

Science Big Ideas learning journey – Years 5 and 6

Years 3 & 4 We learnt about...	Y3: Seeing in light, darkness, reflection, sun dangers, shadow sizes Y4: Sound vibrations and media, effects of pitch, volume, distance	Y3: Forces on different surfaces, touching vs distance forces, attract vs repel, magnetic poles Y4: electrical appliances, series circuit & parts, effects on incomplete circuit, switches; conductors/insulators	Y4: Solids, liquids & gases, evaporation & condensation	Y4: Water cycle	Y3: Rocks, physical properties, soil structure & formation, fossils in rock	Y3: Nutrition, muscles & skeletons Y4: Digestive system, teeth	Y3: Plant Parts, what they need, how water is transported, seeds & pollination	Y4: Local organisms – classify & identify, environmental dangers, food chains-producers, predators, prey
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YEAR 5	PHYSICS	CHEMISTRY	BIOLOGY	YEAR 6
AUTUMN				AUTUMN
Earth and Space The Sun, Earth and planets	BIG IDEA EARTH IN SPACE Understanding the composition of the world and the universe of space given on perspective and size.	BIG IDEA SUBSTANCES AND PROPERTIES Materials are either made of a single chemical substance or a mixture of substances which each have distinct properties.	BIG IDEA THE CELLULAR BASIS OF LIFE Organisms are made of one or more cells, which need a supply of energy and materials to carry out life processes.	Electricity Making circuits and changing components
Properties of Materials Testing properties and designing uses for materials	BIG IDEA ELECTRICITY AND MAGNETISM The everyday world is made up of consequences of electrical change. Understanding electricity and magnetism helps us develop technology to improve lives.	BIG IDEA HEALTH AND DISEASE Organisms must stay in good health to survive and thrive. The health of an individual results from interactions between its body, behaviour, environment and other organisms.		Animals Including Humans and Lifestyles The circulatory system and how to be healthy
SPRING				SPRING
Animals including humans + PSHE The human lifecycle and growing up	BIG IDEA MATTER Matter is the stuff of which everything is made. Understanding particles helps us to design our world.	BIG IDEA PARTICLES AND STRUCTURE All matter is made up of atoms. The behaviour and structural arrangement of atoms explains the properties of different materials.	BIG IDEA ORGANISMS AND THEIR ENVIRONMENTS All organisms, including humans, depend on their environment to survive. They are affected by the organisms that live there.	Changes of Materials - reversible Changing states and separating mixtures
Forces Investigating forces, levers, gears and pulleys	BIG IDEA FORCES AND MOTION Forces make things change. Understanding forces helps us to predict and control physical change.	BIG IDEA HEREDITY AND LIFE CYCLES Genetic information is passed from one generation to the next. This information and the environment affect the features, growth and development of organisms.		Changes of Materials - irreversible Irreversible changes
SUMMER				SUMMER
Plants Parts of a plants and how plants reproduce	BIG IDEA SOUND, LIGHT AND WAVES Waves transfer information, understanding waves helps us to communicate.	BIG IDEA CHEMICAL REACTIONS During a chemical reaction, atoms are rearranged forming new substances.	BIG IDEA VARIATION, ADAPTION AND EVOLUTION Organisms depend on their environment to survive. Natural selection of better adapted individuals, the great creator of organisms is the result of variation.	Light Investigating light and shadows
Life Cycles The life cycles of different animals and growing up				Evolution and Inheritance How living things have changed over time

Conceptual understanding of the Big Ideas in Science continues through Years 7 & 8



	Progress Check 1	Progress Check 2	Progress Check 3	<u>Target</u>
Grade Achieved				