

What are the aims and intentions of this curriculum?

A curriculum where topics are regularly revisited and linked together to allow students to understand science in the world around them and provide a solid foundation for further study in science. Developing the practical skills to help students to investigate ideas independently.

Term	Topics	Knowledge covered	Skills developed	Assessment
Autumn 1	Safety, equipment Particles Living things Energy	Lab safety rules and equipment names All matter is made of small particles which can be arranged in different ways Living things are made up of cells Total energy in the Universe is always the same, but can be transferred	Practical skills in measuring Drawing scientific diagrams Fair tests, accuracy and reliability	Baseline assessment of scientific skills
Autumn 2	Particles Living things Energy	Materials can undergo physical changes or chemical changes Organisms are made up of cells, growth is the result of cell divisions Energy cannot be created or destroyed. Heat and temperature	Microscopy - using microscope and drawing cells Practical skills in measuring and recording observations	Practical skills assessment
Spring 1	Electricity Reproductive system Mixtures	Basic circuits and flow of electricity The human reproductive system and puberty Materials may be a mixture of different particles and we can use a range of techniques to separate them	Practical skills in building and drawing electrical circuits, making measurements and recording. Drawing scientific diagrams. Problem solving skills	Written assessment paper based on knowledge and skills covered so far
Spring 2	Forces Acids and pH Having a baby	Changing the movement of an object requires a net force acting on it Chemicals may be acidic or alkaline and can react in different ways How the body changes during pregnancy and birth	Practical skills in planning investigations, fair tests and variables, recording results accurately	Practical skills assessment
Summer 1	Plant reproduction Neutralising Interdependence Density	Organisms require a supply of energy and materials for which they often depend on and compete with other organisms Reactions of acids with bases What is density and how to find it	Practical skills in making observations, recording results accurately and plotting graphs Calculation skills in finding density and rearranging an equation	
Summer 2	Solar system Interdependence Energy resources	Our solar system is a very small part of one of billions of galaxies Organisms require a supply of energy and materials for which they often depend on and compete with other organisms The range of energy sources available to us	Research skills in finding out about our solar system and about energy sources Practical skills in sampling techniques	Written assessment paper based on knowledge and skills covered throughout the year