

Y6 Inheritance Variation

KS2 Y6 Science · Follows the national curriculum

Name _____ Class _____ Date _____

1. Worked example

Why are brothers and sisters similar, but not identical?

Step 1 · Where do their characteristics come from?

A mix from both parents

Step 2 · Is the mix the same each time?

No. Each child gets a different combination

Step 3 · Anything else?

Their experiences and surroundings differ too

Answer: Each child inherits a different mix of characteristics from the same two parents, so they vary.

Check: Identical twins start with the same inherited mix, but still differ a little because of their environment.

2. Now try one with the steps

Do living things produce offspring of the same kind?

Step 1 · What do cats have?

Step 2 · What grows from an acorn?

Step 3 · But are the offspring identical to the parents?

Answer:

3. Practice

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

1. What does 'inherit' mean?

2. What are offspring?

3. What is variation?

4. Is natural eye colour inherited or environmental?

5. Is a scar inherited or environmental?

6. Will a cat ever give birth to a puppy?

7. Name a characteristic affected by BOTH inheritance and environment.

8. How many parents do humans inherit characteristics from?

9. Why aren't puppies from the same litter identical?

10. Why are identical twins not completely identical?

11. A plant grown from a cutting has only one parent. Will it be identical to its parent?

12. Is the ability to play the piano inherited?

13. What is selective breeding?

14. Why is variation important for a species to survive changes in its environment?

4. Before you hand it in

Thinking children are a 'half and half' blend that looks exactly between the parents.

Say offspring inherit a MIX of characteristics, different for each child.

Thinking everything about you is inherited.

Sort characteristics into inherited, environmental, or both.

Thinking features an animal gains in its lifetime are passed on.

Only inherited characteristics are passed to offspring.

Thinking offspring can be a different kind of living thing.

Same kind, but varied: not identical.