Malvern Parish CE Primary School

Long Term Curriculum Plan

Year 1 and Year 2

Science

KS1 - National Curriculum Overview

Working Scientifically

- Across all year groups scientific knowledge and skills should be learned by working scientifically

Biology – Plants

- Identify, classify and describe their basic structure
- Observe and describe growth and conditions for growth

Biology – Animals and humans

- Identify classify and observe
- Look at growth, basic needs, exercise, food and hygiene

Biology – Living things and habitats

- Look at the suitability of environments and at food chains

Chemistry – Materials

- Identify, name, describe, classify and compare properties and changes
- Look at practical uses of everyday materials

Physics – Earth and space

- Observe changes across the four seasons

Concept	KS1 Milestones for Progress
Working scientifically	• Asking simple questions and recognizing that they can be organised in different ways • Observing closely using simple equipment

	● Performing simple tests ● Identifying and classifying ● Using their observations and ideas to suggest answers to questions ● Gathering and recording data to help in answering questions ● Read and spell scientific vocabulary
Biology – Understand plants	● Identify and name a variety of common 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
Biology – Understand animals and humans	● Identify and name a variety of common animals including fish, amphibians, reptiles, birds and mammals (1) ● 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) (1 ● Identify, name, draw and label the basic parts of the human body and say which part of the body is associated with each sense ● Notice that animals, including humans have offspring which grow into adults ● Find out and describe the basic needs of animals including humans, for survival (water food air) ● Describe the importance for humans of exercise, eating the right amounts of different types of food and hygiene
Biology – Investigate living things	● Explore and compare the differences between things that are living, dead and things that have never been alive ● Identify that most living things need habitats to which they are suited and describe how different habitats provide for the basic needs of different kind of animals and plants and how they are dependent on each other ● Identify and name a variety of plants and animals in their habitat including micro habitats ● Describe how animals obtain their food from plants and other animals using the idea of simple food chain and identify and name different sources of food
Chemistry – Investigate materials	● Distinguish between an object and the material form which it is made (1) ● Identify and name a variety of every day materials including wood, plastic glass metal, water and rock (1) ● Describe the simple physical properties of a variety of everyday materials (1) ● Compare and group together a variety of everyday materials on the basis of their simple physical properties (1) ● Identify and compare the suitability of a variety of everyday materials, including wood, metal, plastic, glass, brick, rock paper and cardboard from particular uses (2) ● Find out how the basic shapes of solid objects made from some materials can be changed by squashing, bending, twisting and stretching (2) ●
Physics – Investigate Earth's movement in space	● Observe changes across the four seasons ● Observe and describe weather associated with the seasons and how the day length varies

CYCLE A
Key Knowledge and Vocabulary to be taught

Autumn Paddington at the Parish	Spring Houses and Homes	Summer Food Glorious Food
Substantive Knowledge	**Substantive Knowledge**	**Substantive Knowledge**
• Identify and name a variety of common and garden plants including deciduous and evergreen trees (daffodil, daisy, dandelion, sunflowers, rose) (Oak, Horse Chestnut, silver birch, cherry, sycamore, ash) • Identify and describe the basic structure of a variety of common flowering plants including trees (leaf, flower, petal, stem/stalk, trunk, roots) • Observe changes across the four seasons (autumn / winter)	• Distinguish between an object and the material form which it is made (1)(House – bricks, wood, straw) (Door – glass, wood, plastic) • Identify and name a variety of every day materials including wood, plastic glass metal, water and rock (1) • Describe the simple physical properties of a variety of everyday materials (1)(Shiny, stretchy, rough and opposites) • Compare and group together a variety of everyday materials on the basis of their simple physical properties • Observe changes across the four seasons (spring)	• Observe and describe how seeds and bulbs grow into mature plants (germinate, seedlings, mature plant, flower, fruit) • Find out and describe how plants need water, light and a suitable temperature to grow and stay healthy (different need different amounts) • Observe changes across the four seasons (Summer) • Observe and describe weather associated with the seasons and how the day length varies (longest in summer, shortest in winter) • Find out and describe the basic needs of animals including humans, for survival (water food air) (food and exercise) • Describe the importance for humans of exercise, eating the right amounts of different types of food and hygiene
Disciplinary Knowledge	**Disciplinary Knowledge**	**Disciplinary Knowledge**
Enquiries: Classify leaves, seeds, flowers etc using a range of characteristics. Identify plants by matching them to named images. Skill: Make observations of how plants change over a period of time.	Enquiries: Compare properties, how strong, how stiff, how waterproof Classify materials in different ways. Skill: Prediction… Which material will be …..(stronger, weaker, wetter)	Enquiries: Make close observations of seeds and bulbs (be specific) and how they grow. Skill: Observation and measuring. Recording what the weather is like. Patterns How have the seasons changed? Is there a weather pattern? Will the biggest seed grow the biggest plant?
Vocabulary	**Vocabulary**	**Vocabulary**
leaf, flower, petal, stem/stalk, trunk, roots sunflowers, rose, Oak, Horse Chestnut	Object, material, wood, plastic, glass metal, water, rock, shiny (+ not), stretchy (+ not), rough (+ not),,	Germinate, seedlings, mature plant, flower, fruit, weather, water, food, air, exercise food types – meat, fish, vegetables, bread, rice, pasta

CYCLE B Key Knowledge and Vocabulary to be taught		
Autumn Vroom!	**Spring Where the wild things are**	**Summer Ship Ahoy!**
Substantive Knowledge	**Substantive Knowledge**	**Substantive Knowledge**
• Identify, name, draw and label the basic parts of the human body and say which part of the body is associated with each sense • Notice that animals, including humans have offspring which grow into adults • Find out and describe the basic needs of animals including humans, for survival (water food air) • Describe the importance for humans of exercise, eating the right amounts of different types of food and hygiene	• Identify and name a variety of common animals including fish, amphibians, reptiles, birds and mammals (1) • 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) • Explore and compare the differences between things that are living, dead and things that have never been alive • Notice that animals, including humans have offspring which grow into adults • Identify that most living things need habitats to which they are suited and describe how different habitats provide for the basic needs of different kind of animals and plants and how they are dependent on each other • Identify and name a variety of plants and animals in their habitat including micro habitats • Describe how animals obtain their food from plants and other animals using the idea of simple food chain and identify and name different sources of food	• Identify and compare the suitability of a variety of everyday materials, including wood, metal, plastic, glass, brick, rock paper and cardboard from particular uses (2) • Find out how the basic shapes of solid objects made from some materials can be changed by squashing, bending, twisting and stretching (2)
Disciplinary Knowledge	**Disciplinary Knowledge**	**Disciplinary Knowledge**

Enquiries: Make first hand close observations of parts of the body e.g. hands, eyes. Compare 2 people Look for patterns between people e.g. do people with big hands have big feet? Investigate hand washing using glitter gel Explore the effects of exercise on their bodies.	Compare two animals from the same or different groups. Classify animals using a range of features. Explore the outside environment regularly to find objects that are living dead and have never lived. Find out about the life cycles of animals. Observe animals growing over a period of time (caterpillar)	Classify materials Make suggestions about alternative materials for a purpose that are both suitable and unsuitable. Test the properties of materials for particular uses e.g. test materials for waterproofness and select the most appropriate for a boat.
Vocabulary	**Vocabulary**	**Vocabulary**
Head, body, eyes, ears, mouth, teeth, leg, arms, hands, feet, touch, see, smell, taste, hear, nose, tongue, offspring, reproduction, growth, stages of growth (baby, child, adult), exercise, breathing, heartbeat, hygiene, germs, disease,	Living, dead, never been alive, basic needs, food chain, shelter, habitats, pond, woodland, microhabitats	Names of materials: wood, metal, plastic, glass, brick, rock, sand Properties of materials, opaque, transparent, translucent, reflective, shape, push, pull, twist, squash, bend, stretch.