

Seasonal Food Explorers: A Design and Technology Challenge

Learning objective: To understand the importance of seasonal food, identify UK-grown produce, and evaluate how seasonality influences healthy, sustainable meal design.

Read each flashcard carefully to test your knowledge about seasonal eating. Use the information to help you design a sustainable menu.

What does the term 'seasonal food' mean in the context of agriculture?

Seasonal food refers to produce that is grown, harvested, and eaten during its natural growing cycle in a specific climate.

Why does Bea the honeybee suggest eating seasonal food to help the environment?

Eating seasonally reduces 'food miles' because produce does not need to be transported long distances, which lowers the carbon footprint of our meals.

Explain why strawberries grown in the UK are often sweeter in June than in January.

Strawberries grown in the UK during June benefit from natural sunlight and warmth, allowing them to ripen perfectly, whereas winter strawberries often require energy-intensive heated greenhouses.

What is one disadvantage of relying on imported food throughout the year?

Imported food often requires long-distance travel by ship or plane, which can lead to produce losing its freshness and quality, as well as higher environmental costs.

If you were designing a meal for late autumn, which root vegetables might you choose?

Carrots, parsnips, swedes, and beetroot are typically harvested in the UK during autumn and early winter.

Justify why a chef might choose to create a menu based on the current season rather than a fixed menu all year round.

A seasonal menu ensures the ingredients are at their peak nutritional value, have the best flavour, are often more affordable, and support local farming communities.

Compare and contrast: How does a vegetable grown in a local field differ from one grown in a heated greenhouse?

Field-grown vegetables use natural seasonal conditions, whereas greenhouse vegetables use artificial heat and light, which uses more energy and resources.

What might happen if we expected every type of fruit to be available in UK supermarkets every single day of the year?

We would have to rely heavily on global imports, increasing food miles, storage costs, and the use of chemical preservatives to keep food fresh during transit.

Max the monkey wants to calculate the cost of a meal. If a local apple costs 30p and an imported exotic fruit costs £1.20, how much would they cost together?

£1.50.

Explain why some foods are 'preserved' (like jams or pickles) during their harvest season.

Preservation allows us to enjoy seasonal flavours throughout the year by extending the shelf-life of produce that would otherwise perish quickly.

Design a 'Spring Menu' using only ingredients that grow in the UK during that season.

Answers will vary but should include items like asparagus, radishes, spring onions, new potatoes, and rhubarb.

Critically evaluate: Is it always better to buy local, even if the food has to be stored in a freezer for months?

This is an open-ended question; students should consider that freezing uses energy, so they must weigh the benefit of 'local' against the cost of 'energy consumption' for storage.