GRADE 2 • Module 2

Addition and Subtraction of Length Units

Topic A: Understand Concepts About the Ruler

Lesson 1: Connect measurement with physical units by using multiple copies of the same physical unit to measure.

- Use objects to measure something (example, centimeter cubes to measure a pencil case)

Lesson 2: Use iteration with one physical unit to measure.

- Use one object multiple times to measure something (example, use one Lego piece to measure the length of a bracelet)

Terms:
Estimate- a good guess based on given information.
Length- the distance from one end to the other end of an object.
Longer- the object that extends further than another object.
Endpoint- where something ends, where measurement begins
Overlap- extend over, or cover partly
Centimeter- cm, unit of length
Ruler: a tool used for measurement
Iteration- repeatedly using something

Model used:
RDWW: Read the problem, Draw a picture, write an equation, write a statement

Lesson 3: Apply concepts to create unit rulers and measure lengths using unit rulers.

- Using an object that represents a unit, create a ruler (example, use a centimeter cube to mark out centimeters on a ruler), then use it to measure given objects.

Terms:
Hash mark- the marks on a ruler or other measurement tool

Topic B: Measure and Estimate Length Using Different Measurement Tools

Lesson 4: Measure various objects using centimeter rulers and meter sticks.

- Compare centimeter ruler to meter stick to recognize efficiency when measuring larger objects. Use both tools to measure and decide best tool to use.

Lesson 5: Develop estimation strategies by applying prior knowledge of length and using mental benchmarks.

- Measure an object and use your knowledge of measurement to help you make a guess or estimation about the length of another object

Terms:

Meter- m, a unit of length
Meter stick- a tool used in measurement that is a set length
Benchmark- "round" numbers like multiples of 10

Topic C: Measure and Compare Lengths Using Different Length Units

Lesson 6: Measure and compare lengths using centimeters and meters.

Lesson 7: Measure and compare lengths using standard metric length units and non-standard lengths units; relate measurement to unit size.

- Measure objects using rulers and other units, then discuss why using non-standard units could yield varying answers

Terms:

Meter strip:  tool for measurement.
Compare: look at 2 or more objects to determine if something is longer than, shorter than or the same length

Topic D: Relate Addition and Subtraction to Length

Lesson 8: Solve addition and subtraction word problems using the ruler as a number line.

- Move finger along ruler while reading a word problem. Move right for adding and left for subtracting.

Lesson 9: Concrete to abstract: measure lengths of string using measurement tools; represent length with tape diagrams to represent and compare the lengths.

- Measure lengths and use tape diagrams to represent and compare lengths

Lesson 10: Apply conceptual understanding of measurement by solving two-step word problems

- Use measuring skills and tape diagrams to solve two-step word problems

Terms:

Number line: a line marked at evenly spaced intervals
Difference: the answer in a subtraction sentence.
Combine: putting together, adding