Science Medium Term Curriculum Map (A)

Differentiation by input -*Resources* -**see the weekly planning** from HEP scheme *Minimum Assessment for Learning strategies* for all topics
- Long term memory development strategies= Recapping pervious learning at the start of each new topic / Long term memory strategy linked to the objectives on this sheet for each week Scientific investigative skills taught throughout each unit Key words in red

	Autumn term 1	Autumn Term 2	Spring Term 1	Spring Term 2	Summer Term 1	Summer Term 2
Sapphire Class Year 1/2	**Plants** LO 1: What are seeds? LO 2: How do seeds grow? LO 3: What are bulbs? LO 4: How do bulbs grow? LO 5: What do seeds and bulbs need to grow? LO 6: Where do new plants come from? bulb, germinate, grow, light, seed, shoot, temperature, water	**Uses of Everyday Materials** LO 1: What material is best for this job? LO 2: What is the best waterproof material? LO 3: Can objects be made from different materials? LO 4: How can squashing change a shape? LO 5: How does bending or twisting change things? LO 6: How can we make things longer? bendy, change, flexible, hard, material, object, soft, stretch, strong, waterproof	**Living things** LO 1: What is alive? LO 2: What is dead? LO 3: Was it ever alive? LO 4: What do living things need? LO 5: What are some tricky objects? LO 6: Where can we find living things? alive, animals, dead, habitat, organism, plants, seeds, shelter	**Local Habitats** LO 1: What is a habitat? LO 2: What plants and animals live near us? LO 3: What is a microhabitat? LO 4: How do habitats meet needs? LO 5: How do living things depend on each other? LO 6: Can we compare different habitats? adapt, conditions, environment, habitat, microhabitat, organism, shelter, variety	**Food Chains** LO 1: What do animals eat? LO 2: Where does our food come from? LO 3: What is a food chain? LO 4: What do the arrows in a food chain mean? LO 5: How are humans part of the food chain? LO 6: What happens if a food chain is broken? carnivore, food chain, food source, habitat, herbivore, omnivore, predator, prey, producer	**Animal and human needs** LO 1:? LO 2:? LO 3:? LO 4:? LO 5:? LO 6: ?
Diamond Class Year 3/4	**Plants** LO 1: What are the parts of plants? LO 2: What do plants need to grow? LO 3: How does water move through a plant? LO 4: Why do plants need flowers? LO 5: How do plants make new plants? LO 6: What are the stages of a plant life cycle? absorb, carbon dioxide, fertilisation, fertiliser, flowers, germination, minerals, nutrients, pollination, pollen	**Rocks** LO 1: What are some properties of rocks? LO 2: How do volcanoes make igneous rocks? LO 3: Where can we find fossils? LO 4: Can rocks be changed? LO 5: Can rocks be recycled? LO 6: Why is soil important? continents, fossil, lava, magma, meteorologist, mineralogist, palaeontology, porosity, pressure, rock, soil, temperature, waterlogged	**Light** LO 1: Light source or light reflector? LO 2: Transparent, translucent or opaque? LO 3: What makes a good reflector of light? LO 4: What is a shadow? LO 5: How can we protect our eyes from the sun? LO 6:How do telescopes work? iris, lens, light source, mirror, opaque, optician, pupil, reflection, shadow, telescope, translucent, transparent	**Animals including Humans** LO 1: How do living things get energy? LO 2: What do we need to eat? LO 3: How much is enough food? LO 4: What bones are in the human body? LO 5: Are humans and other animal's bones the same? LO 6: How do animals move? carbohydrates, carnivore, consumer, biceps, exoskeleton, fats, fracture, herbivore, hibernate, leukaemia, minerals, muscle, obesity, pescatarian, producer, proteins, starvation, tendon, triceps, vitamins	**Forces and Magnets** LO 1: How do we make things move? LO 2: What are some contact forces? LO 3: What are some non-contact forces? LO 4: Are all metals magnetic? LO 5: Can you make a magnet stronger? LO 6: Can magnets help us when we are lost? air resistance, attract, contact, friction, gravity, lubricant, magnetic force, non-contact, pull, push, repel, surface, twist, water resistance	**The Bee Project** LO 1: What is a bee? LO 2: What is inside a hive? LO 3: What do bees make? LO 4: How do bees communicate? LO 5: Who makes honey? LO 6: What is happening to bees? abdomen, antennae, colony, drone, hive, honey stomach, nectar, pollen, propolis, royal jelly, sting, thorax, waggle dance, venom
Emerald class Year 5/6	**Animals including Humans** LO 1: What is the circulatory system? LO 2: How does blood get around the body? LO 3: What is in the blood? LO 4: How do we get water and nutrients? LO 5: How can we keep our heart healthy? LO 6: What are some blood disorders? blood pressure, cardiac muscle, cholesterol, circulatory system, plasma, platelet, red blood cells, valves, veins, white blood cells	**Light** LO 1: How does light travel? LO 2: How does reflection help us see? LO 3: Can we increase reflection? LO 4: What shapes our shadows? LO 5: What causes rainbows? LO 6: Can we make a red apple blue? absorb, distort, opaque, periscope, ray, surgeon, translucent, transparent	**Electric Circuits** LO 1: How do electrical appliances work? LO 2: Why do batteries have voltage? LO 3: What are the parts of a circuit? LO 4: What are circuit diagrams? LO 5: How can we use electricity safely? LO 6: What is the history of electricity? circuit, component, electric shock, insulator, symbol, risk assessment, voltage	**Evolution and Inheritance** LO 1: What is variation? LO 2: Why do adaptations matter? LO 3: What are some animal adaptations? LO 4: How do plants adapt? LO 5: What can fossils reveal? LO 6: Who are key figures in evolution? adaptation, amber, camouflage, evolution, fossils, genes, natural selection, reproduction, species, variation	**Living things and their habitats** LO 1: How do we classify animals? LO 2: How do we classify plants? LO 3: What are microorganisms? LO 4: Are there some tricky classifications? LO 5: Can we study local habitats? LO 6: Who was Carl Linnaeus? adaptations, algae, bacteria, euglena, fungi, invertebrates, microorganisms, protozoa, pooter, taxonomy, viruses	**Transition Science** LO 1: How can we improve observations? LO 2: Acid or alkali? LO 3: How can we separate colours? LO 4: What can we affect photosynthesis? LO 5: How can we change sound? LO 6: How is energy transformed? acid, alkali, chromatography, chlorophyll, energy change, microscope, photosynthesis, pigments, pitch, sound waves