

MeasureWorks™

Teacher-Friendly Lesson Plans

Sample Teacher Lesson Grade 3

Relate Meters and Centimeters

Planning Your Time		
Intro & Demo	Activity	Sum It Up
10 min	15 min	5 min
		

Objective

Measure in meters.
Relate meters to centimeters.

Materials

- Metersticks
- Tape measures
- Butcher paper or sidewalk chalk

Grouping

Whole class, then small groups

Open It Up

Say: A meter is a large metric unit of measure for length. One meter is a little longer than one yard.

Show the length of a meter with a meterstick.

Have students find a benchmark around the classroom or on their bodies that is about 1 meter long. Provide suggestions: distance from belly button to ground, arm span, wrist to wrist, width of the doorway, distance from floor to window, etc.

Then point out several classroom objects.

Ask: Is this object longer than or shorter than 1 meter? [Answers will vary.]

Say: Use one of the benchmarks to estimate the height of the doorway in meters.

Demonstrate & Discuss

Write the words *inches* and *yards*; *centimeters* and *meters* on the board.

Ask: If you are measuring the same length, do you use more inches or yards? Why? [Sample: I use more inches, because they are smaller and I need more of them to reach across.] If you are measuring the same length, will you use fewer centimeters or meters? Why? [Sample: I will use fewer meters, because meters are bigger units and I need fewer to reach across.]

Say: There are 100 centimeters in one meter. Write 1 meter = 100 centimeters on the board.

Have students find the 100-centimeter mark on their tape measures and hold them up to show 1 meter.

Length • T-15

Student Activity

Prepare ahead: Each pair or small group will need a meterstick, a tape measure, and butcher paper or sidewalk chalk.

This activity can be done either with butcher paper in the classroom or outside on the pavement.

Remind students to be careful not to pinch their fingers when they use the metersticks. Before they jump, encourage them to hold up their tape measures to show a meter. Students work in groups. One student stands alongside a line drawn on butcher paper or the pavement. Then the student tries to jump exactly 1 meter. Another student marks the ending point on the butcher paper. The jumper measures the jump in centimeters, compares it to a meter, and records the difference between the distance and one meter. Students take turns jumping and recording. Each student records four jumps.

Teaching Tip: The safest way to do this activity is to jump from a standing position (no running starts).

Informal Assessment

Ask: How do you decide how far you need to jump? [Sample: I imagine how far a meter is, and then I look at the marks from my other jumps and decide if I should jump farther or not.] /DESCRIBE, COMPREHENSION/

Sum It Up

Say: Today we learned how to measure in meters, and we compared centimeters and meters.

Ask: How did you find how far away your jumps were from a meter? [Sample: If the jump was longer than 1 meter, I subtracted 100 centimeters from the distance I jumped. If it was shorter, I subtracted the jump from 100 centimeters.] /SUMMARIZE/

Science Connection

Did you know that:

- a large kangaroo can jump up to 6 meters in one hop?
 - a red-eyed tree frog can jump $1\frac{1}{2}$ meters in one hop?
 - a snowshoe hare can jump 3 meters in one hop?
- How many hops does it take you to jump as far as these animals?

Have students measure the length on the floor, count their hops, and record.

A complete description of each hands-on student activity is presented, along with teacher tips and preparation suggestions.

Prompts help teachers to evaluate students' understanding of the concept being studied.

Each lesson ends with a review of what students have learned.

Engaging extensions provide cross-curricular connections to science, social studies, art, and literature.

Various introductions of each concept are provided, including class discussions and quick, hands-on activities.

The step-by-step method gives teachers helpful demonstrations to model each hands-on activity.