

## Unifying Theme: Comparing & Measuring

### An Excerpt from the *Science as Inquiry Statement*

*“Students develop simple skills of observation, measurement and number sense as they actively participate in simple investigations. During investigations, students must have the opportunity to use tools such as magnifiers, thermometers, rulers, or balances to gather data and extend their senses. They must have ample time to talk about their observations and compare their observations with those of others. They should be encouraged to employ oral language, drawings and models to communicate results and explanations of investigations and experiments. In a cooperative learning environment, students learn that when people give different descriptions of the same thing, it is better to make new observations instead of debating who is correct.”*

**1.SI.1.1** Understand that comparing involves observing and describing similarities and differences.

**1.SI.1.2** Explain the importance of using beginning and ending points and placing units end to end when measuring.

**1.SI.1.3** Understand the use of standard units produces consistent measurement results.

**1.SI.1.4** Understand different calibrated devices may be used to measure distances and the lengths of objects of different sizes and shapes.

### Unpacking

**1.SI.1.1** Students know that comparing involves observing and describing similarities and differences among objects. One way to make comparisons is by matching. Observations and comparisons of both similarities and differences can be communicated through discussion, drawing, and writing.

**1.SI.1.2** Students know the importance of beginning and ending points for accurate measurement. Students place units end to end [unit iteration] when measuring.

**1.SI.1.3** Students know that standard units of measure produce more consistent results than nonstandard units and make it possible to share information. **NOTE: *Standard unit*, in the context of this unit, refers to the unit of measure all student pairs/groups use for measurement to obtain consistent results. A wooden coffee stirrer is used as the *standard unit* in Comparing & Measuring Lesson 9.**

**1.SI.1.4** Students know different units and tools can be used to measure objects and that longer units and tools help us measure long objects or distances more efficiently.

**\*SI = Science as Inquiry Statement**

**\*\*In First Grade, Comparing & Measuring is based on the Science as Inquiry Statement rather than specific standards. The unit equips students with skills and language to actively participate in inquiry science. Depending on when the unit is taught it may introduce or reinforce measurement skills. Standards for this unit were written based on the Unpacked Content document and Teacher Guide to allow Power Teacher Gradebook to populate accordingly and teachers to assign standards to assignments.**