

Seasonal Food and Sustainable Design: Year 5 Assessment

Learning objective: To evaluate understanding of seasonal food production, the environmental impact of food miles, and the application of design principles in creating sustainable snack menus.

Read each question carefully. Use your knowledge of food provenance, sustainability, and design technology to provide detailed answers. Ensure your answers reflect British seasonal produce where possible.

Max the monkey has been analysing the grocery shop in the local village. He noticed that in December, some shops were selling strawberries flown in from the other side of the world, while local apples and root vegetables were being overlooked. Max wants to design a 'Seasonal Snack Club' for his friends. He needs to consider not just the taste of the ingredients, but the energy required to grow, transport, and package these items. Understanding the cycle of the seasons is essential for reducing our impact on the planet.

Word bank: Sustainability · Food miles · Provenance · Harvest · Carbon footprint · Nutritional value · Preservation · Seasonality

1. Define the term 'food miles' and explain why reducing them is beneficial for the environment. (2 marks)

2. Max wants to use apples in his winter snack menu. Explain why apples are a suitable choice for a UK-based seasonal menu in late autumn and winter. (2 marks)

3. Compare and contrast the environmental impact of buying a tomato grown in a heated greenhouse in the UK in February versus one grown outdoors in the UK in August. (3 marks)

4. Justify why it is important for a designer to consider the 'shelf life' and storage requirements of ingredients when planning a school lunch menu. (3 marks)

5. What might happen if all consumers insisted on buying out-of-season produce all year round? Discuss the implications for global farming practices. (4 marks)

6. Design a snack that uses at least two ingredients currently in season in the UK (e.g., autumn/winter). Explain how your design prioritises sustainability and nutritional balance. (6 marks)

7. Explain why food preservation techniques, such as pickling or drying, were historically necessary before modern refrigeration existed. (5 marks)

Draw: Draw a labelled diagram of your proposed 'Seasonal Snack' dish. Include annotations that highlight the origin of each ingredient and explain why the packaging you have chosen is eco-friendly.



Extension challenge: Total: /25. Extension Task: Write a short persuasive speech for your classmates explaining why eating seasonally is a 'superpower' for the planet. Use at least four words from the word bank in your argument.