

Nova's Nutrition Knowledge: Fuel for Growth

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.

Use these flashcards to test your knowledge about how living things get their energy. Read the front of the card, then flip it to check the answer provided by Nova the Owl.

What is nutrition?

Nutrition is the process of providing or obtaining the food necessary for health and growth.

Why do humans and other animals need to eat food?

Because they cannot make their own food, they must eat plants or other animals to gain energy and nutrients.

Which nutrients are primarily responsible for providing the body with energy?

Carbohydrates.

What is the main function of proteins in our bodies?

Proteins are essential for the growth and repair of our muscles and tissues.

Why are vitamins and minerals important for a healthy body?

They help the body to function correctly, fight off illnesses, and keep our bones and skin healthy.

What is a 'balanced diet'?

A diet that includes the correct proportions of carbohydrates, proteins, fats, vitamins, and minerals to keep the body healthy.

What might happen to an animal if it does not receive enough nutrients over a long period?

The animal may become weak, struggle to grow properly, or become more susceptible to diseases.

Explain why fats are included in a healthy diet even though we should not eat too many.

Fats provide concentrated energy and help the body absorb certain vitamins, though they should be eaten in moderation.

Compare and contrast: How do plants obtain energy differently from humans?

Plants produce their own food using sunlight through photosynthesis, whereas humans must consume other living things to gain nutrients.

Justify why a professional athlete might need a different diet than someone who is less active.

Athletes require more energy (carbohydrates) to fuel their movement and more protein to repair muscles damaged during intense exercise.

What might happen if a person only ate one type of food group, such as only carbohydrates?

They would lack the necessary proteins for repair and vitamins for health, leading to malnutrition and health issues.

Think like a scientist: If you were designing a meal for optimal health, which food groups would you include and why?

A balanced meal would include protein (e.g., beans or fish), carbohydrates (e.g., brown rice), and vitamins/minerals (e.g., colourful vegetables) to provide a complete source of energy and repair materials.