



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
- ✓ The following questions will be explored within the units

Half Term 1	
Week	Topic: Introduction to science
Week 1	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? How do I carry out a scientific investigation?
Week 2	Application Time of working scientifically conducting investigations Physics Topic: Particles
Week 3	How do solids, liquid and gases differ? What happens when matter changes state?
Week 4	What are cooling curves? Application Time: Knowledge check 1 How do you measure and calculate density?
Week 5	What is diffusion? Where does it happen within nature and the body?
Week 6	How do particles create pressure and how can we change it in a system? Application Time: Knowledge check 2
Week 7	
Half Term 2	
Date	Biology Topic: Cells and reproduction
Week 8	How do we classify objects as living? What do we find inside cells?
Week 9	What comparisons can we find between different types of cells? Application Time: Knowledge check 1 How can we use microscopes?
Week 10	What do onion cells look like through a microscope? Application Time: Knowledge check 2 What cells are important in our body?
Week 11	What are specialised cells? How are organisms organised? What are the reproductive systems? What changes should I expect during puberty? How are babies made?
Week 12	What are the stages of pregnancy and development of the foetus? Application Time: Knowledge check 3 Application time: Revision of topics so far for End of term assessments
Week 13	
Week 14	
Half Term 3	
Date	Physics and Chemistry Topic: Earth and Space
Week 15	What is the structure of the Earth? What are the phases of the moon? Why do we have seasons on Earth?
Week 16	How are rocks cycled through the rock cycle? How has Earth's atmosphere developed? What is climate change? Application Time: Knowledge check 1
Week 17	What is the carbon cycle? What is the difference between mass and weight? What planets are in our solar system? How stars form? Poster competition of the solar system Application Time: Knowledge check 2
Week 18	
Week 19	
Week 20	

Half Term 4	
Date	Chemistry Topic: Separating chemicals and acids and alkalis
Week 21	Application time: British Science Week - Research topic and projects What is solubility? How can we make things dissolve quicker?
Week 22	How can we separate mixtures using filtration, crystallisation, distillation and chromatography? Application Time: Knowledge check 1
Week 23	What are acids and alkalis? How can we demonstrate pH? What happens when acids react with other substances?
Week 24	How can we make a salt? Application Time: Knowledge check 2 Physics Topic: Energy
Week 25	What are the different stores of energy? How does energy move from one store to another?
Week 26	
Half Term 5	
Date	Physics Topic: Energy
Week 27	How efficient is your house? How can we reduce wasted energy? Application Time: Knowledge check 1 How is heat transferred? How can we use the principle of heat transfer to increase efficiency?
Week 28	How can we prevent heat loss? Application Time: Knowledge check 2 What caused the formation of fossil fuels?
Week 29	How do fossil fuels provide us with electricity? Application Time: Knowledge check 3 How can we generate electricity from other sources?
Week 30	How can we provide electricity to remote locations? Application Time: Knowledge check 4 Chemistry Topic: Fast and furious
Week 31	What is the periodic table? Has it always been the current way? What is an atom? Application Time: Knowledge check 1
Week 32	How are electrons arranged? Why are some groups special? Application Time: Knowledge check 2 How do elements react? How can we make reactions quicker? Application Time: Knowledge check 3
Half Term 6	
Date	Physics Topic :Forces
Week 33	Application Time: Revision of topics learnt in year 7 End of year assessments
Week 34	What are forces? How can I measure a force? How are scalar and vector quantities different? How do objects behave when forces act on them?
Week 35	How do elastic materials behave when squashed? Application Time: Knowledge check 1 Is friction a bad thing? How does streamlining help performance?
Week 36	Could you lift an elephant? How do we calculate speed?
Week 37	How do we represent speed? Application Time: Knowledge check 2
Week 38	
Week 39	