

### Supplies

Scissors, string, markers, index cards cut in smaller pieces, and masking tape for labeling the strings used for measuring.

### The Activity

The student will choose 5 or 10 objects in the room to be measured. They will measure the object with the string, making sure the end of the string is lined up with the top of the object before cutting it. Student or instructor will make a label for the string and attach it.

### Variations

- The student can compare the sizes of the objects by ordering them from tallest to shortest, or from shortest to longest.

### Focus:

Encourage the student to focus their attention on the task at hand. Allow the student to get acquainted with the supplies by touching, holding, and talking about them. Then explain what you will do. Formulate a plan with the student.

**Questions:** What is the plan? What do you need to do first? Next? Do you know what “height” means? “Length”?

### Act:

The student will pick a sheet to be covered and lay out the tiles.

**Questions:** How many rows do you have? How many columns? How many tiles in total? Can you completely cover this round sheet with the square tiles? How come?

### Reflect:

During and after the activity, reflect on what the student is doing/has done.

**Questions:** What did you do? What did you find out about the objects you measured? If something is shorter than something else, can it at the same time be taller than something else? How come?

### Math Observation Checklist:

This activity will give insight into the student’s understanding of size, conservation, systematic exploration, attending to more than one piece of information, attending to relevant information, and inhibition of impulsivity.

### Supplies

Blocks for building towers (or interlocking cubes), cardboard cylinders from toilet tissue rolls, paper-towel rolls, string, yardstick or ruler for measuring.

### The Activity

The student will build differently sized towers from blocks or interlocking cubes and will compare them as to which one is tall, taller, tallest. The instructor can then help measure the towers with the ruler or yardstick and write down the numbers so the student can see which numbers are higher.

### Variations

- The student can compare and measure cardboard cylinders and discuss the words “short” and “shorter.”
- The student can measure different objects in the room, such as pencils, toys, cabinets, and discuss their comparative height or length.

### Focus:

Encourage the student to focus their attention on the task at hand. Allow the student to get acquainted with the supplies by touching, holding, and talking about them. Then explain what you will do. Formulate a plan with the student.

**Questions:** What is the plan? What do you need to do first? Next? Do you know what “height” means? “Length”?

### Act:

The student will build towers and measure and compare them.

**Questions:** Which one is the tallest? The shortest? What makes you say that? What can you do to find out? What can you do to make this tower taller? Shorter? Who is the tallest in your family? Who is the shortest? Why do you think that is? How many blocks are in this tall tower? How many in the short one?

### Reflect:

During and after the activity reflect on what the student is doing/has done.

**Questions:** What did you do? What did you find out about these towers? If you are shorter than somebody, can you also be taller than somebody else? How come?

### Math Observation Checklist:

This activity will give insight into the student’s understanding of size, conservation, systematic exploration, attending to more than one piece of information, attending to relevant information, and inhibition of impulsivity.

## Supplies

Yard stick, tape measure, or ruler. Paper and markers.

## The Activity

The student will choose 5 or 10 objects in the room to be measured. Then they will estimate/guess how many inches the object is and record that on a sheet of paper. Next they will measure the object with the ruler, tape measure or yardstick and record the actual size, rounded off to the nearest inch.

## Variations

- The student can make a greeting card from the measured item. After calculating the perimeter, the student can measure a piece of colored yarn to fit around the card and glue it on as a border.

## Focus:

Encourage the student to focus their attention on the task at hand. Allow the student to get acquainted with the supplies by touching, holding, and talking about them. Then explain what you will do. Formulate a plan with the student.

**Questions:** What is the plan? What will we do first? Next?

## Act:

The student will estimate and measure the objects, and record their findings.

**Questions:** Which one is the tallest? The shortest? Can everything be measured with a tape measure? How come? What could you not measure with a tape measure? What measuring unit would you need to use?

## Reflect:

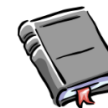
During and after the activity reflect on what the student is doing/has done.

**Questions:** What did you do? What did you find out about the objects you measured? How close were your guesses?

## Math Observation Checklist:

This activity will give insight into the student's understanding of size, sequencing, position, attending to more than one piece of information, and attending to relevant information.

| Item   | Guess | Actual Size |
|--------|-------|-------------|
| Book   | 8"    | 10"         |
| Marker | 7"    | 6"          |



## Footnote

<sup>1</sup> A bar graph is a graphic means of comparing the amount of something by using rectangles with lengths proportional to the amount of the groups or categories being compared. The do2learn.com website has graph paper you may download for this exercise.