**Progression of Skills in Science KS1**

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|  | **Content** | **Knowledge** | **Working Scientifically Skills** |
| **Year 1** | ***Scientists and Inventors*** | To describe the simple physical properties of a variety of everyday materials.To describe and compare the structure of a variety of common animals, by sorting animals according to their features.To identify and name a variety of common wild and garden plants.To observe and describe weather associated with the seasons.To describe and compare the structure of a variety of common animals. | To use observations to suggest answers to questions, by thinking about why Lego is made out of plastic.To ask simple questions and use simple secondary sources to find answers, by role playing an interview with Mae Jemison.To identify and classify animals, by sorting animals according to their features.To gather and record data to help in answering questions, by creating a chart showing the class’ most popular sensory plants.To gather and record data to help in answering questions, by measuring rainfall with a rain gauge they have made.To identify and classify, by identifying the basic parts of animals’ bodies. |
| ***Seasonal Changes – Autumn and Winter*** | To observe changes across the 4 seasons.To observe and describe how day length varies.To observe and describe weather associated with the seasons. | To gather and record data to help in answering questions by recording the weather, temperature, rainfall and wind direction in autumn.To gather and record data to help in answering questions by recording the weather, temperature, rainfall and wind direction in winter. |
| ***Animals Including Humans*** | To identify, name, draw and label the basic parts of the human body.To say which part of the body is associated with each sense.To identify and name a variety of common animals including, fish, amphibians, reptiles, birds and mammals.To describe and compare the structure of a variety of common animals (fish, amphibians, reptiles, birds and mammals including pets).To identify and name a variety of common animals that are carnivores, herbivores and omnivores. | To perform simple tests in the context of investigating each of the five senses.To gather and record data to help in answering questions in the context of collecting information to solve a puzzle.Asking simple questions and recognising that they can be answered in different ways in the context of generating criteria for sorting animals.To identify and classify in the context of sorting animals into categories. |
| ***Seasonal Changes – Spring and Summer*** | To observe and describe how day length varies.To observe changes across the four seasons.To observe and describe weather associated with the seasons. | To gather and record data to help in answering questions by recording the weather, temperature, rainfall and wind direction in spring.To gather and record data to help in answering questions by recording the weather, temperature, rainfall and wind direction in summer. |
| ***Plants*** | To identify and describe the basic structure of a variety of common flowering plants.To identify and name a variety of common wild plants.To identify and name a variety of common garden plants.To identify and name a variety of common wild and garden plants, including deciduous and evergreen trees.To identify and describe the basic structure of a variety of common flowering plants, including trees. | To ask simple questions and recognise that they can be answered in different ways in the context of considering what plants need to grow.To gather and record data to help in answering questions by finding out which wild plant is the most common.To identify and classify by classifying leaves as deciduous or evergreen.To observe closely, using simple equipment in the context of observing the growth of bean plants.To use their observations and ideas to suggest answers to questions by answering questions about what plants need to grow. |
| ***Everyday Materials*** | To identify and name a variety of everyday materials, including wood, plastic, glass, metal, water, and rock.To distinguish between an object and the material from which it is made.To describe the simple physical properties of a variety of everyday materials.To compare and group together a variety of everyday materials on the basis of their simple physical properties. | To observe closely by watching what happens to teddy.To perform simple tests to find out which material would be suitable to make an umbrella from.To use their observations and ideas to suggest answers to questions by deciding which materials would be suitable to make an umbrella from. |
| **Year 2** | ***Scientists and Inventors*** | To find out how plants need water, light and a suitable temperature to grow and stay healthy.To identify and describe the basic structure of common flowering plants by observing and sketching a range of common plants. To describe the importance for humans of exercise, of eating the right amounts of different types of food, and hygiene.To describe the importance of hygiene to humans.To find out about people who have developed new materials.To identify and compare the suitability of a variety of everyday materials for particular uses.To describe how animals obtain their food from plants and other animals, using the idea of a simple food chain. | To observe closely using simple equipment by using a magnifying glass to sketch details of different plants.To use their observations and ideas to suggest answers to questions in the context of considering whether doctors are scientists.To use their observations and ideas to answer simple question in the context of investigating how germs spread and the effect of hand washing.To use their ideas to answer questions in the context of answering questions on renewable energy and the invention of wind turbines. |
| ***Uses of Everyday Materials*** | To identify and compare the suitability of a variety of everyday materials, including wood, metal, plastic, glass, brick, rock, paper and cardboard for particular uses.To identify and classify the uses of everyday materials.To find out how the shapes of solid objects made from some materials can be changed by squashing, bending, twisting and stretching.To find out about people who have developed new materials. | To gather and record data to help in answering questions, by exploring the purposes of different objects. |
| ***Living Things and their Habitats*** | To explore and compare the differences between things that are living, dead, and things that have never been alive.To identify and name a variety of plants and animals in their habitats.To identify and name a variety of plants and animals in their habitats, including microhabitats.To 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 and plants and how they depend on each other by considering the adaptations of animals, and how living things in a habitat depend on each other. | To use their observations and ideas to suggest answers to questions by explaining how they know something is living, dead or has never been alive.To identify and classify, and sort objects into categories by sorting objects that are living, dead and have never been alive.To gather and record data to help in answering questions by investigating the preferred habitat of minibeasts.To ask simple questions and recognise that they can be answered in different ways by asking and answering questions about a range of different habitats. |
| ***Animals including Humans*** | To notice that animals, including humans, have offspring which grow into adults.To find out about and describe the basic needs of animals, including humans, for survival (water, food and air).To describe the importance for humans of eating the right amounts of different types of food and exercise. | To identify and classify, by matching animals and animal babies.To perform simple tests, by testing if children get faster as they get older.To ask simple questions and recognise that they can be answered in different ways, by generating questions about a pet and researching answers.Using their observations and ideas to suggest answers to questions, by suggesting improvements to their diet and designing their own healthy meals.To gather and record data to help in answering questions, by recording the ways that exercise affects the body.To observe closely, using simple equipment, by using hand lenses to observe their hands and drawing what they see. |
| ***Plants*** | To observe and describe how seeds and bulbs grow into mature plants.To find out and describe how plants need water, light and a suitable temperature to grow and stay healthy. | To observe closely using simple equipment by recording observations of a variety of plants in the local environment.To perform simple tests by setting up a comparative test to understand what plants need to germinate and grow.To use their observations and ideas to suggest answers to questions by giving ways we can tell that plants are living things.To gather and record data to help in answering questions by measuring the results of a comparative test.To use observations and ideas to suggest answers to questions by using the results of tests to suggest good conditions for growing plants for food.To observe closely using simple equipment by measuring and recording the growth of seeds and bulbs. |
| ***The Environment*** |  | To observe closely, using simple equipment by measuring the time taken for ice to melt in a comparative test.To perform simple tests, by comparing the rate of ice melting in a comparative test.To identify and classify by sorting litter into recycling groups based on their materials.To use their observations and ideas to suggest answers to questions by suggesting ways that waste can be reduced, reused and recycled.Using their observations and ideas to answer questions by thinking of ways to persuade people to use less energy.Gathering and recording data to help in answering questions by taking surveys.To ask simple questions and recognise that they can be answered in different ways by researching the rainforest.Performing simple tests, by investigating how much water can be saved by turning off the tap while washing hands.Observe closely, using simple equipment by measuring the different amounts of water used.To ask simple questions and recognise that they can be answered in different ways by asking and answering questions about endangered animals. |