SUBJECT



Science			
EYFS	Year 1	Year 2	Year 3 (KS2)
	WORKING SCIENTIFICALLY-0	QUESTIONING	
In play children can follow their own initiative curiosity and drives to find things out	Ask simple questions and recognise tha	t they can be answered in different ways	Ask relevant questions and using different types of scientific enquiries to answer them
	KNOWLEDGE		
Knows about similarities and differences in relation to places, objects, materials and living things. 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. Understand some important processes and changes in the natural world around them, including the seasons and changing states of matter.	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
changing states of matter.	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.	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

Nakas absorbations of animals and			
Makes observations of animals and			
plants and explains why some things			
occur, and talks about changes			
	VOCABULARY		
Question, answer.	Question, answer, investigate.	Question, answer, observe.	research - relevant
			questions scientific
			enquiry comparative and
			fair test systematic,
			careful observation
			accurate measurements
			equipment -
			thermometer, data
			logger data - gather,
			record, classify, present
			KS1 record - drawings,
			labelled diagrams, keys,
			bar charts, tables oral
			and written explanations
			conclusion predictions
			differences, similarities,
			changes evidence
			improve secondary
			sources guides, keys
			construct interpret
	WORKING SCIENTIFICALLY-PLAN	NING & DREDICTING	construct interpret
	WORKING SCIENTIFICALLY-PLAIN	NING & PREDICTING	
	Performing	simple tests	Setting up simple
			practical enquiries,
			comparative and fair tests
KNOWLEDGE			
Knows about similarities and differences	Simple tests can be carried out by	Tests can be carried out by following a	Tests can be carried out
in relation to places, objects, materials	following a set of instructions	set of instructions. A prediction is a	by following a set of
and living things.		guess for what might happen in an	instructions. A
		investigation.	predictions is a guess for
Know some similarities and differences			what might happen in an
between the natural world around them			That inght happen in an

and contrasting environments, drawing on their experiences and what has been read in class. Understand some important processes and changes in the natural world around them, including the seasons and			investigation based on some prior knowledge
changing states of matter.			
	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. Makes observations of animals and plants and explains why some things occur, and talks about changes	With support, follow instructions to perform simple tests and begin to talk about what they might do or what might happen.	With support, follow instructions to perform simple tests and begin to talk about what they might do or what might happen and suggest ways to answer their questions.	Set up and carry out some simple, comparative and fair tests, making predictions for what might happen based on what they know already.
	VOCABULARY		
	Instruction, test, experiment, question,	Predict, investigate, experiment,	Predict, investigate,
	investigate, answer	question, answer	experiment, question, answer, conclusion
	WORKING SCIENTIFICALLY – OBSERVING AND MEASURING		
	Observing closely, usi	ing simple equipment	Making systematic and careful observations and, where appropriate, taking accurate measurements using standard units,

			using a range of
			equipment.
	KNOWLEDGE		
Knows about similarities and differences in relation to places, objects, materials and living things. Know some similarities and differences	Simple equipment is used to measure and observe. These may include rulers, metre sticks, measuring tapes, timers and magnifying glasses.	Simple equipment is used to measure and observe. These may include metre sticks, measuring tapes, timers and magnifying glasses and trundle wheels.	Equipment is used to take measurements in standard units. Examples include sensors, timers (seconds, minut5es and
between the natural world around them and contrasting environments, drawing on their experiences and what has been read in class.			hours), thermometers (degrees Centigrade), and metre sticks, rulers or trundle wheels (mm, cm and m)
Understand some important processes and changes in the natural world around them, including the seasons and changing states of matter.			
	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. Makes observations of animals and plants and explains why some things occur, and talks about changes	With support, use simple equipment to measure and make observations	Use simple equipment to measure and make observations.	Taking measurements in standard units, using a range of simple equipment. Making increasing careful observations, identifying similarities, differences and changes, and making simple connections.
	VOCABULARY	(
	observe, sort , group, equipment.	Observing, equipment ,identify, classify sort, group,	Measure, unit, similarities, differences, connection.

WORKING SCIENTIFICALLY - EXPERIMENTING			
	Identifying and classifying		Gathering, recording, classifying and presenting data in a variety of ways to help answer questions
	KNOWLEDGE		
Knows about similarities and differences in relation to places, objects, materials and living things. 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. Understand some important processes and changes in the natural world around them, including the seasons and changing states of matter.	Objects, materials and living things can be looked at and compared.	Objects, materials and living things can be looked at and compared and grouped according to their features.	Data can be recorded and displayed in different ways, including tables, charts, graphs, keys and labelled diagrams.
	SKILLS		
Observe objects, materials, living things and changes over time, sorting and grouping them based on their features.	Observe objects, materials, living things and changes over time, sorting and grouping them based on their features and explaining their reasoning.	Gather, record and classify and present data 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.
	Vocabulary		
	Observe, sort, group, reason, explain.	Gather, record, classify, diagram, chart, graph, explain, answer.	Observe, data, group, features, classify
WORKING SCIENTIFICALLY – ANALYSING			

	Using their observations and ideas to suggest answers to questions		Recording findings using simple scientific language, drawings, labelled diagrams, keys bar charts and tables. Reporting on findings from enquiries, including oral and written explanations, displays or presentations of results and conclusions.
	KNOWLEDGE		
Knows about similarities and differences in relation to places, objects, materials and living things. 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. Understand some important processes and changes in the natural world around them, including the seasons and changing states of matter.	Data can be recorded and displayed in different ways, including tables, pictograms and drawings.	Data can be recorded and displayed in different ways, including tables, pictograms and drawings and charts.	Data can be recorded and displayed in different ways, including tables, charts, graphs and labelled diagrams. Data can be used to provide evident to answer questions. Results are information that has been discovered as part of an investigation. A conclusion is the answer to a question that uses
	CAILLE		the evidence collected.
Observe chiects metarials living this	SKILLS With support, gather and record simple	Lisa a range of motheds (tables, sharts	Use a range of motheds
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.)	Use a range of methods (tables, charts, diagrams, Venn diagrams) to gather and record simple data with some accuracy.	Use a range of methods (tables, charts, diagrams, Venn diagrams) to gather and record simple data with increasing accuracy. Using 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.
	VOCABULARY	,	
	Result, table, chart.	diagram, chart, map data,record - compare, contrast, describe	Tables, conclusions, evidence.
WORKING SCIENTIFICALLY – EXPLAINING AND EVALUATING			
	Gathering and recording data to help in answering questions.		Using results to draw simple conclusions, make predictions for new values, suggest improvements and raise further questions. Identifying differences, similarities or changes related to simple scientific ideas and processes. Using straightforward scientific evidence to answer questions or to support their findings.
	KNOWLEDGE		
Knows about similarities and differences in relation to places, objects, materials and living things. Know some similarities and differences between the natural world around them and contrasting environments, drawing	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.

on their experiences and what has been read in class.			An observation involves looking closely at objects, materials and living things, which can be compared and grouped according to their features.
	SKILLS		
Observe objects, materials, living things and changes over time, sorting and grouping them based on their features.	Talk about what they have done and say, with help, what they think they have found out. Observe the local environment throughout the year and ask and answer questions about living things and seasonal change.	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. Make increasingly careful observations, identifying similarities, differences and changes, and making simple connections
	VOCABULARY		
	Answer, result, investigation, experiment.	Result, answer, conclusion, data, information	Evidence, conclusion, similarities, differences
	PLANTS		
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.	 Observe and describe how seeds and bulbs grow into mature plants. Find out and describe how plants need water, light and a 	 Identify and describe the functions of different parts of flowering plants; roots,

 Identify and describe the basic structure of a variety of common flowering plants including trees. suitable temperature to grow and stay healthy.

- 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.

KNOWLEDGE

Knows about similarities and differences in relation to places, objects, materials and living things.

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 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.

Plants are living things.

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.

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

Common plants include the daisy, daffodil and grass.

Trees are large, woodsy 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 yar 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 woodsy stem called a trunk.

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 cyle of flowering plants. The stages of a plant's life cycle include germination, flower production, pollination, fertilization, seed formation and seed dispersal. Insects and the wind can transfer pollen from the onlant to another (pollination). Animals, wind, water and explosions can disperse seeds away from the parent plant (seed dispersal).

explosions can disperse seeds away from the parent plant (seed dispersal).

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.

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. Makes observations of animals

Identify, compare, group and sort a variety of common plants, including deciduous and evergreen trees, based on observable features.

Observe and describe how seeds and bulbs change over time as they grow into mature plants.

Name and describe the functions of the different part of flowering plants (roots, stem, leaves and flowers).

and plants and explains why some things occur, and talks about changes. L	Label and describe the basic structure of a variety of common plants.	Describe how plants need water, light and a suitable temperature to grow into mature plants. Describe how plants need water, light and a suitable temperature to grow and stay healthy.	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.
	VOCABULAR	1	
Plants, flowers, trees, leaves, root	common tree - deciduous blossom, petals, root, wild plants evergreen, trunk stem garden plants branches, leaf, root fruit deciduous vegetables evergreen plant - leaf, root, bulb leaves, bud, flowers seed	water grow reproduction light healthy suitable temperature germination	structure - flowering plants roots, stem/trunk, leaves, flowers requirements for life and growth - air, light, water, nutrients from soil, room to grow function - nutrients, support, reproduction makes its own food needs vary, fertiliser life cycle - flowers pollination, seed formation, seed dispersal
	ANIMALS INCLUDING	HUMANS	
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.	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.

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.

Describe the importance for humans of exercise, eating the right amounts of different types of food and hygiene.

Identify that humans and some other animals have skeletons and muscles for support, protection and movement.

KNOWLEDGE

Knows about similarities and differences in relation to places, objects, materials and living things.

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. 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 d 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. 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 Looks closely at similarities, differences, Identify, compare, group and sort a Describe the stages of human Compare and contrast patterns and change in nature. Talks variety of common animals, including development (baby, toddler, child, the diets of different about the features of their own fish, amphibians, reptiles, birds and teenager and adult) animals. mammals, based on observable features. immediate environment and how environments might vary from one Describe the basic life cycles of some familiar animals (egg, caterpillar, pupa, another. Makes observations of animals

and plants and explains why some things	Group and sort a variety of common	butterfly; egg, chick, chicken; spawn,	Explain the importance
occur, and talks about changes.	animals based on the foods they eat.	tadpole, froglet, frog).	and characteristics of a
			healthy, balanced diet.
	Label and describe the basic structure of	Describe what humans need to survive.	
	a variety of common animals.		Describe how humans
		Explain how animals, including humans,	need the skeleton and
	Draw and label the main parts of the	need water, food, air and shelter to	muscles for support,
	human body and say which body part	survive.	protection and
	is associated with which sense.	Dossilla tha immantance of a backley.	movement.
		Describe the importance of a healthy	Identify and group
		lifestyle, including exercise, a balanced	Identify and group animals that have no
		diet and good hygiene.	skeleton, an internal
			skeleton (endoskeleton)
			and an external skeleton
			(exoskeleton).
	VOCABLILABY		(exoskeletoli).
VOCABULARY			
•	Common animals, carnivores,	Offspring, grow, adults, survival, baby,	
	herbivores, omnivores, mammals,	child, teenager, adult, nutrition,	
	reptiles, fish, birds, amphibians, pets	reproduce, exercise, hygeinge	
	LIVING THINGS AND THE	IR HABITATS	
Explore the natural world around them,	Explore and compare the differences betw	een things that are living, dead, and things	
making observations and drawing	that have never been alive.	cert timigs that are niving, acaa, and timigs	
pictures of animals and plants	that have hevel been anve.		
p state at a state a p state at	Identify that most living things live in habit	tats to whicdh they are suited and describe	
Know some similarities and differences	how different habitats provide for the basi	c needs of different kinds of animals and	
between the natural world around them	plants, and how they depend on each other	er.	
and contrasting environments	Identify and name a variety of plants and a	unimals in their habitats including	
	microhabitats.	illinais ili tileli liabitats iliciuullig	
	micronabitats.		
	Describe how animals obtain their food fro	om plants and other animals, using the ide	
	of a simple food chain and identify and na	me different sources of food.	
KNOWLEDGE			

	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, woodlands 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 (eg under a log or rock).
	Food chains show how living things depend on one another for food.
	All food chins start with a plant, followed
	by animals that either eat the plant or
	other animals.
SKILLS	
	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.				
VOCABULARY						
		Living, dead, never alive, habitats, micro-habitats, food, food chain, sun, grass, cow, human, alive, Leaf, litter, stony path, under bushes shelter, seashore, woodland, ocean rainforest, conditions, hot/warm/cold dry/damp/wet bright/shade/dark	Environment, flowering, non-flowering, plants, animals, vertebrate, dangers, amphibians, reptiles, birdes, mammals, invertebrates.			
MATERIALS						
Knows about similarities and differences in relation to places, objects, materials and living things. 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 Understand some important processes and changes in the natural world around them, including the seasons and changing states of matter.	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 object made from some materials can be changed by squashing, bending, twisting and stretching.				
KNOWLEDGE						
To use their increasing knowledge and understanding of tools and materials to explore their interests and enquiries and develop their thinking.	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;	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.				

	bendy or rigid; waterproof or not waterproof; magnetic or non-magnetic. Materials can be grouped according to their properties	Some objects and materials can be changed by squashing, bending, twisting, stretching, heating, cooling, mixing and being left to decay.				
SKILLS						
To develop their own ideas through experimentation with diverse materials, to express and communicate their discoveries and understanding.	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 nonmagnetic. 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.				
VOCABULARY						
Materials, hard, sort, wood, plastic, glass, metal	Material – wood, plastic, glass, metal, water, rock Properties – hard, sorft, stretch, stiff, shiny/dull, rough/smooth, bendy/not bendy, waterproof/not waterproof, absorbent, not absorbent Brick, paper, fabrics, elastic, foil	Wood, metal, plastic, glass, brick, rock, paper, cardboard, squashing, bending, twisting, stretching Metal – coins, cans, cars, table, legs Wood – matches, floors	Appearance, physical properties: hard, soft, shiny/dull, rough/smooth, absorbent/waterproof Fossils – sedimentary rock			
SEASONAL CHANGES						
Understand some important processes and changes in the natural world around	Observe changes across the four seasons.					

them, including the seasons and changing states of matter	Observe and describe weather associated with the seasons and how day length varies.					
KNOWLEDGE						
	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					
	Observe changes across the four seasons.					
	Observe and describe how day length changes across the year.					
	Observe and describe different types of weather					
VOCABULARY						
	season, spring, summer, autumn, winter, month, year, day, night, sun, moon, light, dark					