

Nova's Human Body Investigation

Learning objective: To identify and describe the functions of the human digestive system, including the roles of teeth, the oesophagus, the stomach, and the small intestine.

Read each question carefully and use your knowledge of human biology to provide detailed, scientific answers. Remember to use the word bank to help you construct your responses.

Nova the owl is fascinated by how the human body processes energy! She has been observing how food travels through the digestive system and how different teeth play a vital role in preparing our food for the journey ahead.

Word bank: oesophagus · stomach · incisor · canine · molar · intestine · digestion · saliva · nutrients

1. Nova wants to know about your teeth. Compare and contrast the function of a molar and an incisor. Why are both necessary for the process of digestion? (3 marks)

2. Explain why saliva is an essential part of the digestive process before food even reaches the oesophagus. (2 marks)

3. Describe the journey food takes once it leaves the stomach. What is the primary role of the small intestine in this process? (3 marks)

4. Justify your answer: Why would it be difficult for the human body to function if the small intestine were unable to absorb nutrients? (2 marks)

5. What might happen if the muscles in the oesophagus stopped working properly? Use scientific reasoning to explain your answer. (3 marks)

Draw: Draw a scientific diagram of the human digestive system. Clearly label the mouth, oesophagus, stomach, and small intestine. Add arrows to show the path that a piece of food takes through the system.



Extension challenge: Nova has discovered that different animals have different types of teeth depending on their diet. Research the difference between a herbivore and a carnivore. Write a paragraph explaining how their teeth have adapted to their specific diets, and compare this to the omnivorous nature of humans.