Y6 Conclusions Evidence

KS2 Y6 Science · Follows the national curriculum

Name _____ Class _____ Date _____

1. Worked example

Write a conclusion: torch 10 cm away, shadow 50 cm; 20 cm, 25 cm; 40 cm, 12.5 cm.

Step 1 · Describe the pattern with 'the more… the…'

The further the torch is from the toy, the smaller the shadow

Step 2 · Use numbers from the data

Moving the torch from 10 cm to 20 cm halved the shadow from 50 cm to 25 cm

Step 3 · Explain it with science

Light travels in straight lines; closer to the torch, the toy blocks a wider spread of light

Answer: The further the torch from the toy, the smaller the shadow, because a toy near the torch blocks more of the spreading light.

Check: A conclusion has three parts: the pattern, data to back it up, and a scientific reason.

2. Now try one with the steps

Use results to make a prediction for a further test.

Step 1 · Look at the pattern

Step 2 · Predict a new value

Step 3 · Plan a further test

Answer:

3. Practice

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

1. What is a conclusion?

2. Complete the pattern sentence: 'The ___ cells, the ___ the bulb.'

3. What does 'refute' mean?

4. Give one thing that increases your trust in results.

5. What is a causal relationship?

6. Shadow results: torch 10 cm, shadow 50 cm; 20 cm, 25 cm. Predict the shadow height in cm at 40 cm.

7. Why should a conclusion include numbers from the results?

8. Redi covered jars of meat so flies couldn't reach it, and no maggots appeared. Does this support or refute the idea that maggots come from meat by themselves?

9. A result does not match your prediction. Does that mean the investigation failed?

10. Why is evidence from one person less trustworthy than evidence from 30 people?

11. Mould: fridge 2 spots, kitchen 9, warm cupboard 15. Write a pattern sentence.

12. Suggest a further test after finding that warm bread grows more mould.

13. Fossils of sea creatures are found high on mountains. Does this support or refute the idea that the Earth's surface has changed over time?

14. Why do scientists share their methods results?

4. Before you hand it in

Writing a conclusion that just repeats the results, e.g. '2 cells was 150 lux'.
Use 'The more…, the…', quote data, and add a scientific reason.

Thinking a prediction that turned out wrong means you 'failed'.
Say what you found, explain it, and plan a further test.

Saying results are 'reliable' with no reason.
Say WHY: 'I trust them because the three repeats were within 2 bpm.'

Thinking one piece of evidence proves an idea forever.
Say evidence 'supports' an idea; keep testing.