



Whole School Skills Progression Map



National Curriculum Aim	EYFS	By the end of KS1		By the end of LKS2		By the end of UKS2	
	Three and Four-Year-Olds Reception Early Learning Goals	Cycle A	Cycle B	Cycle A	Cycle B	Cycle A	Cycle B
Animals inc Humans Skills	<p>Draw pictures of the human body and name some of the different body parts.</p> <p>Wash and dry hands regularly and say why this is important.</p> <p>Follow instructions when in different environments and when handling simple equipment, such as scissors.</p> <p>Match animals to their young.</p> <p>Identify common</p>	<p>Draw and label the main parts of the human body and say which body part is associated with which sense.</p> <p>Explain why hand washing and cleanliness are important.</p> <p>Describe ways to stay safe in some familiar situations.</p> <p>Identify, compare, group and sort a variety of common animals, including fish,</p>	<p>Describe the stages of human development (baby, toddler, child, teenager, adult and elderly). Describe the importance of a healthy lifestyle, including exercise, a balanced diet, good quality sleep and personal hygiene.</p> <p>Describe what humans need to survive.</p> <p>Begin to notice patterns and relationships in</p>	<p>Describe how humans need the skeleton and muscles for support, protection and movement. Explain the importance and characteristics of a healthy, balanced diet.</p> <p>Identify and group animals that have no skeleton, an internal skeleton (endoskeleton) and an external skeleton (exoskeleton).</p> <p>Compare and contrast the</p>	<p>Describe the purpose of the digestive system, its main parts and each of their functions. Describe what damages teeth and how to look after them.</p> <p>Identify the four different types of teeth in humans and other animals, and describe their functions.</p>	<p>Describe the process of human reproduction. Explain why personal hygiene is important during puberty.</p> <p>Use relevant scientific vocabulary to report on their findings, answer questions and justify their conclusions based on evidence collected, identify improvements, further questions and predictions.</p> <p>Compare the life cycles of animals, including a mammal, an</p>	<p>Name and describe the purpose of the circulatory system and the functions of the heart, blood vessels and blood.</p> <p>Explain the impact of positive and negative lifestyle choices on the body.</p> <p>Explain that the circulatory system in animals transports oxygen, water and nutrients around the body.</p>

Whole School Skills Progression Map

	<p>features for different groups of animals, including wild and domestic animals.</p> <p>Match animals to the foods that they eat.</p>	<p>amphibians, reptiles, birds, invertebrates and mammals, based on observable features.</p> <p>Label and describe the basic structures of a variety of common animals, including fish, amphibians, reptiles, birds and mammals.</p> <p>Group and sort a variety of common animals based on the foods they eat.</p>	<p>their data and explain what they have done and found out using simple scientific language.</p> <p>Describe the basic life cycles of some familiar animals (egg, caterpillar, pupa, butterfly; egg, chick, chicken; spawn, tadpole, froglet, frog).</p> <p>Explain how animals, including humans, need water, food, air and shelter to survive.</p>	<p>diets of different animals.</p>		<p>amphibian, an insect and a bird.</p> <p>Describe the changes as humans develop from birth to old age.</p>	<p>Take accurate, precise and repeated measurements in standard units, using a range of chosen equipment.</p>
Knowledge	<p>The basic body parts are the head, arms, legs, nose, eyes, ears, mouth, hands and feet. Different body parts are used for different things, such as the eyes are used to see. Washing and drying their hands,</p>	<p>The basic body parts are the head, arms, legs, nose, eyes, ears, mouth, hands and feet. The five senses are hearing, sight, smell, taste and touch. Ears are used for hearing, eyes are used to see, the nose is used to smell,</p>	<p>Human offspring go through different stages as they grow to become adults. These include baby, toddler, child, teenager, adult and elderly.</p> <p>Animals need water, food, air and shelter to survive. Their</p>	<p>Humans have a skeleton and muscles for movement, support and protecting organs. Major bones in the human body include the skull, ribs, spine, humerus, ulna, radius, pelvis, femur, tibia and fibula.</p>	<p>The digestive system is responsible for digesting food and absorbing nutrients and water. The main parts of the digestive system are the mouth, oesophagus, stomach, small intestines, large intestines and rectum. The</p>	<p>Humans reproduce sexually, which involves two parents (one female and one male) and produces offspring that are different from the parents. Good personal hygiene (washing, wearing clean clothes and brushing teeth)</p>	<p>The circulatory system includes the heart, blood vessels and blood. The heart pumps blood through the blood vessels and around the body. There are three types of blood vessel: arteries, veins and capillaries. They each have</p>



Whole School Skills Progression Map



	<p>especially after using the toilet and before eating, helps stop the spread of harmful germs.</p> <p>Animals eat different kinds of food, including other animals, plants or both animals and plants.</p> <p>Different animal groups have some common body parts, such as birds have wings and fish have fins.</p> <p>Animals are living things. There are different types of animal. Parent and baby mammals include cow and calf, sheep and lamb, and cat and kitten. Parent and baby birds include duck and duckling, chicken and</p>	<p>the tongue is used to taste and skin gives the sense of touch. Hand washing and good hygiene are important parts of a healthy lifestyle and prevent the spread of germs.</p> <p>Carnivores eat other animals (meat), herbivores eat plants and omnivores eat other animals and plants.</p> <p>Different animal groups have some common body parts, such as eyes and a mouth, and some different body parts, such as fins or wings.</p> <p>Animals are living things. Animals can be sorted and grouped into six main groups: fish, amphibians,</p>	<p>habitat must provide all these things.</p> <p>Animals have offspring that grow into adults. Different animals have different stages of growth or life cycles. Different animal groups have some common body parts, such as eyes and a mouth, and some different body parts, such as fins or wings.</p>	<p>Major muscle groups in the human body include the biceps, triceps, abdominals, trapezius, gluteals, hamstrings, quadriceps, deltoids, gastrocnemius, latissimus dorsi and pectorals. Humans have to get nutrition from what they eat. It is important to have a balanced diet made up of the main food groups, including proteins, carbohydrates, fruit and vegetables, dairy products and alternatives, and fats and spreads. Humans need to stay hydrated by drinking water.</p> <p>Animals cannot make their own food and need to get nutrition from the food</p>	<p>mouth starts digestion by chewing food and mixing it with saliva. The oesophagus transports the chewed food to the stomach, where it mixes with stomach acid and gets broken down into smaller pieces. In the small intestine, nutrients from the food are absorbed by the body. In the large intestine, water is absorbed by the body. The remaining undigested waste is stored in the rectum before excretion through the anus. Regular teeth brushing, limiting sugary foods and visiting the dentist are important for good oral hygiene.</p>	<p>can prevent disease or illness. Puberty is the period during which adolescents reach sexual maturity and become capable of reproduction. It causes physical and emotional changes. The results are information, such as measurements or observations, that have been collected during an investigation. A conclusion is an explanation of what has be</p> <p>Reproduction is the process of producing offspring and is essential for the continued survival of a species. There are two types of reproduction: sexual and asexual. Sexual reproduction involves two parents (one female and one male) and produces offspring that are different</p>	<p>a different-sized hole (lumen) and walls. The blood carries gases (oxygen and carbon dioxide), water and nutrients to where they are needed. The red blood cells carry oxygen and carbon dioxide around the body. The blood also contains white blood cells, which protect the body from infection. Lifestyle choices can have a positive (exercise and eating healthily) or negative (drugs, smoking and alcohol) impact on the body. The results are information, such as measurements or observations, that have been collected during an investigation. A conclusion is an explanation of what has</p>
--	--	---	---	---	--	--	---



Whole School Skills Progression Map



	<p>chick, and goose and gosling. Different animal groups have some common body parts, such as birds have wings and fish have fins.</p>	<p>reptiles, birds, invertebrates and mammals.</p>		<p>they eat. Carnivores get their nutrition from eating other animals. Herbivores get their nutrition from plants. Omnivores get their nutrition from eating a combination of both plants and other animals.</p> <p>Some animals have skeletons for support, movement and protection. Endoskeletons are those found inside some animals, such as humans, cats and horses. Exoskeletons are those found on the outside of some animals, such as beetles and flies. Some animals have no skeleton, such as slugs and jellyfish.</p>	<p>Humans go through characteristic stages as they develop towards old age. These stages include baby, infant, toddler, child, adolescent, young adult, adult and senior citizen. Puberty is the transition between childhood and adulthood.</p> <p>There are four different types of teeth: incisors, canines, premolars and molars. Incisors are used for cutting. Canines are used for tearing. Premolars and molars are used for grinding and chewing. Carnivores, herbivores and omnivores have characteristic types of teeth. Herbivores have many large molars for</p>	<p>from the parents. Asexual reproduction involves one parent and produces offspring that is identical to the parent.</p>	<p>been discovered, using correct, precise terminology and collected evidence.</p> <p>The role of the circulatory system is to transport oxygen, water and nutrients around the body. They are transported in blood and delivered to where they are needed.</p> <p>Animals that sexually reproduce generate new offspring of the same kind by combining the genetic material of two individuals. Each offspring inherits two of every gene, one from the female parent and one from the male parent. Animals that sexually</p>
--	--	--	--	---	---	---	--



Whole School Skills Progression Map



				<p>grinding plant material. Carnivores have large canines for killing their prey and tearing meat.</p> <p>Scientists classify living things according to shared characteristics. Animals can be divided into six main groups: mammals, reptiles, amphibians, birds, fish and invertebrates. These groups can be further subdivided. Classification keys are scientific tools that aid the identification of living things.</p>	<p>reproduce generate new offspring of the same kind by combining the genetic material of two individuals. Each offspring inherits two of every gene, one from the female parent and one from the male parent.</p>
--	--	--	--	--	--

Science

National Curriculum Aim	EYFS	At the end of KS1	At the end of LKS2	At the end of UKS2
-------------------------	------	-------------------	--------------------	--------------------



Whole School Skills Progression Map



	Three and Four-Year-Olds Reception Early Learning Goals	Cycle A	Cycle B	Cycle A	Cycle B	Cycle A	Cycle B
Plants Skills	<p>Begin to name and group plants and trees according to their observable features.</p> <p>Name and describe basic features of plants and trees.</p>	<p>Identify, compare, group and sort a variety of common wild and garden plants, including deciduous and evergreen trees, based on observable features</p> <p>Label and describe the basic structure of a variety of common plants.</p>	<p>Describe how plants need water, light and a suitable temperature to grow and stay healthy.</p> <p>Observe and describe how seeds and bulbs change over time as they grow into mature plants.</p>	<p>Name and describe the functions of the different parts of flowering plants (roots, stem, leaves and flowers).</p> <p>Investigate how water is transported within plants.</p> <p>Describe the requirements of plants for life and growth (air, light, water, nutrients and room to grow) and how they vary from plant to plant.</p> <p>Draw and label the life cycle of a flowering plant.</p>		<p>Group and sort plants by how they reproduce.</p> <p>Label and draw the parts of a flower involved in sexual reproduction in plants (stamen, filament, anther, pollen, carpel, stigma, style, ovary, ovule and sepal).</p>	
	Plants and animals are living things.	The basic plant parts include root, stem, leaf,	Plants grow from seeds and bulbs. Seeds	Flowers are important in the life cycle of		Parts of a flower include the stamen, filament,	



Whole School Skills Progression Map



<p>Knowledge</p>	<p>Plants need water, sunlight and air to survive. Animals need food, water, air and shelter to survive. Parts of plants and trees include trunk, branch, twig, roots, stem, flowers and leaves. Parts of plants and trees include trunk, branch, twig, roots, stem, flowers and leaves.</p>	<p>flower, petal, fruit, seed and bulb. Trees have a woody stem called a trunk.</p> <p>Plants are living things. Common plants include the daisy, daffodil and grass. Trees are large, woody plants and are either evergreen or deciduous. Trees that lose their leaves in the autumn are called deciduous trees. Examples include oak, beech and rowan. Trees that shed old leaves and grow new leaves all year round are called evergreen trees. Examples include holly and pine. The basic plant parts include root, stem, leaf, flower, petal, fruit, seed and bulb. Trees have a woody stem called a trunk.</p>	<p>and bulbs need water and warmth to start growing (germinate). As the plant grows bigger, it develops leaves and flowers. The results are information that has been found out from an investigation and can be used to answer a question.</p> <p>Plants need water, light and a suitable temperature to grow and stay healthy. Without any one of these things, they will die.</p>	<p>flowering plants. The processes of a plant's life cycle include germination, flower production, pollination, seed formation and seed dispersal. Insects and the wind can transfer pollen from one plant to another (pollination). Animals, wind, water and explosions can disperse seeds away from the parent plant (seed dispersal).</p> <p>Plants need air, light, water, minerals from the soil and room to grow, in order to survive. Different plants have different needs depending on their habitat. Examples include cacti, which need less water than is</p>		<p>anther, pollen, carpel, stigma, style, ovary, ovule and sepal. Pollination is when the male part of a plant (pollen) is carried, by wind, insects or other animals, to the female part of the plant (carpel). The pollen travels to the ovary, where it fertilises the ovules (eggs). Seeds are then produced, which disperse far away from the parent plant and grow new plants.</p> <p>Flowering plants reproduce sexually. The flower is essential for sexual reproduction. Other plants reproduce asexually. Bulbs, corms and rhizomes are some parts used in asexual reproduction in plants.</p>	
------------------	--	--	--	--	--	--	--



Whole School Skills Progression Map

				<p>typical, and ferns, which can grow in lower light levels.</p> <p>The plant's roots anchor the plant in the ground and transport water and minerals from the ground to the plant. The stem (or trunk) support the plant above the ground. The leaves collect energy from the Sun and make food for the plant. Flowers make seeds to produce new plants.</p> <p>Water is transported in plants from the roots, through the stem and to the leaves, through tiny tubes called xylem.</p>			
--	--	--	--	--	--	--	--

Subject

	EYFS	At the end of KS1	At the end of LKS2	At the end of UKS2
--	------	-------------------	--------------------	--------------------

Whole School Skills Progression Map

National Curriculum Aim							
	Three and Four-Year-Olds Reception Early Learning Goals	Cycle A	Cycle B	Cycle A	Cycle B	Cycle A	Cycle B
Living Things and their Habitats Skills	<p>Represent scientific observations by mark making, drawing or creating simple charts and tables. Offer explanations for why things happen, making use of vocabulary, such as, because, then and next.</p> <p>Describe some ways that plants or animals should be cared for in order for them to survive.</p> <p>Observe and describe living things and their habitats within the local environment.</p>	<p>Describe how to care for plants and animals, including pets.</p> <p>Describe, following observation, how plants and animals change over time.</p>	<p>Identify and name a variety of plants and animals in a range of habitats and microhabitats.</p> <p>Interpret and construct simple food chains to describe how living things depend on each other as a source of food.</p> <p>Describe a range of local habitats and habitats beyond their locality (beaches, rainforests, deserts, oceans and mountains) and what all habitats provide</p>	<p>Describe how environments can change due to natural influences and how living things need to be able to adapt to these changes.</p>	<p>Compare, sort and group living things from a range of environments, in a variety of ways, based on observable features and behaviour.</p> <p>Construct and interpret a variety of food chains and webs to show interdependence and how energy is passed on over time.</p> <p>Explain how adaptations help living things to survive in their habitat.</p> <p>Describe how environments</p>	<p>Use relevant scientific vocabulary to report on their findings, answer questions and justify their conclusions based on evidence collected, identify improvements, further questions and predictions.</p> <p>Describe, using their knowledge of food chains and webs, what could happen if a habitat had a living thing removed or introduced.</p> <p>Explain how adaptations help living things to</p>	<p>Report on and validate their findings, answer questions and justify their methods, opinions and conclusions, and use their results to suggest improvements to their methodology, separate facts from opinions, pose further questions and make predictions for what they might observe. Use and construct classification systems to identify animals and plants from a range of habitats.</p>



Whole School Skills Progression Map



			<p>for the things that live there.</p> <p>Compare and group things that are living, dead or have never been alive.</p> <p>Food chains show how living things depend on one another for food. All food chains start with a plant, followed by animals that either eat the plant or other animals.</p>		<p>can change due to human and natural influences and the impact this can have on living things.</p> <p>Explain how unfamiliar habitats, such as a mountain or ocean, can change over time and what influences these changes.</p>	<p>survive in their habitat.</p> <p>Research and describe different farming practices in the UK and how these can have positive and negative effects on natural habitats.</p>	<p>Classify living things, including microorganisms, animals and plants, into groups according to common observable characteristics and based on similarities and differences.</p> <p>Identify that living things produce offspring of the same kind, although the offspring are not identical to either parent.</p> <p>Research unfamiliar animals and plants from a range of habitats, deciding upon and explaining where they belong in the classification system.</p>
							<p>Compare the living things in</p>



Whole School Skills Progression Map



							two contrasting areas of a habitat (top vs bottom of a hill, full sun vs shade, exposed location vs sheltered location or well-trodden path vs unused area).
Knowledge	<p>Rules help to keep us safe in different environments and when using certain equipment. Living things change over time. This includes growth and decay.</p> <p>A habitat is a place where living things live. Local habitats include woodlands,</p>	<p>It is important to stay safe. Some ways to stay safe include staying safe in strong sunlight (sun cream, sun hat and sunglasses), crossing roads (stop, look and listen), in the kitchen (not touching hot or sharp objects) and with household chemicals (not touching,</p>	<p>Humans need water, food, air and shelter to survive.</p> <p>A healthy lifestyle includes exercise, good personal hygiene, good quality sleep and a balanced diet. Risks associated with an unhealthy lifestyle include obesity, tooth decay and</p>	<p>Environments are constantly changing due to natural influences, such as seasons, extreme weather, population changes and availability of food. Living things must</p>	<p>Habitats change over time, either due to natural or human influences. Natural influences include extreme or unseasonable weather. Human influences include habitat destruction or pollution. These changes can pose a risk to animals and plants that live in the habitat.</p>	<p>A life cycle is the series of changes in the life of a living thing and includes these basic stages: birth, growth, reproduction and death. Mammals' life cycles include the stages: embryo, juvenile, adolescent and adult. Amphibians' life cycles include the stages: egg, larva (tadpole), adolescent and</p>	<p>Environmental factors can affect the distribution of living things within a habitat. These factors include light (intensity and duration), weather, altitude,</p>



Whole School Skills Progression Map



	<p>gardens and ponds. Other habitats include hot places, such as deserts, and cold places, such as the Arctic.</p> <p>Plants and trees are living things. They can be identified according to their features, such as leaves, seeds and flowers.</p>	<p>drinking or eating).</p> <p>All living things (plants and animals) change over time as they grow and mature.</p> <p>The local environment is a habitat for living things and can change during the seasons.</p> <p>Living things need to be cared for in order for them to survive. They need water, food, warmth and shelter.</p>	<p>mental health problems. Some objects float and others sink. Objects that float are typically light or hollow. Objects that sink are typically heavy or dense.</p> <p>Living things are those that are alive. Dead things are those that were once living but are no longer. Some things have never been alive.</p> <p>The results are information that has been found out from an investigation and can be used to answer a question.</p> <p>Local habitats include parks, woodland and gardens. Habitats beyond the locality include beaches, rainforests, deserts, oceans</p>	<p>adapt to these changes in order to survive.</p> <p>An observation involves looking closely at objects, materials and living things, which can be compared and grouped according to their features.</p>	<p>Results are information, such as data or observations, that have been found out from an investigation. A conclusion is the answer to a question that uses the evidence collected.</p> <p>Humans can affect habitats in negative ways, such as littering, pollution and land development, or positive ways, such as garden ponds, bird boxes and wildflower areas.</p> <p>An adaptation helps an animal or plant survive in its habitat. If living things are unable to adapt to changes within their habitat, they are at risk of becoming extinct.</p>	<p>adult. Some insects' (butterflies, beetles and bees) life cycles include the stages: egg, larva, pupa and adult. Birds' life cycles include the stages: egg, baby, adolescent and adult.</p> <p>Farming in the UK can be divided into three main types: arable (growing crops), pastoral (raising livestock), mixed (arable and pastoral). Intensive farming in the past has resulted in the loss of habitats.</p> <p>Population changes in a habitat can have significant consequences for food chains and webs.</p>	<p>soil type and humans, such as when we mow or trample grass.</p> <p>Living things are classified into groups, according to common observable characteristics and based on similarities and differences.</p> <p>An adaptation is a physical or behavioural trait that allows a living thing to survive and fill an ecological niche. Adaptations evolve by natural selection. Favourable traits help an organism survive and pass on their genes to subsequent generations.</p>
--	--	---	--	---	---	---	---



Whole School Skills Progression Map



			and mountains. All living things live in a habitat to which they are suited and it must provide everything they need to survive.		Animals cannot make their own food and need to get nutrition from the food they eat. Carnivores get their nutrition from eating other animals. Herbivores get their nutrition from plants. Omnivores get their nutrition from eating a combination of both plants and other animals.		Classification keys help us identify living things based on their physical characteristics. Scientists classify living organisms into broad groups according to their characteristics. Vertebrates are an example of a classification group. There are a number of ranks, or levels, within the biological classification system. The first rank is called a kingdom, the second a phylum, then class, order, family, genus and species.
--	--	--	--	--	--	--	--

Subject



Whole School Skills Progression Map



National Curriculum Aim	EYFS	At the end of KS1		At the end of KS2		At the end of UKS2	
	Three and Four-Year-Olds Reception Early Learning Goals	Cycle A	Cycle B	Cycle A	Cycle B	Cycle A	Cycle B
Rocks Skills				Investigate soils from the local environment, making comparisons and identifying features.			
Knowledge				Fossils form over millions of years and are the remains of a once-living organism, preserved as rock. Scientists can use fossils			



Whole School Skills Progression Map



				<p>to find out what life on Earth was like in prehistoric times. Fossils form when a living thing dies in a watery environment. The body gets covered by mud and sand and the soft tissues rot away. Over time, the ground hardens to form sedimentary rock and the skeletal or shell remains turn to rock.</p> <p>Soils are made from tiny pieces of eroded rock, air and organic matter. There are a variety of naturally occurring soils, including clay, sand and silt. Different areas have different soil types.</p> <p>There are three different rock types: sedimentary, igneous and metamorphic.</p>			
--	--	--	--	---	--	--	--



Whole School Skills Progression Map



				<p>Sedimentary rocks form from mud, sand and particles that have been squashed together over a long time to form rock. Examples include sandstone and limestone.</p> <p>Igneous rocks are made from cooled magma or lava. They usually contain visible crystals. Examples include pumice and granite.</p> <p>Metamorphic rocks are formed when existing rocks are heated by the magma under the Earth's crust or squashed by the movement of the Earth's tectonic plates. They are usually very hard. Examples include slate and marble.</p>			
--	--	--	--	---	--	--	--

Whole School Skills Progression Map

National Curriculum Aim	EYFS	At the end of KS1		At the end of LKS2		At the end of UKS2	
	Three and Four-Year-Olds Reception Early Learning Goals	Cycle A	Cycle B	Cycle A	Cycle B	Cycle A	Cycle B
Seasonal Changes Skills	<p><u>Notice and begin to describe patterns of weather in summer and winter.</u></p> <p><u>Notice and talk about the differences in day length between the seasons.</u></p> <p><u>Describe simply how weather changes as the seasons change.</u></p> <p><u>Name and describe natural phenomena, such as the size of shadows, the colours of a rainbow, the speed of clouds</u></p>	<p>Observe changes across the four seasons. Observe and describe how day length changes across the year. Observe and describe different types of weather.</p> <p>Talk about what they have done and say, with help, what they think they have found out.</p> <p>Observe the local environment</p>	<p>Describe typical UK seasonal weather patterns. Describe how some objects and materials can be changed and how these changes can be desirable or undesirable. Describe features of Earth using words and pictures.</p>	<p>Find patterns in the way shadows change during the day. Describe simply how fossils are formed, using words, pictures or a model. Investigate soils from the local environment, making comparisons and identifying features.</p>	<p>Compare and find patterns in the pitch of a sound, using a range of equipment, such as musical instruments. Observe and explain that some materials change state when they are heated or cooled and measure or research the temperature in degrees Celsius (°C) at which materials change state. Describe the water cycle using words or</p>	<p>Use the idea of Earth's rotation to explain day and night, and the Sun's apparent movement across the sky. Identify, demonstrate and compare reversible and irreversible changes.</p>	<p>Explain, using words, diagrams or a model, why shadows have the same shape as the objects that cast them and how shadows can be changed. Describe some significant changes that have happened on Earth and the evidence, such as fossils, that support this.</p>



Whole School Skills Progression Map



	<u>moving across the sky and the strength of a wave.</u>	throughout the year and ask and answer questions about living things and seasonal change.			diagrams and explain the part played by evaporation and condensation.		
Knowledge	The weather can change throughout the day, week and month. The weather is different at different times in the year. The number of daylight hours varies throughout the year, according to the season. The days are longer in summer and shorter in winter. Ways to describe daily weather include sunny, rainy, windy, cloudy, warm or cold. Weather is warmer in the summer with more sunshine and colder in the winter with more snow, hail and rain.	There are four seasons: spring, summer, autumn and winter. Certain events and weather patterns happen in different seasons. Day length (the number of daylight hours) is longer in the summer months and shorter in the winter months. Different types of weather include sunshine, rain, hail, wind, snow, fog, lightning, storm and cloud. The weather can change daily and some weather types are more common in certain seasons,	The UK has typical weather in each of the seasons. For example, winter is cold and sometimes frosty, whereas summer is warm and sometimes sunny.				



Whole School Skills Progression Map



	<p>Natural phenomena include weather, shadows, rainbows, clouds, flooding and waves. Some objects float and others sink. When an object sinks it falls through water to the bottom of the vessel. An object that floats stays at the water's surface.</p>	<p>such as snow in winter. Simple equipment can be used for measuring weather, such as measuring temperature with a thermometer; identifying wind direction and force with a windsock or measuring rainfall with a rain gauge. The results are information that has been found out from an investigation.</p>					
--	---	---	--	--	--	--	--

National Curriculum Aim	EYFS	At the end of KS1		At the end of LKS2		At the end of UKS2	
	Three and Four-Year-Olds Reception Early Learning Goals	Cycle A	Cycle B	Cycle A	Cycle B	Cycle A	Cycle B



Whole School Skills Progression Map



Forces & Magnets	<u>Describe, predict and sort things that float and sink and talk about the forces that they can feel.</u>	Investigate weather using toys, models or simple equipment.	Sort and group objects that float and sink.	<p>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). 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</p> <p>Investigate and compare a range of magnets (bar, horseshoe and floating) and explain that magnets have two poles (north and south) and</p>	Predict and describe whether a circuit will work based on whether or not the circuit is a complete loop and has a battery or cell.	<p>Explain that objects fall to Earth due to the force of gravity. Describe and demonstrate how simple levers, gears and pulleys assist the movement of objects.</p> <p>Compare and describe, using a range of toys, models and natural objects, the effects of water resistance, air resistance and friction.</p>	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.
Skills							



Whole School Skills Progression Map



				that opposite poles attract each other, while like poles repel each other.			
Knowledge	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.		Models can have moving parts that use levers, sliders, wheels and axles. Materials have different properties, such as hard or soft; stretchy or stiff; rough or smooth; opaque or transparent; bendy or rigid; waterproof or not waterproof. A material's physical properties make it suitable for particular purposes, such as glass for windows and brick for building walls. Many materials are used for more than one purpose, such as	Friction is a force between two surfaces as they move over each other. Friction slows down a moving object. Smooth surfaces usually generate less friction than rough surfaces. An object will not move unless a pushing or pulling force is applied. Some forces require direct contact, whereas other forces can act at a distance, such as magnetic force. Magnets have two poles (north and south). Opposite poles (north and south) attract each other, while like poles (north and		Friction, air resistance and water resistance are forces that oppose motion and slow down moving objects. These forces can be useful, such as bike brakes and parachutes, but sometimes we need to minimise their effects, such as streamlining boats and planes to move through water or air more easily and using lubricants and ball bearings between two surfaces to reduce friction. Gravity is a force of attraction. Anything with a mass can exert a gravitational pull on another object. The Earth's large mass exerts a	Voltage is measured in volts (V) and is a measure of the difference in electrical energy between two parts of a circuit. The bigger the voltage, the more electrons are pushed through the circuit. The more voltage flowing through a lamp, buzzer or motor, the brighter the lamp, the louder the buzzer and the faster the motor.



Whole School Skills Progression Map



			<p>metal for cutlery and cars.</p>	<p>north, or south and south) repel each other. Results are information that has been discovered as part of an investigation. A conclusion is the answer to a question that uses the evidence collected. Some materials have magnetic properties. Magnetic materials are attracted to magnets. All magnetic materials are metals but not all metals are magnetic. Iron is a magnetic metal.</p>		<p>gravitational pull on all objects on Earth, making dropped objects fall to the ground. Mechanisms, such as levers, pulleys and gears, give us a mechanical advantage. A mechanical advantage is a measurement of how much a simple machine multiplies the force that we put in. The bigger the mechanical advantage, the less force we need to apply. The results are information, such as measurements or observations, that have been collected during an investigation. A conclusion is an explanation of what has be</p>	
--	--	--	------------------------------------	---	--	---	--

Whole School Skills Progression Map

National Curriculum Aim	EYFS	At the end of KS1		At the end of LKS2		At the end of UKS2	
		Cycle A	Cycle B	Cycle A	Cycle B	Cycle A	Cycle B
	Three and Four-Year-Olds Reception Early Learning Goals						
Light Skills	<p><u>Explore and describe electrical and non-electrical light sources.</u></p> <p><u>Make a shadow bigger or smaller using toys, play equipment and a light source.</u></p>	Compare shadows made by different objects and materials.		<p>Explain why light from the Sun can be dangerous. Describe the differences between dark and light and how we need light to be able to see. Explain, using words or diagrams, how shadows are formed when a light source is blocked by an opaque object. Use suitable vocabulary to talk or write about what they have done, what the purpose was and, with help, draw a simple</p>		<p>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. Describe, using scientific language, phenomena associated with refraction of light. Report on and validate their findings, answer questions and</p>	



Whole School Skills Progression Map



				conclusion based on evidence collected, beginning to identify next steps or improvements			justify their methods, opinions and conclusions, and use their results to suggest improvements to their methodology, separate facts from opinions, pose further questions and make predictions for what they might observe.
Knowledge	A shadow is the same shape as the object that makes it. Shadows change during the day. Some light sources need electricity or batteries to work, such as a torch, and some do not, such as candles.	It is important to stay safe. Some ways to stay safe include staying safe in strong sunlight (sun cream, sun hat and sunglasses), crossing roads (stop, look and listen), in the kitchen (not touching hot or sharp objects) and with household chemicals (not touching, drinking or eating). A shadow is formed when		Light from the Sun is damaging for vision and the skin. Protection from the Sun includes sun cream, sun hats, sunglasses and staying indoors or in the shade. Shadows change shape and size when the light source moves. For example, when the light source is high above the object, the shadow is short and when the light source is low down, the			Lasers are intense beams of light and they should never be pointed at people's faces or aircraft. A shadow appears when an object blocks the passage of light. Apart from some distortion or fuzziness at the edges, shadows are the same shape as the object. The distortion or fuzziness depends on the position or type of light source.



Whole School Skills Progression Map



		<p>light from a light source, such as the Sun, is blocked by an opaque object, but not by transparent objects.</p>		<p>object's shadow is long. Dark is the absence of light and we need light to be able to see. A shadow is formed when light from a light source, such as the Sun, is blocked by an object. Opaque objects cast dark shadows. Translucent objects cast pale shadows. Transparent objects cast very pale shadows. Results are information that has been discovered as part of an investigation. A conclusion is the answer to a question that uses the evidence collected.</p> <p>Light can be reflected from different surfaces. Some surfaces are</p>		<p>Light travels in straight lines. Light sources give out light. They can be natural or artificial. When light hits an object, it is absorbed, scattered, reflected or a combination of all three. Light from a source or reflected light enter the eye. Vertebrates, such as mammals, birds and reptiles, have a cornea and lens that refracts light that enters the eye and focuses it on the nerve tissue at the back of the eye, which is called the retina. Once light reaches the retina, it is transmitted to the brain via the optic nerve. 'White' light is a term used to describe visible, ordinary daylight. White</p>
--	--	--	--	---	--	---



Whole School Skills Progression Map



				<p>poor reflectors, such as some fabrics, while other surfaces are good reflectors, such as mirrors.</p>			<p>light can be split into a spectrum of colours (rainbow) by droplets of water or prisms. The results are information, such as measurements or observations, that have been collected during an investigation. A conclusion is an explanation of what has been discovered, using correct, precise terminology and collected evidence.</p> <p>Mirrors and lenses are used in a range of everyday objects (telescopes, periscopes, cards and on roads). The human eye has a lens that bends and focuses light on the back of the eye (retina) so that we can see.</p>
--	--	--	--	--	--	--	--



Whole School Skills Progression Map



National Curriculum Aim	EYFS	At the end of KS1		At the end of LKS2		At the end of UKS2	
	Three and Four-Year-Olds Reception Early Learning Goals	Cycle A	Cycle B	Cycle A	Cycle B	Cycle A	Cycle B
Sound Skills			Compare the volume and pitch of sounds made by instruments, their voices or other objects.		Explain how sounds are made and heard using diagrams, models, written methods or verbally. 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.		



Whole School Skills Progression Map



					Compare how the volume of a sound changes at different distances from the source.		
Knowledge			<p>When an instrument is played by plucking, striking or blowing, the air around or inside it vibrates. These vibrations travel as a sound wave to the ear.</p> <p>Volume is how loud or quiet a sound is. Pitch is how high or low a sound is.</p>		<p>Pitch is how high or low a sound is. Parts of an instrument that are shorter, tighter or thinner produce high-pitched sounds. Parts of an instrument that are longer, looser or fatter produce low-pitched sounds.</p> <p>Volume is how loud or quiet a sound is. The harder an instrument is hit, plucked or blown, the stronger the vibrations and the louder the sound.</p> <p>When an instrument is played, the air around or inside it vibrates. These vibrations travel as a sound wave.</p>		



Whole School Skills Progression Map



					<p>Sound waves travel through a medium, such as air or water, to the ear. Friction, air resistance and water resistance are forces that oppose motion and slow down moving objects. These forces can be useful, such as bike brakes and parachutes, but sometimes we need to minimise their effects, such as streamlining boats and planes to move through water or air more easily and using lubricants and ball bearings between two surfaces to reduce friction.</p>		
--	--	--	--	--	---	--	--

National Curriculum Aim	EYFS	At the end of KS1	At the end of LKS2	At the end of UKS2
-------------------------	------	-------------------	--------------------	--------------------



Whole School Skills Progression Map



	Three and Four-Year-Olds Reception Early Learning Goals	Cycle A	Cycle B	Cycle A	Cycle B	Cycle A	Cycle B
Earth and Space Skills			Describe features of Earth using words and pictures.			Describe or model the movement of the planets in our Solar System, including Earth, relative to the Sun. Describe or model the movement of the Moon relative to Earth. Describe the Sun, Earth and Moon as approximately spherical bodies and use this knowledge to understand the phases of the Moon and eclipses. Use relevant scientific vocabulary to report on their findings, answer questions and justify their conclusions based on evidence	



Whole School Skills Progression Map



						collected, identify improvements, further questions and predictions. Use relevant scientific vocabulary to report on their findings, answer questions and justify their conclusions based on evidence collected, identify improvements, further questions and predictions.	
Knowledge			The Earth is spherical and is covered in water and land. When it is daytime in one location, it is night time on the other side of the world.			As Earth orbits the Sun, it also spins on its axis. It takes Earth a day (24 hours) to complete a full spin. During the day, the Sun appears to move through the sky. However, this is due to the Earth rotating and not the Sun moving. Earth rotates to the east or, if viewed from above the North Pole, it rotates anti-clockwise, which means the Sun rises in the east and sets in	



Whole School Skills Progression Map



						<p>the west. As Earth rotates, different parts of it face the Sun, which brings what we call daytime. The part facing away is in shadow, which is night time.</p> <p>The Solar System is made up of the Sun and everything that orbits around it. There are eight planets in our Solar System: Mercury, Venus, Earth, Mars, Jupiter, Saturn, Uranus and Neptune. Earth orbits around the Sun and a year (365.25 days) is the length of time it takes for Earth to complete a full orbit.</p> <p>The Moon orbits Earth, completing a full orbit every month (27.3 days).</p> <p>The Sun, Earth, Moon and the planets in our solar system are roughly spherical. All</p>	
--	--	--	--	--	--	--	--



Whole School Skills Progression Map

						planets are spherical because their mass is so large that they have their own force of gravity. This force of gravity pulls all of a planet's material towards its centre, which compresses it into the most compact shape – a sphere. The results are information, such as measurements or observations, that have been collected during an investigation. A conclusion is an explanation of what has be	
--	--	--	--	--	--	---	--

National Curriculum Aim	EYFS	At the end of KS1		At the end of LKS2		At the end of UKS2	
	Three and Four-Year-Olds Reception	Cycle A	Cycle B	Cycle A	Cycle B	Cycle A	Cycle B



Whole School Skills Progression Map



	Early Learning Goals						
Electricity Skills				<p>Construct operational simple series circuits using a range of components and switches for control.</p>	<p>Explain the precautions needed for working safely with electrical circuits. 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.</p> <p>Compare common household equipment and appliances that are and are not powered by electricity.</p>		<p>Create circuits using a range of components and record diagrammatically using the recognised symbols for electrical components. Report on and validate their findings, answer questions and justify their methods, opinions and conclusions, and use their results to suggest improvements to their methodology, separate facts from opinions, pose further questions and make predictions for what they might observe.</p> <p>Compare and give reasons for variations in how components in electrical circuits function</p>



Whole School Skills Progression Map



							(brightness of lamps; volume of buzzers and function of on or off switches)
Knowledge		Electrical circuits can light lamps or sound a buzzer. A switch turns an electrical circuit off and on.			<p>Working with electrical circuits can be dangerous. Precautions include not touching electrical components with wet hands and not putting batteries in mouths.</p> <p>A series circuit is a simple loop with only one path for the electricity to flow. A series circuit must be a complete loop to work and have a source of power from a battery or cell.</p> <p>Electrical components include cells, wires, lamps, motors, switches and buzzers. Switches open and close a circuit and provide control.</p>		<p>A circuit needs a power source, such as a battery or cell, with wires connected to both the positive and negative terminals. Other components include lamps, buzzers or motors, which an electric current passes through and affects a response, such as lighting a lamp or turning a motor. When a switch is open, it creates a gap and the current cannot travel around the circuit. When a switch is closed, it completes the circuit and allows a current to flow all the way around it. There are recognised</p>



Whole School Skills Progression Map



					<p>Electricity is a type of energy. It is used to power many everyday items, such as kettles, computers and televisions. Electricity can also come from batteries. Batteries eventually run out of power and need to be recycled or recharged. Results are information, such as data or observations, that have been found out from an investigation. A conclusion is the answer to a question that uses the evidence collected. Batteries power devices that can be carried around, such as mobile phones and torches.</p> <p>Electrical conductors allow electricity</p>		<p>symbols for different components of circuits. The results are information, such as measurements or observations, that have been collected during an investigation. A conclusion is an explanation of what has been discovered, using correct, precise terminology and collected evidence.</p>
--	--	--	--	--	--	--	--

Whole School Skills Progression Map

					to flow through them, whereas insulators do not. Common electrical conductors are metals. Common insulators include wood, glass, plastic and rubber.		
--	--	--	--	--	--	--	--

National Curriculum Aim	EYFS	At the end of KS1		At the end of LKS2		At the end of UKS2	
	Three and Four-Year-Olds Reception Early Learning Goals	Cycle A	Cycle B	Cycle A	Cycle B	Cycle A	Cycle B
Materials Skills	Compare and group objects and materials according to simple given criteria. Name and sort everyday items into groups of the same material.	Compare and group materials in a variety of ways, such as based on their physical properties; being natural or man-made and being recyclable or non-recyclable.	Observe what happens when a range of everyday materials, including foods, are heated and cooled, sorting and grouping them based on their observations.	Compare how objects move over surfaces made from different materials. Group and sort materials as being reflective or non-reflective.	Group and sort materials into solids, liquids or gases. Describe materials as electrical conductors or insulators.	Use relevant scientific vocabulary to report on their findings, answer questions and justify their conclusions based on evidence collected, identify improvements,	Investigate and identify good thermal insulators, describing their common features. Describe, using diagrams, how light behaves when reflected off a mirror



Whole School Skills Progression Map



	<p><u>Identify that materials have different properties and explore and sort magnetic and non-magnetic materials through play and exploration.</u></p>	<p>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.</p>	<p>Compare the suitability of a range of everyday materials for particular uses, including wood, metal, plastic, glass, brick, rock, paper and cardboard .</p>	<p>Compare and group rocks based on their appearance, properties or uses. Compare and group rocks based on their appearance, properties or uses. Compare and group materials based on their magnetic properties.</p>		<p>further questions and predictions. Compare and group everyday materials by their properties, including hardness, solubility, transparency, conductivity (electrical and thermal) and magnetism. Explain, following observation, that some substances (solutes) will dissolve in liquid (solvents) to form a solution and the solute can be recovered by evaporating off the solvent. Separate mixtures by filtering, sieving and evaporating. Describe, using evidence from comparative or fair tests, why a material has been chosen for a specific use, including metals, wood and glass.</p>	<p>(plane, convex or concave) and when passing through a lens (concave or convex).</p>
	<p>Some materials are magnetic,</p>	<p>Materials can be grouped</p>	<p>Some objects and materials</p>	<p>Some materials have magnetic</p>	<p>Heating or cooling</p>	<p>Very hot and very cold materials</p>	<p>An observation involves looking</p>

Whole School Skills Progression Map

<p>Knowledge</p>	<p>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.</p> <p>Objects are made from different materials. Everyday materials include, wood, plastic, glass, fabric, metal and stone. Materials have different properties. Objects, materials and living things can be looked at and compared.</p>	<p>according to their properties.</p> <p>Materials have different properties, such as hard or soft; stretchy or stiff; rough or smooth; opaque or transparent; bendy or rigid; waterproof or not waterproof.</p> <p>A material is what an object is made from. Everyday materials include wood, plastic, glass, metal, water, rock, brick, paper and fabric. Objects, materials and living things can be looked at, compared and grouped according to their features.</p>	<p>can be changed by squashing, bending, twisting, stretching, heating, cooling, mixing and being left to decay.</p> <p>A material's physical properties make it suitable for particular purposes, such as glass for windows and brick for building walls. Many materials are used for more than one purpose, such as metal for cutlery and cars. An observation involves looking closely at objects, materials and living things, which can be compared and grouped according to their features.</p>	<p>properties. Magnetic materials are attracted to magnets. All magnetic materials are metals but not all metals are magnetic. Iron is a magnetic metal.</p>	<p>materials can bring about a change of state. This change of state can be reversible or irreversible. The temperature at which materials change state varies depending on the material. Water changes state from solid (ice) \rightleftharpoons liquid (water) at 0°C and from liquid (water) \rightleftharpoons gas (water vapour) at 100°C. The process of changing from a solid to liquid is called melting. The reverse process of changing from a liquid to a solid is called freezing. The process of changing from a liquid to a gas is called evaporation. The reverse process of changing from a gas to a liquid is called condensation.</p>	<p>can burn skin. Heating materials should be done safely. Reversible changes include heating, cooling, melting, dissolving and evaporating. Irreversible changes include burning, rusting, decaying and chemical reactions.</p> <p>A material's properties dictate what it can be used for. For example, cooking pans are made from metal, which is a good thermal conductor, allowing heat to quickly transfer from the hob to the contents of the pan.</p> <p>Materials can be grouped according to their basic physical properties. Properties include hardness,</p>	<p>closely at objects, materials and living things. Accurate observations can be made repeatedly or at regular intervals to identify changes over time, identify processes and make comparisons.</p> <p>Heat energy is transferred in three different ways: conduction, convection and radiation. A material that allows heat energy to travel through it is a thermal conductor. Poor thermal conductors are known as thermal insulators. Insulation is important for the survival of many animals. Blubber is a layer of fat that acts as an</p>
------------------	---	---	---	--	---	--	--



Whole School Skills Progression Map



					<p>An observation involves looking closely at objects, materials and living things. Observations can be made regularly to identify changes over time.</p>	<p>solubility, transparency, conductivity (electrical and thermal) and magnetism.</p> <p>Some materials (solutes) will dissolve in liquid (solvents) to form a solution. The solute can be recovered by evaporating off the solvent by heating.</p> <p>An observation involves looking closely at objects, materials and living things. Accurate observations can be made repeatedly or at regular intervals to identify changes over time.</p>	<p>insulator under the skin of some animals, such as walruses and whales. It is an adaptation that is essential for their survival. Animals with fur, such as polar bears and Arctic foxes, trap a layer of air close to their skin to insulate them from the cold.</p>
--	--	--	--	--	---	---	---

National Curriculum Aim	EYFS	At the end of KS1	At the end of LKS2	At the end of UKS2
-------------------------	------	-------------------	--------------------	--------------------



Whole School Skills Progression Map



	Three and Four-Year-Olds Reception Early Learning Goals	Cycle A	Cycle B	Cycle A	Cycle B	Cycle A	Cycle B
Scientists and Inventors Skills							
Knowledge							

Whole School Skills Progression Map

National Curriculum Aim	EYFS	At the end of KS1		At the end of LKS2		At the end of UKS2	
		Cycle A	Cycle B	Cycle A	Cycle B	Cycle A	Cycle B
	Three and Four-Year-Olds Reception Early Learning Goals						
States of Matter Skills					Describe the water cycle using words or diagrams and explain the part played by evaporation and condensation.	Explain the precautions needed for working safely when heating, burning, cooling and mixing materials.	
Knowledge			Some foods, such as ice and chocolate, melt when heated, but then harden (solidify or freeze) when cooled.		The water cycle has four stages: evaporation, condensation, precipitation and collection. Water in lakes, rivers and streams is warmed by the Sun, causing the water to	Some mixtures can be separated by filtering, sieving and evaporating. Sieving can be used to separate large solids from liquids and some solids from other solids. Filtering can be used to	



Whole School Skills Progression Map



					<p>evaporate and rise into the air as water vapour. As the water vapour rises, it cools and condenses to form water droplets in clouds. The clouds become full of water until the water falls back to the ground as precipitation (rain, hail, snow and ice). The fallen water collects back in lakes, rivers and streams. Evaporation and condensation are caused by temperature changes. Results are information, such as data or observations, that have been found out from an investigation. A conclusion is the answer to a question that uses the evidence collected.</p>	<p>separate small solids from liquids. Evaporating can be used to separate dissolved solids from liquids.</p>	
--	--	--	--	--	--	---	--



Whole School Skills Progression Map



					<p>Materials can be grouped according to whether they are solids, liquids or gases. Solids stay in one place and can be held. Some solids can be squashed, bent, twisted and stretched. Examples of solids include wood, metal, plastic and clay. Liquids move around (flow) easily and are difficult to hold. Liquids take the shape of the container in which they are held. Examples of liquids include water, juice and milk. Gases spread out to fill the available space and cannot be held. Examples of gases include oxygen, helium and carbon dioxide. Air is a mixture of gases.</p>		
--	--	--	--	--	--	--	--

Whole School Skills Progression Map

National Curriculum Aim	EYFS	At the end of KS1		At the end of LKS2		At the end of UKS2	
	Three and Four-Year-Olds Reception Early Learning Goals	Cycle A	Cycle B	Cycle A	Cycle B	Cycle A	Cycle B
Working Scientifically Skills	<p><u>Record data in simple tables and pictograms. Ask a relevant scientific question to find out more, explain how things work and why they might happen.</u></p> <p><u>With support, use simple equipment, such as timers, rulers and containers, to measure length, height, capacity and time.</u></p> <p><u>Observe how activities are going and adapt their ideas if necessary.</u></p>	<p>With support, gather and record simple data in a range of ways (data tables, diagrams, Venn diagrams). Ask simple scientific questions. With support, use simple equipment to measure and make observations. With support, follow instructions to perform simple tests and begin to talk about what they might do or what might happen.</p>	<p>Use a range of methods (tables, charts, diagrams and Venn diagrams) to gather and record simple data with some accuracy. Ask and answer scientific questions about the world around them. Use simple equipment to measure and make observations. Follow a set of instructions to perform a range of simple tests, making simple predictions for what might</p>	<p>Gather and record findings in a variety of ways (diagrams, tables, charts and graphs) with increasing accuracy. Ask questions about the world around them and explain that they can be answered in different ways. Take measurements in standard units, using a range of simple equipment. Set up and carry out some simple, comparative and fair tests,</p>	<p>Gather, record, classify and present observations and measurements in a variety of ways (pictorial representations, timelines, diagrams, keys, tables, charts and graphs). Ask relevant scientific questions, independently, about the world around them and begin to identify how they can answer them. Take accurate measurements in standard</p>	<p>Gather and record data and results of increasing complexity, selecting from a range of methods (scientific diagrams, labels, classification keys, tables, graphs and models). Ask a wide range of relevant scientific questions that broaden their understanding of the world around them and identify how they can answer them. Take increasingly accurate measurements in</p>	<p>Choose an appropriate approach to recording accurate results, including scientific diagrams, labels, timelines, classification keys, tables, models and graphs (bar, line and scatter), linking to mathematical knowledge. Plan and carry out a range of enquiries, including writing methods, identifying and controlling</p>



Whole School Skills Progression Map



	<p><u>With support, observe, record and talk about materials and living things.</u></p>	<p>Observe objects, materials, living things and changes over time, sorting and grouping them based on their features.</p>	<p>happen and suggesting ways to answer their questions. Observe objects, materials, living things and changes over time, sorting and grouping them based on their features and explaining their reasoning.</p>	<p>making predictions for what might happen. Make increasingly careful observations, identifying similarities, differences and changes and making simple connections.</p>	<p>units, using a range of equipment. Begin to independently plan, set up and carry out a range of comparative and fair tests, making predictions and following a method accurately. Begin to choose which observations to make and for how long and make systematic, careful observations and comparisons, identifying changes and connections.</p>	<p>standard units, using a range of chosen equipment. Plan and carry out a range of enquiries, including writing methods, identifying variables and making predictions based on prior knowledge and understanding. Within a group, decide which observations to make, when and for how long, and make systematic and careful observations, using them to make comparisons, identify changes, classify and make links between cause and effect.</p>	<p>variables, deciding on equipment and data to collect and making predictions based on prior knowledge and understanding. Independently decide which observations to make, when and for how long and make systematic and careful observations, using them to make comparisons, identify changes, classify and make links between cause and effect.</p>
<p>Knowledge</p>	<p>Objects can be compared and grouped according to their shape, colour, material or use. Question words include who, why, what,</p>	<p>The results are information that has been found out from an investigation. Question words include who, why, what, when, where and how.</p>	<p>The results are information that has been found out from an investigation and can be used to answer a question.</p>	<p>Results are information that has been discovered as part of an investigation. A conclusion is the answer to a question that uses the</p>	<p>Results are information, such as data or observations, that have been found out from an investigation. A conclusion is the answer to a question that</p>	<p>The results are information, such as measurements or observations, that have been collected during an investigation. Questions can help us find out about the world</p>	<p>The results are information, such as measurements or observations, that have been collected during an investigation. A conclusion is an explanation</p>



Whole School Skills Progression Map



	<p>when, where and how. Simple equipment can be used to measure distance, height, weight and time. When we try things out to see if they work, it is called a test.</p>	<p>Simple equipment is used to take measurements and observations. Examples include metre sticks, measuring tapes, egg timers and hand lenses. Simple tests can be carried out by following a set of instructions.</p>	<p>Questions can help us find out about the world. Simple equipment is used to take measurements and observations. Examples include timers, hand lenses, metre sticks and trundle wheels. Tests can be carried out by following a set of instructions. A prediction is a guess at what might happen in an investigation.</p>	<p>evidence collected. Questions can help us find out about the world and can be answered in different ways. Equipment is used to take measurements in standard units. Examples include data loggers plus sensors, timers (seconds, minutes and hours), thermometers (°C) and metre sticks (millimetres, centimetres and metres). Taking repeat readings can increase the accuracy of the measurement. Tests can be set up and carried out by following or planning a set of instructions. A prediction is a best guess for what might happen in an investigation based on some</p>	<p>uses the evidence collected. Questions can help us find out about the world and can be answered using scientific enquiry. Equipment is used to take measurements in standard units. Examples include data loggers plus sensors, timers (seconds, minutes and hours), thermometers (°C), and metre sticks, rulers or trundle wheels (millimetres, centimetres, metres). Scientific enquiries can be set up and carried out by following or planning a method. A prediction is a statement about what might happen in an investigation, based on some</p>	<p>and can be answered using a range of scientific enquiries. Specialised equipment is used to take measurements in standard units. Examples include data loggers plus sensors, such as light (lux), sound (dB) and temperature (°C); timers (seconds, minutes and hours); thermometers (°C), and measuring tapes (millimetres, centimetres, metres). A method is a set of clear instructions for how to carry out a scientific investigation. A prediction is a statement about what might happen in an investigation based on some prior knowledge or understanding.</p>	<p>of what has been discovered, using correct, precise terminology and collected evidence. Questions can help us find out about the world and can be answered using a range of scientific enquiries, including fair tests, research and observation. Specialised equipment is used to take accurate measurements in standard units. Examples include data loggers plus sensors, such as light (lux), sound (dB) and temperature (°C); timers (seconds, minutes and hours); thermometers (°C) and measuring tapes (millimetres,</p>
--	---	--	--	---	--	--	--



Whole School Skills Progression Map



				prior knowledge.	prior knowledge or understanding. A fair test is one in which only one variable is changed and all others remain constant.	centimetres, metres). A method is a set of clear instructions for how to carry out a scientific investigation, including what equipment to use and observations to make. A variable is something that can be changed during a fair test. A prediction is a statement about what might happen in an investigation based on some prior knowledge or understanding.
--	--	--	--	-------------------------	---	---