



MATH&MOVE

PRACTICE SHEET

Units of measurement



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TOPIC: Units of measurement
(length in centimetres)

DURATION: 30 mins

LEVEL: 2 (ages 8-9)

PARTICIPANTS: Entire class, divided into two groups

Note: For older pupils, this activity can be carried out in pairs (2 pupils working together with the rest of the class observing)

Required material for this activity

- 1** 1 empty space is needed for the pupils to move around and retrieve objects
 - 1 part of the classroom that should be empty so that pupils can move around and measure their movements
 - 1 part of the classroom is occupied by objects that need to be measured.
- 2** Various objects placed in the learning area for children to measure
 - These could include anything that you already have in your classroom, but you must calculate each object's length in cm beforehand and write it down on the board. For the lengths, try to round to a number that ends in 0 or 5 to simplify the calculations for pupils.
 - Your chosen objects can be a pencil, a notebook, a backpack, a carpet, a drawing board, a desk, etc.
- 3** A ruler for measuring the length of the objects
 - This can either be a regular 30cm ruler or you can make a custom ruler out of paper that is long enough to measure the entire length of the longest object

INSTRUCTION AND DESCRIPTION OF THE ACTIVITY

Instruction

Learn the concept of the length of objects using only parts of your body. Did you know that you can use your hands, legs and arms to identify how long an object is in centimetres? Test this out using everyday objects in your class and then check your answers with a ruler.



Activity

1

Observe the learning area and notice the objects placed on the ground as well as the numbers written on the board:

Hand span = 15cm (calculated as the distance from the tip of your thumb to the tip of your pinky)

Foot span = 20cm (calculated as the distance from the tip of your toe to the heel of your foot)

Cubit = 35cm (calculated as the length from the elbow to the end of the fingers)

This means that parts of your body can be used to measure items, instead of using only a ruler.



2

Objects placed in the classroom such as a pencil, a notebook, a backpack, a carpet, a drawing board, and a desk, will be the items for measuring. Choose an object from the ones arranged on the floor and measure them with the help of either your hand span, foot span or cubit.

2

2

After this, circle one of the cm lengths already written on the board, which represent the correct lengths of the items in cm (15cm, 30cm, 25cm, 20cm, 50cm...). Remember that smaller subjects should use smaller measurements, for example hand spans instead of cubits are better for measuring a book.



3

Form a line and approach each object, one by one, and choose which one you'd like to measure. After determining the length of the object with your body parts (a backpack may be equal to 3 foot spans, for example), calculate how much 3 foot spans is in centimetres (3×20 , or $20+20+20$). Once you have decided on a length, look for it on the board and circle it.



FINAL STEP



When all pupils have circled a number on the board that they think represents the length of the object in cm, the teacher will then use a ruler to confirm if the guesses were correct. Discuss with your class:

- Were your estimations close to the actual length listed on the board?
- Did working your body parts as measuring tools help you understand how a certain length looks in practice?



Activity