Long Term Plan

Substantive knowledge:

- Organised around key scientific concepts for example, evolution, forces, or materials

Disciplinary knowledge (Scientific Enquiry):

- **DK1: Knowledge of methods that scientists use to answer questions** (grouping and classifying, observe changes over time, Fair and Comparative Tests)
- **DK2: Knowledge of apparatus and techniques, including measurements** (accurate measurement and recording of data)
- **DK3: Knowledge of data analysis** (notice patterns)
- **DK4: Knowledge of how Science uses evidence to develop explanations** (Research using secondary sources)

Science	AU1	AU2	SP1	SP2	SU1	SU2
Nursery		-Talk about the differences between materials and changes they notice (cooking porridge) Vocabulary: porridge, cooking, heating, change, cold, hot Key Knowledge: *(Using key words) Can describe the porridge before cooking *Can say what is happening to the porridge during the cooking process *(Using key words) Can describe the porridge after cooking	-Explore how things work. Vocabulary: vehicles, wheels, wings, move, roll Key Knowledge: *Knows the names of different vehicles *Knows that vehicles move *Knows that vehicles move in different ways -Explore and talk about different forces they can feel (pushes and pulls) Vocabulary: push, pull, move, moves away, comes to Key Knowledge: *Knows that pushes and pulls makes things move *Knows that pushes move away *Knows that a pull comes towards	-Begin to understand the need to respect & care for the natural environment Vocabulary: care, hurt, animals, plants, trees, tidy Key Knowledge: *Knows that the classroom & playground must be kept tidy *Knows that we should care for and never hurt animals *Knows we should care for and never hurt plants and trees -Plant seeds and care for growing plants. Vocabulary: plant, seeds, stem, flower, roots, leaf, sunlight, water, grow Key Knowledge: *Can name the parts of a plant-stem, flower, roots, leaf *Knows that a plant needs sunlight and water to grow	-Use all their senses in hands-on exploration of natural materials. Explore collections of materials with similar and/or different properties. Vocabulary: materials, hard, soft, bumpy, shiny, rough, same, different Key Knowledge: *Knows the 5 senses *Knows that materials can be similar or different -Talk about the differences between materials and changes they notice (melting ice-cream) Vocabulary: melt, melting, dripping, cold, change Key Knowledge: *Can describe the ice-cream before melting *Can say what is happening to the ice-cream during the melting process	-Understand the key features of the life cycle of an animal (butterfly) Vocabulary: life cycle, butterfly, egg, caterpillar, Key Knowledge: *Knows that the life of a butterfly starts with an egg *Knows that a caterpillar comes out of the egg *Knows that a caterpillar turns into a butterfly *Knows that butterflies lay eggs -Begin to understand the need to respect and care for all living things. Vocabulary: care, hurt, teachers, friends, animals, plants, trees Key Knowledge: *Knows that we should care for and never hurt our teachers and friends *Knows that we should care for and never hurt animals

				-Understand the key features of the life cycle of a plant Vocabulary: plant, life cycle, seed, die Key Knowledge: *Knows that plant life starts with a seed *Knows that a plant grows from a seed *Knows that the plant dies	*Can describe the ice-cream after melting	*Knows we should care for and never hurt plants and trees
	On-going Natural world (Science) skills: - Explore materials with different properties. -Explore natural materials, indoors and outside. -Explore and respond to different natural phenomena in their setting and on trips. -Talk about what they see, using a wide vocabulary. Vocabulary: Explore, notice, look closely, feel/touch, smell, taste, materials, different, same Key Knowledge: *Using key words, can talk about different materials *Know what a plant is *Can identify/name trees, plants, bushes, grass *Can name a variety of animals *Can say what is happening					
Reception	-Understand the effect of changing seasons on the natural world around them (Autumn) Vocabulary: Autumn, Winter, Summer, Spring, season, red, yellow, orange, green, brown, grey, evergreen, deciduous, hibernate Key Knowledge: *Know the name of the four seasons *Name the autumn colours *Know what the weather is like in Autumn *Knows how some trees change in Autumn *Understand why some animals/plants hibernate	-Understand some important processes in the natural world <u>Freezing water/melting ice</u> Vocabulary: Freeze, freezing, melt, melting, cold, Ice, icy, water, watery, slippery, change, heat, method Predict, test, observe, record Key Knowledge: *Understand the term prediction *Know that water can change with the freezing/melting process *Know that ice melts when it is heated *Know different methods of heating	-Understand some important processes in the natural world <u>Volcanoes</u> Vocabulary: Volcano, extinct, dormant, active, ash, sunlight, lava, erupts, smoke, ash cloud, magma Key Knowledge: *What a volcano is *The difference between a dormant and active volcano *Know what happens to a volcano when it erupts *Know some key vocabulary e.g. magma etc.. *Link volcanoes to the dinosaur extinction	-Understand the effect of changing seasons on the natural world around them (Autumn) Vocabulary: Autumn, Winter, Summer, Spring, season, red, yellow, orange, green, brown, grey, evergreen, deciduous, hibernate Key Knowledge: *Know the name of the four seasons *Name the autumn colours *Know what the weather is like in Autumn *Knows how some trees change in Autumn *Understand why some animals/plants hibernate	-Understand some important processes in the natural world <u>Freezing water/melting ice</u> Vocabulary: Freeze, freezing, melt, melting, cold, Ice, icy, water, watery, slippery, change, heat, method Predict, test, observe, record Key Knowledge: *Understand the term prediction *Know that water can change with the freezing/melting process *Know that ice melts when it is heated *Know different methods of heating	-Understand some important processes in the natural world <u>Volcanoes</u> Vocabulary: Volcano, extinct, dormant, active, ash, sunlight, lava, erupts, smoke, ash cloud, magma Key Knowledge: *What a volcano is *The difference between a dormant and active volcano *Know what happens to a volcano when it erupts *Know some key vocabulary e.g. magma etc.. *Link volcanoes to the dinosaur extinction

	*Know the effects autumn has on the natural world around them		<u>Fossils</u> Vocabulary: Fossil, Palaeontologist, Extinct, identify, print, cast, excavate, bones, observe Key Knowledge: *Know what a fossil is *Know how fossils are formed *Know what a palaeontologist is/does <u>Herbivores/Carnivores</u> Vocabulary: Herbivore, carnivore, omnivore, meat eater, plant eater, tyrannosaurus Rex, Velociraptor, ankylosaurus, Brontosaurus, triceratops, stegosaurus, diplodocus Key Knowledge: *Know the names of common dinosaurs *Know that different dinosaurs ate different food *Understand the terms 'herbivore', 'carnivore' and 'omnivore' *Know whether a dinosaur was a herbivore or carnivore based on certain physical features	*Know the effects autumn has on the natural world around them		<u>Fossils</u> Vocabulary: Fossil, Palaeontologist, Extinct, identify, print, cast, excavate, bones, observe Key Knowledge: *Know what a fossil is *Know how fossils are formed *Know what a palaeontologist is/does <u>Herbivores/Carnivores</u> Vocabulary: Herbivore, carnivore, omnivore, meat eater, plant eater, tyrannosaurus Rex, Velociraptor, ankylosaurus, Brontosaurus, triceratops, stegosaurus, diplodocus Key Knowledge: *Know the names of common dinosaurs *Know that different dinosaurs ate different food *Understand the terms 'herbivore', 'carnivore' and 'omnivore' *Know whether a dinosaur was a herbivore or carnivore based on certain physical features
	On-going Natural world (Science) skills: **-Explore the natural world around them making observations** **Vocabulary:** **Observe, notice, look closely, record, draw**					

	Key Knowledge: ***Know what the natural world is** ***Know what a plant is** ***Name a variety of plants** ***Name a variety of animals** **-Describe what they see, hear, and feel whilst outside**					
Year 1	**Name of unit -** Animals including humans **Vocabulary:** Head, Neck, Arms, Elbow, Legs, Knees, Face, Ears, Eyes, Nose, Hair, Mouth, Teeth, Senses, Taste, Touch, Smell, Hear, See **Key knowledge:** *Identify, name, draw and label the basic parts of the human body *Know which body parts related to each of the 5 senses	**Name of unit** - Use of everyday materials **Vocabulary:** Wood, Plastic, Glass, Paper, Water, Metal, Rock, Hard, Soft, Bendy, Rough, Smooth **Key knowledge:** *Know the difference between an object and the material from which it is made *Identify and name a variety of everyday materials *Know about the properties of some everyday materials *Know a variety of everyday materials based on their properties	**Name of unit** - Seasonal changes **Vocabulary:** Summer Spring Autumn Winter Seasons Climate Day Night Weather Compare Record Observe Temperature, Dawn, Dusk, Months, Solstice, Sun, Day, Moon, Light, Dark **Key knowledge:** *Know the four seasons * Know what the weather is like in different seasons *Know how day length varies	**Name of unit** - Animals including humans **Vocabulary:** Fish, Amphibian, Reptiles, Birds, Mammals, Herbivore, Carnivore, Omnivore, **Warm Blooded, Cold Blooded** **Key knowledge:** *Know a variety of common animals *Know a variety of common animals based on what they eat – herbivore, omnivore, carnivore *Know the structure of a variety of common animals (Can all birds fly? Do all mammals have 2/4 legs?)		**Name of unit** - Plants **Vocabulary:** Plants, Leaf Flowers, Stem, Roots Deciduous, Evergreen Trunk, Branch Petal, Fruit, Bulb, Seed, Bramble, Dandelion, Daisy, Buttercup, Bluebells, Rose, Sunflower, Peonies, Lavender, Fir, Chestnut, Oak, Pine, Cedar **Key knowledge:** *Know a variety of common wild and garden plants *Know the basic structure of a variety of flowering plants a trees *Know examples of different trees and identify what makes them different
	Disciplinary knowledge DK1: Identify and classify different food based on the senses	**Disciplinary knowledge** DK1: Identify and classify materials based on their properties DK1: Perform simple test	**Disciplinary knowledge** DK1: Observe changes across the seasons DK2: Gather and record data to answer simple questions DK3: Notice patterns across the seasons	**Disciplinary knowledge** DK1: Identify and classify animals DK3: Notice patterns across a group of animals		**Disciplinary knowledge** DK1: Identify and classify plants and trees DK1: Observe changes over time DK2: Gathering data using apparatus
Year 2	**Name of unit -** Use of everyday materials	**Name of unit –** Animals including humans	**Name of unit -** Plants			**Name of unit -** Living things and Habitats

	Vocabulary: Hard, Soft, Stretchy, Stiff, Shiny, Dull, Rough, Smooth, Bendy, Waterproof, Absorbent, Opaque, Transparent Brick, Paper, Fabrics, Squashing, Bending, Twisting, Stretching Elastic, Foil **Key knowledge:** *Know how to select an appropriate material for a given job *Know what happens when materials are squashed, bent, twisted or stretched	**Vocabulary:** Survival, Water, Air, Food, Adult, Baby, Offspring, Kitten, Calf, Puppy, Exercise, Hygiene **Key knowledge:** *Know how animals and humans change as they mature *Know what animals need to stay alive *Know the importance of exercise and need to eat different types of food	**Vocabulary:** Seeds, Bulbs, Water, Light, Suitable temperature, Grow, Healthy, Germinate, Decompose **Key knowledge:** *Know how seeds and bulbs grow into mature plants *Know what plants need to grow and stay healthy			**Vocabulary:** Living, Dead, Habitat, Energy, Food chain, Predator, Prey, Woodland, Pond, Desert **Key knowledge:** *Know what all living things have in common *Know where plants and animals live in the local environment *Know about food chains *Know how plants thrive and are healthy
	Disciplinary knowledge DK1: Identify and classify materials based on their properties DK1: Perform a simple test DK2: Gather and record data to answer simple questions	**Disciplinary knowledge** DK1: Identify and classify food groups DK1: Observe changes over time	**Disciplinary knowledge** DK1: Observe changes over time DK2: Gather and record data to answer simple questions			**Disciplinary knowledge** DK1: Identify and classify plants DK3: Ask simple questions about the world around them
Year 3	**Name of unit -** Animals, including humans **Vocabulary:** Movement, Muscles, Bones, Skull, Nutrition, Skeletons, **Key knowledge:** * Know about the food pyramid and the effect the different foods have on our body	**Name of unit -** Light **Vocabulary:** Light, Shadows, Mirror, Reflective, Dark, Reflection, Light Source, Cast **Key knowledge:** *Know that we need light to see *Know that darkness is the absence of light	**Name of unit -** Forces and Magnets **Vocabulary:** Magnetic, Force, Contact, Attract, Repel, Friction, Poles, Push, Pull **Key knowledge:** *Know how things move on different surfaces	**Name of unit -** Rocks **Vocabulary:** Fossils, Soils, Sandstone, Granite, Marble, Pumice, Crystals, Sedimentary, Metamorphic, Igneous, Absorbent/Porous, Durable, Permeable, Impermeable **Key knowledge:**	**Name of unit -** Plants **Vocabulary:** Air, Light, Water, Nutrients, Soil, Reproduction, Transportation, Dispersal, Pollination, Flower, **Key knowledge:** *Know the functions of different parts of flowering plants	

	*Know about nutrients, minerals, carbohydrates, proteins and vitamins * Know animals and humans cannot make their own food *Know the purpose of the skeleton *Know the purpose of muscles	*Know how shadows are formed *Know that light is reflected from surfaces *Know that the size of shadows change	*Know what friction is and how it affects moving objects *Know what a contact force is *Know what a non-contact force *Know some magnetic materials *Know magnets have two poles and these attract or repel each other	*Know how rocks are formed *Know how to identify, group and classify different kinds of rocks *Know how fossils are formed when living things have been trapped inside them *Know that soils are made from organic matter	*Know the things that plants need to grow *Know leaves are essential in helping it to produce food *Know how water is transported within plants *Know the life cycle of flowering plants, including pollination	
	Disciplinary knowledge DK1: To group and classify different food groups DK2: Gather and record data to answer simple questions DK4: Recognise the different secondary sources may be beneficial to their research	**Disciplinary knowledge** DK1: Observe changes over time DK1: To recognise when a simple fair test is necessary and help to decide how to set it up DK2: Gather and record data to answer simple questions	**Disciplinary knowledge** DK1: To group and classify based on properties DK3: Ask simple questions about the world around them	**Disciplinary knowledge** DK1: To group and classify different types of rocks DK1: To begin to compare based on test results DK2: Gather and record data to answer simple questions DK4: Recognise the different secondary sources may be beneficial to their research	**Disciplinary knowledge** DK1: To observe changes over time DK1: To recognise when a simple fair test is necessary and help to decide how to set it up DK2: Gather and record data to answer simple questions	

Year 4	**Name of unit -** Living things and habitats **Vocabulary:** Vertebrates, Fish, Amphibians, Reptiles, Birds, Mammals, Invertebrates, Snails, Slugs, Worms, Spiders, Insects, Environment, Habitats **Key knowledge:** *Know that living things can be grouped in a variety of ways *Know how to use classification keys to help group, identify and name a variety of living things *Know that environments can change and that this can sometimes pose dangers to living things.	**Name of unit -** Animals, including humans **Vocabulary:** Mouth, Tongue, Teeth, Oesophagus, Stomach, Small Intestine, Large Intestine, Herbivore, Carnivore, Canine, Incisor, Molar **Key knowledge:** *Know what digestion is *Know the different parts of the digestive system *Know the different types of teeth in humans and their simple functions *Know a variety of food chains.	**Name of unit -** States of Matter **Vocabulary:** Solid, Liquid, Gas, Evaporation, Condensation, Particles, Temperature, Freezing, Heating, Precipitation **Key knowledge:** *Know what 'state' is *Know what 'matter' is *Know what solids, liquids and gasses are *Know that some materials change state when they are heated or cooled *Know processes involved in the water cycle such as evaporation and condensation	**Name of unit -** Sound **Vocabulary:** Volume, Vibration, Wave, Pitch, Tone, Speaker **Key knowledge:** *Know how sounds are made, associating some of them with something vibrating *Know that vibrations travel through a medium to the ear *Know what pitch is *Know that there is a pattern between the volume of a sound and vibrations *Know that sounds get fainter as the distance increases.	**Name of unit –** Electricity **Vocabulary:** Cells, Wires, Bulbs, Switches, Buzzers, Battery, Circuit, Series, Conductors, Insulators, Brightness **Key knowledge:** *Know which appliances use electricity *Know and use components to construct a circuit *Know that a switch opens and closes a circuit and associate this with whether or not a lamp lights in a simple series circuit *Know some common conductors and insulators	
	Disciplinary knowledge DK1: To group and classify living thing DK1: Explore the effects of deforestation DK2: Gather, record, classify and present data in a variety of ways to help in answering questions.	**Disciplinary knowledge** DK1: Conduct comparative and fair tests DK3: Construct and interpret a variety of food chains DK4: Recognise the different secondary sources may be beneficial to their research	**Disciplinary knowledge** DK1: Observe the changes within the water cycle DK1: To group, classify and compare solids, liquids, and gases DK1: Take accurate measurements using standard units, using a range of equipment Use tables, bar charts to record data. DK2: Analyse the data	**Disciplinary knowledge** DK1: Conduct comparative and fair tests DK3: Investigate patterns between the volume of a sound and the strength of vibrations DK4: Recognise the different secondary sources may be beneficial to their research	**Disciplinary knowledge** DK1: Conduct comparative and fair tests DK2: Gather and record data to answer simple questions DK3: Notice patterns between circuits	
Year 5	**Name of unit -** Properties and Changes of Materials **Vocabulary:** Hardness, Solubility, Transparent, Opaque, Translucent, Magnetic, Filter, Evaporation, Dissolving,		**Name of unit -** Forces **Vocabulary:** Air Resistance, Water	**Name of unit – Earth and Space** **Vocabulary**: Earth, Sun, Moon, Axis, Rotation, Day,	**Name of unit -** Living things and Habitats **Vocabulary:** Mammal, Reproduction, Insect,	**Name of unit -** Animals including humans **Vocabulary:** Foetus, Embryo, Womb,

	Mixing, Thermal Conductor, Thermal Insulator, Electrical Conductor, Electrical Insulator **Key knowledge:** *Know how to compare and group together everyday materials based on 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 *Know how mixtures might be separated, including through filtering, sieving and evaporating *Know about the uses of everyday materials, including metals, wood and plastic *Know that dissolving, mixing and changes of state are reversible changes *Know 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. *Know reversible changes, including, evaporating, filtering, sieving, melting and dissolving, recognising that melting and dissolving are different processes. *Know changes that are difficult to reverse, for example, burning, rusting and other reactions, for example, vinegar with bicarbonate of soda. *Know how pulleys, gears and levers are used as mechanisms - Forces	Resistance, Friction, Gravity, Newton, Gears, Pulleys, Lever, Force, Pivot (Fulcrum) **Key knowledge:** *Know what gravity is *Know what air resistance is and its effect *Know when friction is helpful and when it is not	Night, Phases of the Moon, star, constellation, waxing, waning, full, new, year, month **Key knowledge:** *Know how the Earth and other planets move, relative to the Sun in the solar system *Know how the Moon moves relative to the Earth *Know that the Sun, Earth, and Moon are approximately spherical bodies *Know how Earth's rotation to explain day and night and the apparent movement of the sun across the sky.	Amphibian, Bird, Offspring; Classification, Vertebrates, Invertebrates, Microorganisms, Amphibians, Reptiles, Mammals, Insects **Key knowledge:** *Know the differences in the life cycles of different types of animals *Know the life process of reproduction in some plants and animals.	Gestation, Baby, Toddler, Teenager, Elderly, Growth, Development, Puberty; Circulatory, Heart, Blood Vessels, Veins, Arteries, Oxygenated, Deoxygenated, Valve, Exercise, Respiration **Key knowledge:** *Know the changes as humans develop to old age. *Know how the human and animal gestation compare
	Disciplinary knowledge DK1: Observe the changes that take place over time DK1: Grouping and classifying a range of materials based on their properties DK1: Conduct comparative and fair tests DK2: Gather, record, classify and present data in a variety of ways to help in answering questions	**Disciplinary knowledge** DK2: Gather, record, classify and present data in a variety of ways to help in answering questions. DK3: Explore the effects of friction on movement and find out how it slows or stops moving objects	**Disciplinary knowledge** DK4: Recognise the different secondary sources may be beneficial to their research	**Disciplinary knowledge** DK1: Observe the life cycle of animals and plants DK1: Compare the life cycle of animals and plants DK4: Recognise the different secondary sources may be beneficial to their research	**Disciplinary knowledge** DK3: Notice patterns within the gestation periods DK4: Recognise the different secondary sources may be beneficial to their research
Year 6	**Name of unit -** Light and Electricity	**Name of unit -** Living Things and Habitats	**Name of unit -** Animals, including humans		**Name of unit -** Evolution and Inheritance

	Vocabulary: electrons, cell, switch, series, circuit, voltage, current, simple circuit, wire, motor, conductor, components, amps, light bulb, buzzer, battery, insulator, symbols, resistance **Key knowledge:** *Know that light appears to travel in straight lines *Know that light travels in straight lines and that objects are seen because they give out or reflect light into the eye *Know that we see things because light travels from light sources to our eyes or from light sources to objects and then to our eyes *Know that light travels in straight lines to explain why shadows have the same shape as the objects that cast them *Know how the number and voltage of cells used in the circuit affects the brightness of a lamp or the volume of a buzzer *Know reasons for variations in how components function, including the brightness of bulbs, the loudness of buzzers and the on/off position of switches *Know how to use recognised symbols when representing a simple circuit in a diagram	**Vocabulary:** vertebrates, fish, amphibians, reptiles, birds, mammals, invertebrates, insects, spiders, snails, worms, flowering, non-flowering **Key knowledge:** *Know how living things are classified into broad groups according to common observable characteristics and based on similarities and differences, including micro-organisms, plants and animals *Know how to classify plants and animals based on specific characteristics.	**Vocabulary:** circulatory system, heart, blood vessels, oxygenated blood, deoxygenated blood, capillaries, veins, red blood cells, white blood cells, platelets, drug, alcohol, nutrients **Key knowledge:** *Know the main parts of the human circulatory system *Know the functions of the heart, blood vessels and blood *Know the impact of diet, exercise, drugs, and lifestyle on the way their body's function *Know the ways in which nutrients and water are transported within animals, including humans		**Vocabulary:** offspring, sexual reproduction, vary, characteristics, suited, adapted, environment, inherited, species, fossils **Key knowledge:** *Know that living things have changed over time and that fossils provide information about living things that inhabited the Earth millions of years ago *Know that living things produce offspring of the same kind, but normally offspring vary and are not identical to their parents *Know how animals and plants are adapted to suit their environment in different ways and that adaptation may lead to evolution.
	Disciplinary knowledge DK1: Conduct comparative and fair tests DK2: Gather, record, classify and present data in a variety of ways to help in answering questions DK3: Draw conclusions based on data analysis DK4: Recognise the different secondary sources may be beneficial to their research	**Disciplinary knowledge** DK1: Observe the changes that take place over time DK1: Grouping different living things DK1: Conduct comparative and fair tests	**Disciplinary knowledge** DK1: Observe the changes that take place over time DK1: Conduct comparative and fair tests DK2: Gather, record, classify and present data in a variety of ways to help in answering questions DK3: Draw conclusions based on data analysis DK4: Recognise the different secondary		**Disciplinary knowledge** DK1: Conduct comparative and fair tests DK2: Gather, record, classify and present data in a variety of ways to help in answering questions DK3: Draw conclusions based on data analysis DK4: Recognise the different secondary

			sources may be beneficial to their research		sources may be beneficial to their research
SEND - Adaptive Teaching	➢ Adjust the level of challenge- **e.g., provide sentence stems and question prompts to support thinking, allow children to present their work in different ways (mind maps, collaborative work)**. ➢ Targeted support from a TA – **provide a list of key questions/vocabulary/visual images for the TA to support with delivery of content. TA has a clear view of the curriculum intent and the lesson objectives prior to the lesson.** ➢ Clarify/simplify a task or provide numbered steps with visual representations (objects, pictures, signs, photos) ➢ Provide worked (completed) and partially completed examples. ➢ Highlight essential content- **Prioritise key knowledge that children need to learn to secure progression onto next stage.** ➢ Re-explain a concept or explain it in a different way- **use concrete items and models to aid with explanation.** ➢ Give additional (or revisit) examples. ➢ Use peer tutoring/collaborative learning (everyone must participate – give them roles) - **W*orking in groups when conducting practical activities.*** ➢ Provide additional scaffolds – **e.g., – pre-teach vocabulary, 'I do, we do, you', chunk learning into smaller chunks and break learning down into key knowledge, provide worked examples, provide sentence starters for writing, use media (photographs, film) and hands on resources, where possible** ➢ Set clear targets/expectations. ➢ Provide prompts/sentence stems- **e.g., provide children with question prompts to support with thinking and reduce cognitive overload and provide/develop with children steps to success for children to work from.** ➢ Improve accessibility (e.g., proximity to speaker, visibility of whiteboard, read a text to the pupil)- **e.g., – child-friendly texts/media, where possible. When researching, use child appropriate websites.** ➢ Consider pace - (extra time for responses to questions, contributing to class discussions and to complete activities) ➢ Provide vocabulary with visual images- **e.g., - explicitly teach vocabulary at the beginning of a unit alongside a picture or diagram of the key word, use photographs to represent the word when using it during the unit. Practice where pupils say aloud the words.** ➢ Check understanding and reinforcing as needed through repetition, rephrasing, explaining and demonstration- **e.g., use of mini-plenaries to check understanding (quick quizzes), questioning and partner talk.** ➢ Have alternative ways to record learning, e.g. oral, photographic, video, highlighting text, mind maps, etc. **e.g., give children a variety of ways to record their work (recording themselves, use of technology, mind maps), allow children to be creative in the ways that they present their work – they do not all have to be the same.** ➢ Pre-teach vocabulary, key content etc- **Pre-teach key vocabulary using picture or diagrams.**				
Strategies to stretch and challenge	➢ **Identify and account for prior knowledge** – a child who has extensive prior knowledge could be asked to present some of the knowledge they have to the class; explain something they understand easily to a child who doesn't 'get it' so quickly- **e.g., peer modelling, a more able child could present interesting facts that they already know to the children, more able children given more challenging enquiry based questions to extend their learning.** ➢ **Build on interests to extend** - read widely around a subject outside of lesson time by providing them with information about suitable material, e.g., give them suitable higher-level texts to read- **e.g., questions to research for home learning, projects to complete for home learning.**				

	➢ **Depth of content** - consider what you can add to create depth, **e.g. digging into an area more deeply, going laterally with a concept, asking pupils to use more complex terminology to describe abstract ideas, comparing scientific concepts and asking children to apply their scientific knowledge into other real world contexts.** ➢ **Use questioning techniques to boost thinking** – ask open-ended questions which require higher-order thinking- **e.g., – How…Why…Evaluate…, Compare…** ➢ **Consider learner roles** – ensure they are appropriately challenged through the role they are given so they can make an effective contribution; argue in favour of a viewpoint that is different to their own, e.g., argue the opposite position to that which they actually hold, during a class debate. ➢ **Mastery** - more intensive teaching, tutoring, peer-assisted learning, small group discussions, or additional homework **e.g., – evaluating the method used) How could this be improved? What are the limitations of this method? What would you change next time?)** ➢ **Differentiated success criteria/choice of task** – offer a choice of tasks with a different level of challenge. ➢ **Feedback** – framing feedback so pupils must take responsibility for improving their own learning **e.g., extend more able learners through open-ended questions when providing feedback.**