Science at Eversley

"The important thing is to never stop questioning."
Albert Einstein

At Eversley Primary School, we aim to stimulate a child's curiosity in finding out why things happen in the way they do. Science teaches methods of enquiry and investigation to stimulate creative thought. Our aim is for all children to leave Eversley being able to ask scientific questions and begin to appreciate the way science will affect their future on a personal, national, and global level.

EYFS	Seasonal changes: Play and explore outside in all seasons and in different weather, Observe living things throughout the year Living things and their habitats: Explore animals and plants in the surrounding natural environment and in a contrasting natural environment Animals, including humans: Describe different habitats. Name and describe animals that live in different habitats. Describe people who are familiar to them. Learn about how to take care of themselves Light: Explore shadows, Explore rainbows Sound: Listen to sounds outside and identify the source. Make sounds Forces: Explore how to change how things work. Explore how the wind can move objects. Explore how objects move in water Materials: Explore a range of materials, including natural materials. Make objects from different materials, including natural materials Observe, measure and record how materials change when heated or cooled. Compare how materials change over time and in different conditions Earth and Space: Learn about the Solar System and stars, Learn about space travel

	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Year 1	Seasonal changes Observe changes across the four seasons Observe and describe weather associated with the seasons and how day length varies Animals, including humans Identify, name, draw and label the basic parts of the human body and say which part of the body is associated with each sense	Seasonal changes Observe changes across the four seasons Observe and describe weather associated with the seasons and how day length varies Animals, including humans 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)	Seasonal changes Observe changes across the four seasons Observe and describe weather associated with the seasons and how day length varies Everyday materials 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	Seasonal changes Observe changes across the four seasons Observe and describe weather associated with the seasons and how day length varies Everyday materials 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	Seasonal changes Observe changes across the four seasons Observe and describe weather associated with the seasons and how day length varies Plants Identify and name a variety of common wild and garden plants Identify and name a variety of deciduous and evergreen trees	Seasonal changes Observe changes across the four seasons Observe and describe weather associated with the seasons and how day length varies Plants Identify and describe the basic structure of a variety of common trees Identify and describe the basic structure of a variety of flowering plants
Year 2	Living things and their habitats Explore and compare the differences between things that are living, dead, and things that have never been alive Identify that most livings things live in habitats to which they are suited and describe how different habitats provide for the basic needs of different	Uses of everyday materials 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,	Living things and their habitats Identify and name a variety of plants and animals in their habitats, including micro-habitats Describe how animals obtain their food from plants and other animals, using the idea of a simple food chain, and identify and	Animals, including humans 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)	Plants Observe and describe how seeds and bulbs grow into mature plants	Plants Find out and describe how plants need water, light and a suitable temperature to grow and stay healthy

	kinds of animals and plants, and how they depend on each other	bending, twisting and stretching	name different sources of food	Describe the importance for humans of exercise, eating the right amounts of different types of food, and hygiene		
Year 3	Animals, including humans Identify that animals, including humans, need the right types and amount of nutrition Identify that animals, including humans, 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	Forces and magnets 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 magnetic materials Describe magnets as having two poles. Predict whether two magnets will attract or repel each other, depending on which poles are facing	Plants Identify and describe the functions of different plants: roots, stem/trunk, leaves and flowers	Plants 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	Light 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 shadows are formed when the light from a light sources is blocked by a solid object Recognise that light from the sun can be dangerous and that there are ways to protect their eyes. Find patterns in the way that the size of shadows changes	Rocks 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 area trapped within rock Recognise that soils are made from rocks and organic matter
Year 4	Living things and their habitats 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	Animals, including humans Describe the simple functions of the basic parts of the digestive systems in humans Identify the different types of teeth in humans and their simple functions Construct and interpret a variety of food chains,	States of matter Compare and group materials together, according to whether they are solids, liquids and gases	States of matter 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	Electricity 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	Sound 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

	Recognise that environments can change and that this can sometimes pose dangers to living things	identifying producers, predators and prey		of evaporation with temperature	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	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
Year 5	Earth and Space 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	Properties and changes of materials 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	Properties and changes of materials 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 results 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	Forces Explain that unsupported objects fall towards the Earth because of the forces 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 the at some mechanisms, including levers, pulleys and gears, allow a smaller force to have a greater effect	Living things and their habitats Describe the differences in the life cycles of a mammal, an amphibian, an insect and a bird Describe the life processes of reproduction in some plants and animals	Animals, including humans Describe the changes as humans develop to old age
Year 6	Light Recognise that light appears to travel in straight lines Use the idea that light travels in straight lines to explain that objects are	Animals, including humans Identify and name the main parts of the human circulatory system, and describe the functions of the heart, blood vessels and blood	Evolution and inheritance Recognise that living things have changed over time and that fossils provide information about living things that inhabited the Earth millions of years ago	Evolution and inheritance Identify how animals and plants are adapted to suit their environment in different ways and that adaptation may lead to evolution	Living things and their habitats Describe how living things are classified into broad groups according to common observable characteristics and based on similarities and differences, including	Electricity 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

	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	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 produce offspring of the same kind, but normally offspring vary and are not identical to their parents		micro-organisms, plants and animals Give reasons for classifying plants and animals based on specific characteristics	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