

Y3 What Plants Need

KS2 Science · Follows the national curriculum

Name _____ Class _____ Date _____

1. Worked example

Name the things most plants need to live and grow.

Step 1 · What does a plant use to make its own food?

Light, air and water

Step 2 · What does it take in through its roots besides water?

Nutrients (minerals) from the soil

Step 3 · What else must be just right?

Warmth and room to grow

Answer: Light, water, air, nutrients from the soil, warmth and room to grow.

Check: Most plants also need soil to hold their roots, but some (like water lilies) grow without it.

2. Now try one with the steps

Aisha wants to find out if cress needs light. Plan a fair test.

Step 1 · What ONE thing will she change?

Step 2 · What must stay the same?

Step 3 · What will she measure, and how?

Step 4 · How will she record it?

Answer:

3. Practice

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

1. Name ONE thing a plant needs to grow.

2. Which part of a plant takes in water from the soil?

3. What happens to a plant's leaves if it gets no water?

4. A plant is left in a dark cupboard for two weeks. What colour do its leaves turn?

5. Do plants get their food from the soil?

6. Which plant needs very little water: a cactus or a fern?

7. Why does a fern grow well on a shady woodland floor?

8. In a fair test, how many things should you change?

9. Sam's bean plant was 6 cm tall. A week later it was 10 cm tall. How many centimetres did it grow?

10. Mei tests whether plants need water. She waters Plant A but not Plant B. She puts Plant A on a windowsill and Plant B in a cupboard. Is this a fair test? Why?

11. What unit would you use to measure the height of a cress seedling?

12. Results table: Day 2: 1 cm, Day 4: 3 cm, Day 6: 5 cm, Day 8: 7 cm. If the pattern carries on, how tall will the plant be on Day 10?

13. Why does a cactus have a thick stem and spines instead of big, flat leaves?

14. Write a conclusion for this result: the plant kept at room temperature grew 12 cm; the plant kept in a fridge grew 2 cm.

4. Before you hand it in

Plants eat food from the soil, just like we eat our dinner.

Plants make their own food in their leaves, using light, air and water.

A plant in the dark grew taller, so the dark is better for plants.

Look at the whole plant: colour, strength and leaves, not just height.

Changing the water AND the light in the same test.

Change only ONE thing. Keep everything else the same.

All plants need the same amount of water and sunshine.

Plants' needs vary. Read the label on a plant pot to find out what it needs.