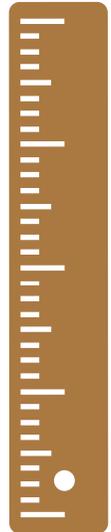


Measuring Units

Goal: Measure with objects that are about the same size as a centimeter, an inch, and a foot.

You will need:

- A Measuring Chart
- One #2 pencil
- One quarter
- 12 standard paperclips attached in a chain
- A standard ruler with inch and centimeter measurements



How to play:

- Compare the width of a pencil, the diameter of a quarter, and the length of the paperclip chain to a ruler.
- Notice that a pencil is about 1 centimeter wide, a quarter is about 1 inch wide, and twelve standard paperclips linked in a chain are about a foot or 12 inches long.
- Pick six different items and measure them three times (with the width of the #2 pencil, with the width of a quarter, and the chain of 12 paperclips).
- Record how many of the following measurements you need to measure the chosen objects:
 - The width of the pencil (centimeters)
 - The diameter of a quarter (inches)
 - The length of the paperclip chain (feet)

To think about:

- How could you use a pencil, quarter, and chain of paperclips to make a ruler with inches and centimeter markings?
- How does an inch/centimeter ruler made with the pencil, quarter, and paperclips compare to a standard ruler?
- Chose two objects you measured with the pencil, quarter, and paperclips. Measure them with a ruler. How close are the results?
- Select six new items you'd like to measure. Estimate how long each will be, then measure. Compare your estimates with the actual lengths. How close were you?



Measuring Chart

Name of the Object	How many pencil widths does it take to measure the object?	How many diameters of a quarter does it take to measure the object?	How many paperclip chains does it take to measure the object?