Mablethorpe Primary Academy –Science Skills, Knowledge and Vocabulary Progression Map 2024-2025

	EYFS	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Animals and Humans							
Themes							
Substantive Knowledge	• To be able to differentiate between nocturnal and diurnal animals • Makes observations of animals and plants and explains why some things occur, and talks about changes • Talking about the life cycle of plants and animals and what they need to survive • Shows care and concern for living things and the environment • **To know that humans and other animals can grow.** • **To know where different animals live and what they eat** • **Knows about similarities and differences in relation to animals and nature** • **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.	• Describe the importance for humans of exercise, eating the right amounts of different types of food, and hygiene. • 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, 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 (Includes reproduction and a comparison of animal life cycles)	• 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. **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 • 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.
Vocabulary	nocturnal, alive, never been alive, dead, life cycle, look carefully, animal names, grow, old, young, animal, plant, same different	names of animals, legs, wings, eyes, skin, fins, tail, gills, fish, amphibians, reptiles, birds, mammals, similarities, differences, carnivore, herbivore, omnivore night, nocturnal, senses, sight, smell, sonar	food, sort, classify, healthy, diet, dairy, fruit, vegetables, meat, fish, fat, exercise, physical activity, heart muscles, hygiene, hygienic, clean, healthy, living, alive, essential, survival, depend, dependant, baby, child, toddler, teenager, care, appearance, life cycle, stages, pregnancy, birth	Survive, survival, food, protection, shelter, exercise, movement, nutrition, balanced diet, nutrients, carbohydrates, protein, fat, fibre, dairy, skeleton, bones, muscles, joints, ribs, skull, heart, brain, backbone, spine, spinal column, vertebrate, invertebrate, tendons	carbohydrate, fat, sugar, protein, fibre, dairy, fruit, vegetables, vitamins, minerals, balanced diet, healthy, mouth, oesophagus, stomach, small intestine, large intestine, rectum, anus, digestive system, digestion, mechanical process, chemical process, absorb, saliva, chemicals, enzyme, mouth, oesophagus, stomach, small intestine, large intestine, rectum, anus, teeth, canine, incisor, premolar, molar, jaw, cutting, tearing, grinding, dental hygiene, decay, food chain, food web, producer, consumer, predator, prey, connections herbivore, omnivore, carnivore	reproduce, reproduction, gender, male, female, sex, sexual, asexual, metamorphosis, reproduce, reproduction, gender, mate, sperm, pregnant, give birth, young, pup, calf, foal, chick, hatch, fledge, fledgling, life cycle, birth, growth, reproduction, ageing, death, baby, toddler, teenager, adult, adulthood, childhood, pregnancy, gestation, puberty, mammal	heart, blood vessels, veins, arteries, blood, system, lungs, circulatory system, skeletal system, muscular system, digestive system, oxygenated blood, deoxygenated blood, nutrients, aorta, atrium, capillaries, chamber, heart valves, vein, ventricle, vessel, pump, oxygen, lungs, chest cavity, vessel, valve, red blood cell, plasma, oxygen, carbon dioxide, waste gases, vena cava

	EYFS	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Living Things and their Habitats							
Themes		**Our Changing World: seasons**	**Our Changing World: weather/plants**		**Our Changing World plants/seasons**		
Substantive Knowledge	• To discuss daily weather/seasons • Exploring a range of habitats, looking at why the animal lives like that. • Makes observations of animals and plants and explains why some things occur, and talks about changes • Comments and asks questions about aspects of their familiar world such as the place where they live or the natural world • Talks about the features of their own immediate environment and how environments might vary from one another • Looks closely at similarities, differences, patterns and change in nature • **Knows that there are seasons and the weather changes from day to day** • **Begin to understand the effect their 2behavior can have on the environment**	• Observe changes across the four seasons • Observe and describe weather associated with the seasons and how day length varies	• 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. • Construct and interpret a variety of food chains, identifying producers, predators and prey (linked to animals and humans).	• 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 **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 • 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.
Vocabulary	Weather, seasons, spring, summer, autumn, winter, day, night, hot, cold, wind, breeze, home, habitat, same, different, pattern, change	season, autumn, winter, spring, summer, months, temperature, hot, warm, cold, cool, freezing, frosty, wet, dry, sunny, cloudy, showery, stormy, windy, breeze, gale, change, forecast	habitat, basic needs, depend, food source, food chain, producer, consumer, predator, offspring, baby, adult, grow, change, baby animal names, parent		stalk, simple and compound leaves, leaflet, leaf edge (entire, lobed, toothed, wavy), leaf arrangement (alternate, opposite, whorled), bud, twig, tree shape, leaf skeleton, vein pattern, deciduous, coniferous, flower, blossom, petal, classification key, vertebrate, fish, amphibian, reptile, bird, mammal, backbone, hair, scales, feathers, eggs, wings, beak, lungs, gills, cold blooded, warm blooded, suckle, , head, thorax, abdomen, wing, segment, antennae, insects, arachnids (spiders), crustaceans, myriapods, molluscs, worms, environment, impact, positive, negative, litter, pollution, biodiversity, ecosystem, food chain, producer, consumer, human impact, predator, prey, habitat, destruction, deforestation, pollution, climate change	life cycle, birth, growth, reproduction, metamorphosis, aging, death, mammal, amphibian, insect, bird, hibernate, nocturnal, marsupial, gills, cold-blooded, insect, species, thorax, abdomen, antennae, egg, larva, pupa, cocoon, brood, fledge, immature, endangered, threatened, extinct, extinction, evolution	identify, classify, vertebrates, invertebrates, backbone, fish, amphibians, mammals, birds, reptiles, wings, jointed legs, cased, transparent, antennae, shell, segments, molluscs, annelids, arachnids, insects, arthropods, mosses, ferns, micro-organisms (microbes) small, harmful, beneficial, bacteria, fungi, Protista, colony, colonies, mould, genus, species, variation, characteristic, environment, inherited, breeding, inheritance, offspring, crossbreed, generation, population, survival, adaptation, predator, prey, natural selection, extinction, breeding, generation, evolution

	EYFS	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Plants							
Themes		**Our Changing World: Plants**					
Substantive Knowledge	• Makes observations of animals and plants and explains why some things occur, and talks about changes • Comments and asks questions about aspects of their familiar world such as the place where they live or the natural world • Talking about the life cycle of plants and animals and what they need to survive. • **Developing an understanding of growth, decay and changes over time** • **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.			**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 • 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.
Vocabulary	Plant, leaf, flower, stem, grow, change, sunlight, water, need, seed, life-cycle, observe	leaf, leaves, bud, twig, branch, tree, plant, deciduous, evergreen, flower, blossom, petals, stem, stalk, plug plant, roots, stern, shoots, bud, vegetable & fruit names	seeds, grow, plant (verb and noun), bulb, water, soil, light, dark, germination, seedling, mature food store, radicle, root, shoot, leaves, seedling, wilt, healthy, unhealthy, warmth	plant, roots, stem, trunk, leaf/leaves, flower, function, features, leaflet, stalk, veins, surface, edge, lobes, tip, food, serrations, water, air, light, root, root hair, water, nutrients, anchor, support, petals, seed, germination, seedling, growth, mature plant, flowering, pollination, seed formation, fruit, life cycle, bud, sepal, carpel, stamen, pollen, reproduce, bee, nectar, pollen, stamen, anther, filament, stigma, style, ovary, seed, fruit, dispersal, animal, wind, water and self-dispersal, explosion, sprinkling, competition, plant varieties, conditions for growth			

	EYFS	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Electricity							
Themes							
Substantive Knowledge	• Talks about why things happen and how things work			• 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.
Vocabulary	Electricity, safe, switch, on, off, charge(d), power			electricity, electrical, mains, plugged in, battery, power, sets, rechargeable, solar, wind up, sound, light, heat, movement, cell, wire, bulb, bulb holder, circuit, buzzer, motor, complete, break, metal, component, short circuit, terminal, connect, disconnect, positive, negative, electron, connect, disconnect, flow, press switch, toggle switch, property, electrical conductor, electrical insulator, contacts, tilt switch, pendulum switch			cell, battery, lamp, wire, buzzer, motor, circuit, current, filament, electrical insulator, electrical conductor, mains electricity, switch, terminal, electrons, types of switches including toggle, push, slide, tilt, plunger, trembler, pressure, 1.5 V, series circuit, resistance, resistor, current, circuit, electrical symbols, generate, generator, coal, gas, oil, biomass, power stations, wind turbine, wave hub, tidal flow, hydro-electric, grid, pylon, transmission, transformer, solar panels,

	EYFS	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Materials							
Themes							
Substantive Knowledge	• **Understand changing states of matter.** • **Knows about similarities and differences in relation to places, objects and 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. • Describe the simple physical properties of a variety of everyday materials (EM) • Compare and group together a variety of everyday materials based on 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		• 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.	• 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.	
Vocabulary	Liquid, runny, pour, hard, solid, feel, texture, soft, squashy, smooth, rough, bumpy, waterproof	materials, wood, wooden, plastic, metal, rock, brick, glass, fabric, water, purpose, use, hard, soft, rough, smooth, shiny, dull, light, heavy, transparent (or see-through), opaque (or can't see through), properties, harder, lighter, rougher, hard, soft, rough, smooth, shiny, dull, light, heavy, transparent (or see-through), opaque (or can't see through), properties, harder, lighter, rougher	wood, metal, plastic, glass, rock, brick, paper, property, smooth, rough, soft, hard, flexible, stiff, shiny, dull, see through, cold, warm, bright, fabric, light, opaque, transparent, material, waterproof, absorbent, bendy, stretchy, stiff, shiny, dull, rough, smooth, opaque, transparent, translucent, strong, weak		solid, liquid, hard, soft, pour, flow, pile, pool, surface, horizontal, runny, viscous, transparent, opaque, force, ice, water, solid, liquid, melt, melting, freeze, freezing, solidify, solidifying, heating, cooling, states of matter, change of state, temperature, melting point, freezing point, process, gas, air, carbon dioxide, helium, oxygen, bubbles, particle, weight, compress, squash, air, shape, volume, cool, warm, hot, wind, evaporate, evaporation, water vapour, boil, boiling, boiling point, water vapour, steam, liquid, gas, droplets, condense, condensation, cycle	properties, material, building, construction, structure, organic, natural, manufactured, man-made, weathering, decay, decompose, break down, brittle, fragile, metal, durable, durability, plastic, wood, ceramic, concrete, insulate, insulation, properties, material, compare, contrast, strength, weakness, durability, wear, tear, stretch, flexibility, weight, mass, plastic, hardness, waterproof, washable, stain resistant, reusable, ovenproof, heat, temperature, thermal conductor, absorb, absorbency, saturated, powder, gel, polymer, product, viscosity, adhesive, , soluble, insoluble, transparent, opaque, electrical conductor/insulator, thermal conductor/ insulator, magnetic, non-magnetic, attract, repel, malleable, malleability, elastic, elasticity, brittle, permeable, impermeable, permeability, solid, pour, flow, rigidity, flexibility, ductile (can be drawn into wires), electrical conductor, thermal conductor, oxidises, rusts, polyester, nylon, polythene, PVC, polystyrene, acrylic, recycle, reuse, biodegradable, environmentally friendly,	

	EYFS	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Forces							
Themes							
Substantive Knowledge	• Talks about why things happen and how things work • **Knows about similarities and differences in relation to places, objects and materials**		• Find out how the shapes of solid objects made from some materials can be changed by squashing, bending, twisting and stretching.			• 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.	
Vocabulary	Pull, push, squash, bend, twist, roll, stretch		push, pull, twist, squash, bend, stretch, roll, pinch, press, smooth, flexible, rigid, stretchy, squashy, elastic, stiff, bending, twisting, stretching			mass, gravity, Newton meter, friction, smooth, rough, movement, gravity, falling, surface area, weight, air resistance, water resistance, water, floating, ripples, drag, streamlined, surface area, float, sink, pull, force, up-thrust, lever, pivot, push, pull, mechanism, machine, fulcrum, gears, forces, cogs, wheels, teeth	

	EYFS	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Light							
Themes							
Substantive Knowledge	• Talks about why things happen and how things work			• 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.

Vocabulary	Dark, light, torch, shadow			light, dark, shadow, mirror, bright, dim, reflect, eye, shiny, reflective, reflector, opaque, transparent, translucent, source, sunburn, ultraviolet, infrared, sun cream/ sun lotion, protection			bright, dark, dim, dull, eye, light, mirror, opaque, reflect, shadow, shiny, translucent, transparent, reverse, backwards, upside down, image, inverted, periscope, ray diagram, opaque, refract, refraction, medium

	EYFS	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Sound							
Themes							
Substantive Knowledge	• Talks about why things happen and how things work				• 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		
Vocabulary	loud, quiet, soft, high, low				loud, quiet, high, low, repeating, continuous, strike, blow, shake, pluck, vibration, vibrate, solid, air, particles, volume, strength of vibrations, sound source, fainter, distance, pitch, taut, tautness, stretch, tighten, travels, mouthpiece, earpiece		

	EYFS	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Rocks							
Themes							
Substantive Knowledge	• Looks closely at similarities, differences, patterns and change in nature • **Knows about similarities and differences in relation to places, objects and materials**				• 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.		
Vocabulary	Rock, pebble, smooth, hard, rough,				rock, stone, pebble, sandstone, granite, chalk, limestone, marble, pumice, texture, crystal, granule, properties, rough, smooth, hard, soft, particle, concrete, slate, brick, clay, surface, texture, absorb, absorption, waterproof, permeable, non-permeable, permeability, weathering, erosion, weather, weathering, frost, beach, cliff, soil types such as soil, clay, sandy, loam, peat, organic material, fossil, fossilise, remains, types of fossils such as trilobite, starfish, sea urchin, ammonite, sediment, sedimentary, (Icthyosaurus, Plesiosaurus, Pterodactylus), Jurassic Coast, Lyme Regis, expert, expertise, scientist		

	EYFS	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Earth and Space							
Themes							
Substantive Knowledge	• Talks about why things happen and how things work • Looks closely at similarities, differences, patterns and change in nature					• 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.	
Vocabulary	Space, planet, sun, moon, stars, galaxy, astronaut, rocket, spaceship, space travel, Neil Armstrong, Buzz Aldrin					asteroid, crescent, Earth, galaxy, Jupiter, Mars, Mercury, Milky Way, Moon, orbit, planet, Saturn, solar system, star, Sun, sunrise, sunset, Neptune, telescope, Uranus, Venus, fixed stars, galaxy, leap year, nebula, year, axis, dawn, dusk, horizon, rotate, spin, compass, British Summer Time, degrees, International Date Line, longitude, meridian, rotation, time zone, axis, equinox, hemisphere, northern, North Pole, rotation, solstice, southern, South Pole, seasons, temperature, tilt, Arctic, Antarctic, crescent, gibbous, orbit, the Earth, Full Moon, illuminate, lunar month, Moon, New Moon, reflect, waning, waxing	

	EYFS	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Working Scientifically							
Disciplinary Knowledge (Working Scientifically) (5 Types of enquiry skills - Observation over time, Pattern seeking, Identifying, classifying and grouping, Comparative and fair testing, Research using secondary sources)	**Planning**						
	Having their own ideas– thinking of ideas; finding ways to solve problems; finding new ways to do things Making predictions Planning making decisions about how to solve a problem and reach a goal	Ask simple questions when prompted Suggest ways of answering a question	Ask simple questions Recognise that questions can be answered in different ways	Ask relevant questions when prompted With support, set up simple and practical enquiries, comparative and fair tests Set up comparative tests	Ask relevant questions Set up simple and practical enquiries, comparative and fair tests.	With prompting, plan different types of scientific enquiries to answer questions With prompting, recognise and control variables where necessary	Plan different types of scientific enquiries to answer questions Recognise and control variables where necessary
	Conducting Experiments						
	Testing their ideas. Children use everyday language as they explore to talk about size, weight, capacity. They explore characteristics of everyday objects and shapes Children safely use and explore a variety of materials, tools and techniques, experimenting with colour, design, texture, form and function.	Make relevant observations Conduct simple tests, with support	Observe closely, using simple equipment Perform simple tests	Make systematic observations, using simple equipment Use standard units when taking measurements	Make systematic and careful observations using a range of equipment, including technology e.g. thermometers and data loggers Take accurate measurements using standard units, where appropriate	Select, with prompting, and use appropriate equipment to take readings (including repeat readings) Take precise measurements using standard units	Take measurements using a range of scientific equipment Take measurements with increasing accuracy and precision Take repeat readings when appropriate
	Recording Evidence						
	Developing ideas of grouping, sequencing, cause and effect Children represent their own ideas, thoughts and feelings through design and technology, art, music, dance, role play and stories.	With prompting, gather and record data to help answer questions	Gather and record data to help answer questions Begin to use simple scientific language	Record findings in various ways using scientific language Begin to record findings using keys, bar charts, and tables Begin to gather, classify and present data in a variety of ways to help to answer questions	Record findings using simple scientific language, drawings and labelled diagrams Record findings using keys, bar charts, and tables Gather, record, classify and present data in a variety of ways to help to answer questions.	Begin to record data and results of increasing complexity using scientific diagrams and labels e.g. classification keys, tables, scatter graphs, bar and line graphs.	Record data and results of increasing complexity using scientific diagrams and labels e.g. classification keys, tables, scatter graphs, bar and line graphs.
	Reporting Findings						

	Making links and noticing patterns Speaking: Uses talk to organise, sequence and clarify thinking and ideas Gives meaning to marks they make as the draw, write and paint Children can make observations about plants and animals and explain why some things occur and talk about changes.	Begin to identify and classify	Identify and classify	With support, report on findings from enquiries, including oral and written explanations, of results and conclusions With support, report on findings from enquiries using displays or presentations	Report on findings from enquiries, including oral and written explanations, of results and conclusions Report on findings from enquiries using displays or presentations	Begin to report and present findings from enquiries, including conclusions and causal relationships Begin to report and presents findings from enquiries in oral and written forms such as displays and other presentation Begin to report and present findings from enquiries, including explanations of, and degree of, trust in results	Report and present findings from enquiries, including conclusions and causal relationships Report and presents findings from enquiries in oral and written forms such as displays and other presentation Report and present findings from enquiries, including explanations of, and degree of, trust in results
	Predictions and Conclusions						
	Checking how well their activities are going Changing strategy as needed Reviewing how well the approach worked Understanding: Listens and responds to ideas expressed by others Children can discuss similarities and differences between living things, objects, and materials.	Begin to use observations to suggest answers to questions	Use their observations and ideas to suggest answers to questions	Begin to identify differences, similarities or changes related to simple scientific ideas and processes Begin to use results to draw simple conclusions, make predictions for new values, suggest improvements, and raise further questions Use straightforward scientific evidence to answer questions or to support their findings	Identify differences, similarities or changes related to simple scientific ideas and processes Use results to draw simple conclusions, make predictions for new values, suggest improvements, and raise further questions Use straightforward scientific evidence to answer questions or to support their findings	Begin to identify scientific evidence that has been used to support or refute ideas or arguments Begin to use test results to make predictions to set up further comparative and fair tests	Identify scientific evidence that has been used to support or refute ideas or arguments Use test results to make predictions to set up further comparative and fair tests
Vocabulary	Guess, what do you think?, predict, has it worked?, what could we change?, notice, observe, change, pattern, think, try, plan, make, solve, improve	collect, explore, magnify, observe, notice, examine, explain, describe, compare, contrast, identify, match, classify, group, sort, identify, consider, record, name, investigate, label, recognise, suggest, test	Venn diagram, Carroll diagram, explore, find out suggest, present, explain, sort, compare, recognise, identify, observe classify, measure, scatter graph, plot, pattern, table, record, accurate, tally, pattern, sequence, plan, test, conclude, detail, predict, question, bar chart, reason, label, name, set, column, suitable	Prioritise, identify, investigate, question, find solutions, sort, data, present, group, research, evidence, gather, record, classify, contrast, scientific question, observe describe, define, sort, draw conclusions, conclude, predict, prediction, diagram, label, key, chart, sequence, explain, organise, cause, enquire, present, annotate,	Investigate, gather, record, classify, present, data, name, evaluate, process, research, function, diagram, key, bar chart, table, classification, key, match, observe, accuracy, identify, sequence, systematic, distinguish, scientific ideas, scientific processes, survey, tally, group, axis, scale, compare, accurate, measurements, collect, interpret, time, fair, fair test, variable, interval, possibility, causes, explain, reliable, pattern, control	Explain, compare, describe, specific examples, broad similarities and differences, exceptions, report, present, findings, enquire, causal relationships, trustworthy results, define, sequence, conclude, results, scientific evidence, support, refute, conclusion, degree of trust, fair test, control, variable, investigate,	Scientific diagrams, classification keys, tables, scatter graph, bar and line graph, define, evidence, secondary sources, hypothesise, argument, question, refute, measure, repeat measurements, interpret, calculate, causal relationship, reliability, discovery, variable, control, secondary source, construct, represent, explain, control, component, relationship, explanation, trust, recognised symbols, select sources,

				model, Carrol diagram, evidence, Venn diagram, comparative, fair test, measure, graph, examine		group, organise, criteria, property, comparative test, accuracy, line graph, precise, calculate, volume, quantity, evidence arguments, describe, classify, measurement, effect, prediction, plan, systematically, secondary sources, pattern	persuade, decide, accurate, reliable, predict, define