Year 1 Knowledge Objectives and Knowledge Goals – SCIENCE

	The Human Body	Animals and their Needs	Seasons and Weather	Taking Care of the Earth	Plants	Materials and Magnets
Week 1	*To know our body has five senses* We have five senses: sight, hearing, touch (feeling), taste, smell We use: Our eyes to see Our ears to hear Our tongues to taste Our nose to smell Our skin to feel and hands to touch (feel)	*To name and describe common animals* There are many different types of animals Some animals live in water, some live on land, some fly in the sky Scientists group animals according to their features	*To name and describe the four seasons* Our four seasons are spring, summer, autumn and winter Colder weather comes in autumn and winter. Warmer weather comes in spring and summer. Our days of sunlight are longest in the summer and shortest in the winter	*To describe different ways we can take care of the Earth* Humans do things that can damage the Earth People are causing pollution that is damaging our earth When forests are cut down the wild animals' environment is lost Resources are the things in the world we can make use of	*To know what plants, need in order to grow* Plants need warmth, light and water to grow Plants grow from seeds If seeds do not have warmth, light and water, they may not grow into healthy plants	*To recognise everyday materials* Objects all around us are made from types of materials Some everyday materials that objects are made from include: wood, plastic, glass and metal Each material can be used to make many different things, for example plastic can be made into cups, plates, toys, chairs.
Week 2	*To know that we use our eyes to see* Our eyes use light that enters the eye to enable us to see Light does not come out of the eye. Parts of the eye and what their purpose is. (e.g. the eyelashes, eyelids and cornea protect the rest of the eye) Sometimes people need help to see and can use glasses, contact lenses, telescopes, microscopes	*Scientists group animals according to their features* Animals can be grouped according to their features Amphibians are cold blooded animals that live in water and also on land. They lay eggs underwater Mammals are warm blooded animals give birth to live young.	*To know that tools are used to gather information about the weather* A rain gauge measures how much rain has fallen A weather vane shows which way the wind is blowing A thermometer measures the temperature	*To know that there are natural and manufactured resources that people on Earth use* A natural resource is something that is found in nature that people can use A manufactured resource is something people have created to use Some natural resources cannot be easily replaced, they are non-renewable	*To name and describe the parts of a plant* The roots of a plant act as an anchor, fixing the plant into the ground The stem of a plant grows above the ground The leaves and flowers grow from it. A plant's leaves absorb sunlight and turn it into energy that the plant uses to grow	*To identify the properties of materials* Properties of materials are things we can measure, see or feel We can describe and compare properties of different materials Materials have different properties that make them useful for different tasks

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Week 3	*To know that sounds travel through our ears to send messages to our brain* Sounds travel through our ears to send messages to our brain Sounds can be very different, some loud and some quiet Some people need help to hear and some people cannot hear at all	*To understand that we can group animals according to what they eat* Animals that eat other animals are called carnivores Animals that eat plants are called herbivores Animals that eat both plants and other animals are called omnivores	*To present data using a graph* Data is a collection of facts We can present data using a graph We can gather information from a graph which helps us to understand the weather	*To identify logging as a way of harvesting the Earth's natural resource* Trees are a natural resource that people can use for paper, furniture and other uses Logging means cutting down trees. Sometimes logging can cause damage to the environment	*To understand that plants spread their seeds to make new plants* Plants spread their seeds in order to make new plants When plants make seeds to make new plants, we call this reproducing Plants must spread their seeds to help them grow into new plants	*To explain why materials are chosen for specific tasks* Materials have different properties that make them useful for different tasks When designing or making objects, materials are chosen for their properties Some materials will be better suited to certain purposes than others.
Week 4	*To know that our senses help us to understand the world around us* Our senses help us to understand the world around us Our senses can warn us of danger Our senses send messages to our brains	*To describe the needs of a pet* Pets need food, space, shelter, medicine and company Some animals are suitable for keeping as pets but some are not Animals that are not pets are known as wild animals	*To know there are different types of cloud* Clouds are made of tiny droplets of water that float in the air Dark clouds are carrying more water. Cirrus clouds are white, thin and wispy. Cumulus clouds are white and fluffy like cotton wool. Stratus clouds are grey and cover the whole sky	*To know that people create pollution which can harm the environment* Pollution occurs when an environment is damaged by waste. Pollution is caused by things that people do, for example driving a car. We can reduce the amount of pollution we create	*To understand that some trees are evergreen, and some are deciduous* Evergreen trees keep their leaves all year around Deciduous trees drop their leaves during autumn time and grow fresh leaves in springtime Oak trees are deciduous and fir trees are evergreen	*To understand that materials can be sorted according to whether they are or are not attracted to magnets* Certain materials are attracted to magnets We cannot see the force of magnetism Magnets can be useful, for example in toys or around the home

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Week 5	*To understand that some people have problems with their senses, such as blindness or deafness* Some people have problems with their senses Helen Keller was taught to read, write and speak even though she was deaf and blind Helen Keller helped other people who were also deaf and blind	*To describe an animal using scientific words* We can use scientific words to describe animals Scientists observe carefully and draw detailed diagrams Fish have gills to help them breathe, fins to help them swim and scales to protect their bodies	*To understand that weather forecasts help people to prepare for different kinds of weather* A weather forecast tells us what the weather will be in the next few days Scientists study the weather and use computers to make forecasts. (A scientist who studies the weather is called a meteorologist.) Weather forecasts help people to be prepared for different kinds of weather	*To know that recycling means turning used things into something new* When something used is reused for a new purpose, it is recycled. We recycle items to reduce waste. The following things that we may find in our homes can be recycled: newspapers, letters, magazines, plastic bottles, drinks cans, food tins, cardboard boxes, glass jars.	*To recognise which parts of plants we eat* We eat different parts of plants including the roots, stem, leaves and sometimes the flowers Some plants are dangerous to eat and would make us ill We need a variety of fruit and vegetables in our diet	*To investigate which material would be most suitable for (insert purpose)* An investigation helps us to find out the best answer When we investigate something, we need to make sure our investigation is fair Scientists investigate things carefully and fairly to find answers to their questions

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	I know my senses help me to understand the world around me	*To understand what an animal is and how animals can be grouped*	*To understand and describe the four seasons, and how to gather data about weather*	*To describe different ways we can take care of the Earth*	*To describe some common plants, including trees*	*I know the properties of some materials and some facts about magnets*
ASSESSMENT	Specific Knowledge Goals: • To identify, name, label and draw the basic parts of the human body • To identify and label parts of our body relating to our senses	Scientific knowledge and understanding: • I can name and describe a variety of animals using scientific vocabulary • I know that animals can be grouped by their features e.g. whether they are amphibians or mammals • I know that animals can be grouped by what they eat e.g. herbivores, omnivores and carnivores • I know that there are wild and domestic animals. Domestic animals are animals that we keep as pets	Specific Knowledge Goals: • We have four seasons; spring, summer, autumn and winter. • Our weather is warmer during the spring and summer and cooler during the autumn and winter. • To know the tools used to gather data about the weather • There are different types of cloud and that clouds indicate the weather we are about to experience • To recognise weather symbols used in weather forecasting and explain the importance of accurate forecasts • Meteorologists can study the weather and predict how it will change. • Some weather can be dangerous, for example, flooding and hurricanes.	Specific Knowledge Goals: • To know that there are natural and man-made resources. • Some resources are renewable and some are non-renewable • To know that logging means cutting down trees. • To identify some of the ways in which the environment can be polluted and how we can reduce pollution	Specific Knowledge Goals: • To name and describe the purpose of parts of a plant, and what they need in order to grow. • To understand that plants spread their seeds to reproduce. • To understand that some trees are evergreen, and some are deciduous. • To understand that plants are grown for food and to recognise which parts of plants we eat	Specific Knowledge Goals: • Materials have different properties • Magnetism is a force we cannot see • Materials, including magnets, have different uses around the home and in everyday life