Armfield Academy – Department of Science



Year 7 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
- \checkmark The following questions will be explored within the units

Half Term 1	
Date	Topic: Introduction to science
	Introduction to science (expectations, standards, health and safety, introduction of key skills and assessing prior knowledge).
	What equipment do I use in science?
	How do I work safely in a lab?
WC 20/09	How do I carry out a scientific investigation? (students will complete a variety of different investigations to build up skills over
WC 27/09	the unit) This will include maths skills, graph skills, variables and conclusions.
WC 04/10	How do I use a Bunsen burner?
WC 04/10 WC 11/09	Where can science take me?
VVC 11/09	Half Term 2
Date Topic: Particles	
	How do solids, liquid and gases differ?
	What happens when matter changes state?
	What are cooling curves?
	How do you measure and calculate density?
	What is diffusion?
WC 06/12	Where does it happen within nature and the body?
WC 13/12	How do particles create pressure?
WC 20/12	How can we change the pressure in a system?
Half Term 3	
Date	Topic: Cells and reproduction
	How do we classify objects as living? What do we find inside cells?
	What comparisons can we find between different types of cells?
	How can we use microscopes? What do onion cells look like through a microscope?
	What cells are important in our body? How are organisms organised?
	What are the reproductive systems? What changes should I expect during puberty? How are babies made?
	What are the stages of pregnancy and development of the foetus?
Half Term 4	
Date	Topic: Energy
WC 21/02	What are the different stores of energy? How does energy move from one store to another?
	How efficient is your house? How can we reduce wasted energy?
WC 07/03	How is heat transferred? How can we use the principle of heat transfer to increase efficiency?
	How can we prevent heat loss? What caused the formation of fossil fuels?
WC 21/03	How do fossil fuels provide us with electricity? How can we generate electricity from other sources?
WC 28/03	How can we provide electricity to remote locations?
Half Term 5	
Date	Topic: Separating chemicals and acids/alkalis and the Earth
	What is solubility? How can we make things dissolve quicker?
WC 25/04	How can we separate mixtures?
	What are acids and alkalis?
	How can we demonstrate pH? How is acid rain formed?
WC 16/05	What is our atmosphere?
WC 23/05	What happens when acids react with other substances? How can we make a salt?
Half Term 6	
	Topic: Fast and furious
Date	
Date 2 WC 06/06 2	Topic: Fast and furious
Date WC 06/06 WC 13/06	Topic: Fast and furious What is the periodic table?
Date 1 WC 06/06 1 WC 13/06 1 WC 20/06 1	Topic: Fast and furious What is the periodic table? Has it always been the current way?
Date 7 WC 06/06 WC 13/06 WC 20/06 WC 27/06 WC 04/07	Topic: Fast and furious What is the periodic table? Has it always been the current way? What is an atom? How are electrons arranged? Why are some groups special?
Date 1 WC 06/06 WC 13/06 WC 13/06 WC 20/06 WC 27/06 WC 04/07 WC 11/07 WC 11/07	Topic: Fast and furious What is the periodic table? Has it always been the current way? What is an atom? How are electrons arranged?