Year 7 Science: Survival adaptations: how living things fit their environment

Name: _____ Date: _____

Try these without your notes first, then check the answer key.

Practice

1. Is a kiwi's long beak a structural, behavioural or physiological adaptation?

2. Hedgehogs roll into a ball of spines when threatened. Is this adaptation for getting resources, avoiding hazards or reproducing?

3. A white rabbit lives on a snowy hillside. The snow melts and leaves brown grass and rock. What happens to its chances of survival, and why?

4. In a camouflage hunt, 10 of 25 brown beads survived on a lawn. What percentage survived?

5. A student says that because a bodybuilder lifts weights, their baby will be born strong. Whose idea is this, and why is it wrong?

Fix the mistake

6. Correct this statement: "An animal grows an adaptation because it needs it."

7. Correct this statement: "An adaptation means the animal will always survive."

8. Correct this statement: "Penguins huddling is a structural adaptation."

9. Correct this statement: "A good adaptation works in any environment."

Answer key (for parents and tutors)

1. Is a kiwi's long beak a structural, behavioural or physiological adaptation?
   Structural, because it is a body feature.
2. Hedgehogs roll into a ball of spines when threatened. Is this adaptation for getting resources, avoiding hazards or reproducing?
   Avoiding hazards.
3. A white rabbit lives on a snowy hillside. The snow melts and leaves brown grass and rock. What happens to its chances of survival, and why?
   Its chances fall, because it now stands out against the brown background and predators spot it more easily.
4. In a camouflage hunt, 10 of 25 brown beads survived on a lawn. What percentage survived?
   10 ÷ 25 × 100 = 40%.
5. A student says that because a bodybuilder lifts weights, their baby will be born strong. Whose idea is this, and why is it wrong?
   Lamarck's idea that acquired traits are inherited; muscles built during a lifetime are not passed on to children.
6. Correct this statement: "An animal grows an adaptation because it needs it."
   Adaptations are inherited traits; individuals that already have a useful trait survive and pass it on.
7. Correct this statement: "An adaptation means the animal will always survive."
   An adaptation only improves the chances of surviving and reproducing; it is never a guarantee.
8. Correct this statement: "Penguins huddling is a structural adaptation."
   Huddling is something penguins do, so it is behavioural; structural means a body feature.
9. Correct this statement: "A good adaptation works in any environment."
   How well an adaptation works depends on the conditions, as camouflage shows on different backgrounds.