



Ferndale Primary and Nursery School

Year 1 Science

Working Scientifically

Working Scientifically			
<p>Planning:</p> <ul style="list-style-type: none"> Asking simple questions and recognising that they can be answered in different ways 	<p>Observing/obtaining evidence:</p> <ul style="list-style-type: none"> Observing closely, using simple equipment Performing simple tests Identifying and classifying 	<p>Recording:</p> <ul style="list-style-type: none"> Gathering and recording data to help in answering questions 	<p>Concluding:</p> <ul style="list-style-type: none"> Using their observations and ideas to suggest answers to questions
Language Enrichment	First Hand Experiences	Purpose / Life Skills	Previous Knowledge
<p>Question, answer, plan, observe, observing, measure/measuring/ measurement, predict, prediction, equipment, identify, classify, sort, diagram, chart, map, data, compare, contrast, describe, biology, chemistry, physics, group, record, results enquiry, comparative testing, identifying, classifying, grouping, observing over time, pattern seeking, research using secondary sources</p>	<ul style="list-style-type: none"> Umbrella investigation with materials Seasons, weather chart over a month. Daily recording of the weather. Presenting and reviewing data. Make a rain gauge Make a wind scale. Sort leaves and trees in deciduous and evergreen Use a map to find our way in the school and 	<p>Scientists/careers link</p> <p>Being able to problem solve.</p> <p>Knowing how stay healthy during the different seasons.</p> <p>Curriculum link with Geography in developing observational skills and understanding the seasons. Maths – understand periods of time.</p>	<p>Planning:</p> <ul style="list-style-type: none"> Plan and think ahead about how they will explore or play with objects Know more, so feel confident about coming up with their own ideas and then make more links between those ideas. Use talk to help work out problems and organise thinking and activities. <p>Observing/obtaining evidence:</p> <ul style="list-style-type: none"> Learn new vocabulary. Listen attentively and respond to what they hear with relevant questions/comments Talk about what they see, using a wide vocabulary Explore how things work Use a range of tools competently, safely and confidently <p>Recording:</p>



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	<p>make a map to bury out time capsule</p> <ul style="list-style-type: none"> - In our school, classify plants into Garden and Wild plants - Make a fruit and vegetables salad 		<ul style="list-style-type: none"> • Participate in discussions, offering their own ideas, using recently introduced vocabulary • Make observations and draw pictures <p>Concluding:</p> <ul style="list-style-type: none"> • Explain how things work and why they might happen • Use and understand recently introduced vocabulary during discussions • Express their ideas and feelings about their experiences • Offer explanations for why things might happen, making use of recently introduced vocabulary
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Biology

<p><u>Plants:</u></p> <ul style="list-style-type: none"> • 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. 	<p><u>Animals including Humans:</u></p> <ul style="list-style-type: none"> • 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, including pets) • Identify, name, draw and label the basic parts of the human body and say which part of the body is associated with each sense
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Language Enrichment	First Hand Experiences	Purpose / Life Skills	Previous Knowledge
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<p><u>Plants Key vocabulary:</u> Leaf, flower, blossom, petal, fruit, berry, root, seed, trunk, branch, stem, bark, stalk, bud, <i>-Names of trees in the local area</i> <i>-Names of garden and wild flowering plants in the local area</i></p> <p><u>Animals including Humans</u> <u>Key vocabulary:</u> Head, body, eyes, ears, mouth, teeth, leg, tail, wing, claw, fin, scales, feathers, fur, beak, paws, hooves, senses, touch, see, smell, taste, hear, fingers, skin, nose, ear, tongue <i>-Names of animals from each vertebrae group</i> <i>-Parts of the body</i></p>	<ul style="list-style-type: none"> - Walk around school grounds - Tree drawing and observation throughout the year - Leaves hunt - School trip to the farm - Grow their own plant - Local walk - School forest - Local park visit "Ferndale Road Playground" - School trip to the farm - Visit to our pond - In our school, look at Garden and Wild plants 	<p>Scientists/careers link</p> <p>How to look after animals</p> <p>Respect their environment, including plants, animals and other humans</p> <p>Learn about their own bodies and how they work</p> <p>Staying safe</p>	<p><u>Plants:</u></p> <ul style="list-style-type: none"> • Plant seeds and care for growing plants (Nursery) • Understand the key features of the life cycle of a plant and animal (Nursery) • Begin to understand the need to respect and care for the natural environment and all living things (Nursery) • Explore the natural world around them (FS) • Recognise some environments are different to the one on which they live (FS) <p><u>Animals including Humans:</u></p> <ul style="list-style-type: none"> • Use all their senses in hands on exploration of natural materials (Nursery) • Name and describe people who are familiar to them (FS)
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Chemistry

Everyday Materials:

- 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

Language Enrichment	First Hand Experiences	Purpose / Life Skills	Previous Knowledge
Object, material, wood, plastic, glass, metal, water, rock, brick, paper, fabric, elastic, foil, card/ cardboard, rubber, wool, clay, hard, soft, stretchy, stiff, bendy, floppy, waterproof, absorbent, breaks/tears, rough, smooth, shiny, dull, see-through, not see-through	Umbrella investigation Experience different materials and their properties (e.g. water tray) Materials hunt in our school Forest fire – burning different materials linked to the Great Fire of London.	Scientists/careers link Problem solving which material is best suited for different situations. Make choices about materials, durability	<ul style="list-style-type: none"> • Use all their senses in hands on exploration of natural materials (Nursery) • Explore collections of materials with similar and/or different properties (Nursery) • Talk about the differences between materials and changes they notice (Nursery)



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Physics

Seasonal Changes:

- observe changes across the four seasons
- observe and describe weather associated with the seasons and how day length varies

Language Enrichment	First Hand Experiences	Purpose / Life Skills	Previous Knowledge
Weather, sunny, rainy, raining, shower, windy, snowy, cloudy, hot, warm, cold, storm, thunder, lightning, hail, sleet, snow, ice, ice, frost, puddles, rainbow, seasons, winter, spring, summer, autumn, sun, sunrise, sunset, day, night, day length	<ul style="list-style-type: none"> - Seasons, weather chart over a month. Daily recording of the weather. Presenting and reviewing data. - Make a rain gauge. - Make a tool to measure the wind. - Collect sign of each season, to compare at the end of the year. 	Scientists/careers link Respect their environment Staying safe in each season	<ul style="list-style-type: none"> • Understand the key features of the life cycles of a plant and animal (Nursery) • Explore the natural world around them (FS) • Describe what they see, hear and feel whilst outside (FS) • Understand the effect of changing seasons on the natural world around them (FS)