

Nova's Dental Discovery: Teeth and Digestion

Learning objective: To identify the different types of human teeth and describe their functions in the digestive system.

Read each question carefully and use your knowledge of human anatomy to provide detailed, scientific explanations. Remember to use the vocabulary provided to support your answers.

Nova the owl has been observing how different animals eat their food. She noticed that humans have a variety of teeth shapes to help them eat a wide range of food, from crunchy apples to tough vegetables. Using your knowledge of the human mouth, answer the following questions to help Nova understand why our teeth are perfectly adapted for our diet.

Word bank: incisors · canines · molars · premolars · enamel · mastication · digestion · herbivore · carnivore · omnivore

1. Identify the three main types of teeth found in the human mouth and describe the specific function of each. (3 marks)

2. Explain why it is important for humans to have molars at the back of the mouth. What would happen to our digestion if we only had sharp, pointed teeth? (3 marks)

3. Compare and contrast the teeth of a strict carnivore with the teeth of a human. Why do our teeth suggest we are omnivores? (3 marks)

4. Justify why enamel is considered a vital part of a healthy tooth. What might happen to the internal structure of a tooth if the enamel were to be damaged or eroded? (3 marks)

5. If a new species was discovered that only ate soft leaves and fruit, predict which type of teeth would be most prominent in its jaw and explain your reasoning. (2 marks)

Draw: Draw a labelled diagram of a human mouth, clearly showing the positions and shapes of the incisors, canines, and molars. Use colour to highlight the difference in their biting surfaces.



Extension challenge: Nova wants to know: 'If we lost all our molars, how would this change the types of food we could eat, and how would this impact the very first stage of the digestive process?' Write a short scientific report justifying your answer using the term 'mastication'.