Dog Kennel Hill Primary School

Science Curriculum Overview 2024-2025

	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
EYFS	**Our body** Learn about your body parts: the arms, legs, chest, hands, feet , eyes, nose, ears, mouth and hair. -Discover how our bodies change -Explore similarities and differences **Senses** -Learn about the senses; hear, touch, see and smell. -Explore ways to make sound.	**Weather and Seasons** -Learn about rain, ice and water -Describe why the air moves -Explore snow and melting -Discover how rainbows are formed -Learn about the seasonal changes that happen in Spring, Summer, Autumn and Winter **Materials** -Learn about living and non-living things -Discover that some things can change shape -Explore the process of melting -Learn about different materials -Discover how to make the perfect	**Space** -Explore outer space -Discover why rockets are important **Forces** -Understand what happens when you push or pull something -Explore objects that sink and float **Machines** -Explore different types of machines and mechanisms -Learn how machines make jobs easier -Discover different types of transport	**Food** -Learn about your diet and how to stay healthy -Explore different types of vegetables -Discover different types of fruit and vegetables -Learn about chicken and eggs -Discover that cows produce milk -Examine different ingredients, then weigh them to make a mixture	**Insects and Invertebrates** -Learn about insects and invertebrates -Discover where insects and invertebrates live? -Observe insects and invertebrates in their habitat -Describe what a habitat is **Plants** -Discover that plants are living things -Learn about plants and where they come from -Explore how to look after plants	**Animals** -Learn that Animals are living things -Discover where animals live and what they need to survive -Explore where birds live and what they need to survive -Learn about farm animals -Learn about dinosaurs that lived on Earth **Health and Safety** -Learn how to stay safe when using electricity -Explore different homes and the things we need in our home -Know about the people you can trust -Discover First Aid and what to do in an emergency

Dog Kennel Hill Primary School

Science Curriculum Overview 2024-2025

Year 1	**Biology: Animals including humans 1- All about me** -Identify, name, draw and label the basic parts of the human body and say which part of the body is associated with each sense	**Biology: Animals including humans 2- All about animals** -Identify and name a variety of common animals including fish, amphibians, reptiles, birds and mammals -Describe and compare the structure of a variety of common animals (fish, amphibians, reptiles, birds and mammals) -Identify and name a variety of common animals that are carnivores, herbivores and omnivores.	**Chemistry: Everyday Materials 1 – Exploring 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 properties.	**Chemistry: Everyday Materials 2 -Exploring everyday materials- Building** -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 properties.	**Biology: Plants** -Identify common names of flowers and plant structures including seeds -Identify and name a variety of deciduous and evergreen trees -Understand how plants change over time -Work scientifically by observing the growth of planted flowers and keep records of how plants change over time.	**Seasonal changes** -Observe changes across the four seasons Observe and describe the weather associated with the seasons and how day length varies
Year 2	**Biology: Animals including humans 1- Life cycles** -Notice that animals including humans have offspring which grow into adults	**Biology: Animals including humans 2 – Growth** -Find out about and describe the basic needs of animals including humans, for survival	**Chemistry: Uses of everyday materials** -Identify and compare the suitability of a variety of everyday materials -Find out how the shapes of solid objects made from some materials can be	**Biology: Living things and their habitats 1** -Explore and compare the differences between things that are living, dead and things that have never been alive	**Biology: Living things and their habitats 2- Habitats around the world** - Explore and compare the differences between things that are living,	**Biology: Plants** -Observe and describe how seeds and bulbs grow into mature plants -Find out and describe how plants need water, light and a suitable

		(water, food and air) -Describe the importance for humans of exercise, eating the right amounts of different types of food and hygiene.	changed by squashing, bending, twisting and stretching	-Identify and name a variety of plants and animals in their habitats including microhabitats -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 -Describe how animals obtain their food from plants and other animals using the idea of a simple food chain -Identify and name different sources of food	dead and things that have never been alive -Identify and name a variety of plants and animals in their habitats including microhabitats -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 -Describe how animals obtain their food from plants and other animals using the idea of a simple food chain -Identify and name different sources of food	temperature to grow and stay healthy.

Dog Kennel Hill Primary School

Science Curriculum Overview 2024-2025

Year 3	**Biology: Animals, Including humans** -Identify that animals including humans need the right types and amount of nutrition, and that they cannot make their own food; they get nutrition from what they eat -Identify that humans and some other animals have skeletons and muscles for support, protection and movement	**Physics: Forces and magnets** -Notice that some forces need contact between 2 objects, but magnetic forces can act at a distance. -Compare how things move on different surfaces -Describe magnets as having 2 pole, predict whether 2 magnets will attract or repel each other depending on which poles are facing -Compare and group together a variety of everyday materials on the basis of whether they are attracted to a magnet. And identify some magnetic materials.	**Physics: Rocks** -Compare and group together different kinds of rocks on the basis of their appearance and simple physical properties -Explore how and why rocks might have changed over time (N.S) -Describe in simple terms how fossils are formed when things that have lived are trapped within rock -Recognise that soils are made from rocks and organic matter	**Physics: Light** -Recognise that they need light in order to see things and that dark is the absence of light. -Recognise that light from the sun can be dangerous and that there are ways to protect their eyes -Notice that light is reflected from surfaces -Recognise that shadows are formed when the light from a light source is blocked by an opaque object -Find patterns in the way that the size of shadows change	**Biology: Plants** Explore the requirements of plants for life and growth (air, light, water, nutrients from soil and room to grow) -Identify and describe the functions of different parts of a flowering plant -investigate the way in which water is transported within plants -Explore the part that flowers play in the life cycle of flowering plants, including pollination, seed formation and seed dispersal	**Scientific enquiry** -How can a solar oven be made more effective: posing questions and writing predictions -How can a solar oven be made more effective: recording and presenting results -Cleaning coins: writing a method and carrying out a practical test -Cleaning coins: writing a conclusion -Making a cake: fair testing, controls and variables -Making a cake: scientific enquiry
Year 4	**Physics: Sound** -Identify how sounds are made,	**Chemistry: States of matter** -Compare and group materials	**Biology: Animals including humans** - Describe the simple functions of the basic	**Physics: Electricity** -Identify common appliances that run on electricity	**Biology: Living things and their habitats 1**	**Biology: Living things and their habitats 2- Conservation**

	associating some of them with something vibrating -Recognise that vibrations from sounds travel through a medium to the ear -Find patterns between the volume of a sound and the strength of the vibrations that produced it -Recognise that sounds get fainter as the distance from the sound source increases	together, according to whether they are solids, liquids or gases -Observe that some materials change state when they are heated or cooled, and measure or research the temperature at which this happens in degrees Celsius (°C) -Identify the part played by evaporation and condensation in the water cycle and associate the rate of evaporation with temperature	parts of the digestive system in humans -Identify the different types of teeth in humans and their simple functions - Construct and interpret a variety of food chains, identifying producers, predators and prey	-Construct a simple series electrical circuit, identifying and naming its basic parts, including cells, wires, bulbs, switches and buzzers - Identify whether a lamp will light in a simple series circuit, based on whether or not the lamp is part of a complete loop with a battery - Recognise that a switch opens and closes a circuit and associate this with whether or not a lamp lights in a simple series circuit	- Recognise that living things can be grouped in a variety of ways -Explore and use classification keys to help group, identify and name a variety of living things in their local and wider environment	-Recognise that environments can change and that this can sometimes pose dangers to living things
Year 5/6	**Chemistry: Properties of Materials 1** - Compare and group together everyday materials on the basis of their properties, including their hardness, solubility,	**Chemistry: Changes of materials 2** - Describe how to recover a substance from a solution - Demonstrate that dissolving, mixing and changes of state are reversible changes	**Physics: Forces** - Explain that unsupported objects fall towards the Earth because of the force of gravity acting between the Earth and the falling object - Identify the effects of air resistance, water resistance and friction,	**Physics: Earth & Space** - Describe the Sun, Earth and Moon as approximately spherical bodies - Describe the movement of the Earth and other planets relative to the Sun in the solar system	**Biology: Living things and their habitats** -Describe the life process of reproduction in some plants and animals - Describe the differences in the life cycles	**Biology: Animals including humans** - Describe the changes as humans develop to old age

	transparency, conductivity (electrical and thermal), and response to magnets. - Give reasons, based on evidence from comparative and fair tests, for the particular uses of everyday materials, including metals, wood and plastic - Know that some materials will dissolve in liquid to form a solution, and describe how to recover a substance from a solution - Use knowledge of solids, liquids and gases to decide how mixtures might be separated, including through filtering, sieving and evaporating	- Explain that some changes result in the formation of new materials, and that this kind of change is not usually reversible - Explain that some changes result in the formation of new materials, and that this kind of change is not usually reversible, including changes associated with burning. - Explain that some changes result in the formation of new materials, and that this kind of change is not usually reversible, including changes associated the action of acid on bicarbonate of soda	that act between moving surfaces - Recognise that some mechanisms including levers, pulleys and gears allow a smaller force to have a greater effect	- Use the idea of the Earth's rotation to explain day and night and the apparent movement of the Sun across the sky - Describe the movement of the Moon relative to the Earth - Describe the Sun, Earth and Moon as approximately spherical bodies	of a mammal, an amphibian, an insect and a bird	

Dog Kennel Hill Primary School

Science Curriculum Overview 2024-2025

Dog Kennel Hill Primary School

Science Curriculum Overview 2024-2025

EYFS **Working Scientifically**	

Dog Kennel Hill Primary School

Science Curriculum Overview 2024-2025

Working Scientifically **Key Stage 1**	

Dog Kennel Hill Primary School

Science Curriculum Overview 2024-2025

Working Scientifically **Lower Key Stage 2**	

Dog Kennel Hill Primary School

Science Curriculum Overview 2024-2025

Working Scientifically **Upper Key Stage 2**