Science Medium Term Curriculum Map (B)

Differentiation by input **see the weekly planning sheet/** *-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
Ruby Class N/R	**Exploring Materials & the Environment** LO 1: What materials can we find around us? LO 2: How do different materials feel? LO 3: How are objects the same or different? LO 4: What changes can we see outdoors in Autumn? LO 5: How can we sort natural objects? LO 6: How can we explore using our senses? material, object, natural, man-made, hard, soft, rough, smooth, same, different, sort, group, autumn, leaves, senses	**People, Animals & Staying Healthy** LO 1: What does my body need to stay healthy? LO 2: What animals do we know? LO 3: What do animals eat? LO 4: How do we care for animals? LO 5: What happens when we exercise? LO 6: How can we stay clean and safe? body, healthy, exercise, food, animal, pet, care, feed, clean, grow, move, hygiene, safe	**Light, Dark & Winter** LO 1: What is light and where does it come from? LO 2: What happens when it is dark? LO 3: How do shadows change? LO 4: What happens in winter? LO 5: How can we stay warm? LO 6: What changes do we notice in weather? light, dark, shadow, sun, night, day, winter, cold, warm, weather, ice, frost	**Plants, Growth & Change** LO 1: What are plants? LO 2: What do plants need to grow? LO 3: What happens when we plant seeds? LO 4: How do living things change over time? LO 5: What is a life cycle? LO 6: What changes can we see in spring? plant, seed, grow, water, soil, light, roots, stem, flower, change, life cycle, spring	**Habitats & Living Things** LO 1: What is a habitat? LO 2: Where do different animals live? LO 3: What do living things need to survive? LO 4: What is the difference between living and non-living? LO 5: How do we care for our world? LO 6: What can we find in our local environment? habitat, home, animal, living, non-living, survive, needs, water, food, shelter	**Movement, Forces & Exploration** LO 1: How do we make things move? LO 2: What is a push and a pull? LO 3: How do objects travel (roll, slide, fly)? LO 4: Which objects move faster or slower? LO 5: How can we investigate how things work? LO 6: What changes can we see in summer? push, pull, move, roll, slide, fast, slow, force, travel, observe, summer, change
Sapphire Class Year 1/2	**Park Explorers** LO 1: What is that plant? LO 2: What part is that? LO 3: Is it evergreen? LO 4: What is that flower? LO 5: How do plants grow? LO 6: Where do fruits come from? air, bud, evergreen, grow, flower, fruit, leaf, root, stem, seed, sprout	**My body and My Senses** LO 1: What can our bodies do? LO 2: What are the senses? LO 3: How do we see? LO 4: What is that sound? LO 5: How does it taste? LO 6: What can we feel? Arms, ears, hear, knee, legs, loud, mouth, quiet, rough, skin, smooth, sound, taste, teeth, tongue, touch	**Everyday Materials** LO 1: What is it made of? LO 2: Is it hard or soft? LO 3: Is it rough or smooth? LO 4: What keeps us dry? LO 5: What looks shiny? LO 6: Which material is best? absorbent, bright, dry, fabric, hard, glass, material, metal, object, plastic, see-through, scratch, shape, soak, stiff, slippery, waterproof, wet, wood	**Animal Groups** LO 1: Is it a mammal? LO 2: Can all birds fly? LO 3: What is a reptile? LO 4: Water or land? LO 5: How do fish breathe underwater? LO 6: What makes animals different? amphibian, babies, bird, breathe, habitat, mammal, nests, tadpole	**Animal Diets** LO 1: Where does food come from? LO 2: Who eats plants? LO 3: Who only eats meat? LO 4: Who eats both? LO 5: What happens underwater? LO 6: What are some unusual foods? carnivore, food, herbivore, meat, plants, prey, products, ocean, omnivore, unusual	**Seasonal Changes** LO 1: What are the seasons? LO 2: What happens in Spring? LO 3: What happens in Summer? LO 4: What happens in Autumn? LO 5: What happens in Winter? LO 6: Can we compare the seasons? autumn, change, cloudy, ice, months, shadow, spring, summer, sunshine, temperature, weather, windy, winter
Diamond Class Year 3/4	**States of Matter** LO 1: What are the states of matter? LO 2: Can we turn a solid into a liquid? LO 3: What is the opposite of melting? LO 4: Why do puddles disappear? LO 5: Can we make rain? LO 6: Do we drink the same water as the dinosaurs? condensation, evaporation, freezing, gas, liquid, matter, melting, precipitation, states, solid, water vapour	**Animals including Humans** LO 1: Can we group animals by what they eat? LO 2: Who eats what? LO 3: Why are we born without teeth? LO 4: Why doesn't the stomach digest itself? LO 5: How big is the small intestine? LO 6: Are all bacteria bad for us? absorption, canine, carnivore, consumer, enamel, food chain, herbivore, indigestion, incisors, molars, omnivore, predator, premolars, prey, producer	**Sound** LO 1: How are sounds made? LO 2: How does sound travel? LO 3: How do our ears work? LO 4: Big or small? LO 5: High or low? LO 6: Can you keep the noise down? amplifier, auditory nerve, cochlea, ear canal, eardrum, echo, decibel, hertz, particle, pinna, pitch, sonar, sound, vibration, vocal cord, volume	**Living things and their habitats** LO 1: How can we sort living things? LO 2: What are the different types of vertebrates? LO 3: What are invertebrates? LO 4: What is a classification key? LO 5: How can we see living things in their habitat? LO 6: How do humans affect plant and animal habitats? cold-blooded, colonies, deforestation, endangered, extinct, invertebrates, non-flowering plants, properties, vertebrates, warm-blooded	**Electricity** LO 1: What is electricity? LO 2: How do we produce electricity for our homes? LO 3: What are the parts of a circuit? LO 4: Conductors or insulators? LO 5: Is electricity safe? LO 6: How has electricity changed the world? appliances, battery, bulb, buzzer, cell, charge, conductor, current, electrocuted, fossil fuels, hazards, insulator, renewable, static, voltage	**The History of Science** LO 1: Did science exist in prehistoric times? LO 2: How did ancient Egyptians use science? LO 3: What was ancient Greek science? LO 4: How did ancient Rome use science? LO 5: What was science like in the Middle Ages? LO 6: What is modern science? aqueducts, civilisations, gravity, hygiene, machines, prehistoric, philosophy, technology
Emerald class Year 5/6	**Properties and changes of materials** LO 1: What do we use materials for? LO 2: What are thermal conductors and insulators? LO 3: What happens when we mix materials? LO 4: What are reversible changes? LO 5: How do we separate some mixtures? LO 6: What are irreversible changes? conductor, dissolve, durability, insulator, irreversible, mixture, neutralisation, soluble, solute, solution, solvent, synthetic, thermal conductors, thermal insulators	**Animals including Humans** LO 1: Where does human life begin? LO 2: How does a child prepare for adulthood? LO 3: What is a period? LO 4: When are new humans made? LO 5: Do other animals have the same life cycle? LO 6: What is the last stage of the human life cycle? adolescence, Alzheimer's, dementia, foetus, gestation period, menstrual cycle, period, puberty, womb	**Forces** LO 1: What happens when friction is low? LO 2: What happens when friction is high? LO 3: What is air resistance? LO 4: What is water resistance? LO 5: What is gravity? LO 6: What are some simple machines? aerodynamics, catapults, drag, fulcrum, gear, lever, load, mass, mechanisms, Newton meter, streamlined	**Living things and their habitats** LO 1: Do all mammals develop the same way? LO 2: What is metamorphosis? LO 3: What is inside a cocoon? LO 4: Which came first the chicken or the egg? LO 5: Why is there variation amongst living things? LO 6: Do you always need to have two parents to reproduce? asexual, camouflage, clone, cocoon, fertilisation, metamorphosis, offspring, regenerate, variation	**Earth and Space** LO 1: Do objects move in space? LO 2: Why do we have day and night? LO 3: Does the Moon change? LO 4: Can we use celestial objects to tell the time? LO 5: What is the Geocentric model of the solar system? LO 6: What is the Heliocentric model of the solar system? asteroid, axis, celestial bodies, comet, crescent, elliptical, galaxy, gibbous, heliocentric, orbit, satellite, sphere, sundial, phase, universe	**The Scientific Method** LO 1: What is the scientific method? LO 2: What are variables? LO 3: What is the best equipment for the job? LO 4: Is the data reliable? LO 5: How did the scientific method transform blood transfusions? LO 6: How did the scientific method help us learn about chimpanzees? accurate, average, control variable, conclusion, data, dependent variable, hypothesis, independent variable, precision, repeatable, volume