

Mad measuring

The area we are measuring is called _____

Positional language

It is:

near _____

behind _____

opposite _____

next to _____

in the _____

Measuring using standard units

We estimate that the area is _____ metres long

Using the 30cm ruler it is _____ cm long

Using the metre rule it is _____ metres long

Using the trundle wheel it is _____ metres long

Using the measuring tape it is _____ metres long

Measuring using non-standard units

Our non-standard unit is called a _____

We estimate that the area measures _____ s long

Our area actually measures _____ s long

A person's arm span compared to their height is:

longer shorter about the same

About our investigations

Compared to a metre our non-standard unit is:

longer by a distance of _____

shorter by a distance of _____

Mark these in order of accuracy, where 1 = most accurate and 4 = least accurate:

the 30 cm ruler _____ the metre rule _____

the trundle wheel _____ the measuring tape _____



School grounds focus:

- Where are we now?
- Where do we want to be?
- How can we get there?
- Making the changes
- Using your grounds

Curriculum focus:

- Maths / numeracy – shape
- Geography / environmental studies – surveying skills

Purpose of this activity:

- To practise using and applying measurements.
- Recognising the need for standard units of measurement.
- Making sensible estimates in everyday situations.
- Understanding accuracy.

Equipment / materials needed:

- Copies of this worksheet, if you are using it.
- Plan of the area to be measured, if possible printed or hand drawn.
- Pencils, pens etc.
- 30cm rulers, metre rules, trundle wheels, measuring tapes (ideally 30m long).
- Camera to record your investigations.

Preparation:

- Discuss how people measured distances and weights in the past, i.e.
 - Why were standard measures introduced?
 - Why did the UK change from imperial to metric?
- How do we choose the right measuring equipment?

What to do:

- Find an area of the school grounds that can be measured. A decent length of the playground or boundary is ideal.
- You can do this activity as a whole class exercise, or pool the equipment and get children to work in groups of three or four – one to record, one to observe and one or two to use the measuring equipment.
- Outdoors, ask the children to organise themselves into a *straight* line so that the *tallest* child is on the *left* and the *shortest* child is on the *right*. The child in the *middle* of the line can be described as being of *average* height and is therefore your 'non-standard' unit of measurement, i.e. a *Rachael* (or R) is your unit.
- If the weather is fine, measure in *Rachael*s using children lying down top to toe along your measuring area. If it's not possible, line the *Rachael*s up with their arms outstretched, fingertip to fingertip.
- Measure using the various types of standard equipment before moving onto *Rachael*s.
- Discuss which was the most appropriate unit of measurement for this distance.

© This resource was originally created as part of the Schoolgrounds-UK membership scheme from the national school grounds charity

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