

Nova's Nutritious Menu Planning Challenge

Learning objective: To identify the five main food groups and understand the importance of a balanced diet for human health.

Nova the Owl is preparing a balanced meal plan for an expedition. Look at the food items provided in the word bank and categorise them into their correct nutritional group (Fruit & Vegetables, Carbohydrates, Proteins, Dairy, or Fats/Sugars). Once you have sorted them, use your knowledge of nutrients to answer the evaluation questions below.

Word bank: Spinach · Brown Rice · Chicken breast · Greek Yoghurt · Olive oil · Lentils · Wholemeal pasta · Blueberries · Cheddar cheese · Avocado

1. Sort the word bank items into their correct nutritional groups. Explain why it is vital for an explorer like Nova to include a variety of carbohydrates in her diet. (3 marks)

2. Compare and contrast the nutritional role of Proteins versus Fats. Why does the human body require both in different quantities? (3 marks)

3. Justify why a diet consisting solely of carbohydrates would be insufficient for a healthy, growing Year 5 student. (3 marks)

4. What might happen to a person's energy levels and physical development if they completely removed Dairy or Calcium-rich alternatives from their daily intake? (2 marks)

5. Design a balanced lunch for a trekker that costs under £5.00. List your items and estimate the cost to ensure it meets the budget. (3 marks)

6. Explain why 'Fruit & Vegetables' are classified as 'protective' foods in a balanced diet. What specific role do they play in maintaining human health? (2 marks)

Draw: Draw a 'Balanced Expedition Plate' for Nova. Use colours to represent the different food groups and label each section with the specific nutrient it provides (e.g., Energy, Growth, Repair, or Protection).



Extension challenge: Research the 'Eatwell Guide'. Create a persuasive poster for your school canteen explaining why a 'rainbow' of colours on a plate is scientifically better for your brain function during maths lessons than a single-coloured meal.