

Measurement Activities

Standards:

LM2.3A Demonstrate awareness of measurement attributes (length, volume, weight, area, time and temperature.)

LM2.3.B Demonstrate awareness of seriation through comparison attributes (length, size, weight,) in everyday situations.

LCM2.3C Use standard and nonstandard measurement in everyday situations.

Activity 1: “Find Something That Is Longer Than, Shorter Than, the Same Length As”

Give students an object. Have them find objects outside that are longer than the object. You may also have them find objects that are shorter than the original or the same length. (Be very specific about lining up the objects.)

Activity 2: “Measuring with Adding Machine Tape”

- A. Give students a piece of adding machine tape. Have them wrap it around a tree, or line it up beside a plant, depending on what you have done previously.
- B. Have the students cut their tape to show the length.
- C. Students will then line up their tapes shortest to longest.
- D. Students will then express what they found. For example: “My tree is bigger around than John’s tree. My plant is shorter than the tree is around.”

Activity 3: “How Many Inchworms Long?”

- A. Students will find a stick, leaf, etc.
- B. Students will use pine cones, stones, leaves to line up along their first item.
- C. Students will count the number of cones, stones, leaves, etc. long their item is.
- D. Students will write the number on their tape.
- E. Students will tell who has the longest, shortest, the same.
- F. Students will repeat using the inchworms.
- G. Students will measure their item with the inchworm rulers.

Activity 4: “Mother May I”

- A. Have the students line up side by side.
- B. Play “Mother May I” having the children take baby steps or giant steps.
- C. Discuss with the children which steps they would rather take and why.

3 Steps to Measure an Object

1. Decide on the attribute to be measured.
2. Select a unit that has that attribute.
3. Compare the units by filling, covering, matching, or some other method, with the attribute of the object being measured.

A General Plan for Instruction

Conceptual Knowledge to Develop

Type of Activity to Use

1. Understand the attribute being measured.
2. Understanding how filling, covering, matching, or making other comparisons of an attribute with units produces what is called a measure.
3. Understand the way measuring instruments work.

1. Make comparisons based on the attribute.
2. Use physical models of measuring units to fill, cover, match, or make the desired comparison of attribute with the unit.
3. Make measuring instruments and use them along with actual unit models to compare how each works.

Reasons for Using Informal (Nonstandard Units)

1. Informal units make it easier to focus directly on the attribute being measured.
2. By selecting units carefully, the size of the numbers in early measurements can be kept reasonable.
3. Informal units can be fun!

Standards Units

Knowledge of standard units is a valid objective of measurement program and must be addressed.

Measurement Activity Sequence

- Comparisons:** Direct -----→ Indirect measures
- Use of Units:** Nonstandard -----→ Standard Units
- Use of Instruments:** Nonstandard -----→ Standard Units
- Student-made-----→ Conventional