

Nutrition Explorers: Fuel for Life

Learning objective: To identify that animals, including humans, need the right types and amounts of nutrition, and that they cannot make their own food; they get nutrition from what they eat.

Read each question carefully and use your knowledge of food groups and healthy diets to provide detailed, scientific explanations. Use the word bank to help you construct your answers.

Word bank: nutrients · balanced · carbohydrates · protein · fats · vitamins · minerals · energy · growth · repair

1. Bea the honeybee knows that humans need a balanced diet to stay healthy. List three main food groups and explain the specific role each one plays in keeping our bodies functioning correctly. (3 marks)

2. Max the monkey is planning a big hike. He says he needs extra carbohydrates before he starts. Explain why Max is correct and describe what happens to these nutrients inside his body. (2 marks)

3. Compare and contrast the nutritional needs of a growing child and an adult. Why might a child require different portions of certain food groups compared to a fully grown adult? (3 marks)

4. Nova the owl is observing a forest ecosystem. If an animal only ate one type of food, such as only fruit, what might happen to its health over a long period? Justify your answer. (3 marks)

5. A store sells a fruit snack for £0.85 and a bag of sugary sweets for £0.45. Even though the sweets are cheaper, explain why a nutritious snack is a better investment for your body's long-term health. (2 marks)

Draw: Draw a 'Balanced Plate' for a busy athlete. Include items from all major food groups (carbohydrates, protein, dairy, fruit and vegetables, and a small amount of fats) and label them with their correct nutritional function.



Extension challenge: Design a 3-day meal plan for an explorer. Explain why you chose these specific meals, ensuring they provide enough energy for a day of climbing mountains and enough protein for muscle repair. Use higher-level vocabulary to describe the chemical benefits of your chosen ingredients.