Year 1/2 Science Curriculum Cycle A		
Autumn 1A	**Spring 1A** **Animal Survival**	**Summer 1A** **Describing Materials**
	Children will know by the end of this unit: Knowledge Block 1- Feeding for survival ● Animals are groups of organisms that need to consume food to survive. ● Food provides energy and the building blocks of growth. ● There are many different groups of animals including fish, amphibians, reptiles, birds and mammals. They have different structures, and they eat different types of foods. ● The structure of a variety of common animals varies Mammals have hair/fur and give birth to live young, fish can breathe underwater using gills, birds have feathers, beaks and wings. Females lay eggs. Most birds can fly, reptiles are air breathing and have scaly skin and lays eggs, and	Knowledge Block 1- The big idea about materials ● There are many different materials that have different observable properties ● Materials that have similar properties are grouped into metals, rocks, fabrics, wood, plastic and ceramics (including glass).

	amphibians have smooth slimy skin and live on land and in water. ● Some eat other animals (carnivores), and others only eat vegetables (herbivores), and some like to eat both plants and meat (omnivores) ● Common animals that are carnivores include lions, cats, sharks and snakes ● Common animals that are herbivores include cows, horses, sheep, elephants and deer ● Common animals that are omnivores include humans, bears, monkeys and seagulls	
Autumn 2A **Seasons**	**Spring 2A** **Animal Survival**	**Summer 2A** **Changing Materials**
Children will know by the end of this unit: • Observe changes across the four seasons • Observe and describe weather associated with seasons and how day length varies. • How to create observe these changes How to work scientifically to produce charts and tables to show information	Knowledge Block 2- Moving for survival ● Animals must move to get their food ● They will move in different ways to get their food ● Animals that eat other animals are called predators ● Animals that are eaten by other animals are called prey ● Animals feeding relationships can be illustrated in a food chain	Children will know by the end of this unit: Knowledge Block 1- How materials can change ● The properties of a material determine whether they are suitable for a purpose. ● Materials can be changed by physical force (twisting, bending, squashing and stretching).

and make comparisons from around the world.	Knowledge Block 3- Sensing for survival ● The five sense organs are the eyes (for seeing), nose (for smelling), ears (for hearing), tongue (for tasting), and skin (for touching or feeling). ● Animals have senses to help them survive ● Animals have developed a range of ways to find prey or avoid being eaten	(The purpose of the activities within this learning journey is for children to understand why we choose certain materials to do certain jobs. Children will plan how to test materials (wood, metal, plastic, glass, brick, paper, rock, cardboard))
KS1 Longitudinal Study: How to observe and record how a tree changes over the seasons.		

Year 3/4 Science Curriculum – Cycle A		
Autumn 1A **Digestion**	**Spring 1A** **Animals, Skeletons & Movement**	**Summer 1A** **Plant Reproduction**
Children will know by the end of this unit: Knowledge Block 1- Food groups o Animals need a variety of foods to help them grow and survive. The main food groups are: • Meat, dairy and pulses provide protein for muscles. • Grains and root vegetables provide carbohydrates for energy. • Fat for insulation and energy.	Children will know by the end of this unit: Knowledge Block 1- Skeletons protect vital organs • All vertebrates have internal skeletons that protect vital organs. • Invertebrates have exoskeletons that protect vital organs. Knowledge Block 2- Skeletons support weight • Skeletons support the weight of land animals.	Children will know by the end of this unit: Plant reproduction Knowledge Block 1- The reproductive parts of a flowering plant • Flowering plants reproduce by the process of pollination • Pollination leads to the formation of a seed which can grow into a new plant • Flowering plants have evolved specific parts to carry out pollination and seed growth

• Fruit and vegetables for minerals, vitamins and fibre. These are essential to keep our bodies working well and protect us from illnesses. Knowledge Block 2- Variation in animals' diet • Different animals require different foods to survive. • Animals get their food from plants and other animals. This can be shown in a food chain. (From Year 2) • A food chain begins with a producer. This is often a green plant because plants can make their own food. (From Year 2) • A living this that eats other plants is called a consumer. (From Year 2) • Humans require a balanced diet to remain healthy but healthy diets vary depending upon the type of activity that humans do. • Humans have 2 sets of teeth in their lifetimes • Humans have three main types of teeth- incisors, canines and molars. • Incisors help to bite off and chew pieces of food.	• Stronger bones can support a greater mass. Knowledge Block 3- Skeletons support movement • Bones are connected (but can move relative to each other) at joints. • Muscles connect to bones and move them when they contract. • Stronger bones can anchor stronger muscles.	• Those parts are stamen where pollen is produced, stigma where pollen is collected, and the ovaries which contains the eggs that become a seed when the pollen travels down the stigma and meets the egg • Flowers have petals also are a range of colours, patterns, and smells to attract insects Knowledge Block 2- All flowers are similar but different • Plants and flowers look different because they pollinate in different ways. • There are two types of pollination Insect and wind • Insect pollinated flowers are usually bright coloured and strong scents • Wind pollinated flowers have less colourful petals and much less scent Knowledge Block 3- Seed dispersal • Plants have evolved many different ways to disperse their seeds • Seed dispersal increases the chances of seeds germinating and growing into a mature plant

• Canines are used for tearing and ripping food. • Molars help to crush and grind food. Knowledge Block 3- How humans digest food • The nutrients in food have to get to every part of the body. The blood transports them. • The role of digestion is to get the nutrients in food to dissolve in the blood, if it doesn't dissolve it can't enter the blood and be transported.		Knowledge Block 4- What a seed does • A seed contains a miniature, undeveloped version of the plant • They contain a food store for the first stage of growth (until the plant can make its own food) • They are surrounded with a protective coat.
Autumn 2A **Light**	**Spring 2A** **Making Electrical Circuits Work**	**Summer 2A**
Children will know by the end of this unit: Knowledge Block 1- Light and sight • There must be light for us to see. • Light comes from a source. • We need light to see things, even shiny things. • Light from the sun can be dangerous and that there are ways to protect their eyes	Children will know by the end of this unit: Knowledge Block 1- Electricity as a power source • Lots of devices are powered by electricity • Electricity comes from a source There are two main sources- batteries and mains Knowledge Block 2- What batteries do • A battery pushes electricity to the device. • To be able to push electricity the battery must be connected to the device using wires • This is called a circuit	

Knowledge Block 2- What light does when it hits materials • If an object is transparent light will go through it and we will be able to see through it. • If an object is opaque, it will block the light and no light will get through. This is what forms shadows. • The closer to the light source an object is, the bigger the shadow will be. This is because the object blocks more of the light. • The further away from the light source an object is, the smaller the shadow will be. This is because the object blocks less of the light. • If an object is perfectly reflective, light will bounce back off it and we will see reflections of objects. • If the material is translucent, it will allow light through, but we won't be able to see through it.	Knowledge Block 3- Making devices work harder • If there are more batteries added to a circuit this provides a bigger push on the electricity • This will make the device work harder e.g., brighter bulbs, faster spinning motor, louder buzzer Knowledge Block 3- Insulators and conductors • Some materials will allow electricity to flow through them- Conductors • Metals such as silver, gold and copper are good conductors. Water is also a conductor of electricity. • Other materials will not allow electricity to flow through them- Insulators • Plastic, wood, glass and rubber are good electrical insulators. That is why they are used to cover materials that carry electricity. • A switch opens and closes a circuit	
Year 3/4 Longitudinal Study – Observe the weather across the year.		

Year 5/6 Science Curriculum - Cycle A		
Autumn 1A **Making New Substances**	**Spring 1A** **How Light Behaves**	**Summer 1A** **Living Things and their Habitats**
Children will know by the end of this unit: Knowledge Block 1: Reversible and irreversible changes • All matter, including gas, has mass. • Sometimes, mixed substances react to make a new substance. These changes are usually irreversible. • Heating can sometimes cause materials to change permanently. When this happens, a new substance is made. These changes are not reversible. • Indicators that something new has been made are the properties of the material are different (colour, state, texture, hardness, smell, temperature) • If it is not possible to get the material back easily it is likely that it is not there anymore and something new has been made (irreversible change)	Children will know by the end of this unit: Knowledge Block 1: How light travels • When light is emitted from a light source, it travels in straight lines until it hits an object. This can be represented by an arrow. • Shadows form when light hits an opaque object. The area behind the object is in darkness because light can only travel in straight lines. • Shadows have the same shape as the objects that cast them. Knowledge Block 2: How light behaves when it hits objects ● When light hits a transparent object, it goes through it in a straight line so we can see a clear image through it. ● When light hits a translucent material, it goes through it but is scattered, this means light can pass through, but we can't see an image through it. ● When light hits a mirrored surface, it reflects off it in straight lines, so we can	Children will know by the end of this unit: Knowledge Block 3: Classification of life ● All living (and extinct) organisms are classified into groups based upon their physical features. ● This includes animals, plants, fungi, and microorganisms like bacteria. ● Within each of these broad groups, organisms are classified into small subgroups. Animals- invertebrates, mammals, birds, amphibians, reptiles and fish, Plants- flowering plants, ferns, conifers, moss. ● Bacteria are a group of organisms that are not visible to the naked eye but are very abundant and have distinct physical features we can only see under powerful microscopes.

	see an image in the reflective material. ● Sometimes when light hits a material it reflects off it in many different directions (it is scattered). In this case light will be reflected but no image will be seen in the material. ● Shiny surfaces are better reflectors and rough surfaces scatter light more. Opaque objects don't allow any light to pass through them Knowledge Block 3: How we see • Animals see objects when light is reflected off the object and enters the eye through the pupil. • The pupil changes its size to allow enough, but not too much light into the eye. • Too much light damages the eye and too little results in poor quality images.	

The Schools of Woolton Hill

The Schools of Woolton Hill: Science Knowledge Overview

Autumn 2A Forces that Oppose Motion	Spring 2A Classification and Evolution	Summer 2A Circulation RSE
Children will know by the end of this unit: Knowledge Block 1: Water and air resistance. • When objects move through air and water, they have to push it out of the way. The water and air push back with forces called water resistance and air resistance. The harder it is to push the material out of the way the greater the resistance. • Gases weigh less than liquids and so water resistance is greater than air resistance. Knowledge Block 2: Friction • Friction is a force against motion caused by two surfaces rubbing against each other. It occurs because no surfaces are perfectly smooth; they have bumps and undulations that can interlock when placed on top of each other.	Children will know by the end of this unit: Knowledge Block 1- What is evolution and how do we know it happened? ● The Earth is very old. Around 4.2 billion years. We know this from dating rocks ● Life first appeared on Earth around 3.8 billion years ago. ● Life was, at first, very simple but over millions and millions of years life became more complex through the process of evolution Knowledge Block Knowledge Block 1: Natural selection • Evolution is the change of physical form in a population over a long-time span • Natural selection is the process which controls that change. • In any population there is variation and competition for resources (food, water, mates).	Children will know by the end of this unit: Knowledge Block 1: Getting oxygen into the blood • All animals need oxygen to survive. • Air is breathed into the lungs where the oxygen in the air is passed into the blood. • Every part of animals' bodies need oxygen, especially muscles. • Muscles need a supply of oxygen and sugar (glucose) to make them work, they are supplied by the blood. Knowledge Block 2: The blood circulation model • The heart is a vital organ pumps blood through the blood vessels. • Blood Vessels are the tubes that blood flows through. • The blood circulates around the body in a way that ensures all muscles in the body get a supply of oxygen and sugar. • The heart pumps blood to every muscle in the body. The circulatory route must allow the blood to collect oxygen from the lungs, sugar from the intestines and visit muscles.

• To move one interlocking surface over another, one of three things must happen: • The surfaces must rise slightly • The bumps on the surface must bend • The bumps on the surface must break • All of these actions require a force, this is what causes friction Knowledge Block 3: Managing Forces • Some objects require large forces to make them move; gears, pulley and levers can reduce the force needed to make things move. • The use of levers can reduce the force needed to move things. The object you are lifting is called the load, and the force you apply to the arm to make the object move is called the effort. • The use of pulleys can reduce the force needed to move things (These are particularly complex ideas. It might be better to teach them through a design technology project where children make toys using cogs, pulleys and lever)	• Within that variation, organisms that have features which make them better adapted at securing food, water, and mates, are more likely to survive and produce offspring which have inherited those same successful features. Those that are not well adapted will eventually go extinct. • Over a long enough timeline all organisms in a population will have those successful features. • This is known as the Theory of Evolution by Natural Selection and was developed by Charles Darwin in 1859 Knowledge Block 2: How Charles Darwin discovered the process of Evolution by Natural selection • Before Darwin, Lamarck's Idea of acquired characteristics was proposed. (Giraffes stretch their necks in life, which made their children have longer necks). • Darwin as a young man travelled around the world on the HMS Beagle. On this 5-year voyage he saw lots of things and recorded down lots of evidence which allowed him to work out how organisms change over time by a different mechanism of Natural selection	• The blood then returns to the heart where it is pumped again. • Exercise helps the heart to work more efficiently. • Eating a healthy diet helps to keep the blood vessels from getting blocked. • Avoiding smoking and alcohol puts less stress on the whole system and keeps it healthier.

The Schools of Woolton Hill: Science Knowledge Overview

Year 1/2 Science Curriculum Cycle B		
Autumn 1B **Pushes and Pulls**	**Spring 1B** **Habitats**	**Summer 1B** **Plants**
Children will know by the end of this unit: Knowledge Block 1 • Objects can move (be in Motion) in various ways-roll, slide and bounce Knowledge Block 2 • The pushing or pulling of an object can affect its motion. • Pushing or pulling can do three things, slow down, speed up or change the direction of an object. Knowledge Block 3 • The larger the push/pull the bigger the effect on motion	Children will know by the end of this unit: Knowledge Block 1- Adapted to survive ● There is variation in all living things ● Animals and plants live in a variety of different places called habitats ● Animals and plants have adapted to survive in different habitats ● Wild plants such as ferns, daisies, nettles and dandelions grow randomly. ● Garden plants such as roses, tulips, poppies, daffodils are planted intentionally. Knowledge Block 2- Plants adaptations for survival ● Plants have specific adaptations for survival ● To survive they need to get water, light, and avoid being eaten	Children will know by the end of this unit: Knowledge Block 1- Where do plants come from ● A seed contains a miniature plant that can develop into a fully grown plant. ● A bulb has underground vertical shoots which already has modified leaves ● Seeds and bulbs need water to grow but most do not need light (germination) ● Seeds and bulbs have food stores inside them to help the plant start to grow. Knowledge Block 2- Plant survival ● To survive plants, need to get water, light, and avoid being eaten Knowledge Block 3- How plants get what they need to survive ● A seed produces roots to allow water to get into the plant. ● A seed produces shoots to produce leaves to collect the sunlight.

		• A basic plant structure can include leaves, flowers (blossom), petals, fruit, roots, bulb, seed, trunk, branches, stem
Autumn 2B	**Spring 2B** **Animal Lifecycles**	**Summer 2B** **Making New Plants**
	Children will know by the end of this unit: Knowledge Block 1- Animal timelines • Things that are living, move, feed, grow, reproduce and use their senses • Animals grow until they reach maturity and then don't grow any larger • Animals reproduce when they reach maturity (adulthood) • All animals eventually, die • Different animals live to different ages • Different animals reach different sizes before they are able to reproduce • Different animals reproduce at different ages • Animals, including humans, have offspring which grow into adults • Exercise, eating the right amounts of different types of food and hygiene are important to maintain good health and wellbeing	Children will know by the end of this unit: Knowledge Block 1- What flowers are for • All flowering plants make seeds (reproduction) that can grow (germinate) into new plants • Plants need water, light and a suitable temperature to grow and stay healthy Knowledge Block 2- What happens after a plant has produced seeds • Some plants die after it has produced its seed and sometimes the plant lives for many generations producing seeds each year

The Schools of Woolton Hill: Science Knowledge Overview

Year 3/4 Science Curriculum – Cycle B		
Autumn 1B **Living Things**	**Spring 1B** **Rocks and Soils**	**Summer 1B** **Solids, Liquids and Gases**
Children will know by the end of this unit: Knowledge Block 1- Classifying living things • Living things can be divided into groups based upon their characteristics • Classification keys help group, identify and name living things • Animals can be classified as vertebrates (having a spine) or invertebrates (lacking a spine) • In any habitat there are food chains and webs where nutrients are passed from one organism to another when it is eaten • If the population of one organism in the chain or web is affected, it has a knock-on effect to all the others Knowledge Block 2- Life cycles • Mammals, amphibians, insects and birds have different life cycles. • Lifecycles vary in time depending on the species of animal- it can be as	Children will know by the end of this unit: Knowledge Block 1- The different types of rocks • A rock is a solid material made up of minerals forming part of the surface of the Earth • Rocks are exposed on the surface at cliffs, hills and mountains but are also under the surface. • Some rocks, called ores contain metals • Some rocks are made of grains squashed together and can contain the remains of long-dead organisms, called fossils. This type of rock is called sedimentary rock, an example would be limestone, sandstone or mudstone • Some rocks are made of crystals that are locked tightly together. These are called igneous and metamorphic rocks; an example of igneous rock is granite,	Children will know by the end of this unit: Knowledge Block 1- Properties of solids, liquids and gases • Materials can be divided into solids, liquids and gases. • Solids hold their shape unless forced to change. • Liquids flow easily but stay in their container because of gravity. The more viscous a liquid the less runny it is. • Gases move everywhere and are not held in containers by gravity. Knowledge Block 2- Changing state • Heating causes solids to melt into liquids and liquids to evaporate to gases. • Cooling causes gases to condense to liquids and liquids to freeze to solids. Knowledge Block 3- Melting, freezing, boiling and condensation temperatures

short as just a few weeks for insects, to up to 200 years for sea urchins. Larger animals often have longer life cycles but not always. • All animal life cycles begin with growth and development followed by reproduction. • Some animals undergo a complete metamorphosis as they grow. Metamorphosis is a process where animals undergo an abrupt and obvious change in the structure of their body and their behaviour. • Some animals are eusocial. This means they live in colonies (groups) with one animal or group producing young and the others working to care for them. Knowledge Block 2- Environmental change • Environmental change affects different habitats differently • Human activity significantly affects the environment • Different organisms are affected differently by environmental change	and an example of metamorphic rock is slate Knowledge Block 2- The properties of rocks • These three types of rocks all have different properties to each other, including porosity, hardness, reaction to chemicals • The properties of the rock depend on how the rock was formed, e.g. Some igneous rocks form from lava from volcanoes and cool very quickly leading to very small crystals Knowledge Block 3- The structure of soils • Soil is made up of small broken-down pieces of rock. • Soil contains a range of different size rock pieces, e.g., sand grains or stones. • Soil also contains humus (rotted plant material) • Soil made of very fine rock is called silt or clay.	• Different substances change state at different temperatures but the temperatures at which given substances changes state is always the same. Knowledge Block 4- All about the water cycle • The temperature at which a substance melts from a solid to a liquid is the same at which it freezes from a liquid to a solid. • The temperature at which a substance boils from a liquid to a gas is the same at which it condenses from a gas to a liquid. • Liquids evaporate slowly, even below their boiling temperatures. • The water cycle is the process by which water is continuously transferred between the surface of the earth and the atmosphere. • Liquid water evaporates into water vapour, condenses to form clouds, and precipitates back to earth in the form of rain and snow.

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The Schools of Woolton Hill: Science Knowledge Overview

Autumn 2B Magnets	Spring 2B Plants and their Food Production	Summer 2B Mixtures and Separating them
Children will know by the end of this unit: Knowledge Block 1- What magnets do • Magnets exert attractive forces on some metals Knowledge Block 2- Magnets don't need to touch • Magnetic forces work through other materials including air, so magnets don't need to be touching to exert their force. It is called a non-contact force Knowledge Block 3- Magnets attract and repel • Each end of a magnet is called a pole, opposite poles are called north and south. • Magnets exert attractive forces on each other when the poles facing each other are north and south (opposites). • Magnets exert repulsive forces on each other when the poles facing each other are the same.	Children will know by the end of this unit: Knowledge Block 1- Plants don't go to McDonalds • Plants do not eat food so have to make their own. • This food provides then with energy, and materials to grow • To make the food (sugar) plants need water from the ground, carbon dioxide from the air and light from the sun. o The water is taken up through the roots from the soil o The carbon dioxide is taken in through the leaves • As well as food, plants also make oxygen which is given out back into the air through the leaves	Children will know by the end of this unit: Knowledge Block 1- What mixtures are • A substance is an object with the same properties throughout. • A mixture is when more than one substance is present in the same container Knowledge Block 2- What dissolving is • When a substance is added to a liquid the substance can disappear- this is called dissolving • A mixture of a substance that has dissolved in a liquid is called a solution • Not every substance can dissolve in water Knowledge Block 3- Separating mixtures • Mixtures can be separated if the substances have different properties • This is because the substances in the mixture are still present and are unchanged

Knowledge Block 4- what affects magnetic strength The strength of magnetic forces is affected by: • The strength of the magnet. • The distance between the magnet and the object. • The material the object is made from.		• There are different techniques for separating mixtures. - ***Filtration*** requires the substances be one that does not dissolve in a liquid to work. - ***Sieving*** requires the substances to be of different sizes to work - ***Magnets*** requires the substances to be some magnetic materials and some non-magnet materials to work. - ***Evaporation*** requires a solid substance dissolved in water and the solid has a higher boiling point in water to work. - Floating requires some substances to float and some substances to sink to work.

Year 5/6 Science Curriculum – Cycle B		
Autumn 1B **Space and Gravity**	**Spring 1B** **Sound**	**Summer 1B** **Fossils and Geological Time**
Children will know by the end of this unit: Knowledge Block 1: Our Solar system • A Solar system is a collection of planets, which orbit (a curved path) a star. • There are huge number of stars in space and therefore a huge number of solar systems • Our solar system consists of 8 planets, many of those planets have moons which orbit around them. • Earth's moon is not a planet but is a satellite which orbits Earth. It is around a quarter of the size of Earth. • As the Moon orbits the Earth, the Sun lights up different parts of it, making it seem as if the Moon is changing shape. We call these the phases of the moon. • The Moon doesn't emit (give off) light itself, the 'moonlight' we see is	Children will know by the end of this unit: Knowledge Block 1: Describing Sound ● Sounds can be produced in a variety of ways. ● Sounds have the properties of pitch and volume. ● When a sound is produced it spreads out from its source in all directions Knowledge Block 2: How sound is made and travels ● Sound is caused by vibration (objects move rapidly back and forth or up and down) ● When objects vibrate it makes the objects in contact with it also vibrate. This includes the air. ● The vibration travels through the air and makes other objects it is in contact with vibrate including your ear drum. Knowledge Block 3: Pitch and Volume changes	Children will know by the end of this unit: 2- Evidence for evolution ● There are many sources of evidence for evolution ● Fossils are one of the main sources of evidence for evolution. They show when new organisms appear and when they go extinct. ● Due to the nature of fossil formation and discovery, fossils only provide an incomplete record of evolution. ● Scientists use fossils along with other pieces of evidence (DNA, Embryology, comparative anatomy, artificial selection) to work out how organisms have evolved ● Fossils form when dead organisms are rapidly buried or leave an imprint and are turned to stone over a long period of time. If they survive in the Earth, they then have to be found by a palaeontologist who will study them.

actually the Sun's light reflected off the lunar surface. • Our solar system can be represented with a model (see diagram), but it isn't possible to draw it to scale. • The planets and moons are rotating (spinning) • The time it takes one planet to rotate is called a day. On Earth this is 24 hours • The time it takes a planet to complete one orbit around its star is called a year. On Earth this is 356.25 days • The solar system is with a massive collection of stars called the galaxy (called the Milky way) • The Milky way is one of billions of galaxies in the Universe. closer to the sun leaving a tail.	• Pitch and volume are caused by how the material vibrates • The pitch of a sound is caused by how fast an object vibrates. This is called the frequency of vibration. Higher the frequency, higher the pitch • Smaller objects or tighter strings tend to vibrate with a higher frequency • The volume of sound is caused by how big each vibration is. This is called the amplitude of vibration. The bigger the amplitude the higher the volume. • Sounds get fainter as the distance from the sound source increases.	

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Autumn 2B Space and Gravity	Spring 2B Controlling Electrical Devices	Summer 2B RSE
Children will know by the end of this unit: Knowledge Block 2: What else is in the solar system? • Stars are huge balls of gas that produce vast amounts of light and heat. • Asteroids are lumps of rock that orbit a star (there are millions in between Mars and Jupiter) • Comets are objects that are made of Ice, which melts when they get Knowledge Block 3: Gravity and its effects • Gravity is force of attraction between two objects with mass (a quantity of matter) • The bigger the mass the bigger force it exerts • Gravity works over distance but gets weaker as distance increases • Stars, planets, moons have a very large amount of mass. They exert a gravitational attraction on each other	Children will know by the end of this unit: Knowledge Block 1: Pushing electrical current • Current is the flow of electricity around a circuit. • The power supply in a circuit pushes the current round the circuit • The voltage of the power supply is a measure of this push • Voltage is measure in volts • Batteries have a limited store of energy and when this is gone, they can no longer push the current Knowledge Block 2: Electrical current • Current is the flow of electricity through a conductor • When current passes through a device it makes it work • Increasing the voltage (the number of cells in the battery) increases the current. The larger the flow of current, the harder the device works Knowledge Block 3: Electrical resistance	Children will know by the end of this unit: • How to describe the changes as humans develop into old age • Use a timeline to record the changes • Understand the changes that occur during puberty

• Differences in gravity result in smaller mass objects orbiting around lager mass objects, e.g., planets around stars and moons around planets	• All parts of a circuit offer resistance to electrical current including the wires. • Resistance is the slowing down of electrical current • The more devices added into a circuit the greater the resistance • This means less current flows around the circuit	

Disciplinary Knowledge
The disciplinary knowledge builds progressively to enable children to work scientifically and covers the following aspects: • Methods used to answer questions • Using equipment and techniques • Data analysis • Using evidence to develop explanations