

# 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  
*Students 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.*