Science Skills & Knowledge Progression Framework

	AUTUMN	SPRING	SUMMER
EYFS Cycle A	**Autumn 1 – Exploring Autumn** • Begin to observe and talk about living things in the local environment. • Some leaves change colour in autumn and fall from the trees. • Name a variety of domestic and wild animals. • There are lots of different animals. • Rabbits, badgers and foxes live in a woodland habitat. • All animals have special features such as whiskers, paws, beaks, tails and wings. **Autumn 2 – Light & Shiny Materials** • Make simple comparisons between objects and materials, such as bigger and smaller, and softer and harder. • Soft materials bend easily. They are not hard or rough to touch.	**Spring 1 – Night & Day** • During the day there is sunlight. At night there is no sunlight so the sky is dark. • Bats are animals that are awake during the night and sleep during the day. • Some animals including owls, foxes and bats are awake at night and sleep during the day. • There are adults in our community who work at night time to help us. **Spring 2 – Melting & Freezing** • Ice melts and turns into water when it gets warm. • Water freezes and turns into ice when it gets very cold. • Some materials change when they are heated or cooled, like chocolate melting when warm.	**Summer 1 – Shadows & Reflections** • Begin to notice and talk about shadows they can see in the environment. • A shadow is made when something blocks the light. • Shadows can change shape or size depending on where the light is. • Begin to notice reflections in shiny surfaces such as mirrors or water. • Reflections show an image of something because light bounces off shiny surfaces. **Summer 2 – Floating & Sinking** • Begin to explore and talk about what happens when objects are placed in water. • Some objects float on top of the water and some objects sink to the bottom. • Heavy objects often sink and lighter objects sometimes float. • The material an object is made from can affect whether it floats or sinks (e.g., plastic often floats, metal often sinks). • We can test objects in water to find out if they float or sink.
EYFS Cycle B	**Autumn 1-Senses** • Explore and talk about how they use their senses to find out about places, materials and living things in their environment. • We use our senses to explore the world around us. • Our senses are sight, hearing, touch, taste and smell. • We use our eyes to see, our ears to hear, our hands to touch and feel, our nose to smell and our mouth to taste. • Our senses help us to notice differences in places, materials and objects, such as whether something is rough or smooth, loud or quiet, bright or dark. **Autumn 2 -Winter Wonderland** • Begin to explore and talk about changes they notice during winter, using simple scientific vocabulary. • In winter, the weather is often colder.	**Spring 1-Materials: Naming & Sorting** • Begin to name and sort everyday objects based on simple, observable features. • Objects can be grouped by what they look like, such as colour, size and shape. • Objects can also be grouped by what they are made of, such as wood, plastic, metal or fabric. • Some materials feel different, such as being soft, hard, rough or smooth. **Spring 2-Plants Growth** • Begin to talk about ways to care for a plant or animal. • Plants need water, sunlight, air and warmth to grow. • Care for growing seeds and plants and describe observable features of different types of plants and trees. • Plants need water, sunlight, air and warmth to grow.	**Summer 1- Habitats & Minibeasts** • Begin to notice and talk about minibeasts they find in the outdoor environment, such as snails, worms, spiders and woodlice. • Minibeasts are small animals that live in many outdoor places, including soil, grass, logs and leaf piles. • Snails have shells and move slowly on a slimy foot. • Worms have long, soft bodies and live under the soil. • Spiders have eight legs and spin webs. • Woodlice have hard bodies and curl up to protect themselves. • Minibeasts need food, water and the right habitat to stay alive. **Summer 2- Seaside Plants & Animals** • Name a variety of domestic and wild animals. • Talk about some of the things that they have observed using simple scientific vocabulary.

	• Ice forms when water freezes in very cold temperatures. • Snow is made of tiny frozen ice crystals. • Some animals stay active in winter, while others hide or rest to keep warm. • We wear warm clothes such as coats, hats, gloves and scarves to keep warm in winter. • Trees in winter may have no leaves because they fell off in autumn.		• Show care for living things and the environment. • There are lots of different animals. Some animals including seabirds, crabs and starfish live at the seashore. • There are lots of different animals. Some animals including starfish, crabs and limpets live in rock pools. • Leaving litter can harm plants and animals. There are lots of different animals. Some animals including fish, whales, sharks and dolphins live in the seas and oceans.
KS1 Cycle A	**Autumn 1 – Magnets** • Identify that materials have different properties and explore and sort magnetic and non-magnetic materials through play and exploration. • Some materials are magnetic, which means that they are attracted to (pull towards) a magnet. • Some metals are magnetic. Other materials are non-magnetic, such as wood, dough and glass. **Autumn 2 – Exploring Materials** • Make observations about objects and artefacts from the past, such as toys, clothes and other items relating to everyday life • With support, observe, record and talk about materials and living things. • A shadow is a dark shape on a floor or wall. • A shadow is made when a solid object blocks light. • Materials have different textures — they can feel soft, hard, rough, smooth, wet, sticky or dry.	**Spring 1 – Exploring Sound** • Begin to explore and talk about different sounds they can hear in the environment and during play. • Sounds can be made by hitting, shaking, tapping, blowing or scraping objects. • Some sounds are loud and some are quiet. • We use our ears to hear sounds. • Different materials make different sounds. **Spring 2 – Where Does Food Come From?** • Begin to talk about where some foods come from. • Some food comes from plants, such as fruit and vegetables. • Some food comes from animals, such as milk, eggs and honey. • Plants need water, sunlight, air and warmth to grow. (from your Survival + Identify & classify content) • Animal babies have different names (e.g., cow and calf), helping children link animals to animal-based foods. • There are lots of different types of animals, and some are cared for on farms.	**Summer 1 – Classifying and Identifying (Seashore)** • Name a variety of domestic and wild animals. • There are lots of different animals. Some animals including sea birds, crabs and starfish live at the sea shore. • There are lots of different animals. Some animals including starfish, crabs and limpets live in rock pools. • There are lots of different animals. Some animals including fish, whales, sharks and dolphins live in the seas and oceans. **Summer 2 – Shadows** • Make a shadow bigger or smaller using toys, play equipment and a light source. • A shadow is a dark shape on a floor or wall. • A shadow is made when a solid object blocks light.
KS1 Cycle B	**Autumn 1-Seasons** • Begin to notice and talk about changes in the weather and environment across the seasons. • There are four seasons: spring, summer, autumn and winter. • Weather changes across the seasons, such as colder in winter and warmer in summer. • Some plants and trees change with the seasons. **Autumn 2 - Materials: Naming & Sorting** • Begin to name and sort everyday objects based on simple, observable features.	**Spring 1- My Lifecycle** • Begin to talk about how they have grown and changed since they were babies. • Begin to make sense of their own life story by talking about significant events in their lives, such as birthdays or celebrations. • Begin to notice changes that have happened as they have grown. • Begin to spot similarities and differences between pictures of themselves as a baby and as they are now.	**Summer 1-Different Types of Animals** • Begin to talk about and name the body parts of common animals, including pets. • Begin to talk about ways to care for a plant or animal. • Name a variety of domestic and wild animals. • Talk about some of the things that they have observed using simple scientific vocabulary. **Summer 2- Habitats & Minibeasts** • Begin to observe and talk about living things in the local environment.

	• Objects can be grouped by what they look like, such as colour, shape and size. • Objects can also be grouped by what they are made of, such as wood, plastic, metal or fabric. • Materials can feel different, such as soft, hard, rough, smooth or stretchy.	• Begin to use simple words about the passage of time when talking about past events (e.g., "when I was little"). • There are things they can do now that they couldn't do when they were babies. • We change as we grow. • The past includes things that have already happened. • Grandparents are your parents' parents. • Objects and life in the past can be different from today (e.g., toys, clothes, homes). **Spring 2- My Body** • Begin to talk about and name simple parts of their body. • Begin to talk about what their body can do (running, jumping, climbing, moving, seeing, hearing). • Begin to notice how their body feels during rest and activity (tired, energetic, hot, cold). • Begin to talk about ways to keep their body healthy.	• Begin to talk about ways to care for a plant or animal. • Show care for living things and the environment. • Talk about some of the things that they have observed using simple scientific vocabulary. • Minibeasts is another name for animals such as insects, spiders and snails. • Caterpillars eat lots of food as they grow. • Snails have soft bodies and a spiral shell.
KS2 Cycle A	**Autumn 1- Seasonal Changes** • Observe changes across the four seasons. • Observe and describe weather associated with the seasons. • Observe and describe how day length varies across the year. • There are four seasons: spring, summer, autumn and winter. • Weather changes across the seasons (e.g., winter is colder, summer is warmer). • Day length changes: days are longer in summer and shorter in winter. • Some plants change with the seasons, such as trees losing leaves in autumn. • Some animals behave differently in different seasons, for example: o Birds may migrate. o Some animals hibernate. • Seasonal weather may include rain, sunshine, wind, snow, frost, and cloud. **Autumn 2 – The Human Senses; Body Parts** • Identify, name, draw and label the basic parts of the human body. • Say which part of the body is associated with each of the five senses.	**Spring 1 – Investigation: What Makes the Loudest Sound?** • Identify and name what an object is made from, including wood, plastic, glass, metal, water and rock. • Investigate and describe the simple physical properties of some everyday materials, such as hard or soft; stretchy or stiff; rough or smooth; opaque or transparent; bendy or rigid; and waterproof or not waterproof. • Observe objects, materials, living things and changes over time, sorting and grouping them based on their features. **Spring 2 – Animal Nutrition & Skeletal Systems** • Describe, following observation, how plants and animals change over time. • Group and sort a variety of common animals based on the foods they eat. • Label and describe the basic structures of a variety of common animals, including fish, amphibians, reptiles, birds and mammals. • With support, use simple equipment to measure and make observations.	**Summer 1 – Micro Habitats** • Observe the local environment throughout the year and ask and answer questions about living things and seasonal change. • Observe objects, materials, living things and changes over time, sorting and grouping them based on their features. • Observe simple micro-habitats and describe the living things found there. • Identify, compare, group and sort a variety of common wild and garden plants based on observable features. • Describe how to care for plants and animals, including pets. • Ask simple scientific questions. • With support, use simple equipment to measure and make observations. **Summer 2 – Plant Parts** • Identify, compare, group and sort a variety of common wild and garden plants, including deciduous and evergreen trees, based on observable features. • Label and describe the basic structure of a variety of common plants.

	• The basic parts of the human body include: head, neck, arms, elbows, hands, fingers, legs, knees, feet, toes, face, ears, eyes, nose, mouth.
	• Different body parts help us to move, sense, eat, speak and interact with the world.
	• We have five senses that help us explore and understand the world around us:
	  o Sight – using our eyes
	  o Hearing – using our ears
	  o Smell – using our nose
	  o Taste – using our tongue
	  o Touch – using our skin, especially our hands and fingers
			• Observe objects, materials, living things and changes over time, sorting and grouping them based on their features.
			• Observe the local environment throughout the year and ask and answer questions about living things and seasonal change.
			• Ask simple scientific questions.
			• With support, use simple equipment to measure and make observations.
			• Talk about what they have done and say, with help, what they think they have found out.

KS2 Cycle B	**Autumn 1- Human Body** • Draw and label the main parts of the human body and say which body part is associated with which sense. • Observe objects, materials, living things and changes over time, sorting and grouping them based on their features. (Relevant because children sort and group body parts, senses, and features of humans as living things.) **Autumn 2 -Everyday Materials** • Ask simple scientific questions. • Compare and group materials in a variety of ways, such as based on their physical properties, whether they are natural or human-made, and whether they are recyclable or non-recyclable. • Describe, following exploration, what simple electrical circuits can do. • Identify and name what an object is made from, including wood, plastic, glass, metal, water and rock. • Investigate and describe the simple physical properties of some everyday materials, such as hard or soft; stretchy or stiff; rough or smooth; opaque or transparent; bendy or rigid; and waterproof or not waterproof. • With support, follow instructions to perform simple tests and begin to talk about what they might do or what might happen. • With support, gather and record simple data in a range of ways (data tables, diagrams, Venn diagrams).	**Spring 1-Forces: Push & Pull** Investigation- How things move? • Observe objects, materials, living things and changes over time, sorting and grouping them based on their features. • With support, gather and record simple data in a range of ways (data tables, diagrams, Venn diagrams). • With support, use simple equipment to measure and make observations. **Spring 2-Light & Shadows** • Compare shadows made by different objects and materials. • Investigate weather using toys, models or simple equipment. • Observe and describe different types of weather. • Observe changes across the four seasons. • Observe objects, materials, living things and changes over time, sorting and grouping them based on their features. • Talk about what they have done and say, with help, what they think they have found out. • With support, follow instructions to perform simple tests and begin to talk about what they might do or what might happen. • With support, gather and record simple data in a range of ways (data tables, diagrams, Venn diagrams). • With support, use simple equipment to measure and make observations.	**Summer 1-Animal Parts** • Describe how to care for plants and animals, including pets. • Group and sort a variety of common animals based on the foods they eat. • Identify, compare, group and sort a variety of common animals, including fish, amphibians, reptiles, birds, invertebrates and mammals, based on observable features. • Label and describe the basic structures of a variety of common animals, including fish, amphibians, reptiles, birds and mammals. • Observe objects, materials, living things and changes over time, sorting and grouping them based on their features. • With support, follow instructions to perform simple tests and begin to talk about what they might do or what might happen. • With support, gather and record simple data in a range of ways (data tables, diagrams, Venn diagrams). **Summer 2-Animal Survival** • Ask simple scientific questions. • Describe how to care for plants and animals, including pets. • Group and sort a variety of common animals based on the foods they eat. • Identify, compare, group and sort a variety of common animals, including fish, amphibians, reptiles, birds, invertebrates and mammals, based on observable features.

			• Label and describe the basic structures of a variety of common animals, including fish, amphibians, reptiles, birds and mammals. • Observe objects, materials, living things and changes over time, sorting and grouping them based on their features. • Talk about what they have done and say, with help, what they think they have found out. • With support, follow instructions to perform simple tests and begin to talk about what they might do or what might happen. • With support, gather and record simple data in a range of ways (data tables, diagrams, Venn diagrams). • With support, use simple equipment to measure and make observations.
KS2 Cycle C	**Autumn 1- Habitats** • Identify and name a variety of plants and animals in their habitats, including microhabitats. • Describe how animals obtain their food using the idea of a simple food chain. • Ask questions and use different types of enquiry to find answers about living things and their habitats. • Perform simple comparative tests linked to habitat conditions. • Observe closely, using simple equipment, when studying plants, animals or their habitats. • Use simple equipment carefully and accurately when observing living things in their environment. • Gather and record data to help answer questions about habitats (e.g., tally charts, simple tables, diagrams). • Identify and classify living things found in different habitats. • Notice that animals, including humans, have offspring that grow into adults (relevant when exploring life cycles within habitats). **Autumn 2- Forces & Mechanisms: Gravity** • Draw and label the main parts of the human body and say which body part is associated with which sense. (Relevant when talking about feeling pushes/pulls with our bodies.) • Observe objects, materials, living things and changes over time, sorting and grouping them based on their features. • Talk about what they have done and say, with help, what they think they have found out.	**Spring 1- Sound** • Compare the volume and pitch of sounds made by instruments, their voices or other objects. • Begin to notice patterns and relationships in their data and explain what they have done and found out using simple scientific language. • Follow a set of instructions to perform a range of simple tests, making simple predictions for what might happen and suggesting ways to answer their questions. • Use a range of methods (tables, charts, diagrams and Venn diagrams) to gather and record simple data with some accuracy. **Spring 2- Senses, Human Body & Hygiene** • Identify and name the main parts of the human body and describe their basic functions. • Identify and name the five senses and link each sense to the correct body part. • Ask questions and use different types of enquiry to find answers about the body and senses. • Perform simple comparative tests related to the senses (e.g., which sound is louder, which smell is strongest). • Observe closely, using simple equipment, when exploring how senses work. • Gather and record data to answer questions (e.g., tally charts, simple tables, diagrams). • Use simple scientific language to describe what they have found out.	**Summer 1- Plant & Animal Lifecycles** • Ask and answer scientific questions about the world around them. • Begin to notice patterns and relationships in their data and explain what they have done and found out using simple scientific language. • Describe the basic life cycles of some familiar animals (egg → caterpillar → pupa → butterfly; egg → chick → chicken; spawn → tadpole → froglet → frog). • Identify and name a variety of plants and animals in a range of habitats and microhabitats. • Explain how animals, including humans, need water, food, air and shelter to survive. • Follow a set of instructions to perform a range of simple tests, making simple predictions for what might happen and suggesting ways to answer their questions. • Interpret and construct simple food chains to describe how living things depend on each other as a source of food. • Use a range of methods (tables, charts, diagrams and Venn diagrams) to gather and record simple data with some accuracy. • Use simple equipment to measure and make observations. **Summer 2- Food & Digestive System** • Observe what happens when a range of everyday materials, including foods, are heated and cooled, sorting and grouping them based on their observations.

	• With support, follow instructions to perform simple tests and begin to talk about what they might do or what might happen.		• Notice that animals, including humans, have offspring that grow into adults. • Perform simple comparative tests linked to food (e.g., which foods melt, dissolve, or change when heated). • Use simple equipment to make observations when exploring foods and body functions. • Use tables, charts and diagrams to gather and record data with some accuracy. • Use simple scientific language to describe changes in foods and what they have found out.
KS2 Cycle D	**Autumn 1- Use of Materials** • Compare the suitability of a range of everyday materials for particular uses, including wood, metal, plastic, glass, brick, rock, paper and cardboard. • Identify and name a variety of plants and animals in a range of habitats and microhabitats. (linked when recognising natural vs. man-made materials, or materials found in the environment) • Use simple equipment to measure and make observations. **Autumn 2- States of Matter: Water** • Observe closely what happens to water when it is heated or cooled. • Describe changes they can see when water turns into ice or melts back into liquid water. • Sort and group objects and materials based on simple observable features (e.g., solid ice vs. liquid water). • Ask and answer simple scientific questions about what happens when water changes state. • Follow instructions to carry out simple tests, such as melting ice or freezing water. • Gather and record simple data (pictures, tallies, charts) about temperature, ice melting time, or frozen objects.	**Spring 1- Forces: Floating & Sinking** • Compare the suitability of a range of everyday materials for particular uses, including wood, metal, plastic, glass, brick, rock, paper and cardboard. (relevant because material properties affect floating and sinking) • Follow a set of instructions to perform a range of simple tests, making simple predictions for what might happen and suggesting ways to answer their questions. • Sort and group objects that float and sink. **Spring 2- Human Reproduction & Ageing: Human Life Cycles** • Ask and answer scientific questions about the world around them. • Compare and group things that are living, dead or have never been alive. (relevant when understanding humans as living things that grow and change) • Describe how some objects and materials can be changed and how these changes can be desirable or undesirable. (supports understanding that humans also change over time) • Explain how animals, including humans, need water, food, air and shelter to survive. • Follow a set of instructions to perform simple tests, making simple predictions for what might happen and suggesting ways to answer their questions. • Identify and name a variety of plants and animals in a range of habitats and microhabitats. (links to humans as animals) • Observe objects, materials, living things and changes over time, sorting and grouping them based on their features and explaining their reasoning.	**Summer 1- States of Matter: Solids, Liquids, Gases KS3b** • Begin to notice patterns and relationships in their data and explain what they have done and found out using simple scientific language. • Compare the suitability of a range of everyday materials for particular uses, including wood, metal, plastic, glass, brick, rock, paper and cardboard. **Summer 2- Plant Nutrition & Reproduction** • Ask and answer scientific questions about the world around them. • Begin to notice patterns and relationships in their data and explain what they have done and found out using simple scientific language. • Describe how plants need water, light and a suitable temperature to grow and stay healthy. • Observe and describe how seeds and bulbs change over time as they grow into mature plants. • Observe objects, materials, living things and changes over time, sorting and grouping them based on their features and explaining their reasoning.

		• Use simple equipment to measure and make observations.	
KS3 Cycle A	**Autumn 1 - Earth & Atmosphere: rocks** • Compare and group rocks based on their appearance, properties or uses. • Explain that sedimentary, igneous and metamorphic are the three different rock types. • Observe and describe how different rocks are formed. **Autumn 2 - Grouping & Classifying** • Understand that classification is the arrangement of living and non-living things into groups or categories. • Explain that scientists classify living things according to shared characteristics • Begin to choose which observations to make and for how long and make systematic, careful observations and comparisons, identifying changes and connections. • Ask relevant scientific questions, independently, about the world around them and begin to identify how they can answer them. • Compare, sort and group living things from a range of environments, in a variety of ways, based on observable features and behaviour. • Use a classification key to help identify a living thing or decide which group it belongs to.	**Spring 1 - Can We Block Sound?** • Compare how well different materials block sound • Describe how sound can travel through a medium such as water or air to reach our ears. • Identify how some materials are better than others at blocking sound. **Spring 2 – Magnetism** • Explain that an object will not move unless a push or pull force is applied, describing forces in action and whether the force requires direct contact or whether the force can act at a distance (magnetic force). • Investigate and compare a range of magnets (bar, horseshoe and floating) and explain that magnets have two poles (north and south) and that opposite poles attract each other, while like poles repel each other. • Compare and group materials based on their magnetic properties. • Use suitable vocabulary to talk or write about what they have done, what the purpose was and, with help, draw a simple conclusion based on evidence collected, beginning to identify next steps or improvements. • Gather and record findings in a variety of ways (diagrams, tables, charts and graphs) with increasing accuracy	**Summer 1 - Light Theory: Reflection, Retraction &** • Describe, using scientific language, phenomena associated with refraction of light. • Explain the dangers of using lasers and ways to use them safely. • Identify that light travels in straight lines. • Explain that, due to how light travels, we can see things because they give out or reflect light into the eye. • Plan and carry out a range of enquiries, including writing methods, identifying and controlling variables, deciding on equipment and data to collect and making predictions based on prior knowledge and understanding. • Describe, using diagrams, how light behaves when reflected off a mirror (plane, convex or concave) and when passing through a lens (concave or convex). • Describe, using scientific language, phenomena associated with refraction of light. **Summer 2 - Is It Safe to Eat?** • Investigate the 'five-second rule' and whether food is ever safe to eat after being dropped on the floor. • Identify how microorganisms instantly stick to food that they come into contact with. • Explain that scientists believe that we should never eat food that has been on the floor. **Summer 2 - Which Is the Juiciest Fruit?** • Examine fruit and vegetables to find out how much water they contain. • Identify how dehydrating fruit and vegetables shows that they contain a high proportion of water - essential for hydrating the human body.
KS3 Cycle B	**Autumn 1 - Electric Circuits & Conductors** • Identify the electrical symbols representing electrical components such as a switch, buzzer or lamp. • Create circuits using a range of components and record diagrammatically using the recognised symbols for electrical components. • Compare and give reasons for variations in how components in electrical circuits function (brightness of lamps; volume of buzzers and function of on or off switches). • Explain how the brightness of a lamp or volume of a buzzer is affected by the number and voltage of cells used in a circuit.	**Spring 1 - Why Does It Flood?** • Investigate how water flows over different materials and relate this to the landscape and flooding. • Explain how landscape can greatly affect how rainfall flows and can cause flooding. • describe how vegetation slows down the flow of rainfall and absorbs water, which can help prevent flooding. **Spring 2 - Digestive Systems** • Identify the four different types of teeth in humans and other animals, and describe their functions.	**Summer 1 - How did Vikings Dye Their Clothes?** • Investigate the natural plant dyes that the Anglo-Saxons and Vikings used to dye their clothes. • Describe how natural dyes can be used to produce a wide range of colours. **Summer 2 - Blood Heart: Circulatory System** • Name and describe the purpose of the circulatory system and the functions of the heart, blood vessels and blood. • Take accurate, precise and repeated measurements in standard units, using a range of chosen equipment.

	Autumn 2 - Potions • Describe how some objects and materials can be changed and how these changes can be desirable or undesirable. • Observe what happens when a range of everyday materials, including foods, are heated and cooled, sorting and grouping them based on their observations. • Use simple equipment to measure and make observations.	• Describe what damages teeth and how to look after them. • Use scientific vocabulary to report and answer questions about their findings based on evidence collected, draw simple conclusions and identify next steps, improvements and further questions. • Begin to choose which observations to make and for how long and make systematic, careful observations and comparisons, identifying changes and connections. • Gather, record, classify and present observations and measurements in a variety of ways (pictorial representations, timelines, diagrams, keys, tables, charts and graphs)	• Ask and answer deeper and broader scientific questions about the local and wider world that build on and extend their own and others' experiences and knowledge. • Explain the impact of positive and negative lifestyle choices on the body. • Plan and carry out a range of enquiries, including writing methods, identifying and controlling variables, deciding on equipment and data to collect and making predictions based on prior knowledge and understanding. • Explain that the circulatory system in animals transports oxygen, water and nutrients around the body.
KS3 Cycle C	**Autumn 1 - How Does Pollution Affect Our Habitats?** • Identify different pollutants: litter, oil, chemicals and sewerage that can put aquatic plants and their habitats at risk. • Take photos and record any changes that they see. **Autumn 2 - Survival & Adaptation** • Describe the basic needs of animals, including humans, for survival (food, water and air). • Ask and answer scientific questions about how humans and animals stay healthy.	**Spring 1 – Can Water Make Music?** • Investigate how the volume of water changes the sound. • Explore how the amount of water in a jar affects the pitch of the sound it makes when you tap it. • Explain that less water creates a high pitch and more water creates a low pitch. **Spring 2 - Human Reproduction & Ageing (revisiting)** • Describe the changes as humans develop from birth to old age. • Explain why personal hygiene is important during puberty. • Gather and record data and results of increasing complexity, selecting from a range of methods (scientific diagrams, labels, classification keys, tables, graphs and models).	**Summer 1 - Muscular & Skeletal Systems** • Describe how humans need the skeleton and muscles for support, protection and movement. • Set up and carry out some simple, comparative and fair tests, making predictions for what might happen. • Identify and group animals that have no skeleton, an internal skeleton (endoskeleton) and an external skeleton (exoskeleton). **Summer 2 - Properties & Changes of Materials** • Separate mixtures by filtering, sieving and evaporating. • Explore how reversible changes include heating, cooling, melting, dissolving and evaporating; irreversible changes include burning, rusting, decaying and chemical reactions. • Compare and group everyday materials by their properties, including hardness, solubility, transparency, conductivity (electrical and thermal) and magnetism. • Take increasingly accurate measurements in standard units, using a range of chosen equipment.