

Nova's Nutritious Digestive Expedition

Learning objective: To identify, describe and explain the functions of the human digestive system.

Join Nova the barn owl on a journey through the human body! Answer these 10 questions to show off your knowledge of how we process food. Good luck, young scientists!

Answer Key: 1. A (Oesophagus), 2. True, 3. Stomach, 4. B (To absorb nutrients), 5. False (it is a long, folded tube), 6. Saliva, 7. C (The large intestine), 8. True, 9. Oesophagus, 10. B (Teeth).

Word bank: Oesophagus · Stomach · Small intestine · Large intestine · Saliva · Nutrients · Digestion · Rectum

1. 1. Which tube carries food from the mouth down to the stomach? A) Oesophagus* B) Windpipe C) Artery D) Vein (1 mark)

2. 2. True or False: Digestion begins the moment you put food in your mouth. (1 mark)

3. 3. Which organ uses strong acids to break down food into a thick liquid? (1 mark)

4. 4. What is the main purpose of the small intestine? A) To store food B) To absorb nutrients into the blood* C) To chew food D) To freeze food (1 mark)

5. 5. True or False: The small intestine is shorter than the large intestine. (1 mark)

6. 6. What is the name of the liquid in your mouth that helps soften food? (1 mark)

7. 7. Which organ absorbs water from the remaining undigested food? A) Stomach B) Liver C) Large intestine* D) Mouth (1 mark)

8. 8. True or False: Waste material is stored in the rectum before leaving the body. (1 mark)

9. 9. Identify the muscular tube that uses rhythmic contractions to push food downwards. (1 mark)

10. 10. What helps perform mechanical digestion in the mouth? A) The tongue B) Teeth* C) The cheeks D) The lips (1 mark)

Draw: Draw a labelled diagram of the human digestive system. Include the mouth, _____ oesophagus, stomach, small intestine, and large intestine. Colour-code each organ to show where digestion is mechanical versus chemical.



Extension challenge: Greater Depth Challenges: 1. Explain why it is important that the small intestine has a very large surface area. 2. Compare and contrast the functions of the small and large intestines. 3. Justify your answer: Why do you think the stomach needs such a strong, acidic environment? 4. What might happen if the oesophagus stopped performing rhythmic muscle contractions? 5. Design an experiment to show how surface area affects the rate at which food dissolves. 6. Propose a theory explaining why human teeth are shaped differently (incisors vs molars) based on their role in the digestive process.