

Y3 Working Scientifically

KS2 Science · Follows the national curriculum

Name _____ Class _____ Date _____

1. Worked example

Plan a fair test: does the height of a ramp change how far a toy car rolls?

Step 1 · What ONE thing will you change?

The height of the ramp (for example 1, 2, 3 and 4 books high)

Step 2 · What will you keep the same?

The car, the surface, the start line, letting go without pushing

Step 3 · What will you measure, and with what?

How far the car rolls, in cm, with a tape measure

Step 4 · How will you record it?

A table: Ramp height (books) | Distance (cm)

Answer: Change the ramp height only; keep the car, surface and start the same; measure distance in cm; record in a table.

Check: One change, everything else the same, one thing measured.

2. Now try one with the steps

Which units would you use? (a) a plant's height (b) water in a jug (c) how long ice takes to melt

Step 1 · (a) Height is a length

Step 2 · (b) Water is a volume

Step 3 · (c) Time

Answer:

3. Practice

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

1. In a fair test, how many things do you change?

2. What is a prediction?

3. Which unit would you use to measure the length of a worm?

4. Which unit would you use to measure how much water is in a cup?

5. What equipment measures temperature?

6. Why do we put results in a table?

7. Results: Towel A 35 ml, Towel B 60 ml, Towel C 20 ml, Towel D 45 ml. Which towel soaked up the least?

8. Using the same results, how much more did Towel D soak up than Towel A?

9. Ollie tests which ball bounces highest. He drops the tennis ball from 1 m and the football from 2 m. Is it fair? Why?

10. A thermometer reads 18 °C in the morning and 23 °C in the afternoon. How many degrees warmer is the afternoon?

11. What is a key used for in science?

12. Why is it a good idea to repeat a test?

13. Aria's results: a car rolled 50 cm, 52 cm and 90 cm. Which result looks odd, and what should she do?

14. Write one way you could improve a test where you only tested each towel once.

4. Before you hand it in

Changing two things at once.

Change ONE thing and keep everything else the same.

Writing numbers without units, like 'the plant was 12'.

Always add the unit: 12 cm.

A wrong prediction means you failed.

Say what really happened and what you have learned from it.

A conclusion that just says 'it worked'.

Answer the question and use numbers from your results.