

Comparing and Measuring Concept Storyline

Unifying Concept

Length and distance are measured with reference to a standard unit.

Unit Concept

The relative sizes of objects and distances between them may be determined by comparisons. Absolute measurement requires the use of standard units.

Grade-Level Concept

Measuring with standard units is a more accurate means of determining size or distance than is comparing or measuring with nonstandard units.

Subconcept 1

Relative lengths may be compared by using a variety of frames of reference.

Lesson 1: Pre-Unit Assessment: Comparing How We Are Alike and Different
Students use observation and everyday objects to make comparisons.

Lesson 2: Let's Make Body Cutouts
Students use body tracings to compare their heights.

Lesson 3: Matching Our Heights
Students compare their heights with adding-machine tape.

Lesson 4: Matching Lengths of Arms and Legs
Student use adding-machine tape to compare the lengths of their limbs.

Lesson 5: Comparing Objects
Students compare the sizes of various objects in the classroom.

Lesson 6: Matching Distance
Students use adding-machine tape to compare and match distances.

Subconcept 2

Use of nonstandard units of measure produces varying results.

Lesson 7: Using Our Feet to Measure
Students use a nonstandard unit to measure length.

Lesson 8: Using Different Standard Units of Measure
Students learn that using different standard lengths produces varying answers.

Subconcept 3

Use of standard units produces consistent results.

Lesson 9: Measuring with a Standard Unit
Students use a standard length as a unit of measurement.

Lesson 10: Exploring with Unifix Cubes™
Students experiment with a new unit of measurement.

Lesson 11: Counting Large Numbers of Units
Students use Unifix Cubes™ to measure large objects.

Lesson 12: Measuring the Height of the Teacher
In an embedded assessment, students use Unifix Cubes™ to determine their teacher's height.

Subconcept 4

Different calibrated devices may be used to measure distances and the lengths of objects of different sizes and shapes.

Lesson 13: Making a Measuring Strip
Students make a more versatile standard length for measurement.

Lesson 14: Measuring with a Measuring Strip
Students explore how to measure objects longer than their standard length.

Lesson 15: Making a Measuring Tape
Students learn the advantages of using a tape divided into 100 uniform units.

Lesson 16: Using a Measuring Tape to Measure Distance
Students use a measuring tape to measure distance and compare the results of measuring and matching.

Lesson 17: Post-Unit Assessment: Sharing What We Know about Comparing and Measuring
Students discuss and reflect on what they have learned.