Long Term Plan – Science Cycle A KS1

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|  | Autumn | Spring | Summer |
| Year 1/2 | Splendid Skies**Driver Subject - Science** | School DaysNo Science Coverage**Plant Parts**  | Muck, Mess and Mixtures | ChildhoodNo Science CoverageScience Unit – **Human Senses** | The Enchanted WoodlandDriver Subject - Science | Bright lights, Big City**Science Unit – How can I make bread?** |
| Skills | * Observe closely, using simple equipment.
* Perform simple tests.
* Identify and classify.
* Gather and record data to help in answering questions.
* Develop understanding of the nature, processes and methods of science through different types of science enquiries that help them to answer scientific questions about the world around them.
 | * Identify, compare, group and sort a variety of common wild and garden plants, including deciduous and evergreen trees, based on observable features.
* Describe, following observation, how plants and animals change over time.
* Observe the local environment throughout the year and ask and answer questions about living things and seasonal change.
* Label and describe the basic structure of a variety of common plants.
* With support, gather and record simple data in a range of ways (data tables, diagrams, Venn diagrams).
* Observe objects, materials, living things and changes over time, sorting and grouping them based on their features.
* With support, follow instructions to perform simple tests and begin to talk about what they might do or what might happen.
* With support, use simple equipment to measure and make observations.
* Ask simple scientific questions.
* Talk about what they have done and say, with help, what they think they have found out.
 | * Describe how some objects and materials can be changed and how these changes can be desirable or undesirable.
* Use simple equipment to measure and make observations
* Compare the suitability of a range of everyday materials for particular uses, including wood, metal, plastic, glass, brick, rock, paper and cardboard.
* Observe what happens when a range of everyday materials, including foods, are heated and cooled, sorting and grouping them based on their observations.
 | * With support, follow instructions to perform simple tests and begin to talk about what they might do or what might happen.
* Talk about what they have done and say, with help, what they think they have found out.
* Draw and label the main parts of the human body and say which body part is associated with which sense.
* With support, gather and record simple data in a range of ways (data tables, diagrams, Venn diagrams).
* With support, use simple equipment to measure and make observations.
* Observe objects, materials, living things and changes over time, sorting and grouping them based on their features.
* Ask simple scientific questions.
* Identify, compare, group and sort a variety of common animals, including fish, amphibians, reptiles, birds, invertebrates and mammals, based on observable features.
* Label and describe the basic structures of a variety of common animals, including fish, amphibians, reptiles, birds and mammals
 | * Observe closely, using simple equipment.
* Perform simple tests.
* Identify and classify.
* Develop scientific knowledge and conceptual understanding through the specific disciplines of biology, chemistry and physics.
 | * Identify and classify.
* Observe objects, materials, living things and changes over time, sorting and grouping them based on their features. View progression
* Identify, compare, group and sort a variety of common wild and garden plants, including deciduous and evergreen trees, based on observable features
* Describe, following observation, how plants and animals change over time.
* Observe and describe how day length changes across the year
* With support, use simple equipment to measure and make observations. View progression
* Describe ways to stay safe in some familiar situations. View progression
* With support, follow instructions to perform simple tests and begin to talk about what they might do or what might happen.
* Talk about what they have done and say, with help, what they think they have found out.
* With support, use simple equipment to measure and make observations.
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| Knowledge | * Use their observations and ideas to suggest answers to questions.
* Identify and classify.
* Observe changes across the four seasons.
* Observe and describe weather associated with the seasons and how day length varies.
* Develop understanding of the nature, processes and methods of science through different types of science enquiries that help them to answer scientific questions about the world around them.
 | * Plants are living things. Common plants include the daisy, daffodil and grass. Trees are large, woody plants and are either evergreen or deciduous. Trees that lose their leaves in the autumn are called deciduous trees. Examples include oak, beech and rowan. Trees that shed old leaves and grow new leaves all year round are called evergreen trees. Examples include holly and pine.
* Plants grow from seeds or bulbs and need water and sunlight to grow. Plants grow in different places like gardens, meadows, woodlands and hedgerows. Garden plants are looked after by people. Wild plants are not looked after by people.
* All living things (plants and animals) change over time as they grow and mature.
* The local environment is a habitat for living things and can change during the seasons.
* In winter, many plants and trees are dormant and have buds on their branches. In spring, leaves and blossom appear on trees and smaller plants begin to grow and flower.
* The basic plant parts include root, stem, leaf, flower, petal, fruit, seed and bulb. Trees have a woody stem called a trunk.
* Data can be recorded and displayed in different ways, including tables, pictograms and drawings.
* Simple tests can be carried out by following a set of instructions.
* Simple equipment is used to take measurements and observations. Examples include metre sticks, measuring tapes, egg timers and hand lenses.
* Parts of a leaf include the margin, blade, veins and stalk. Leaves can be simple, palmate, compound, lobed or needle-like.
* Question words include what, why, how, when, who and which.
* Plants are important because they provide food, shelter and materials for animals, including humans.
* The results are information that has been found out from an investigation.
 | * Find out how the shapes of solid objects made from some materials can be changed by squashing, bending, twisting and stretching.
* Some objects and materials can be changed by squashing, bending, twisting, stretching, heating, cooling, mixing and being left to decay.
* Observe closely, using simple equipment.
* Simple equipment is used to take measurements and observations. Examples include timers, hand lenses, metre sticks and trundle wheels.
* Identify and compare the suitability of a variety of everyday materials, including wood, metal, plastic, glass, brick, rock, paper and cardboard for particular uses.
* A material's physical properties make it suitable for particular purposes, such as glass for windows and brick for building walls. Many materials are used for more than one purpose, such as metal for cutlery and cars.
* Develop understanding of the nature, processes and methods of science through different types of science enquiries that help them to answer scientific questions about the world around them.
* Some foods, such as ice and chocolate, melt when heated, but then harden (solidify or freeze) when cooled.
 | * Simple tests can be carried out by following a set of instructions.
* The results are information that has been found out from an investigation.
* The basic body parts are the head, arms, legs, nose, eyes, ears, mouth, hands and feet.
* The five senses are hearing, sight, smell, taste and touch.
* Ears are used for hearing, eyes are used to see, the nose is used to smell, the tongue is used to taste and skin gives the sense of touch.
* Data can be recorded and displayed in different ways, including tables, pictograms and drawings.
* Simple equipment is used to take measurements and observations. Examples include metre sticks, measuring tapes, egg timers and hand lenses.
* Objects, materials and living things can be looked at and compared.
* Question words include what, why, how, when, who and which.
* Animals are living things. Animals can be sorted and grouped into six main groups: fish, amphibians, reptiles, birds, invertebrates and mammals.
* Different animal groups have some common body parts, such as eyes and a mouth, and some different body parts, such as fins or wings.
 | * Ask simple questions and recognise that they can be answered in different ways.
* Identify and classify.
* Use their observations and ideas to suggest answers to questions.
* 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.
 | * Identify and classify.
* Use their observations and ideas to suggest answers to questions.
* Identify and name a variety of common wild and garden plants, including deciduous and evergreen trees.
* Objects, materials and living things can be looked at and compared.
* Observe closely, using simple equipment.
* Develop scientific knowledge and conceptual understanding through the specific disciplines of biology, chemistry and physics.
* Perform simple tests.
* Bread is prepared from flour and water mixed to form dough then baked. It has been an important food for thousands of years.
* There are a wide variety of types, shapes, sizes, and textures of breads, depending on ingredients, preparation and cultural traditions.
* Leavened bread is aerated using a leavening agent. Leavening agents can be microorganisms such as yeast, chemicals such as baking powder, or artificial using pressurised air. Some bread types are unleavened.
* Yeast is a living, single-celled fungus. Bread-making yeast lies dormant until it comes into contact with warm water. Once reactivated, the yeast begins to feed on sugars, releasing carbon dioxide gas that makes bread rise.
* Flour contains gluten that makes bread dough stretchy and pliable, properties that enable the carbon dioxide gas to become trapped, which makes a light and airy loaf.
* Bakers will tap the underside of a loaf or buns and listen for a hollow sound to see if they are baked.
* The Great Fire of London started in a bakery owned by Thomas Farriner (1615-1670) on Pudding Lane.
* The results are information that has been found out from an investigation.
* Simple equipment is used to take measurements and observations. Examples include metre sticks, measuring tapes, egg timers and hand lenses.
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