

Secret Scales

ACTIVITY ONE

You need: a random selection of items from around the room, a classmate

Jason chooses five random items from his desk. He then puts them in order from least to greatest, choosing a measure from this list:

- mass surface area length volume circumference

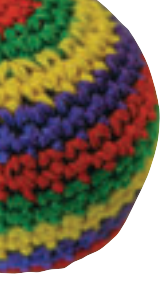
Chen tries to work out which of these measures Jason has used.

OK, what measure am I using?

Not mass ... the pencil is lighter than the notebook. And it's definitely not surface area. It must be length. Centimetres would be the best unit.



1. Collect five or six random items. Put them in order, secretly using one of the measures from the list above. Ask your classmate to work out which measure you have used and to name a suitable unit for this measure.
2. Swap roles. Your classmate chooses a different measure from the list and orders the items, and you work out which measure it is.



ACTIVITY TWO

1.
 - a. Working with your classmate, make a list of some different measures and collect several more random items.
 - b. Choose five items from your collection and put them in order using a measure from your list. Get your classmate to work out what the measure is.
 - c. Swap roles and repeat the activity. Do this two or three times.

2.
 - a. For each measure on your list, make up a scale that goes from least to greatest. For example:
 - b. Decide where each of your items belongs on each of your scales. If the scales don't work very well, try to improve them.

3. Write a list of all the measures that you know and the units that we use to describe them accurately.

Some ideas to get you started:

- thickness
- shininess
- softness
- colour (light to dark)
- smoothness.



Softness		
Scale	Descriptor	Item
1	squishy	
2	spongy	
3	bouncy	
4	firm	
5	hard	

We can measure time in seconds, minutes, hours, days, weeks, months, years, decades, centuries ...

We can measure the size of an earthquake, using the Richter scale.

