

Year Group	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Y1/2	Investigating Materials We will explore different materials, looking at their properties and uses.	Light and Dark We will explore how the presence of light enables us to see and the variety sources that can provide light.	Ourselves We will look at the processes that all living things carry out and the main body parts of humans and other animals. We will also look at the similarities and differences between ourselves and our peers.	Pushes and Pulls We will learn about the different sorts of movement and how they are classified as pushes or pulls.	Growing Plants We will learn the different parts of a plant and what enables them to grow. We will then explore the different types of plants found in our local environment and how we can care for those environments.	Sound and Hearing We will learn about the sense of hearing and the different kinds and sources of sounds.
Year 3/4	Teeth & Eating We will learn about healthy diets before learning about our teeth and how to keep them healthy.	Magnets and Springs We will learn about magnetic attraction. We will then investigate which materials are affected by magnetic force through careful observations. We will also learn about what springs are and how they can be pulled and stretched.	Light and Shadows We will learn about how light can only travel in straight lines and so how sometimes this light is blocked by opaque materials. We will then investigate shadows and link this to the movement of the Sun in the sky.	Rocks and Soils We will learn about the different types of rock, their properties and their uses. We will then expand our learning to look at the properties of different types of soil.	Helping Plants Grow Well We will investigate the factors that can affect the growth-rate of plants and the role of roots for anchoring and transporting water.	Characteristics of Materials We will explore how one type of material can be used for many different jobs according to its properties. We will also look at the properties that are similar and different between different types of material.

Years 5/6	<u>Animals, including humans</u> Learning the components and functions of the human circulatory system, the heart, blood vessels, and the importance of diet, exercise, and lifestyle.	<u>Evolution and Inheritance</u> <i>Explore how plants and animals have adapted to their environments to survive, and how these adaptations can be passed on to offspring. Pupils are introduced to the idea that fossils provide evidence of past life and help us understand how species have changed. They also learn that variation exists within species and that this can lead to natural selection, where individuals best suited to their environment are more likely to survive and reproduce.</i>	<u>Electricity</u> <i>Understanding electrical circuits, standard circuit symbols, and how voltage affects components like bulbs and buzzers.</i>	<u>Properties and changes of Materials</u> Students learn about the properties of materials, such as hardness, flexibility, transparency, conductivity, and waterproofing. Different materials are chosen for different jobs because of these properties. They will complete a design project and present this for the class.	<u>Changing Sound</u> <i>Understanding how sounds are made and the factors that can affect how sound can travel and therefore affect what we hear.</i>	<u>Stem Project</u> <i>Wonderpark Stem Project-</i> <i>Rollercoaster:</i> <i>Design, build, and test tracks to explore kinetic and potential energy.</i> <i>Catapults:</i> <i>Experiment with launch angles, tension, and force.</i> <i>Special Attractions:</i> <i>Invent and construct a unique amusement park ride using basic materials.</i> <i>Forces and Motion:</i> <i>Investigate gravity, friction, and speed through themed ride models.</i>
Year 7	Plant and animal cells Understanding how living things are made of cells, organs and systems. Particles Understanding the three states of matter in terms of their properties	Electrical circuits Understanding how electrons carry an electrical charge around a circuit and how components can affect this. We will also investigate the similarities and differences between	Reproduction Learning about the male and female reproductive systems, fertilisation, menstruation, pregnancy and birth, puberty and lifecycles. Learning about parts of a plant, pollination,	Forces and their Effects Understanding the difference between contact and non-contact forces, with examples, and investigate how forces are measured and calculated.	Ecology Matters Investigating the environments within a habitat and how these impact the adaptations of the organisms that live there along with understanding the food chains and	Materials of the Earth Investigating the properties of rocks and the effects of chemical weathering. We will also look at the formation of sedimentary rocks and fossils.

	with regards to the particle model.	series and parallel circuits. Acids & Alkalis We will identify the hazards symbols used on chemicals and investigate the differences between acids and alkalis in terms of their properties and their uses.	seed dispersal, fertilisation and germination. Separation techniques We will be learning about solubility and methods separating solutes from their solvents. We will also learn about chromatography.		food webs withing a habitat. Energy & Sustainable Living Understanding and defining renewable and non-renewable fuels along with their sources and uses.	The Solar System & Beyond Understanding the relationship between the Sun, Moon and Earth and their orbits affect what we observe. We will also investigate the arrangement of the planets, dwarf planets and asteroids within our Solar System.
Year 8	<u>Photosynthesis and Respiration</u> <i>In this topic, students will learn how plants make food through photosynthesis and how plants and animals release energy through respiration. They will explore the word equations for both processes, the conditions needed for photosynthesis, and the importance of respiration for living organisms.</i>	<u>Energy Resources</u> <i>In this topic, students will learn about renewable and non-renewable energy resources, including their advantages and disadvantages. They will explore how energy is generated from different resources and consider their environment.</i>	<u>The Periodic Table</u> <i>In this topic, Year 8 students will explore the structure and organisation of the periodic table. They will learn about elements, atoms and their properties, including the differences between metals and non-metals. Students will also investigate groups and periods within the periodic table and explore patterns in the properties and reactivity of different elements.</i> <u>Healthy diet and digestive system</u>	<u>Materials and Recycling.</u> <i>We will understand the difference between and element and a mixture, then take a close look a the periodic table to recognise the symbols used to represent different elements and the properties that determine their position with the table.</i> <u>Chemical Reaction</u> <i>Understanding that through chemical reactions new substances are formed. We will also</i>	<u>The Way of the Dodo</u> <i>Understanding factors that can lead to extinction and the evidence that can be collected to prove that organisms used to exist. We will also investigate how changes in environmental factors can impact populations and communities.</i>	<u>Forces and their Effects</u> <i>Understanding the difference between contact and non-contact forces, with examples, and investigate how forces are measured and calculated.</i> <i>Applying knowledge of particles to explain forces, such as drag, and how force can affect pressure. We will also be learning about magnetism in terms of electromagnets and compasses.</i>

			<i>Understanding the different types of food and nutrition needed for us to maintain a healthy diet. We will also investigate how the digestive system works in terms of the organs involved and the use of enzymes.</i>	<i>look into the types of energy used for chemical reactions along with the types of fuel used and the potential hazards of these fuels.</i>		
Year 9	The first two terms 9 (until Easter) Summer term of year 9 will act as a bridge between KS3 and KS4. We will focus on filling gaps in knowledge, addressing misconceptions and building skills. Science in year 9 is extremely practical - with an experiment almost every lesson. Students build skills and confidence in preparation for GCSEs.	Biology Genetics Evolution Healthy Lifestyles Photosynthesis Ecosystems	Chemistry Chemical reactions including acids and alkalis, displacement reactions, extracting metals and combustion.	Physics Understanding electricity Energy and efficiency Space Forces and motion	After the Easter holidays we will make a start on the GCSE Course - beginning with Biology Paper 1 The specification is Edexcel Combined Science which leads to two GCSE. Some able students may wish to opt for triple science, and this will usually be an available option.	Biology Key concepts in Biology Cells and microscopes, Enzymes Transporting substances
Year 10	Biology paper 1 Genetics, natural selection, The immune system communicable and non-communicable disease Assessment (past paper)	Chemistry paper 1 States of matter, atomic structures, bonding, The Periodic table,	Chemistry paper 1 Electrolysis, acids and alkalis, Extracting metals, Reversible reactions Assessment (past paper)	Physics paper 1 Motion Forces Energy Newton's Laws Vector Diagrams	Physics paper 1 Light and the Electromagnetic spectrum, Radioactivity. Investigating refraction	Revision and year 10 exams (Paper papers for B1, C1 and P1)

					Assessment (past paper)	
Year 11	Biology paper 2 Plant structures and functions, animal coordination and control, Exchange and transport in animals, Eco systems and material cycles.	Chemistry paper 2 Reaction rates, groups in the Periodic Table, fuels, Earth and atmosphere Mock exams in November - B1, C1 and P1	Physics paper 2 Electrical circuits, magnetism, induction and motors, particle model, forces and matter.	We aim to finish the new content by March, ahead of the mock exams. Mock exams in March B2, C2 and P2	Revision and exams	