

Sustainable Futures: Protecting Our Planet

Learning objective: To understand the concept of sustainability and evaluate how human activity impacts the Earth's natural resources.

Read each question carefully. Use your geographical knowledge to provide thoughtful, well-reasoned answers. Refer to the word bank if you need help with key terminology.

Sustainability is the practice of using natural resources in a way that ensures they are available for future generations. This involves balancing our current needs without exhausting the planet's finite materials. Finn the dolphin has noticed changes in the ocean's health due to plastic pollution and overfishing, while Nova the owl is concerned about how our energy choices affect the habitats she observes from the sky. To be sustainable, we must consider the environmental, social, and economic impacts of everything we do, from the food we buy to the energy we use to heat our homes.

Word bank: Sustainability · Renewable · Finite · Carbon footprint · Conservation · Biodiversity · Eco-friendly · Resource depletion

1. Define the term 'sustainability' in your own words. Why is it important for human beings to consider future generations when using natural resources? (2 marks)

2. Compare and contrast 'renewable' and 'finite' resources. Provide one example of each and explain how our usage patterns differ for these two types of resources. (3 marks)

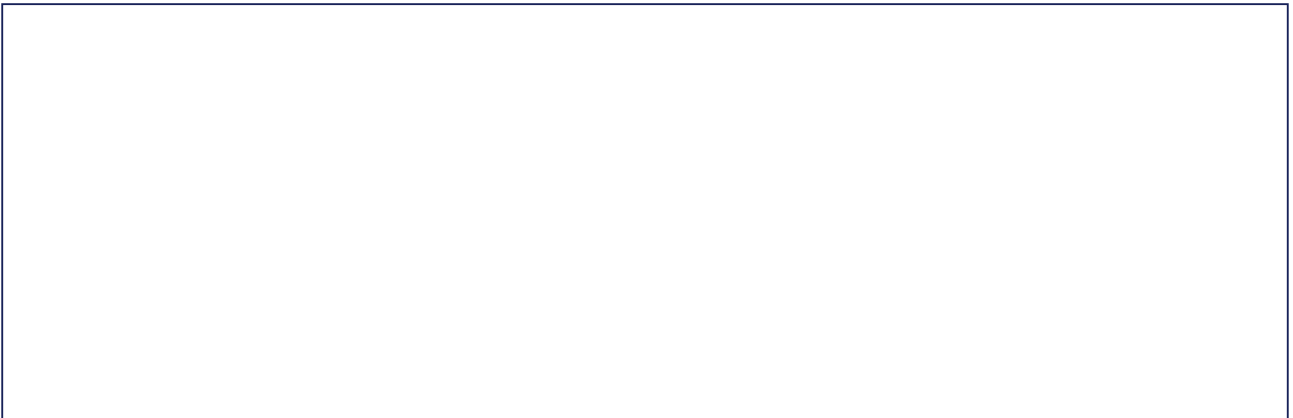
3. Max is planning to buy a new bicycle. If the bicycle is manufactured using recycled metal and locally sourced parts, justify why this is a more sustainable choice than buying a bike imported from across the world. (3 marks)

4. Explain why the loss of biodiversity poses a threat to the global ecosystem. How might a decline in one species affect the sustainability of the entire food chain? (3 marks)

5. Imagine a local shop sells two types of apples: one grown in a nearby orchard and one flown in from a country 5,000 miles away. Which one has a smaller carbon footprint and why? (2 marks)

6. What might happen if a community continues to use water from a local river at a faster rate than the rainfall can replenish it? Describe the potential long-term consequences for the local environment. (3 marks)

Draw: Draw a 'Sustainable City of the Future'. Include at least three features that help the city run in an eco-friendly way, such as solar panels, green roofs, or public transport systems.



Extension challenge: Design a 'Sustainability Audit' for your school. Create a list of five questions you could ask your headteacher to determine if your school is operating sustainably. For each question, explain what the school could do to improve its score.