



Science Curriculum Map Summer 2022

It should be noted that the curriculum is taught in rotation so pupils are able to access the laboratories for practical work

Year 3	
In a state	This unit introduces the concept of the states of matter. Pupils will learn the characteristic properties of solids, liquids and gases through physical investigation and by classification. When working scientifically pupils will make careful observations and explain what they show. They will observe and measure changes over time, first-hand and also using secondary sources of information.
Switched on	All pupils have an experience of electricity in their everyday lives and this unit will give them the opportunity to experience making simple circuits and distinguish between appliances powered by mains or battery sources. Working scientifically pupils will learn how to communicate using circuit diagrams and scientific language as well as planning and carrying out scientific investigations using the circuit equipment.
Year 4	
Reproduction in plants and animals	In this unit pupils will learn about the plant reproduction looking at flowering plants and asexual reproduction. In animal reproduction pupils will look at specific life cycle examples in mammals, birds, insects and amphibians and how they reproduce. When working scientifically pupils carry out observations of flowering plants and use secondary sources of information. They will report and present findings in a variety of ways including posters, fact cards and guides.
Feel the force	In this unit pupils will learn how levers, pulleys and gears allow a smaller force to have a greater effect. When working scientifically pupils will look at scientific ideas from the past and carry out investigations to support or refute famous scientists' ideas. They make predictions as a result of carrying out activities and go on to plan new investigations.
Earth and beyond	Pupils will develop their knowledge of the Earth's and other planets' place in the solar system, and their relationship with other bodies in space in particular the Sun. When working scientifically pupils will use models for exploring and demonstrating ideas, first-hand observations at night either in their gardens or the local area, secondary sources of information (web based and book based) to answer scientific questions increasingly independently and diagrams, charts and graphs for recording data.

Year 5	
Being a Scientist	In this unit pupils will look at the skills needed by scientists to investigate a range practical challenges in the lab
Body Pump	In this unit pupils will learn about the human circulatory system and how it enables bodies to function. They will find out how the heart works, the components of blood and the main vessels in the circulatory system. When working scientifically they will develop their laboratory skills and have their first experience of dissection, when they dissect a lamb's heart. They will also use secondary sources of information with increasing independence to answer questions related to the unit.
Body Health	In this unit pupils will learn about how to keep the human body healthy and how their bodies might be damaged. The focus on lifestyle choices humans make, including diet, exercise, and drug use and how these are informed by scientific evidence.

Year 6	
Diet and Digestion	In this unit pupils will learn about healthy diets and the impacts of deficiencies in diet, and the digestive system
Solubility and separating techniques	Pupils will be introduced into the world of using the chemistry laboratory and performing chemistry experiments. The unit is focussed on separation techniques looking at distillation, solubility, and chromatography.
Electricity	Pupils will build on their prior learning from years 3 and 5 on circuits, current and potential difference. They will investigate the impact of resistance on a circuit.

Energy and fuel	Pupils will investigate different energy types and how they are transferred. They will then go on to look at the impact of different fuels both on the environment and their efficiency.
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Year 7	
Light and Sound	In this unit pupils will use a variety of experiments and investigations to explore the fascinating world of light and sound. They will discover how we can use both light and sound to our advantage and sometimes to our peril! It is more than flashing lights and being a bit noisy down in the labs.
Gravity and Pressure	Pupils will be introduced to the impact of gravity and pressure on a variety of objects in different situations. They will learn about the difference between mass and weight and why they are so important.
Breathing and Respiration	Pupils will continue to develop their knowledge and understanding of the human body this time focussing on the respiratory system learning that breathing and respiration are not the same thing.

Year 8	
Review & revise	Pupils will revisit the units taught in years 6-8 and review their learning, identify the learning gaps to close them and look in detail how to answer questions to be able to gain the maximum marks possible.