"Bringing out the best in everyone"

"Everyone matters; everyone is important"

SCIENCE

A Scientist is a person who studies the world around us including things that are living and non-living.

EYFS including nursery	Year 1	Year 2	Year 3 (KS2)
ANIMAL INC HUMANS			
Understand the key features of the life cycle of a plant and an animal. Begin to understand the need to respect and care for the natural environment and all living things. Explore the natural world around them, making observations and drawing pictures of animals and plants.	**NC STATEMENTS** **Year 1** 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. **Year 2** 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)		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,

	Describe the importance for humans of exercise, eating the right amounts of different types of food, and hygiene.		protection and movement.
KNOWLEDGE			
FS1 22-36 mths Enjoys playing with small-world models such as a farm. 30-50 mths Observes the effects of activity on his/her body Can usually manage washing and drying hands **FS2** 40-60 mths Eats a healthy range of foodstuffs and understands the need for variety in food. 40-60 mths Shows some understanding that good practices with regard to exercise, eating, sleeping and hygiene can contribute to good health. Makes observations of animals ……. and explains why some things occur, and talk about changes. 40-60 mths Looks closely at similarities, differences ELG Knows about similarities and differences in relation to ……. living things. Knows the importance for good health of physical exercise, and a healthy diet, and talks about ways to keep healthy and safe (ELG)	Identify and name a variety of common animals including fish, amphibians, reptiles, birds and mammals Group animals according to what they eat. 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. 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.	Understand that animals, including humans, have offspring which grow into adults 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. 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	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. 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

Makes healthy choices, and knows about, healthy eating and exercise (ELG Exc)	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.		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. 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.

SKILLS			
FS1 **FS2**	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).
COVERAGE			
FS1 **FS2**	Animals inc humans – Part 1 Senses and body parts Part 2 Vertebrates Animals inc humans – Part 3 Carnivores, herbivores and omnivores Animals inc humans – Part 4 Vertebrates and Invertebrates	Animals including humans prt1 (Life cycle) Animals including humans prt 2 Animals including humans prt3 (health, nutrition, exercise)	
VOCABULARY			

FS1 **FS2** Animal Desert habitat farm grow pet ocean jungle	backbone biomes never-living reproduce depend habitat food-chain microhabitat minibeast offspring plant source vegetation	cold-blooded environment farm gills invertebrate pet temperature vertebrate warm-blooded wild carnivores herbivore omnivore	

LIVING THINGS AND THEIR HABITATS

NC STATEMENT

Year 2

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.

KNOWLEDGE

FS1 22-36 mths Notices detailed features of objects in his/her environment		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.	

FS2 30-50 mths Shows care and concern for living things and the environment ELG Talks about the features of his/her own immediate environment and how environments might vary from one another		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.	
SKILLS			
FS1 **FS2**		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.	
COVERAGE			

		Living things and their habitats – prt 1 Habitats Part 2- microhabitats	
VOCABULARY			
FS1 **FS2**		Living Alive Dead Life processes Never living Reproduce Biomes Depend Food chain Habitat Microhabitat Minibeast Offpring Source Vegetation Food source survive	

MATERIALS		
FS1 22-36 mths Notices detailed features of objects in his/her environment **FS2** EXC ELG They are familiar with basic scientific concepts such as floating, sinking and experimentation. ELG Knows about similarities and differences in relation to ……objects, materials…..	**NC STATEMENT** **Year 1:** 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 name a variety of everyday materials, including wood, plastic, glass, metal, water, and rock Distinguish between an object and the material from which it is made. **Year 2:** Identify and compare the suitability of a variety of everyday materials, including wood, metal, plastic, glass, brick, rock, paper and cardboard for particular uses.	

EXC ELG They know the properties of some materials and can suggest some of the purposes they are used for. Safely use and explore a variety of materials, tools and techniques, experimenting with colour, design, texture, form and function.	Find out how the shapes of solid objects made from some materials can be changed by squashing, bending, twisting and stretching.		
KNOWLEDGE			
FS1 **FS2**	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.	
SKILLS			
FS1 **FS2**	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 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 materials in a variety of ways, such as based on their physical properties; being natural or man-made and being recyclable or non-recyclable.		
COVERAGE			
FS1 **FS2**	Everyday materials – Part 1 Identify and name Everyday materials – Part 2 Describe, group and compare	Materials	
VOCABULARY			
FS1 **FS2** freeze ice water paper cardboard hard soft hot cold Introduce: Autumn Winter Spring Summer Introduce: float/sink, magnetic/non-magnetic, push/pull	shiny dull bendy float sink shiny dull bendy float sink weather magnetic/non-magnetic push/pull	material solid wood metal glass brick rock object	suitable unsuitable bend twist stretch waterproof absorbent opaque transparent
PLANTS			
FS1 **FS2**	**NC STATEMENT** **Year 1:**		Identify and describe the functions of different parts of flowering plants: roots, stem/trunk, leaves and flowers.

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. **Year 2:** 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.	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.	
KNOWLEDGE			
FS1 **FS2**	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).
SKILLS			
FS1 **FS2**	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.
COVERAGE			
FS1 **FS2**	Plants – Name common plants & trees.	Plants- observe change overtime Name and group	
VOCABULARY			
FS1 /FS2 Plant Tree Leaf stem grow seed potato compost bulb bud flower petal seed soil water nutrients	Branches Bulb Flower Flowering Fruit Herb Leaf/leaves Petal Plant Roots Seed Stem Tree Trunk Common Deciduous Evergreen Vegetable Vegetation Weed wild	Bulb Compost Flower Fruit Leaf Leaves Petal Plant Roots Seed stem	

SEASONAL CHANGE			
FS1 Understand some important processes and changes in the natural world around them, including the seasons and changing states of matter. **FS2**	**NC STATEMENT** Observe changes across the four seasons. Observe and describe weather associated with the seasons and how day length varies.		
KNOWLEDGE			
FS1 **FS2**	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.		
SKILLS			
FS1 **FS2**	Observe changes across the four seasons. Observe and describe how day length changes across the year. Observe and describe different types of weather.		
COVERAGE			

FS1 **FS2**	*Seasons*		
VOCABULARY			
FS1 **FS2**	Autumn Winter Summer Spring Hot Cold Windy Breeze Leaf Frost Ice Heat		
FS1 **FS2**	**NC statement**		
KNOWLEDGE			
FS1 **FS2**			
SKILLS			
FS1 **FS2**			
COVERAGE			

FS1 **FS2**			
KEY TEXTS			
FS1 **FS2**			
VOCABULARY			
FS1 **FS2**			