

Dimple Well Infant School and Nursery Science Long Term Plan

	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
<p align="center">Nursery</p> <p align="center">EYFS 30-50 months</p>	<p align="center">All About Me</p> <p align="center">Autumn</p> <ul style="list-style-type: none"> • Comments and asks questions about aspects of their familiar world such as the place where they live or the natural world. • Can talk about some of the things they have observed such as plants, animals, natural and found objects. • Shows care and concern for living things and the environment. 	<p align="center">Light & Dark</p> <ul style="list-style-type: none"> • Comments and asks questions about aspects of their familiar world such as the place where they live or the natural world. 	<p align="center">Winter</p> <ul style="list-style-type: none"> • Can talk about some of the things they have observed such as plants, animals, natural and found objects. • Talks about why things happen and how things work. • Shows care and concern for living things and the environment. 	<p align="center">Animal growth</p> <ul style="list-style-type: none"> • Can talk about some of the things they have observed such as plants, animals, natural and found objects. • Developing an understanding of growth, decay and changes over time. • Shows care and concern for living things and the environment. 	<p align="center">Plant Growth</p> <p align="center">Keeping Healthy</p> <ul style="list-style-type: none"> • Can talk about some of the things they have observed such as plants, animals, natural and found objects. • Developing an understanding of growth, decay and changes over time. 	<p align="center">Sports</p> <p align="center">Keeping healthy</p> <ul style="list-style-type: none"> • Shows care and concern for living things and the environment.

<p>Upper Foundation 40-60 months</p>	<p>Food and harvest</p> <ul style="list-style-type: none"> Looks closely at similarities, differences, patterns and change. 	<p>Celebrations</p> <ul style="list-style-type: none"> Looks closely at similarities, differences, patterns and change. 	<p>Houses and winter</p> <ul style="list-style-type: none"> Looks closely at similarities, differences, patterns and change. 	<p>All about me</p> <ul style="list-style-type: none"> Looks closely at similarities, differences, patterns and change. 	<p>Pets and animals</p> <ul style="list-style-type: none"> Looks closely at similarities, differences, patterns and change. 	<p>Journeys</p> <ul style="list-style-type: none"> Looks closely at similarities, differences, patterns and change.
<p>EYFS Understanding the World Early Learning Goals</p>	<ul style="list-style-type: none"> Explore the natural world around them, making observations and drawing pictures of animals and plants. Know some similarities and differences between the natural world around them and contrasting environments, drawing on their experiences and what has been read in class. Understand some important processes and changes in the natural world around them, including the seasons and changing states of matter 					
<p>Year 1</p>	<p>Animal groups</p>	<p>Humans</p>	<p>Materials</p>	<p>Plants</p>	<p>Materials</p>	<p>Hungry animals</p>
<p>Year 1 National Curriculum Science Objectives</p>	<ul style="list-style-type: none"> Identify and name a variety of animals including fish, amphibians, reptiles, birds and mammals. Describe and compare the structure of a variety of animals including fish, amphibians, reptiles, birds and mammals. 	<ul style="list-style-type: none"> Identify, name, draw and label the basic parts of the human body and say which part of the human body is associated with each sense. 	<ul style="list-style-type: none"> Distinguish between an object and the material from which it is made. Identify and name variety of everyday materials including wood, plastic, glass, metal, water and rock. 	<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. 	<ul style="list-style-type: none"> Compare and group together a variety of everyday materials on the basis of their simple physical properties. 	<ul style="list-style-type: none"> Identify and name a variety of animals including fish, amphibians, reptiles, birds and mammals. Identify and name a variety of common animals that are carnivores, herbivores and omnivores

			<ul style="list-style-type: none"> Describe the simple physical properties of a variety of everyday materials. 			
<p>Year 1</p> <p>Knowledge</p> <p>I can statements</p>	<ul style="list-style-type: none"> I can name a range of animals which includes animals from each of the vertebrate groups. I can describe the key features of these named animals. I can label key features on a picture/diagram. I can write descriptively about an animal. 	<ul style="list-style-type: none"> I can follow instructions involving parts of the body. I can label parts of the body on pictures and diagrams. I can explore objects using different senses. 	<ul style="list-style-type: none"> I can label a picture or diagram of an object made from different materials. I can describe the properties of different materials. 	<ul style="list-style-type: none"> I can name trees and other plants that I see regularly. I can describe some of the key features of these trees and plants e.g. the shape of the leaves, the colour of the flower/blossom. I can point out trees which lost their leaves and those that kept them the whole year. I can point to and name the parts of a plant, recognising that they are not always the same e.g. leaves and stems may not be green. 	<ul style="list-style-type: none"> I can label a picture or diagram of an object made from different materials. I can describe the properties of different materials. 	<ul style="list-style-type: none"> I can describe what a range of animals eat.

<p>Year 1</p> <p>Working scientifically</p> <p>I can statements</p>	<ul style="list-style-type: none"> • I can sort and group animals using similarities and differences. • I can use simple charts etc. to identify unknown animals • I can create a drawing of an imaginary animal labelling its key features • I can use first-hand close observations to make detailed drawings • I can talk about my findings from investigations using appropriate vocabulary. 	<ul style="list-style-type: none"> • I can name body parts correctly when talking about measurements and comparisons e.g. "My arm is x straws long." "My arm is x straws long and my leg is y straws long. My leg is longer than my arm." "We both have hands, but his are bigger than mine." "These people have brown eyes and these have blue." 	<ul style="list-style-type: none"> • I can sort objects and materials using a range of properties • I can choose an appropriate method for testing an object for a particular property • I can use test evidence to answer the questions about properties e.g. "Which cloth is the most absorbent for my puppy's bed?" 	<ul style="list-style-type: none"> • I can sort and group parts of plants using similarities and differences. • I can use simple charts etc. to identify plants • Can collect information on features that change during the year. • I can use photographs to talk about how plants change over time. 	<ul style="list-style-type: none"> • I can choose an appropriate method for testing an object for a particular property • I can use test evidence to answer the questions about properties e.g. "Which material will be the best for Traction Man's suit?" 	<ul style="list-style-type: none"> • I can use secondary resources to find out what animals eat.
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<p>Year 1 Key vocabulary</p>	<p>head, body, eyes, ears, mouth, teeth, leg, tail, wing, claw, fin, scales, feathers, fur, beak, paws, hooves ...</p> <p>names of animals experienced from each vertebrate group (trip to Yorkshire Wildlife park)</p>	<p>arm, back, foot, hand, neck, brain, thumb, nose, ear, shoulder, hips, nose, face, eyes, lips, tongue, head, brain, bones, knee, elbow, chin ...</p> <p>senses – touch, see, smell, taste, hear, fingers (skin), eyes, nose, eat and tongue</p>	<p>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</p>	<p>leaf, flower, blossom, petal, fruit, berry, root, seed, trunk, branch, stem, bark, stalk, bud</p> <p>names of trees in the local area</p> <p>names of garden and wild flowering plants in the local area</p>	<p>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</p>	<p>carnivores (examples: tigers, lions, wolves, sharks...)</p> <p>herbivores (examples: sheep, cow, deer, squirrels, rabbits, elephants, caterpillars)</p> <p>omnivores (examples: human beings, grizzly bears, ants, badgers)</p>
<p>Year 1 Seasonal change (targeted termly)</p>	<ul style="list-style-type: none"> • I can name the four seasons and identify when in the year they occur. • I can describe weather in different seasons over a year. • I can describe days as being longer (in time) in the summer and shorter in the winter. • I can describe other features that change through the year. <p><u>Key vocabulary</u></p> <ul style="list-style-type: none"> • weather (sunny, rainy, windy, snowy etc.) • Seasons (winter, summer, spring, autumn) • Sun, sunrise, sunset, day length 					

Year 2	Marvellous materials	Plant Power		Amazing Animals	
	Materials	Dead, Living, Never Lived Plant Habitats	Plant Survival	Food Chains	Animal Habitats
<p>Year 2</p> <p>National Curriculum</p> <p>Science Objectives</p>	<ul style="list-style-type: none"> Identify and compare the suitability of a variety of everyday materials, including wood, metal, plastic, glass, brick, rock, paper and cardboard for particular use. Find out how the shapes of solid objects made from some materials can be changed by squashing, bending, twisting and stretching. 	<ul style="list-style-type: none"> Find out and describe the basic needs of animals, including humans, for survival (water, food and air). 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. 	<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. Identify and name a variety of plants and animals in their habitats, including microhabitats 	<ul style="list-style-type: none"> Describe how animals obtain their food from plants and other animals, using the idea of a simple food chain, and identify and name different sources of food. Notice that animals, including humans, have offspring which grow into adults. Describe the importance of humans of exercise, eating the right amounts of different types of food and hygiene. 	<ul style="list-style-type: none"> 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 microhabitats.

<p>Year 2 Knowledge I can statements</p>	<ul style="list-style-type: none"> • I can name an object, say what material it is made from, identify its properties and make a link between the properties and a particular use. • I can label a picture or diagram of an object made from different materials. • I can identify what properties a suitable material needs to have. • I can describe the action used whilst changing the shape of an object. • I can use the words flexible and/or stretchy to describe materials that can be changed in shape and stiff and/or rigid for those that cannot. • I can recognise that a material may come in different forms which have different properties 	<ul style="list-style-type: none"> • I can state the basic needs of animals, including humans, for survival. • I can find a range of items outside that are living, dead and never lived. • I can use the understanding that an object made of wood is classed as dead. Objects made of rock, metal and plastic have never been alive (ignoring that plastics are made of fossil fuels). • I can name a range of plants that live in a habitat and micro-habitats that they have studied. • I can talk about how the features 	<ul style="list-style-type: none"> • I can describe how plants that I have grown from seeds and bulbs have developed over time. • I can identify plants that grow well in different conditions. 	<ul style="list-style-type: none"> • I can construct a food chain that starts with a plant and has the arrows pointing in the correct direction. • I can describe how animals, including humans, have offspring which grow into adults. • I can state the importance for humans of exercise eating the right amounts of different types of food, and hygiene. • I can name foods in each section of the main food groups. 	<ul style="list-style-type: none"> • I can name a range of animals that live in a habitat and micro-habitats that they have studied. • I can talk about how the features of these animals make them suitable to the habitat. • I can talk about what the animals eat in a habitat.
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		of these plants make them suitable to the habitat.			
<p>Year 2</p> <p>Working scientifically</p> <p>I can statements</p>	<ul style="list-style-type: none"> I can sort materials using a range of properties. I can explain using the key properties why a material is suitable or not suitable for a purpose. I can begin to choose an appropriate method for testing a material for a particular property. I can use test evidence to select appropriate material for a purpose e.g. What is the best material for keeping something warm? 	<ul style="list-style-type: none"> I can sort into living, dead and never lived. I can give key features that mean the plant is suited to its micro-habitat. I can explain in simple terms why a plant is suited to a habitat. 	<ul style="list-style-type: none"> I can make close observations of seeds and bulbs. I can classify seeds and bulbs. I can make close observations and measurements of plants growing from seeds and bulbs. I can make comparisons between plants as they grow. 	<ul style="list-style-type: none"> I can explain what animals eat - using a food chain. I can describe, including using diagrams, the life cycle of some animals, including humans. I can explain how development and health might be affected by differing conditions and needs being met/not met. 	<ul style="list-style-type: none"> I can give key features that mean the animal is suited to its micro-habitat. I can explain in simple terms why an animal is suited to a habitat e.g. the caterpillar cannot live under the soil like a worm as it needs fresh leaves to eat.
<p>Year 2</p> <p>Vocabulary</p>	<p>names of materials – wood, metal, plastic, glass, brick, rock, paper, cardboard</p> <p>properties of materials – as for Year 1 plus opaque, transparent and translucent, reflective, non-reflective, flexible, rigid</p> <p>shape, push/pushing, pull/puling, twist/twisting, squash/squashing, bend/bending, stretch/stretching</p>	<p>living, dead, never been alive, suited, suitable, basic needs,</p> <p>names habitats e.g. pond, woodland etc.</p> <p>names of micro habitats, e.g. shrubs, bushes, logs...</p>		<p>offspring, reproduction, growth, child, young/old stages (examples - chick/hen, baby/child/adult, caterpillar/butterfly), exercise, heartbeat, breathing, hygiene, germs, disease, food types (examples – meat, fish, vegetables, bread, rice,</p>	

		<p>names of garden and wild flowering plants in the local area (Year 1)</p> <p>light, shade, sun, warm, cool, water, grow, healthy</p> <p>leaf, flower, blossom, petal, fruit, berry, root, seed, trunk, branch, stem, bark, stalk, bud</p> <p>names of trees in the local area</p>	<p>pasta)food, food chain, shelter, move, feed, predator, prey</p> <p>names habitats e.g. pond, woodland etc. names of micro habitats, e.g. shrubs, bushes, logs...</p>
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