Whitestone Infant School

Year One Long Term Plan

Focuses: An introduction to the seasons and then a focus on Autumn. Naming and identifying trees within the school grounds. Identifying harvest foods and where they come from. Autumn Weather Look **NC Statement** Observe changes across the four seasons. Observe and describe weather associated with the seasons and how day length varies. Include deciduous and evergreen trees. **Skills Progression** Observe changes across the four seasons. Name the four seasons. Observe and describe weather associated with the 4 seasons. Identify between deciduous and evergreen trees Name some deciduous trees (horse chestnut, birch, ash, oak) Name some evergreen (conifer, holly, pine) Name the leaves, branches, trunk, roots and crown of a tree. Explore foods that are harvested.	**Focuses:** To sort materials. To know the properties of materials. To discover man made and natural materials. Materials investigation. **NC Statement** Distinguish between an object and the material from which it is made. Identify and name a variety of everyday materials, including wood, plastic, glass, metal, water, and rock. Describe the simple physical properties of a variety of everyday materials. Compare and group together a variety of everyday materials on the basis of their simple physical properties. Observe changes across the four seasons. *Focus: Winter* **Skills Progression** Explain what material objects are made from and group them. (e.g. a chair is made from plastic). Identify and name a variety of everyday materials, including wood, plastic, glass, metal, water, and rock. Describe some everyday materials. Explain why a material might be useful for a specific job. Describe the simple physical properties of a variety of everyday materials e.g.	**Focuses** To explore common animals of the Brazilian Rainforest. To sort them considering common features. To know the animal's diets. The impact of deforestation. Winter Weather Look. **NC Statement** Identify and name a variety of common animals including fish, amphibians, reptiles, birds and mammals. 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) **Skills Progression** Identify differences between different animals. Identify and name a variety of common animals including fish, amphibians, reptiles, birds and mammals Name some rainforest animals. Describe how an animal is suited to its environment. Classify animals by what they eat. (carnivores, herbivores and omnivores) Sort animals by what they eat.	**Focuses** To explore common animals of UK farms. To sort them considering common features. To know the animal's diets. Trip to a working farm. Food we eat (PSHE link). Planting chives to use in cookery. **NC Statement** Identify and name a variety of common animals including fish, amphibians, reptiles, birds and mammals. 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) **Skills Progression** Identify differences between different animals. Identify and name a variety of common animals including fish, amphibians, reptiles, birds and mammals Describe how an animal is suited to its environment. Classify animals by what they eat. (carnivores, herbivores and omnivores) Sort animals by what they eat.	**Focuses** Identify and name British birds. Conduct a bird survey Naming and labelling plants/flowers. Planting in the eco-beds. **NC Statement** Identify and name a variety of common animals including birds and mammals. Describe and compare the structure of a variety of common animals (birds) Identify and name a variety of common wild and garden plants, including deciduous and evergreen trees. Identify and describe the basic structure of a variety of common flowering plants, including trees. **Skills Progression** Identify and name a variety of birds. Identify the months in each season. Identify and name a variety of common wild and garden plants (e.g. daisies, dandelions, oak, bluebell, sunflower, rose, grass, bramble, and primrose). Name the petals, stem, leaf and root of a plant. Name the leaves, branches, trunk, roots and crown of a tree.	**Focuses** To name and external, internal and facial body parts. Explore the senses and take part in a senses investigation. Summer Weather Look **NC Statement** Identify, name, draw and label the basic parts of the human body and say which part of the body is associated with each sense. **Skills Progression** Name, draw and label the basic parts of the human body (feet, legs, knees, arms, shoulders, elbows, hands, fingers, neck, head) Say which part of the body is associated with each sense (sight hearing, smell, taste and touch).

	hard/soft; stretchy/stiff; shiny/dull; rough/smooth; waterproof/not waterproof; bendy/not bendy; absorbent/not absorbent; opaque/transparent. Sort materials into groups on the basis of their simple physical properties.	Classify common animals (fish, amphibians, reptiles, birds and mammals) Explore the purpose of a weather station.	Classify common animals (fish, amphibians, reptiles, birds and mammals) Identify what parts of the food we eat- roots, leaves, stems etc.		

	Autumn	Spring	Summer
YEAR 2 Science	**Animals including humans-** • notice that animals including humans have offspring that grow into adults. • find out about and describe the basic needs of animals including humans to survive (water, food and air). • Learn about rabbits, owls. Non-statutory guidance: Pupils should be introduced to the basic needs of animals for survival, as well as the importance of exercise and nutrition for humans. They should also be introduced to the processes of reproduction and growth in animals. The focus at this stage should be on questions that help pupils to recognise growth; they should not be expected to understand how reproduction occurs. Pupils might work scientifically by: observing, through video or first-hand observation and measurement, how different animals, including humans, grow; asking questions about what things animals need for survival and what humans need to stay healthy; and suggesting ways to find answers to their questions. **Living things and their habitats-** • Describe how different habitats provide for the basic needs of different kinds of animals and plants, and how they depend on each other • Identify and name a variety of plants and animals in their habitats, including microhabitats • Describe how animals get their food from plants and other animals. • Learn about food chains. • Use simple food chains to describe relationships of living things. • Identify and name different sources of food. • Learn about Owls.	**Uses of everyday materials** • identify and compare the suitability of a variety of everyday materials, including wood, metal, plastic, glass, brick, rock, paper and cardboard for particular uses. • find out how the shapes of solid objects made from some materials can be changed by squashing, bending, twisting and stretching. • Observe objects, materials, living things and changes over time, sorting and grouping them based on their features and explaining their reasoning. • **INVESTIGATION - Melting point of chocolate – materials that can affect the melting point of chocolate** • Make refined/detailed observations made though use of equipment (microscopes, magnifying glasses etc) • Describe observations using scientific language. • Describe observations in relation to the context. • Observe objects, materials, living things and changes over time, sorting and grouping them based on their features and explaining their reasoning • Selects the most appropriate measurement and equipment. • Uses a variety of standard units of measurement. • Uses scientific vocabulary to aid measurement. • Begin to refine ideas – only changing one factor. • Recognise that there may be different ways to answer a questions. • Create own charts and tables.	**Plants** Find out, through experimentation that plants need water, light and a suitable temperature to grow and stay healthy and describe what they observe. Identify and name a variety of plants Describe how plants they are suited to different habitats • Make refined/detailed observations made though use of equipment (microscopes, magnifying glasses etc) • Describe observations using scientific language. • Describe observations in relation to the context. • Observe objects, materials, living things and changes over time, sorting and grouping them based on their features and explaining their reasoning. **INVESTIGATION – conditions to grow a seed** • Make refined/detailed observations made though use of equipment (microscopes, magnifying glasses etc) • Describe observations using scientific language. • Describe observations in relation to the context. • Confidently considering known occurrences when making a prediction (hypothesis) • Explain reasons for making their prediction. • Suggest how to improve experiments. • Identify if it was effective and link to scientific knowledge. • Identify what they have learnt from the investigation Observe objects, materials, living things and changes over time, sorting and grouping them

	• Make a micro-habitat. • Explore what nocturnal animals are. • Learn about an owl's habitat and explore an owl's lifecycle. • explore and compare the differences between things that are living, dead, and things that have never been alive. • identify that most living things live in habitats to which they are suited and describe how different habitats provide for the basic needs of different kinds of animals. • identify and name a variety of plants and animals in their habitats, including micro-habitats. • describe how animals find their food from plants and other animals, using the idea of a simple food chain, and identify and name different sources of food. Non-statutory guidance: Pupils should be introduced to the idea that all living things have certain characteristics that are essential for keeping them alive and healthy. They should raise and answer questions that help them to become familiar with the life processes that are common to all living things. Pupils should be introduced to the terms 'habitat' (a natural environment or home of a variety of plants and animals) and 'micro-habitat' (a very small habitat, for example for woodlice under stones, logs or leaf litter). They should raise and answer questions about the local environment that help them to identify and study a variety of plants and animals within their habitat and observe how living things depend on each other, for example, plants serving as a source of food and shelter for animals. Pupils should compare animals in familiar habitats with animals found in less familiar habitats, for example, on the seashore, in woodland, in the ocean, in the rainforest. Pupils might work scientifically by: sorting and classifying things according to whether they are	• Make clearly labelled diagrams using scientific vocabulary • Using research to inform discussion and decision making • Confidently considering known occurrences when making a prediction (hypothesis) • Explain reasons for making their prediction. Non-statutory guidance: Pupils should identify and discuss the uses of different everyday materials so that they become familiar with how some materials are used for more than one thing (metal can be used for coins, cans, cars and table legs; wood can be used for matches, floors, and telegraph poles) or different materials are used for the same thing (spoons can be made from plastic, wood, metal, but not normally from glass). They should think about the properties of materials that make them suitable or unsuitable for particular purposes and they should be encouraged to think about unusual and creative uses for everyday materials. Pupils might find out about people who have developed useful new materials, for example John Dunlop, Charles Macintosh or John McAdam. **Living things and their habitats-humans** • learn about the Arctic habitat • learn about the cacoa bean • describe how animals find their food from plants and other animals, using the idea of a simple food chain, and identify and name different sources of food. • **Animals including humans** • Learn about Artic animals • Notice that animals including humans have offspring that grow into adults. • Find out about and describe the basic needs of animals including humans to survive (water, food and air). • Describe the importance for humans of exercise, eating the right amounts of different types of food, and hygiene.	based on their features and explaining their reasoning • observe and describe how seeds and bulbs grow and mature into plants. • find out and describe how plants need water, light and temperature to stay healthy Non-statutory guidance: Pupils should use the local environment throughout the year to observe how different plants grow. Pupils should be introduced to the requirements of plants for germination, growth and survival, as well as to the processes of reproduction and growth in plants. **Note:** Seeds and bulbs need water to grow but most do not need light; seeds and bulbs have a store of food inside them. Pupils might work scientifically by: observing and recording, with some accuracy, the growth of a variety of plants as they change over time from a seed or bulb, or observing similar plants at different stages of growth; setting up a comparative test to show that plants need light and water to stay healthy. Pupils might work scientifically by: comparing the uses of everyday materials in and around the school with materials found in other places (at home, the journey to school, on visits, and in stories, rhymes and songs); observing closely, identifying and classifying the uses of different materials, and recording their observations. **Uses of everyday materials** • identify and compare the suitability of a variety of everyday materials, including wood, metal, plastic, glass, brick, rock, paper and cardboard for particular uses. • find out how the shapes of solid objects made from some materials can be changed by squashing, bending, twisting and stretching.

	living, dead or were never alive, and recording their findings using charts. They should describe how they decided where to place things, exploring questions for example: 'Is a flame alive? Is a deciduous tree dead in winter?' and talk about ways of answering their questions. They could construct a simple food chain that includes humans (e.g. grass, cow, human). They could describe the conditions in different habitats and micro-habitats (under log, on stony path, under bushes) and find out how the conditions affect the number and type(s) of plants and animals that live there. **Plants** – bulbs, germination,what they need why we plant in autumn	• Begin to ask questions with relevance to a topic. • Increasingly asking about unknown phenomena.	