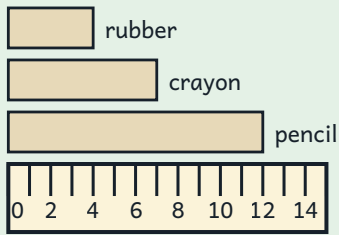


ESTIMATE THEN MEASURE A CLASSROOM CRAYON

- Look at the crayon and count imaginary fingernail-widths along it. Settle on an estimate of about 8 cm.
- Only now place the ruler so the 0 cm mark lines up with one end of the crayon.
- Read the centimetre mark at the other end: the crayon measures 7 cm.
- Compare: estimate 8 cm, real length 7 cm. One centimetre off is a fine estimate.

WARM-UP

Read each object length from the centimetre ruler picture.



cm (read where each bar ends)

- Read the length of the rubber
- Read the length of the crayon
- Read the length of the pencil

PRACTICE

- Take out your own rubber. Is it about 2 cm, 5 cm or 20 cm long? Write your estimate, then measure it with your ruler.
- Take out a crayon. Count fingernail-widths in your head for a centimetre estimate, then measure it with your ruler.
- Take out your glue stick. Make a silent estimate in centimetres, then measure it with your ruler.
- Take out your pencil. Estimate its length in centimetres, measure it, then work out how many centimetres apart your estimate and the real length are.
- Take your maths copy. Estimate how long its short side is in centimetres, then measure it with your ruler.

? ALWAYS, SOMETIMES, NEVER

Always, sometimes or never true? Write A, S or N.

- An estimate of length in centimetres is made before the ruler touches the object. ☐
- Counting fingernail-widths along an object gives a useful centimetre estimate. ☐
- You measure the object first and estimate its length afterwards. ☐
- A careful centimetre estimate ends up exactly the same as the measured length. ☐