



Ferndale Primary and Nursery School

Year 2 Science

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 			
<p>Language Enrichment</p> <p>Discuss enquiry threads as whole class and small groups.</p> <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,</p>		<p>First Hand Experiences</p> <p>Experiments</p> <ul style="list-style-type: none"> What is the best material to protect the time machine from fire? Observational experiment – plants. Microhabitat enquiry <p>Designing a healthy plate – curriculum link with PSHE.</p> <p>Knowing where our food comes from – tasting session.</p> <p>Westonbirt trip – Science focus is on habitats</p> <p>Stem activities</p>		<p>Purpose / Life Skills</p> <p>Scientists</p> <p>Research</p> <p>Understanding the world</p> <p>Curriculum link with Geography and Science – Weather and seasons (recap of Year 1 objectives).</p>		<p>Previous Knowledge</p> <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 									



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<p>research using secondary sources. Continual open/leading questioning throughout lessons to ensure children understand the topical vocabulary taught. Explore new vocabulary with children throughout lessons. Recap vocabulary at the start of each lesson.</p>	Explorer Dome		
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Biology

<p><u>Plants:</u></p> <ul style="list-style-type: none"> • Observe and describe how seeds and bulbs grow into mature plants • Find out and describe how plants need water, light and a suitable temperature to grow and stay healthy. 	<p><u>Animals including Humans:</u></p> <ul style="list-style-type: none"> • Notice that animals, including humans, have offspring which grow into adults • Find out about 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. 	<p><u>Living Things and their Habitats:</u></p> <ul style="list-style-type: none"> • 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 and plants, and how they depend on each other • Identify and name a variety of plants and animals in their habitats, including micro-habitats • Describe how animals obtain their food from plants and other animals, using the idea of a
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simple food chain, and identify and name different sources of food.

Language Enrichment	First Hand Experiences	Purpose / Life Skills	Previous Knowledge
<p><u>Plants Key vocabulary:</u> Light, shade, sun, warm, cool, water, space, grow, healthy, bulb, germinate, shoot, seedling</p> <p><u>Animals including Humans Key vocabulary:</u> Offspring, reproduction, growth, baby, toddler, child, teenager, adult, old person, survival, survive, water, food, air, exercise, heartbeat, breathing, hygiene, germs, disease,</p>	<p>Observing plants and trees – label parts</p> <p>Plant own seeds.</p> <p>Plant seeds and bulbs under test conditions – Experiment.</p> <p>Forest experience – create a shelter for the fairies and elves. (basic needs)</p> <p>Growth comparative test with children in other year groups.</p>	<p>Scientists/careers link</p> <p>Learning to become a gardener – own gardens or allotments.</p> <p>Keeping us healthy and know how to look after your body. Educating healthy eating habits and exercise.</p>	<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 (Yr1) • Identify and describe the basic structure of a variety of common flowering plants, including trees (Yr1) <p><u>Animals including Humans:</u></p> <ul style="list-style-type: none"> • Identify and name a variety of common animals that are carnivores, herbivores and omnivores (Yr1) • Identify, name, draw and label the basic parts of the human body and say which part of the body is associated with each sense (Yr1) <p><u>Living things and their habitats:</u></p> <ul style="list-style-type: none"> • Identify and name a variety of common wild and garden plants including deciduous and evergreen trees (Yr1) • Identify and describe the basic structure of a variety of common flowering plants, including trees (Yr1) • Identify and name a variety of common animals including fish, amphibians, reptiles, birds and mammals (Yr1)



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<p>-Names of animals and their babies e.g. chick, chicken-kitten, cat</p> <p>-Food types e.g. meat, fish, vegetables, bread, rice, pasta, dairy</p> <p><u>Living things and their habitats Key vocabulary:</u> Living, dead, never been alive, suited, suitable, basic needs, food, food chain, shelter, move, feed, water, air, survive, survival, conditions, light, dark, shady, sunny, wet, damp, dry, hot, cold</p> <p>-Names of local habitats e.g. pond, woodland etc.</p> <p>-Names of micro-habitats e.g. under logs, in bushes etc.</p> <p>-Names of living things in the habitats and micro-habitats studied</p>	<p>Butterfly experience/Chicks – lifecycles</p> <p>Compare playdough snail, snail shell and Daisy the Snail (real snail).</p> <p>Local habitat walk – pond or forest.</p> <p>Westonbirt Trip – linked to habitats.</p>		<ul style="list-style-type: none"> • Identify and name a variety of common animals that are carnivores, herbivores and omnivores (Yr1) • Describe and compare the structure of a variety of common animals (Yr1) • Observe the changes across the four seasons (Yr1)
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Chemistry

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.

Language Enrichment	First Hand Experiences	Purpose / Life Skills	Previous Knowledge
<p>-Names of materials e.g. wood, metal, plastic, glass, brick, rock, paper, cardboard</p> <p>Properties of materials as for Year 1 (hard, soft, stretchy, stiff, bendy, floppy, waterproof, absorbent, breaks/tears, rough, smooth, shiny, dull, see-through, not see-through) plus <i>opaque, transparent, translucent, reflective, non-reflective, flexible, rigid</i></p> <p>Shape, push/pushing, pull/pulling, twist/twisting, squash/squashing, bend/bending, stretch/stretching</p>	<p>Outdoor learning – looking for different types of materials and their use/purpose.</p> <p>Make playdough – learn about the invention of plasticine and playdough.</p> <p>100 Decker rocket in the forest (Linked to topic/DT) – Which materials will you use to make your time machine?</p> <p>Time Machine Experiment in the forest (Linked to topic Science) –</p>	<p>Scientists/careers link</p> <p>William Harbutt – invention of plasticine.</p>	<ul style="list-style-type: none"> • Distinguish between an object and the material from which it is made (Yr1) • Identify and name a variety of everyday materials including wood, plastic, glass, metal, water and rock (Yr1) • Describe the simple physical properties of a variety of everyday materials (Yr1) • Compare and group together a variety of everyday materials on the basis of their simple physical properties (Yr1)



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	<p>'Which is the best material to protect the time machine from fire?'</p>		
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