Year 6 Science Assessment: Nutrition and the Human Body

Learning objective: To identify the components of a healthy diet, understand the function of nutrients, and explain how the body uses food for energy and growth.

Read each question carefully. Answer in full sentences where appropriate. Ensure your spelling is accurate and you use the correct scientific terminology.

Nova the owl has been observing the eating habits of different forest animals to learn about nutrition. She notes that some animals need extra energy for flight, while others need specific nutrients for strong bones and healthy fur. Nova knows that humans, just like her animal friends, need a balanced diet containing a variety of nutrients to stay healthy and active.

Word bank: carbohydrates · proteins · lipids · vitamins · minerals · fibre · hydration · balanced diet · energy · growth

1. Name two of the main food groups and explain one function each has within the human body. (2 marks)

2. Why is it important for a human to maintain a balanced diet rather than eating only one type of food? (2 marks)

3. Max the monkey is training for a long climbing challenge. Which food group should he consume more of to ensure he has enough fuel for his muscles, and why? (3 marks)

4. Explain the role of water in the human body. Why is it essential for survival? (3 marks)

5. What are the potential health consequences of a diet that is consistently high in sugar and saturated fats but low in essential vitamins and minerals? (4 marks)

6. Imagine you are planning a healthy school lunch. Design a meal that provides a balance of all necessary nutrients. Explain why each item you have chosen is beneficial for a Year 6 student's growth and energy needs. (5 marks) (5 marks)

7. If a healthy lunch costs £3.50, calculate the total cost for one student to have this lunch every day for a school week (5 days). Show your working. (3 marks)

Draw: Draw a 'Healthy Plate' diagram. Label the sections to show the correct proportions of carbohydrates, proteins, and fruits/vegetables recommended for a balanced meal.

Extension challenge: Total: /25