Ravens Wood School

KS3 Curriculum Plan

Subject: Year 8 Digestion

Prior Key stage 2 Knowledge			
• **Animals and humans -** identify that animals, including humans, need the right types and amount of nutrition, and that they cannot make their own food; they get nutrition from what they eat. Describe the simple functions of the basic parts of the digestive system in humans. Identify the different types of teeth in humans and their simple functions. Recognise the impact of diet, exercise, drugs and lifestyle on the way their bodies function. Describe the ways in which nutrients and water are transported within animals, including humans			
Overarching Topic: Digestion			
Why is this topic being studied at this time? How does it fit into the wider subject curriculum?	• If the body did not have a digestive tract, you could not enjoy your favorite pizza, hamburger, or other food. The human body must obtain its energy by digesting food. Therefore, the main purpose of the digestive system is to provide the body with amino acids, carbohydrates, fats, and vitamins to keep our cells functioning. The digestive system provides these essential materials to the 75 trillion cells that live in our bodies. • The study of digestion is important because it allows us to understand how the food on our plate drives our bodies to perform its necessary daily functions. It also provides students with the information they need to make the right choices about their diet and living to allow for a health life. This unit draws on ideas about food and nutrition developed in the key stage 2 programme of study. It builds on Cells and Levels of Organisation. The particle model of matter is introduced in Particle model of solids, liquids and gases and is revisited in this unit in the context of Digestion and Respiration. The energy transfer ideas of unit 'Energy resources' are used in the context of digestion. Energy should be distinguished from stuff (food as the energy resource or fuel). Moving forward to KS4 it is linked to the topics respiration, organising an ecosystem and organisation and the digestive system.		
	Essential	**Core**	**Ambitious**
The Big Questions (What questions will students be able to answer upon mastery of the topic?)	What are 5 parts of the digestive system? What are the 5 main food groups with examples? What is a balanced diet? What is a disease that is linked with being overweight?	What test would you use to check a food contains proteins, what results would you expect? What are the health effects of an unbalanced diet? How organs and tissues involved in digestion are adapted for their role? Describe the events that take place in order to turn a meal into simple food molecules inside a cell. What factors affect how many calories you need to eat?	What tests would you use to check a food contains starch and glucose, what results would you expect? How could someone with specific dietary needs ensure that they have a balanced diet? What information does food labels tell us? How might people be misled by claims?
The Key Skills/ Techniques	**The sophistication and application of skills will become more advanced as students' progress through the essential, core and ambitious knowledge**		
	Skill/Technique	**How will this skill be developed?**	
	1. Graphing & Drawing	Draw graphs with suitable scales, axes and units. Correct line of best fit. Appreciation of anomalies and processed data. Scientific drawing of cells, concepts and scientific equipment.	
	2. Variables	Identify independent, dependent and control variables and devise experiments to include these to ensure valid results. Appreciation of uncertainty.	
	3. Data Analysis	Describe, explain and predict trends. Graph and table data interpretation. Identify links and patters within and between topics. Statistical analysis of data to include mode/median/mean/range determination. Drawing justified conclusions from presented data.	

	4. Application	Apply known and taught theory in unfamiliar contexts. Making links to taught theory and extracting key ideas. Communicating using correct scientific terminology.
	5. Working Scientifically	Identify hazards and planning to limit risk. Describe how to improve accuracy/precision/repeatability/reproducibility/validity. Evaluate reliability of methods and investigations, taking in to account data analysis.