

Name Class Date

Organisation and the digestive system

Lesson	Aiming for 4 (Foundation / Intermediate)	Aiming for 6 (Intermediate / Higher)	Aiming for 8 (Higher / Exceptional)
B3.1 Tissues and organs in animals	I can state examples of cells, tissues, organs, and organ systems.	I can define the terms tissue, organ, and organ system.	I can relate levels of organisation to familiar organ systems in order to give examples of cells, tissues, and organs.
	I can name organs found in a given organ systems.	I can describe the function of certain organs and organ systems.	I can explain why the cells of multicellular organisms are organised into tissues, organs, and organ systems.
	I can order cells, tissues, organs, and organ systems according to their relative sizes.	I can identify tissues that make up organs.	I can suggest the function of glandular, epithelial, and muscular tissue in organs.
B3.2 The human digestive system	I can identify some of the organs of the digestive system.	I can name all of the organs of the digestive system.	I can link the process of digestion to other processes in the body in order to explain its function.
	I can state the function of some of the organs of the digestive system.	I can state the functions of the organs.	I can explain in detail how the small intestine is adapted to its function.
	I can state simply what happens to food during digestion.	I can summarise the process of digestion.	I can explain in detail what happens to food during digestion.
B3.3 The chemistry of food	I can recall that food contains the molecules carbohydrates, lipids (fats), and protein.	I can describe the structure of simple sugars, starch, lipids, and proteins.	I can explain which food molecules are polymers.
	I can state the function of each food molecule in the diet.	I can carry out multiple food tests in an organised manner.	I can apply knowledge of the function of food molecules in the body to give diet advice.
	I can carry out a food test and record results in a table.	I can design a results table to clearly record results from food tests.	I can use scientific knowledge to make predictions of what nutrients a food contains.

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B3.4 Catalysts and enzymes	I can recall that enzymes are proteins which are biological catalysts – they speed up reactions.	I can describe how enzymes are used in digestion.	I can explain how enzymes speed up reactions.
	I can state one function of enzymes inside the body.	I can use the 'lock and key theory' to explain why the shape of the enzyme is vital for it to function.	I can explain how enzymes control metabolism.
	I can state the independent variable in an investigation.	I can state the variables in an investigation.	I can plan an experiment to investigate how different catalysts affect the rate of a reaction.
B3.5 Factors affecting enzyme action	I can state that temperature and pH affects how well an enzyme works.	I can explain why high temperatures and changes in pH prevent enzymes from catalysing reactions.	I can explain in detail how a change in temperature or pH affects the rate of an enzyme-catalysed reaction.
	I can plan a simple method to carry out an investigation.	I can plan and carry out an investigation in order to gather accurate results.	I can plot a line graph with error bars.
	I can state simply what a line graph shows about how temperature or pH affects the rate of an enzyme catalysed reaction.	I can plot a line graph and use it to draw conclusions about how temperature and pH affects the rate of an enzyme catalysed reaction.	I can analyse results in order to evaluate a method and the validity of conclusions, explaining suggestions for possible improvements.
B3.6 How the digestive system works	I can recall that enzymes are used in digestion to break down food molecules.	I can explain why enzymes are needed for digestion.	I can suggest how to test for substrates and products in the model gut.
	I can identify that carbohydrases break down carbohydrates, proteases break down proteins, and lipases break down lipids.	I can for each food molecule, name the enzyme that acts on it, where it is produced, and which products are formed.	I can make a prediction with a scientific explanation.
	I can follow a method to set up and test for substances in a model gut.	I can make a prediction on the results from the model gut.	I can evaluate a model by discussing its limitations.
3.7 Making digestion efficient	I can state that the stomach contains acid.	I can describe the functions of bile.	I can explain how acid in the stomach increases the efficiency of pepsin.
	I can state that the liver produces bile.	I can calculate the mean rate of an enzyme-catalysed reaction.	I can explain how bile increases the efficiency of fat digestion.

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