Science

Essential Knowledge

	Plants						
	EYFS	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
National Curriculum	Explore the natural world around them, making observations and drawing pictures of animals and plants	Identify and name a variety of common wild and garden plants, including deciduous and evergreen trees. Identify and describe the basic structure of a variety of common flowering plants, including trees.	Observe and describe how seeds and bulbs grow into mature plants. Find out and describe how plants need water, light and a suitable temperature to grow and stay healthy.	Identify and describe the functions of different parts of flowering plants: roots, stem/trunk, leaves and flowers. Explore the requirements of plants for life and growth (air, light, water, nutrients from soil, and room to grow) and how they vary from plant to plant. Investigate the way in which water is transported within plants. Explore the part that flowers play in the life cycle of flowering plants, including pollination, seed formation and seed dispersal.		Describe the life process of reproduction in some plants.	
Skills	Draw pictures of plants found in the garden and local environment.	Identify, compare, group and sort a variety of common plants, including deciduous and evergreen trees, based on observable features. Label and describe the basic structure of a variety of common plants.	Observe and describe how seeds and bulbs change over time as they grow into mature plants. Describe how plants need water, light and a suitable temperature to grow and stay healthy.	Name and describe the functions of the different parts of flowering plants (roots, stem, leaves and flowers). 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. Investigate how water is transported within plants. Draw and label the life cycle of a flowering plant.		Group and sort plants by how they reproduce. 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).	

Science

Exeter

Essential Knowledge

Knowledge	Know some similarities and differences between the natural world around them and contrasting environments, drawing on their experiences and what has been read in class.	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 (e.g. oak, beech and rowan). Trees that keep their leaves all year round are called evergreen trees (e.g. 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.	Plants grow from seeds and bulbs. Seeds and bulbs need nutrients from soil, water and warmth to start growing (germinate). As the plant grows bigger, it develops leaves and flowers. Plants need water, light and a suitable temperature to grow and stay healthy. Without any one of these things, they will die.	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. Different plants have different needs depending on their habitat. Examples include cacti, which need less water than is typical, and ferns, which can grow in lower light levels. Water is transported in plants from the roots, through the stem and to the leaves, through tiny tubes called xylem. Flowers are important in the life cycle of flowering plants. The stages of a plant's life cycle include germination, flower production, pollination, fertilisation, 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).		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. Parts of a flower include the stamen, filament, 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.	

Science

Essential Knowledge

Topic /		Spring One: What are the flowers and plants in our environment like?	Summer One: What do plants need to grow?	Summer One: What do different plants need to grow in different places?		Autumn One: How do animals and plants reproduce?	

	Animals, Including Humans						
	EYFS	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
National Curriculum	Explore the natural world around them, making observations and drawing pictures of animals and plants	Identify and name a variety of common animals including fish, amphibians, reptiles, birds and mammals. Identify and name a variety of common animals that are carnivores, herbivores and omnivores. Describe and compare the structure of a variety of common animals (fish, amphibians, reptiles, birds and mammals, including pets). Identify, name, draw and label the basic parts of the human body and say which part of the body is associated with each sense.	Notice that animals, including humans, have offspring which grow into adults. Find out about and describe the basic needs of animals, including humans, for survival (water, food and air). Describe the importance for humans of exercise, eating the right amounts of different types of food, and hygiene.	Identify that animals, including humans, need the right types and amount of nutrition, and that they cannot make their own food; they get nutrition from what they eat. Identify that humans and some other animals have skeletons and muscles for support, protection and movement.	Describe the simple functions of the basic parts of the digestive system in humans. Identify the different types of teeth in humans and their simple functions. Construct and interpret a variety of food chains, identifying producers, predators and prey.	Describe the changes as humans develop to old age.	Identify and name the main parts of the human circulatory system, and describe the functions of the heart, blood vessels and blood. Recognise the impact of diet, exercise, drugs and lifestyle on the way their bodies function. Describe the ways in which nutrients and water are transported within animals, including humans. Recognise that living things have changed over time and that fossils provide information about living things that inhabited the Earth millions of years ago. Recognise that living things produce offspring of the same kind, but normally offspring vary and are not identical to their parents. Identify how animals and plants are adapted to suit their environment in different ways and that adaptation may lead to evolution.

Science

Essential Knowledge

Skills	Talk about the lives of the people around them and their roles in society. Draw pictures of animals that are familiar to them and those found in story books they have read.	Identify, compare, group and sort a variety of common animals, including fish, amphibians, reptiles, birds and mammals, based on observable features. Group and sort a variety of common animals based on the foods they eat. Label and describe the basic structure of a variety of common animals. Draw and label the main parts of the human body and say which body part is associated with which sense.	Describe the stages of human development (baby, toddler, child, teenager and adult) Describe the basic life cycles of some familiar animals (egg, caterpillar, pupa, butterfly; egg, chick, chicken; spawn, tadpole, froglet, frog). Describe what humans need to survive. Explain how animals, including humans, need water, food, air and shelter to survive. Describe the importance of a healthy lifestyle, including exercise, a balanced diet and good hygiene.	Compare and contrast the diets of different animals. Explain the importance and characteristics of a healthy, balanced diet. Describe how humans need the skeleton and muscles for support, protection and movement. Identify and group animals that have no skeleton, an internal skeleton (endoskeleton) and an external skeleton (exoskeleton).	Describe the purpose of the digestive system, its main parts and each of their functions. Identify the four different types of teeth in humans and other animals, and describe their functions. Construct and interpret a variety of food chains and webs to show interdependence and how energy is passed on over time.	Describe the changes as humans develop from birth to old age.	Name and describe the purpose of the circulatory system and the functions of the heart, blood vessels and blood. Explain the impact of positive and negative lifestyle choices on the body. Explain that the circulatory system in animals transports oxygen, water and nutrients around the body. Explain that living things have changed over time, using specific examples and evidence. Identify that living things produce offspring of the same kind, although the offspring are not identical to either parent. Describe how animals and plants can be bred to produce offspring with specific and desired characteristics (selective breeding). Identify how animals and plants are adapted to suit their environment, such as giraffes having long necks for feeding, and that adaptations may lead to evolution.

Science

Exeter

Essential Knowledge

Knowledge	Knows about similarities and differences between themselves and others, and among families, communities, cultures and traditions. Knows about similarities and differences in relation to places, objects, materials and living things.	Animals are living things. Animals can be sorted and grouped into six main groups: fish, amphibians, reptiles, birds, mammals and invertebrates. Carnivores eat other animals (meat), herbivores eat plants and omnivores eat other animals and plants. Different animal groups have some common body parts, such as eyes and a mouth, and some different body parts, such as fins or wings. 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, the tongue is used to taste and skin gives the sense of touch.	Human offspring go through different stages as they grow to become adults. These include baby, toddler, child, teenager and adult. Animals have offspring that grow into adults. Different animals have different stages of growth or life cycles. Humans need water, food, air and shelter to survive. Animals need water, food, air and shelter to survive. Their habitat must provide all these things. A healthy lifestyle includes exercise, good hygiene and a balanced diet.	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 variety of plants and other animals. 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. 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. Major muscle groups in the human body include the biceps, triceps, abdominals, trapezius, gluteals, hamstrings, quadriceps, deltoids, gastrocnemius, latissimus dorsi and pectorals. Some animals have skeletons for support, movement and protection.	The digestive system is responsible for digesting food and absorbing nutrients and water. The main parts of the digestive system are the mouth, esophagus, stomach, small intestines, large intestines and rectum. The 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. 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 tooth. Herbivores have many large molars for grinding plant material. Carnivores have large canines for killing and tearing meat.	Humans go through characteristic stages as they develop to old age. These stages include baby, infant, toddler, child, adolescent, young adult, adult and senior citizen. Puberty is the transition between childhood and adulthood.	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 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 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. Scientists compare fossilised remains from the past to living species that exist today to hypothesise how living things have evolved over time. Humans and apes share a

Science

Essential Knowledge

				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.	Food chains show what animals eat within a habitat and how energy is passed on over time. All food chains start with a producer, which is typically a green plant. The producer is eaten by a primary consumer (prey), which is eaten by a secondary consumer (prey), which is eaten by a tertiary consumer. All food chains end with a top or apex predator. Changes within a food chain, such as an abundance or lack of one food type, have an impact on the entire food chain.		common ancestry and evidence for this comes from fossil discoveries and genetic comparison. 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 and plants can be bred to produce offspring with specific and desired characteristics. This is called selective breeding. Examples include cows that produce large quantities of milk or crops that are disease-resistant. 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.
Topic / Coverage		Autumn One: How do we use our senses? Summer One: How can animals be grouped?	Spring One: What do humans need to grow?	Autumn One: How do we move? Summer Two: How do humans stay healthy?	Autumn One: What happens to our food?	Autumn Two: How do humans change as they grow?	Spring Two: How have humans changed over time? Summer Two: What is the function of the circulatory system?

Science

Essential Knowledge

	Living Things and Their Habitats						
	EYFS	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
National Curriculum			Explore and compare the differences between things that are living, dead, and things that have never been alive. Identify that most living things live in habitats to which they are suited and describe how different habitats provide for the basic needs of different kinds of animals and plants, and how they depend on each other. Identify and name a variety of plants and animals in their habitats, including microhabitats. Describe how animals obtain their food from plants and other animals, using the idea of a simple food chain, and identify and name different sources of food.		Recognise that living things can be grouped in a variety of ways. Explore and use classification keys to help group, identify and name a variety of living things in their local and wider environment. Recognise that environments can change and that this can sometimes pose dangers to living things	Describe the differences in the life cycles of a mammal, an amphibian, an insect and a bird. Describe the life process of reproduction in some plants and animals.	Describe how living things are classified into broad groups according to common observable characteristics and based on similarities and differences, including microorganisms, plants and animals. Give reasons for classifying plants and animals based on specific characteristics.

Science

Essential Knowledge

Skills	Looks closely at similarities, differences, patterns and change in nature. Talks about the features of their own immediate environment and how environments might vary from one another		Compare and group things that are living, dead or have never been alive. Describe a range of local habitats and habitats beyond their locality (rainforests, deserts, oceans and mountains) and what all habitats provide for the things that live there. Identify and name a variety of plants and animals in a range of habitats and microhabitats. Interpret and construct simple food chains to describe how living things depend on each other as a source of food.		Compare, sort and group living things in a variety of ways based on observable features and behaviour. Explain how unfamiliar habitats, such as a mountain or ocean, can change over time and what influences these changes. Describe how environments can change due to human and natural influences and the impact this can have on living things.	Compare the life cycles of animals, including a mammal, amphibian, insect and bird. Describe the process of human reproduction. Describe the life process of reproduction in some plants and animals.	Use and construct classification systems to identify animals and plants from a range of habitats. Classify living things, including microorganisms, animals and plants, into groups according to common observable characteristics and based on similarities and differences. Research unfamiliar animals and plants from a range of habitats, deciding upon and explaining where they belong in the classification system.

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Exeter

Essential Knowledge

Knowledge	Understand some important processes and changes in the natural world around them, including the seasons and changing states of matter. Know some similarities and differences between the natural world around them and contrasting environments, drawing on their experiences and what has been read in class.		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. Local habitats include parks, woodland and gardens. Habitats beyond the locality include beaches, rainforests, deserts, oceans and mountains. All living things live in a habitat to which they are suited and it must provide everything they need to survive. A habitat is a place where a living thing lives. A microhabitat is a very small habitat. (E.g. rotting log or under a rock) 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.		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 a scientific tools that aid the identification of living things. 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. Humans can affect habitats in negative ways, such as litter, pollution and land development, or positive ways, such as garden ponds, bird boxes and wildflower areas.	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, baby, adolescent and adult. Amphibians' life cycles include the stages: egg, larva (tadpole), adolescent and 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. Humans reproduce sexually, which involves two parents (one female and one male) and produces offspring that are different from the parents. 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 from the parents. Asexual reproduction involves one parent and produces offspring that is identical to the parent.	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. Living things are classified into groups, according to common observable characteristics and based on similarities and differences.

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Essential Knowledge

Topic / Coverage			Autumn One: Why do different living things live in different places? Spring Two: What do animals need to stay alive?		Spring One: How do scientists classify living things?	Autumn One: How do animals and plants reproduce?	Spring One: Why is it useful to classify living things?

	Everyday Materials						
	EYFS	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6

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Essential Knowledge

National Curriculum		Distinguish between an object and the material from which it is made. Identify and name a variety of everyday materials, including wood, plastic, glass, metal, water, and rock. Describe the simple physical properties of a variety of everyday materials. Compare and group together a variety of everyday materials on the basis of their simple physical properties.	Identify and compare the suitability of a variety of everyday materials, including wood, metal, plastic, glass, brick, rock, paper and cardboard for particular uses. Find out how the shapes of solid objects made from some materials can be changed by squashing, bending, twisting and stretching.			Compare and group together everyday materials on the basis of their properties, including their hardness, solubility, transparency, conductivity (electrical and thermal), and response to magnets. Know that some materials will dissolve in liquid to form a solution, and describe how to recover a substance from a solution. Use knowledge of solids, liquids and gases to decide how mixtures might be separated, including through filtering, sieving and evaporating. Give reasons, based on evidence from comparative and fair tests, for the particular uses of everyday materials, including metals, wood and plastic. Demonstrate that dissolving, mixing and changes of state are reversible changes. Explain that some changes result in the formation of new materials, and that this kind of change is not usually reversible, including changes associated with burning and the action of acid on bicarbonate of soda.	

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Essential Knowledge

Skills	Looks closely at similarities, differences, patterns and change in nature.	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; waterproof or not waterproof and magnetic or non-magnetic. 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.	Compare the suitability of a range of everyday materials for particular uses. Describe how some objects and materials can be changed and how these changes can be desirable or undesirable.			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. Identify, demonstrate and compare reversible and irreversible changes.	

Science

Essential Knowledge

Knowledge	Knows about similarities and differences in relation to places, objects, materials and living things	A material is what an object is made from. Everyday materials include wood, plastic, glass, metal, water, rock, brick, paper and fabric. 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; magnetic or non-magnetic. Materials can be grouped according to their properties.	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. Some objects and materials can be changed by squashing, bending, twisting, stretching, heating, cooling, mixing and being left to decay.			Materials can be grouped according to their basic physical properties. Properties include hardness, solubility, transparency, conductivity (electrical and thermal) and magnetism. Some materials (solutes) will dissolve in liquid (solvents) to form a solution. The solute can be recovered by evaporating off the solvent by heating. 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 separate small solids from liquids. Evaporating can be used to separate dissolved solids from liquids. 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. Reversible changes include heating, cooling, melting, dissolving and evaporating. Irreversible changes include burning,	

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Essential Knowledge

						rusting, decaying and chemical reactions.	
Topic / Coverage		Autumn Two: Why do we use different materials for different jobs?	Autumn Two: How can we change materials?			Spring One/Two: How can materials be changed?	

	Seasonal Changes						
	EYFS	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
National Curriculum	Understand some important processes and changes in the natural world around them, including the seasons and changing states of matter.	Observe changes across the four seasons. Observe and describe weather associated with the seasons and how day length varies.					
Skills	Looks closely at similarities, differences, patterns and change in nature.	Observe changes across the four seasons. Observe and describe how day length changes across the year. Observe and describe different types of weather.					

Science

Essential Knowledge

Knowledge	Understand some important processes and changes in the natural world around them, including the seasons and changing states of matter.	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 sun, rain, hail, wind, snow, fog, lightning, storm and cloud. The weather can change daily and some weather types are more common in certain seasons, such as snow in winter.					
Topic / Coverage		Summer Two: What changes happen in each season?					

	Rocks and Soils						
	EYFS	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6

Science

Essential Knowledge

National Curriculum				Compare and group together different kinds of rocks on the basis of their appearance and simple physical properties. Describe in simple terms how fossils are formed when things that have lived are trapped within rock. Recognise that soils are made from rocks and organic matter.			
Skills				Compare and group rocks based on their appearance, properties or uses. Describe simply how fossils are formed, using words, pictures or a model. Investigate soils from the local environment, making comparisons and identifying features.			

Science

Essential Knowledge

Knowledge				There are three different rock types: sedimentary, igneous and metamorphic. 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. Igneous rocks are made from cooled magma or lava. They usually contain visible crystals. Examples include pumice and granite. 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. Fossils form over millions of years and are the remains of a once-living organism, preserved as rock. Scientists can use fossils 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.			

Science

Essential Knowledge

				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.			
Topic / Coverage				Spring One: What can rocks tell us about the past?			

	Light						
	EYFS	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
National Curriculum				Recognise that they need light in order to see things and that dark is the absence of light. Notice that light is reflected from surfaces. Recognise that light from the sun can be dangerous and that there are ways to protect their eyes. Recognise that shadows are formed when the light from a light source is blocked by an opaque object. Find patterns in the way that the size of shadows change.			Recognise that light appears to travel in straight lines. Use the idea that light travels in straight lines to explain that objects are seen because they give out or reflect light into the eye. Explain that we see things because light travels from light sources to our eyes or from light sources to objects and then to our eyes. Use the idea that light travels in straight lines to explain why shadows have the same shape as the objects that cast them.

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Essential Knowledge

Skills				Describe dark as being the absence of light and that we need light to be able to see. Group and sort materials as being reflective or non-reflective. Explain why light from the sun can be dangerous. Explain, using words or diagrams, how shadows are formed when a light source is blocked by an opaque object. Find patterns in the way shadows change during the day.			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. 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.

Science

Essential Knowledge

Knowledge				Dark is the absence of light and we need light to be able to see. Light can be reflected from different surfaces. Some surfaces are poor reflectors, such as some fabrics, while other surfaces are good reflectors, such as mirrors. Light from the Sun is damaging for vision and the skin. Protection from the Sun includes sun cream, sun hats, sunglasses, staying indoors or in the shade. A shadow is formed when light from a light source, such as the Sun, is blocked by an opaque object. Transparent objects allow light to pass through them and do not create shadows. 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 object's shadow is long.			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. We see things because light travels from light sources to our eyes or from light sources to objects and then to our eyes. 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. 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 because light travels in straight lines. The distortion or fuzziness depends on the position or type of light source.

Science

Essential Knowledge

Topic / Coverage				Spring Two: Can we change our shadows?			Autumn One: How do we see?

	Forces & Magnets						
	EYFS	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
National Curriculum				Compare how things move on different surfaces. Notice that some forces need contact between two objects, but magnetic forces can act at a distance. Observe how magnets attract or repel each other and attract some materials and not others. Compare and group together a variety of everyday materials on the basis of whether they are attracted to a magnet, and identify some magnetic materials. Describe magnets as having two poles. Predict whether two magnets will attract or repel each other, depending on which poles are facing.		Explain that unsupported objects fall towards the Earth because of the force of gravity acting between the Earth and the falling object. Identify the effects of air resistance, water resistance and friction, that act between moving surfaces. Recognise that some mechanisms, including levers, pulleys and gears, allow a smaller force to have a greater effect.	

Science

Essential Knowledge

Skills				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). Compare and group materials based on their magnetic properties. 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.		Explain that objects fall to Earth due to the force of gravity. Compare and describe, using a range of toys, models and natural objects, the effects of water resistance, air resistance and friction. Describe and demonstrate how simple levers, gears and pulleys assist the movement of objects.	

Science

Essential Knowledge

Knowledge				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. Some materials have magnetic properties. Magnetic materials are attracted to magnets. All magnetic materials are metals but not all metals are magnetic. The metal iron is magnetic. Magnets have two poles (north and south). Opposite poles (north and south) attract each other, while like poles (north and north, or south and south) repel each other.		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 gravitational pull on all objects on Earth, making dropped objects fall to the ground. 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. 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.	
Topic / Coverage				Autumn Two: How can we make an object move?		Summer One: How can moving objects be slowed down?	

Science

Essential Knowledge

	States of Matter						
	EYFS	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
National Curriculum	Understand some important processes and changes in the natural world around them, including the seasons and changing states of matter.				Compare and group materials together, according to whether they are solids, liquids or gases. Observe that some materials change state when they are heated or cooled, and measure or research the temperature at which this happens in degrees Celsius (°C). Identify the part played by evaporation and condensation in the water cycle and associate the rate of evaporation with temperature.		
Skills	Talks about the features of their own immediate environment and how environments might vary from one another				Group and sort materials into solids, liquids or gases. 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 diagrams and explain the part played by evaporation and condensation.		

Science

Essential Knowledge

Knowledge	Understand some important processes and changes in the natural world around them, including the seasons and changing states of matter.				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. Air is a mixture of gases. Heating or cooling 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 depends on the material. Water changes state from solid (ice) ⇌ liquid (water) at 0°C and from liquid (water) ⇌ 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		

Science

Essential Knowledge

					a gas to a liquid is called condensation. The water cycle has four stages: evaporation, condensation, precipitation, collection. Water in lakes, rivers and streams is warmed by the Sun, causing the liquid water to evaporate and rise into the air as water vapour. As the water vapour rises, it cools and condenses to form liquid 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.		
Topic / Coverage					Spring Two: How does rain fall?		

	Sound						
	EYFS	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6

Science

Essential Knowledge

National Curriculum					Identify how sounds are made, associating some of them with something vibrating. Recognise that vibrations from sounds travel through a medium to the ear. Find patterns between the pitch of a sound and features of the object that produced it. Find patterns between the volume of a sound and the strength of the vibrations that produced it. Recognise that sounds get fainter as the distance from the sound source increases.		
Skills					Explain how sounds are made and heard using diagrams, models, written methods or verbally. Compare and find patterns in the pitch of a sound, using a range of equipment, such as musical instruments. Compare how the volume of a sound changes at different distances from the source.		

Science

Essential Knowledge

Knowledge					When an instrument is played, the air around or inside it vibrates. These vibrations travel as a sound wave. Sound waves travel through a medium, such as air or water, to the ear. 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. 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. Sounds are louder closer to the sound source and fainter as the distance from the sound source increases.		
Topic / Coverage					Summer One/Two: How do we hear different sounds?		

	Electricity						
	EYFS	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6

Science

Essential Knowledge

National Curriculum					Identify common appliances that run on electricity. Construct a simple series electrical circuit, identifying and naming its basic parts, including cells, wires, bulbs, switches and buzzers. Identify whether or not a lamp will light in a simple series circuit, based on whether or not the lamp is part of a complete loop with a battery. Recognise that a switch opens and closes a circuit and associate this with whether or not a lamp lights in a simple series circuit. Recognise some common conductors and insulators, and associate metals with being good conductors.		Associate the brightness of a lamp or the volume of a buzzer with the number and voltage of cells used in the circuit. Compare and give reasons for variations in how components function, including the brightness of bulbs, the loudness of buzzers and the on/off position of switches. Use recognised symbols when representing a simple circuit in a diagram.

Science

Essential Knowledge

Skills					Compare common household equipment and appliances that are and are not powered by electricity. Construct operational simple series circuits using a range of components and switches for control. 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. Describe materials as electrical conductors or insulators.		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. 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). Create circuits using a range of components and record diagrammatically using the recognised symbols for electrical components.

Science

Essential Knowledge

Knowledge					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. Batteries power devices that can be carried around, such as mobile phones and torches. Electrical components include cells, wires, lamps, motors, switches and buzzers. Switches open and close a circuit and provide control. 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. Electrical conductors allow electricity to flow through them, whereas insulators do not. Common electrical conductors are metals. Common insulators include wood, glass, plastic and rubber.		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. 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 symbols for different components of circuits.
Topic / Coverage					Autumn Two: What makes a bulb light up?		Autumn Two: How can we control the brightness of a bulb?

Science

Essential Knowledge

	Earth and Space						
	EYFS	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
National Curriculum	Describe their immediate environment using knowledge from observation, discussion, stories, non-fiction texts and maps					Describe the movement of the Earth, and other planets, relative to the Sun in the solar system. Describe the movement of the Moon relative to the Earth. Describe the Sun, Earth and Moon as approximately spherical bodies. Use the idea of the Earth's rotation to explain day and night and the apparent movement of the sun across the sky.	

Science

Essential Knowledge

Skills	Talks about the features of their own immediate environment and how environments might vary from one another					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 the idea of Earth's rotation to explain day and night, and the Sun's apparent movement across the sky.	

Science

Essential Knowledge

Knowledge	Understand some important processes and changes in the natural world around them, including the seasons and changing states of matter.					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 days) is the length of time it takes for Earth to complete a full orbit. The Moon orbits Earth, completing a full orbit every month (28 days). The Sun, Earth, Moon and other planets and stars are roughly spherical. All 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. 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	

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Essential Knowledge

						rotates anti-clockwise, which means the Sun rises in the east and sets in 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.	
Topic / Coverage						Summer Two: What is in our solar system?	

	Working Scientifically: Questioning						
	EYFS	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
National Curriculum	Make comments about what they have heard and ask questions to clarify their understanding	Asking simple questions and recognising that they can be answered in different ways		Asking relevant questions and using different types of scientific enquiries to answer them		Identifying scientific evidence that has been used to support or refute ideas or arguments.	
Skills	Ask simple questions.	Ask simple scientific questions.	Ask and answer scientific questions about the world around them.	Ask questions about the world around them and explain that they can be answered in different ways.	Ask relevant scientific questions, independently, about the world around them and begin to identify how they can answer them.	Ask a wide range of relevant scientific questions that broaden their understanding of the world around them and identify how they can answer them.	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.
Knowledge	Asking questions help to understand things.	Question words include what, why, how, when, who and which.	Questions can help us find out about the world	Questions can help us find out about the world and can be answered in different ways.	Questions can help us find out about the world and can be answered using scientific enquiry.	Questions can help us find out about the world and can be answered using a range of scientific enquiries.	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.

Science

Exeter

Essential Knowledge

Topic / Coverage		Spring One: What are the flowers and plants in our environment like? Summer One: How can animals be grouped?	Autumn Two: How can we change materials?	Summer Two: What do different plants need to grow in different places?	Autumn Two: What makes a bulb light up?	Spring: How can materials be changed?	Autumn Two: How can we control the brightness of a bulb?

		Working Scientifically: Planning & Predicting					
	EYFS	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
National Curriculum		Performing simple tests		Setting up simple practical enquiries, comparative and fair tests		Planning different types of scientific enquiries to answer questions, including recognising and controlling variables where necessary	
Skills		With support, follow instructions to perform simple tests and begin to talk about what they might do or what might happen.	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.	Set up and carry out some simple, comparative and fair tests, making predictions for what might happen.	Begin to independently plan, set up and carry out a range of comparative and fair tests, making predictions and following a method accurately.	Plan and carry out a range of enquiries, including writing methods, identifying variables and making predictions based on prior knowledge and understanding.	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.
Knowledge		Simple tests can be carried out by following a set of instructions.	Tests can be carried out by following a set of instructions. A prediction is a guess for what might happen in an investigation	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 prior knowledge.	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 prior knowledge or understanding. A fair test is one in which only one variable is changed and all others remain constant.	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.	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.

Science

Essential Knowledge

Topic / Coverage		Autumn Two: Why do we use different materials for different jobs? Summer One: How can animals be grouped?	Summer Two: What do plants need to grow?	Summer Two: What do different plants need to grow in different places?	Autumn Two: What makes a bulb light up?	Spring One/Two: How can materials be changed?	Autumn Two: How can we control the brightness of a bulb?

	Working Scientifically: Observing & Measuring						
	EYFS	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
National Curriculum	Describe their immediate environment using knowledge from observation, discussion, stories, non-fiction texts and maps	Observing closely, using simple equipment		Making systematic and careful observations and, where appropriate, taking accurate measurements using standard units, using a range of equipment, including thermometers and data loggers. Identifying differences, similarities or changes related to simple scientific ideas and processes.		Taking measurements, using a range of scientific equipment, with increasing accuracy and precision, taking repeat readings when appropriate	
Skills	Looks closely at similarities, differences, patterns and change in nature	With support, use simple equipment to measure and make observations.	Use simple equipment to measure and make observations.	Take measurements in standard units, using a range of simple equipment. Make increasingly careful observations, identifying similarities, differences and changes, and making simple connections.	Take accurate measurements in standard units, using a range of equipment. Begin to choose which observations to make and for how long and make systematic, careful observations and comparisons, identifying changes and connections.	Take increasingly accurate measurements, in standard units, using a range of chosen equipment. 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.	Take accurate, precise and repeated measurements in standard units, using a range of chosen equipment. 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.

Science

Exeter

Essential Knowledge

Knowledge	Knows about similarities and differences in relation to places, objects, materials and living things	Simple equipment is used to take measurements and observations. Examples include metre sticks, measuring tapes, egg timers and hand lenses.	Simple equipment is used to take measurements and observations. E.g. timers, hand lenses, metre sticks and trundle wheels.	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. An observation involves looking closely at objects, materials and living things, which can be compared and grouped according to their features.	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). An observation involves looking closely at objects, materials and living things. Observations can be made regularly to identify changes over time.	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). 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.	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, centimetres, metres). 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, identify processes and make comparisons.
Topic / Coverage		Spring One: What are the flowers and plants in our environment like? Spring Two: What are the flowers and plants in our local environment like?	Spring Two: What do living things need to stay alive?	Autumn Two: How can we make an object move?	Spring One: How do scientists classify living things? Spring Two: How does rain fall?	Spring One/Two: How can materials be changed?	Spring One: Why is it useful to classify living things?

	Working Scientifically: Experimenting & Gathering Evidence						
	EYFS	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
National Curriculum	Describe their immediate environment using knowledge from observation, discussion, stories, non-fiction texts and maps	Identifying and classifying. Gathering and recording data to help in answering questions.		Gathering, recording, classifying and presenting data in a variety of ways to help in answering questions. Recording findings using simple scientific language, drawings, labelled diagrams, keys, bar charts, and table.		Recording data and results of increasing complexity using scientific diagrams and labels, classification keys, tables, scatter graphs, bar and line graphs.	

Science

Exeter

Essential Knowledge

Skills		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)	Observe objects, materials, living things and changes over time, sorting and grouping them based on their features and explaining their reasoning. Use a range of methods (tables, charts, diagrams and Venn diagrams) to gather and record simple data with some accuracy.	Gather and record findings in a variety of ways (diagrams, tables, charts and graphs) with increasing accuracy.	Observe objects, materials, living things and changes over time, sorting and grouping them based on their features. Gather, record, classify and present observations and measurements in a variety of ways (pictorial representations, timelines, diagrams, keys, tables, charts and graphs).	Observe objects, materials, living things and changes over time, sorting and grouping them based on their features and explaining their reasoning. Gather and record data and results of increasing complexity, selecting from a range of methods (scientific diagrams, labels, classification keys, tables, graphs and models).	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. 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.
Knowledge		Objects, materials and living things can be looked at and compared. Data can be recorded and displayed in different ways, including tables, pictograms and drawings.	Objects, materials and living things can be looked at, compared and grouped according to their features. Data can be recorded and displayed in different ways, including tables, charts, pictograms and drawings.	Data can be recorded and displayed in different ways, including tables, charts, graphs and labelled diagrams. Data can be used to provide evidence to answer questions.	Objects, materials and living things can be looked at and compared. Data can be recorded and displayed in different ways, including tables, charts, graphs, keys and labelled diagrams.	Objects, materials and living things can be looked at, compared and grouped according to their features. Data can be recorded and displayed in different ways, including tables, bar and line charts, classification keys and labelled diagrams.	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. Data can be recorded and displayed in different ways, including tables, charts, graphs and labelled diagrams. Data can be used to provide evidence to answer questions.

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Essential Knowledge

Topic / Coverage		Spring One: What are the flowers and plants in our environment like? Spring Two: What are the flowers and plants in our local environment like? Summer Two: What changes happen in each season?	Spring Two: What do living things need to stay alive?	Spring One: What can rocks tell us about the past? Spring Two: Can we change shadows?	Autumn Two: What makes a bulb light up? Spring One: How do scientists classify living thiings?	Spring One/Two: How can materials be changed?	Autumn Two: How can we control the brightness of a bulb?

	Working Scientifically: Analysing & Evaluating						
	EYFS	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
National Curriculum		Using their observations and ideas to suggest answers to questions.		Using results to draw simple conclusions, make predictions for new values, suggest improvements and raise further questions. Using straightforward scientific evidence to answer questions or to support their findings. Reporting on findings from enquiries, including oral and written explanations, displays or presentations of results and conclusions.		Reporting and presenting findings from enquiries, including conclusions, causal relationships and explanations of and degree of trust in results, in oral and written forms such as displays and other presentations. Using test results to make predictions to set up further comparative and fair tests.	
Skills		Talk about what they have done and say, with help, what they think they have found out.	Begin to notice patterns and relationships in their data and explain what they have done and found out using simple scientific language.	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.	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.	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.	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.

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Essential Knowledge

Knowledge		The results are information that has been found out from an investigation.	The results are information that has been found out from an investigation and can be used to answer a question.	Results are information that has been found out from an investigation. A conclusion is the answer to a question that uses the evidence collected.	Results are information, such as data or observations, that has been found out from an investigation. A conclusion is the answer to a question that uses the evidence collected.	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 evidence collected.	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.
Topic / Coverage		Spring Two: What are the flowers and plants in our local environment like?	Spring Two: What do living things need to stay alive? Summer One: What do plants need to grow?	Spring One: What can rocks tell us about the past? Spring Two: Can we change shadows?	Summer One/Two: How do we hear different sounds?	Spring One/Two: How can materials be changed?	Summer Two: What is the function of the circulatory system?