

## Rolling Meterstick

**Companion Text:** I Lost My Sock, by Lin Jakary & Ryan Olson

**Subject Area & Grade Level:** Mathematics, 5<sup>th</sup> Grade

**Materials:** Calculators, metersticks, thin cardboard (cereal-box weight), metal brads, scissors, wooden craft sticks, tape, paperclips, and glue

### Objectives

After this lesson, students will be able to:

- Explain which measurement tools are appropriate or inappropriate for certain jobs
- Compare and contrast a meter measure wheel to a car odometer

### Activity

Read the story once through without stopping. Ask students to reflect on the many places that the socks visited in the boy's imagination. Use this as a springboard to introduce today's lesson on the metric system by asking what students know about the way of life in any of those places. After they have had a chance to respond, ask them specifically what kind of measurement units are used there. Reinforce that the United States is an anomaly in terms of the world's units of measurement, and that almost every other country in the world uses the metric system.

Turn to page 15, and ask students what the Cays are. Explain that any small, sandy island that sits atop a coral reef can be called a "cay," and that many people are familiar with cays as vacation spots in the Caribbean. One popular activity that tourists engage in if visiting a small island is to rent a car and drive around the perimeter of the island. Ask students to imagine if it was their job to measure the distance a tourist would travel if she wanted to drive around the outside of a cay she was visiting. Remember that measurements would be in meters or kilometers, not feet or miles. Ask if a meterstick would be a good tool to use to calculate distance. Lead students to see that, no, it would be too unwieldy and take too long to use a meterstick to measure the whole island's perimeter.

Assign the task of creating a "rollable meterstick" using the materials listed above. Allow students to work in groups to create a measuring tool that would measure distance in meters when rolled on the floor. This would be a smaller version of the type of instrument that could be used to measure long distances, and should measure one meter per revolution.

### Reflection

Ask students if they know what the part of a car that measures the distance the car travels. (An odometer) An odometer is like a small version of the rolling meterstick students made, with gears attached to the rolling parts that in turn rotate discs with little numbers on them. (Many newer cars have digital instead of mechanical odometers, which work differently.) As homework, have students research how odometers work, and write a paragraph comparing and contrasting their rolling meterstick to a car odometer. Students may interview people, or use the internet for their research. The next day, have students share what they found.

