimeter is the distance around a figure. Units of length, including both customary and metric, should be used to measure around figures and areas. Measurements of perimeters can also be made with steps, lengths of string, and other nonstandard units. It is important for students to write about their strategies for measuring the perimeter to solidify their understanding of the measurement process.

Homework 2B1 follows Lesson 9

Although students have experiences with money in everyday life, they often confuse the size of coins with the value of coins. This homework follows lessons that provide investigations into combinations of coins that can be used to find a certain value. In class, students are exposed to a variety of strategies for combining coin values and discuss how their strategies compare to their peers.

Homework 2C1 follows Lesson 12



There are many temperature scales, with the Fahrenheit and Celsius systems the most commonly used in the United States. Students should be able to connect benchmark temperatures to everyday life.

Benchmark Temperature	Celsius Scale	Fahrenheit Scale
Water Freezes	0° C	32° F
Comfortable Indoor Temperature	20° C	68° F
Normal Body Temperature	37° C	98.6° F
Hot Day	40° C	100° F

Homework 2C2 follows Lesson 15

Students experience concepts relating to time including the use of calendars and clocks in everyday life. This homework follows lessons on the use of analog and digital clocks. Informal investigations are necessary for students to connect the passage of time on tools, such as clocks or calendars, to everyday experiences. Students must be able to identify time on a tool such as an analog clock, but they must also be able to connect this abstract concept to a concrete experience such as going to bed or brushing their teeth.

Homework 2D1 follows Lesson 19

The terms mass and weight are used interchangeably in everyday life. Mass is a measure of the amount of matter in an object, and weight is the measure of the force exerted on the object by gravity. On most areas of the earth, the mass and weight of an object are about the same. Ounces, pounds, and tons are customary units, and grams and kilograms are metric units.

It is important for students to have experiences with ordering objects to gain a conceptual understanding of terms such as heavy and light, or large and small.

