Year 2

Scientific thinking

Observing closely	Performing tests	Identifying and classifying	Recording findings
Can they use see/touch/smell/hear/taste to help them answer questions? Can they use some scientific words to describe what they have seen or measured? Challenge: Can they suggest ways of finding out through listening, hearing, smelling, touching and tasting?	Can they carry out a simple fair test? Can they explain why it might not be fair to compare two things? Can they say whether things happened exactly as they expected? Can they suggest how to find things out? Can they use prompts to find things out? Challenge: Can they say whether things happened as they expected and if not why not?	Can they organise things into groups? Can they find simple patterns (or associations)? Can they identify animals and plants by a specific criteria (lays eggs or not, feathers or not)? Challenge: Can they suggest one more way of grouping animals and plants and explain their reasons?	Can they use text/charts/diagrams/pictures/tables to record their observations? Can they measure using simple equipment? Challenge Can they use information from books and online to further their understanding?

	Autumn - Fire of London	Spring - Children's Rights from Victorian Times to Now	Summer - Who's in Charge of the UK?
Knowledge, skills and outcomes	**Uses of Everyday Materials** ● classify objects based on their materials ● describe the properties of different materials: absorbent, waterproof, transparent, opaque, elastic, flexible, rigid, hard, soft ● explore which properties make some materials suitable or unsuitable for different purposes ● investigate how heat can change the properties of some materials **Project: Fire box to protect Peyps' cheese using materials chosen for their properties (DT link)**	**Healthy Humans** ● understand that to grow into healthy adults, humans need the right amounts and types of food ● recognise the five food groups: fruit and vegetables, starchy food / carbohydrates, dairy, protein, oils and fats ● explore what happens to humans if they eat too much fats, salt, sugars ● investigate the impact of exercise on the human body ● explore how mental wellbeing can affect our physical wellbeing	**Plants** ● 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 **Project: Plant race - Ch to select a bulb or seed and cultivate it. Use knowledge of plant needs to create a growth plan. Whose germinates first? Sprouts first? Withers and dies first?**

	How Animals Grow ● understand that animals have offspring that grow into adults ● recognise that humans and some animals have young offspring such as babies or kittens, while other animals, such as chickens or insects lay eggs that hatch to young or other stages which then grow to adults ● understand that the young of some animals do not look like their parents e.g. tadpoles ● draw and name the stages of a life cycle: butterfly, frog, chicken ● name the stages of the human life cycle (baby, toddler, child, teenager, adult, elderly) and explain how humans change as they grow **Project: Create an animation of a lifecycle with oracy explanation of the different stages.**	● investigate how good hygiene prevents infections and illnesses **Project: Analyse common grocery items to identify healthy contents - create a balanced meal.** **Living Things and their Habitats** ● explore and compare the differences between things that are living, dead, and things that have never been alive ● identify the basic needs of all animals, including humans, (food, water, air, shelter) that must be satisfied in order to survive ● 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 ● draw and label a food chain to show producers and consumers, predators and prey **Project: Mudchute/Soane Centre visit - habitat hunt. Ch to explore different habitats and take photos of all the living things within it. Create a physical food chain/web using the images. Debate and reason what would eat what.**	**Living in Habitats** ● recognise how the conditions of a habitat can cause plants and animals to adapt (desert, polar habitats) ● explore current threats to habitats (using the text *Oi! Get Off Our Train* by John Burningham) ● investigate how coastal and ocean habitats are harmed by plastic waste ● explore ways we can reduce plastic in the ocean **Project: Create recycled art using plastics collected from the beach or recycling machine**
Prior learning	Y1 Everyday materials Types of animals Animal classification	Y1 Types of animals Animal classification	Y1 Plants Types of animals Animal classification
Future learning	Y5 Properties and changes of materials Y3, 4, 5, 6 Animals incl humans	Y3, 4, 5, 6 Animals incl humans Y4, 6 Living things and their habitats Y4 Rainforests	Y3, 4, 5, 6 Animals incl humans Y4, 6 Living things and their habitats Y3 Plants Y4 Rainforests