

Y5 Measuring Repeat Readings

KS2 Y5 Science · Follows the national curriculum

Name _____ Class _____ Date _____

1. Worked example

Choose the right equipment.

Step 1 · Length of a leaf

Ruler — in mm or cm

Step 2 · Volume of water

Measuring cylinder or jug — in ml

Step 3 · Temperature

Thermometer or data logger — in °C

Step 4 · Time, force, mass

Stopwatch (s), forcemeter (N), scales (g or kg)

Answer: Match the instrument to what you measure, and always write the unit.

Check: A number without a unit ('it was 12') means nothing to a reader.

2. Now try one with the steps

How do you read a scale accurately?

Step 1 · Work out what each small mark is worth

Step 2 · Get your eye level with the reading

Step 3 · For water, read the bottom of the curve

Answer:

3. Practice

Have a go at each one. There is space underneath to work it out.

1. What instrument measures temperature?

2. What instrument measures force?

3. What unit is used for volume of a liquid in a measuring cylinder?

4. A scale goes from 0 to 10 with 5 equal gaps. What is each gap worth?

5. Where should your eye be when reading a measuring cylinder?

6. What is a repeat reading?

7. What is an anomaly?

8. Name ONE reason a stopwatch reading might be wrong.

9. Readings are 31 cm, 30 cm and 12 cm. Which is the anomaly in cm?

10. Find the average of 8, 10 and 12 seconds.

11. Find the average of 40, 44 and 42 cm.

12. A ruler is marked in mm. Is it more precise to measure a leaf as '6 cm' or '62 mm'?

13. Why is it better to time how long a parachute takes to fall from 3 m than from 30 cm?

14. Three readings are 5.1 s, 5.3 s and 5.2 s. Are they consistent? Explain.

4. Before you hand it in

Writing just a number, like '45'.

Always write the unit: 45 cm.

Reading a measuring cylinder from above.

Crouch so your eye is level with the liquid, and read the bottom of the curve.

Ignoring an odd result, or including it without checking.

Check it, repeat the test, and say what you did with it.

Assuming each small mark is worth 1.

Count the gaps between two numbers and divide.