

Signhills Infant Academy
Strands of Progression – Science

	Reception	Year 1	Year 2
Plants Activities Development Matters/ELG National Curriculum	• Make observations of plants • Know some names of plants, trees and flowers • May be able to name and describe different plants, trees and flowers • Show some care for their world around them Planting bulbs in Autumn and seeds in Spring. Preparing the ground for planting.	• 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. • Identify and name the roots, trunk, branches and leaves of trees. Planting seeds. Going on a tree hunt – identifying deciduous and evergreen. Taking apart a flowering plant. Comparing wild and garden plants.	• Observe and describe how seeds and bulbs grow into mature plants. • Find out and describe how plants need water, light and warmth to grow and stay healthy. Explore parts of plants – including reproductive parts. Life-cycle of a plant. Experiment to compare how plants grow when light or water is removed.
Knowledge BOLD = KEY <u>UNDERLINE = SEND</u>	I know – • What plants need to survive. • That the seasons effect how and when things grow. • <u>That I need to care and respect things in the natural environment.</u> • That we can grow fruits and vegetables.	I know – • I know the names of some wild and garden plants. • <u>The parts of a plant.</u> • <u>The parts of a tree.</u> • How to sort trees into deciduous and evergreen.	I know – • How to label the parts of plants and trees. • How to describe the stages in the life cycle of a plant. • <u>That plants need water, light and a suitable temperature to grow well.</u> • That all plants are living things. • How to set up a comparative test.
Vocabulary	Plant, tree, flower, petals, stem, leaves, trunk, branches, water, sunlight	Leaves, trunk, branch, root, seed, bulb, flower, stem, wild, garden, deciduous, evergreen	Leaves, trunk, branch, root, seed, bulb, flower, stem, wild, garden, deciduous, evergreen, observe, grow, compare, record, temperature, predict, measure, diagram, germinate, warmth, sunlight.

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Animals incl. humans Activities Development Matters/ELG National Curriculum	- Be able to identify different parts of their body. - Have some understanding of healthy food and the need for variety in their diets. - Be able to show care and concern for living things. - Know the effects exercise has on their bodies. - Can talk about things they have observed including animals - Comments and questions about the place they live or the natural world. - Shows care and concern for living things and the environment. Identifying animals in a woodland habitat. Taking care of an injured animal. Identifying creatures that live under water.	- 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. - Identify, name, draw and label basic parts of the human body and say which part is associated with each sense. Compare and group animals. Animal poo investigation. Measure height to compare at end of the year. Explore using different senses.	- Know that animals, including humans, have offspring which grow into adults - Know the basic stages in a life cycle for animals, including humans. - Find out and describe the basic needs of animals, including humans, for survival (water, food and air) - Describe the importance for humans of exercise, eating the right amounts of different types of food, and hygiene. Research what animals need to survive – do different animals need different things? Explore different animal's dietary requirements. Look at the impact of high and low energy exercises. Classifying different food items. Germ investigation.
Knowledge BOLD = KEY <u>UNDERLINE = SEND</u>	I know – What plants need to survive. - That the seasons effect how and when things grow. <u>That I need to care and respect things in the natural environment.</u> - That we can grow fruits and vegetables.	I know – - There are many different animals with different characteristics. - Animals use their senses to help them survive. <u>Animals need food to survive.</u> - Animals need a variety of food to grow, repair and stay healthy. Which body parts are associated with which sense. <u>A range of common animals.</u> <u>That animals have different diets.</u> <u>The names of basic body parts.</u>	I know – - Exercise keeps animal's bodies in good condition and increases survival chances. - Animals can reproduce when they reach maturity. <u>How an animal changes as it grows.</u> The offspring of an animal doesn't always look like the adult. <u>Animals need air, food, water and shelter to survive.</u> Reasons why humans need exercise. - The effect exercise can have on the body. - Why humans should keep themselves clear
Vocabulary	Names of animals including farm animals, pets, minibeasts, fish, birds and frogs. Diet, exercise, fruit, vegetables, farmer, hibernate, nocturnal	Amphibians, birds, fish, mammals, reptiles, carnivores, herbivore, omnivore, sight, hearing, touch, taste, smell, head, neck, ear, mouth, shoulder, hand, fingers, leg, foot, thumb, eye, nose, knee, toes, teeth, elbow	Living, dead, never alive, exercise, healthy, balanced diet, life cycle, survival, offspring

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Materials Activities Development Matters/ELG National Curriculum	- be able to ask questions about the place they live. - Talk about why things happen and how things work. - Discuss the things they have observed such as natural and found objects. - Manipulates materials to achieve a planned effect. Build a bridge Find what materials would be best for the three little pigs house Floating and sinking	- Distinguish between and object and the material from which it is made. - Identify and name a variety of everyday materials, including wood, metal, plastic, glass, water and rock, - Describe the simple physical properties of a variety of everyday materials. - Compare and group together a variety of everyday materials based on their simple properties Material detectives Spilt potion clean up – identifying absorbent materials Design waterproof bag for the wizards spell book	- 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 shapes of solid objects made from some materials can be changed by squashing, bending, twisting and stretching. Smartest Giant in Town – what materials are suitable for George's clothing? Playdough investigation Paper bridge experiment
Knowledge BOLD = KEY <u>UNDERLINE = SEND</u>	I know – <u>There are lots of materials things are made from</u> The name of materials and can describe them - Some materials have special properties that mean their good for certain things - We can melt ice and freeze water - Some objects float and some sink	I know – <u>Name objects and identify materials they are made from</u> - Recognise that objects are made from materials that suit their purpose - Recall that a property is how a material can be described Sort objects based on the materials they're made from - Group objects based on their properties	I know – - Name objects with the same use that are made from different materials - Name materials that are used to make objects with different uses <u>Recognise that stretching, twisting, bending and squashing can cause some solid objects to change shape</u> Name properties that make materials suitable for their use
Vocabulary	Paper, wood, plastic, metal, hard/soft, bendy/not bendy, smooth/rough, strong/weak	Absorbent, fabric, glass, group, material, metal, object, plastic, rock, tough, waterproof, wood	Waterproof, fabric, rubber, cars, rock, paper, cardboard, wood, metal, plastic, glass, brick, twisting, squashing, bending, suitable

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