ARMFIELD

<u>Armfield Academy – Department of Science</u>

Year 8 Curriculum Overview



- ✔ Each lesson will start with a series of questions linked to both the previous lesson and topics studied previously.
- ✔ Formative assessment of skills linked to practical work will enable students to demonstrate their acquisition of new skills.
- ✓ Students are encouraged to consolidate learning at least once a week and seek tutor help if unsure on any topics.
- ✔ Within each unit, time will be allocated for consolidation and recall before assessment
- ✓ The following questions will be explored within the units

	Half Term 1
Date	Topic: Keeping Healthy
WC 30/08	Introduction to science (expectations, standards, health and safety, introduction of key skills and assessing prior knowledge).
WC 06/09	What are the functions of a cell? How are organisms organised?
WC 13/09	What is respiration? Do we always need oxygen to respire?
WC 20/09	How does our body respond to exercise? How are the lungs adapted to carry out their function?
WC 27/09	What is the function of the heart? What is in my blood and how does it travel around my body?
WC 04/10	How does the body move? What is a pathogen and how are they harmful?
WC 11/09	How do drugs affect a person?
Half Term 2	
Date	Topic: Electricity and Magnetism
WC 01/11	Is static electricity always bad? Why are wires covered in plastic?
WC 08/11	Why do we use symbols in circuits? Why does the lightbulb light up?
WC 15/11	How do I measure current? How can I make two bulbs brighter in a circuit?
WC 22/11	How do series and parallel circuits differ?
WC 29/11	How does the resistance of a wire change with length?
WC 06/12	What is the national grid? How do magnets behave? Are all magnets permanent? How can we make motors?
WC 13/12	Are all magnets permanent? How can we make motors?
WC 20/12	
Half Term 3	
Date	Topic: Chemical Reactions
WC 03/01	What are atoms, elements and compounds? How is a word equation represented?
WC 10/01	How do we use symbols and numbers to count atoms? What is the difference between a chemical and physical reaction?
WC 17/01	How is atomic structure linked to the periodic table? What is the conservation of mass?
WC 24/01	Why does the mass of a reaction appear to increase? How do we test for hydrogen, oxygen, carbon dioxide and chlorine? What is combustion? What is meant by endothermic and exothermic?
WC 31/01	What is combustion? What is meant by endothermic and exothermic? How does the temperature change when an acid reacts with an alkali?
WC 07/02	Half Term 4
Date Topic: Ecology, inheritance and variation	
WC 21/02	How do we group living organisms? How do organisms change over time?
WC 28/02	How can we show how closely organisms are related? How is energy transferred through living things?
WC 07/03	How do we show the difference in trophic levels? What affects where an organism lives?
WC 14/03	How are things suited to where they live? How do organisms survive in harsh environments?
WC 21/03	How tall can you be? What is genetic information and how is it passed on from one generation to the next?
WC 28/03	Why did the dinosaurs die out? What is biodiversity and why is it important?
Half Term 5	
Date	Topic: Energy from foods
WC 18/04	What makes a balanced diet? How is food broken down?
WC 25/04	How is the digestive system departed to absorb nutrients? How do plants make their food?
WC 02/05	How do we test for starch? How are leaves adapted for photosynthesis?
WC 09/05	How are plants adapted to absorb water and nutrients? How to farmers grow more crops?
WC 16/05	How do plants reproduce?
WC 23/05	
Half Term 6	
Date WC 06/06	Topic: Waves How do yet represent yours? How does sound travel?
WC 06/06	How do we represent waves? How does sound travel? How do we hear? How do waves behave in water?
WC 13/06 WC 20/06	How does light travel? How does light travel through substances
WC 20/06 WC 27/06	How do we split light? How do we see?
WC 27/06 WC 04/07	How does a camera work?
WC 11/07	How do waves affect cells?
WC 11/07 WC 18/07	
WC 18/U/	