



Windermere Primary School

KS1 – Science Progression Map			
	<p>Intent: We aim for science teaching to be as practical and as investigative as possible. This helps children to make good learning links and to remember what they have found out. We will ensure that the children are equipped with the scientific knowledge required to understand the uses and implications of science, today and for the future.</p>		
		<p><u>Vocabulary for working scientifically (to be taught and used consistently alongside the skills)</u> ask relevant questions, observe, identify, classify, compare, record, explain</p>	
	Reception	Year One	Year Two
Working Scientifically Skills	<p>Children will be:</p> <ul style="list-style-type: none"> • Talking about what I have done and noticed • Sorting and matching things • Finding things that are similar or different • Being curious and starting to ask questions • Performing simple tests and using equipment • Making simple records of what I notice or how things change • Looking closely at things and noticing changes Using senses to observe and look closely 	<p>During years 1 and 2, pupils should be taught to use the following practical scientific methods, processes and skills through the teaching of the programme of study content:</p> <ul style="list-style-type: none"> • asking simple questions and recognising that they can be answered in different ways • observing closely, using simple equipment • performing simple tests • identifying and classifying • using their observations and ideas to suggest answers to questions • gathering and recording data to help in answering questions 	
	<p>The knowledge below will be acquired through the skills above in the following EYFS areas of learning: knowledge and understanding of the world, communication and language, mathematics</p>	<p>The knowledge below will be acquired through the skills above</p>	<p>The knowledge below will be acquired through the skills above</p>
	Reception	Year One	Year Two
Knowledge	<p>Living things and their habitats</p> <p>Pupils should be taught to:</p> <ul style="list-style-type: none"> • Identify/classify animals by their habitat. E.g. animals that live on a farm, in a zoo or in the sea. 	<p>Living things and their habitats – seasonal changes</p> <p>Pupils should be taught to:</p> <ul style="list-style-type: none"> • observe changes across the 4 seasons <i>clothing worn, trees and animal behaviours (hibernation and migration)</i> 	<p>Living things and their habitats</p> <p>Pupils should be taught to:</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

		<ul style="list-style-type: none"> • name types of weather (e.g. rain, sun, wind, clouds) • observe and describe weather associated with the seasons and how day length varies <p>(Snap Science Unit: Sensing seasons/Our Changing World: plants)</p>	<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 • 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 <p>(Snap Science Unit: What's in your habitat?)</p>
Key Vocabulary	home, sea, jungle, field, farm, chicken, cow, horse, sheep, shark, whale, monkey, tiger, pond, frog, fish	seasons, autumn, winter, spring, summer, names of the months of the year, temperature, hot, warm, cold, cool, freezing, frosty, wet, dry, sunny, cloudy, showery, stormy, windy, rainy, sunny, snow, shower, drizzle, puddle, thunder, lightning, sleet, fog, mist, hat, gloves, mittens, scarf, muffler, ear muffs, boots, coat, umbrella, wellies, sunglasses, thick, thin, woolly, furry, warm, waterproof	habitat, alive, living, once-lived, dead, never-lived, plants, animals, decay, rocks, soil, air, water, food chain, plants, animals, herbivores (eat plants and parts of plants), carnivores (eat other animals), omnivores (eat plants/parts of plants and other animals), direction, source of food, names of habitats, living things and animal body parts
Key Questions	Where does this animal live?	<p>Name the four seasons?</p> <p>What clothes would you wear in Spring?</p> <p>What weather would you see in Winter?</p> <p>Which season has the longest days?</p> <p>What happens to the trees in Autumn?</p>	<p>What is a habitat?</p> <p>What is the difference between something that is alive or dead or has never lived?</p> <p>Can you make a food chain between fox, grass and rabbit?</p> <p>Can you explain the link between each part of the food chain?</p>
Knowledge	<p style="text-align: center;">Plants</p> <ul style="list-style-type: none"> • Identify the flower, stem and leaves on a flowering plant. • Identify the trunk and leaves on a tree. • To be able to identify and name a daffodil, dandelion, and tree. • Identify evergreen trees and know that they keep their leaves all year. • Recognise that plants need water to grow. 	<p style="text-align: center;">Plants</p> <p>Pupils should be taught to:</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>(Snap Science Unit: Plant detectives/Our changing world: plants)</p>	<p style="text-align: center;">Plants</p> <p>Pupils should be taught to:</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>(Snap Science Unit: Apprentice Gardener)</p>

Key Vocabulary	flower, stem, leaf, tree, root, water, seed, plant	daffodil, tulip, weed, nettle, dandelion, daisy, bluebell, leaf, leaves, stem, flower (blossom), bud, petals, roots, tree, fruit, trunk, branch, twig, bulb, seed,	seeds, plant (verb and noun), gardener, bulb, grow, observe, observations, describe, identify, question, predict, prediction, water, compare, answer, investigate, bean, soil, test, bury, light, dark, water, germinate, root, shoot, leaves, change, evidence, height, tallest, shortest, seedling, mature plant, wilting, healthy, unhealthy, warmth, die, alive,
Key Questions	Whilst gardening with the children can they name the different parts of a plant? Can they see any plants and name them? Can they see a tree? Can they identify any of the parts of the tree?	Can they name the main parts of a flowering plant? Can they name the parts of a tree? Can they identify deciduous and evergreen trees? Can they explain what happens to a deciduous tree throughout the year? Can they name four plants or trees in the school environment?	Can they explain the life cycle of a bean plant? Can they explain what a plant needs to grow? Can they identify a seed or a bulb?
Knowledge	<p style="text-align: center;">Animals, including humans</p> <p>Pupils should be taught to:</p> <ul style="list-style-type: none"> • Identify/classify animals by their habitat. E.g. animals that live on a farm, in a zoo or in the sea. • Identify a fish, an insect and a bird. • Identify and locate parts of animals bodies • Identify key features of a bird • Identify and locate basic human body parts • Use their observations to describe humans and other animals • Name, baby, child adult and the young of some other animals • Name a limited range of food • Can identify types of exercise 	<p style="text-align: center;">Animals, including humans</p> <p>Pupils should be taught to:</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 <p>(Snap Science Unit: Looking At Animals/Using our senses)</p>	<p style="text-align: center;">Animals, including humans</p> <p>Pupils should be taught to:</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>(Snap Science Unit: Growing Up/Taking Care)</p>
Key Vocabulary	legs, ears, arms, hands, eyes, nose, face, head, feet, toes, knees, neck, wings, beak, tail, fins, fish, bird, animal, chicken, hen, kitten, cat, puppy, dog, duckling, duck, run, jump, swim	<p>Fish: goldfish, mackerel, trout, hake, sea bass, whitebait, flat fish, plaice</p> <p>Birds: budgerigar, parrot, robin, blackbird, blue tit, hawk, peacock, seagull</p> <p>Mammals: cow, sheep, pig, horse, pony, goat, harvest mouse, rabbit, cat, dog</p> <p>Amphibian: frog, toad, newt</p> <p>Reptile: lizard, snake, tortoise</p>	baby, food, milk, water, drink, eat, air, breathe, shelter, warmth, child, toddler, move, care, learn, appearance, annotate, life cycle, life story, stages, pregnancy, birth, teenager, adult, parent, elderly person, grow, food, sort, classify, Venn diagram, Carroll diagram, healthy diet, dairy, fruits, vegetables,

		<p>carnivore, herbivore, omnivore</p> <p>Senses: feel, hear, smell, see, taste, touch</p> <p>Body parts: eyes, ears, elbows, hair, mouth, nose, teeth, paw, hoof, tail, fin, shell, skin, wings, beak, fur, scales, feathers</p>	<p>meat, fish, fat, sugar, bread, potatoes, cereals, washing, exercise, diet</p>
Key Questions	<p>Show the children some animals (cow, rabbit, polar bear, elephant) and ask: What are these animals called? Where do they live?</p> <p>Play 'Simon says' asking children to touch different parts of their body.</p> <p>Play snap with the children using adult and baby animals.</p> <p>Ask the children to name the adult and baby animal.</p>	<p>What are the five animal groups?</p> <p>What special features do birds have?</p> <p>What is the difference between a carnivore, herbivore and omnivore?</p> <p>What are our five senses?</p> <p>How many body parts on yourself can you name and identify?</p>	<p>What are the life stages of a human?</p> <p>What do living things need to survive?</p> <p>How can humans stay healthy? Name the five food groups.</p> <p>Can the children match the adult animal to its offspring?</p>
Knowledge	<p style="text-align: center;">Everyday materials</p> <p>Pupils should be taught to:</p> <ul style="list-style-type: none"> • make observations of common objects • make very simplistic observations of materials • arrange materials into groups • identify and name some everyday materials • identify when changes occur e.g. when food is cooked 	<p style="text-align: center;">Everyday materials</p> <p>Pupils should be taught to:</p> <ul style="list-style-type: none"> • 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 <p>(Snap Science Unit: Everyday Materials)</p>	<p style="text-align: center;">Uses of Everyday materials</p> <p>Pupils should be taught to:</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 uses • find out how the shapes of solid objects made from some materials can be changed by squashing, bending, twisting and stretching <p>(Snap Science Unit: Good Choices/Shaping Up)</p>
Key Vocabulary	<p>metal, wood, plastic, fabric, soft, hard, smooth, rough, big, small, colour, food, cooking</p>	<p>materials, wood, wooden, plastic, metal, glass, water, rock, brick, paper, shiny, fabric, properties, hard, soft, fluffy, rough, smooth, shiny, dull, light, heavy, transparent (see-through), opaque (can't see-through), translucent (see something through), harder, lighter, rougher, stretchy, stiff, bend, bendy, not bendy, press, squash, twist, shape, waterproof, absorb, absorbent,</p>	<p>material, wood, property, metal, plastic, glass, rock, brick, paper, cardboard, fabric, smooth, rough, soft, hard, bendy, squashy, stiff, rigid, shiny, dull, see through, cold, warm, breaks, fold, crease, waterproof, absorb, absorbent, wet, transparent, opaque, translucent, strength, strong, weak, stretchy,</p>
Key Questions	<p>Give the children some different objects and ask them to sort them into different groups. Why have you organised your objects into these groups? Can you organise them another way?</p> <p>What is this object made from?</p>	<p>What's the difference between an object and material?</p> <p>Can you identify two different objects and explain what material they are made from?</p> <p>Can you explain what properties make a material suited to a particular item?</p>	<p>Would you make a pair of dungarees from tissue paper? Why not?</p> <p>Which material would be suitable to make a room darker? Why?</p> <p>Which materials could you make a chair from? Why are they suitable?</p>

		What's the difference between a man-made object and a naturally occurring one?	
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