



Year 4- Animals Including Humans



Prior Learning	In Year 4	Later learning: Children do not need to be taught this year.	Key Vocabulary
<ul style="list-style-type: none">●Should be able to 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.●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.	<ul style="list-style-type: none">●Describe the simple functions of the basic 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.	<p>In Year 5 pupils will be taught to: Describe the changes as humans develop to old age.</p> <p>In Year 6 pupils will be taught to: Identify and name the main parts of the human circulatory system, and describe the functions of the heart, blood vessels and blood. recognise the impact of diet, exercise, drugs and lifestyle on the way their bodies function. Describe the ways in which nutrients and water are transported within animals, including humans.</p>	Digestive system, tongue, mouth, teeth, oesophagus, stomach, gall bladder, small intestine, pancreas, rectum, anus, large intestine, liver, duodenum, tooth, canine, incisor, molar, premolar, producer, consumer.

Working Scientifically

Compare the teeth of herbivores and carnivores and suggesting reasons for the differences. Finding out what happens teeth and how to look after them. Draw and discuss their ideas about the digestive system and compare them with models and images.



Year 4- Electricity



Prior Learning	In Year 4	Future learning: Children do not need to be taught this year.	Key Vocabulary
<ul style="list-style-type: none">•May have some understanding that objects need electricity to work.•May understand that a switch will turn something on or off.	<ul style="list-style-type: none">•Identify common appliances that run on electricity.•Construct a simple series electrical circuit, identifying and naming its basic parts, including cells, wires, bulbs, switches and buzzers.•Identify whether or not 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 some common conductors and insulators, and associate metals with being good conductors.	In Year 6 pupils will be taught to: Associate the brightness of a lamp or the volume of a buzzer with the number and voltage of cells used in the circuit. Compare and give reasons for variations in how components function, including the brightness of bulbs, the loudness of buzzers and the on/off position of switches. Use recognised symbols when representing a simple circuit in a diagram.	Electricity, neutrons, protons, electrons, nucleus, atom, electric current, appliances, mains, crocodile clips, wires, bulb, battery cell, battery holder, motor, buzzer, switch, conductor, electrical insulator.

Working Scientifically

Observe patterns, for example that a bulb gets brighter if more cells are added. That metals tend to be conductors of electricity. That some materials can and some cannot be used to connect across a gap in a circuit



Year 4- Living Things and Their Habitats



Prior Learning	In Year 4	Later learning: Children do not need to be taught this year.	Key Vocabulary
<ul style="list-style-type: none">•Comments and questions about the place they live or the natural world.•Shows care and concern for living things and the environment.•Can talk about things they have observed such as plants and animals.•Notices features of objects in their environment.•Comments and asks questions about their familiar world.•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 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.	<ul style="list-style-type: none">•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.	<p>In Year 5 pupils will be taught: To describe the differences in the life cycles of a mammal, an amphibian, an insect and a bird. Describe the life process of reproduction in some plants and animals.</p> <p>In Year 6 pupils will be taught: To describe how living things are classified into broad groups according to common observable characteristics and based on similarities and differences, including microorganisms, plants and animals. give reasons for classifying plants and animals based on specific characteristics.</p>	Environment, flowering, non-flowering, plants, animals, vertebrates, fish, amphibians, reptiles, mammals, invertebrate, human impact, nature reserves, deforestation,

Working Scientifically

Use and make simple guides or keys to explore and identify local plants and animals. Make a guide to local living things. Raising and answering questions based on their observations of animals and what they have found out about other animals. Explore examples of human impact, both positive and negative. Group vertebrate animals.



Year 4- Living Things and Their Habitats





Year 4- Sound



Prior Learning	In Year 4	Future learning: Children do not need to be taught this year.	Key Vocabulary
<ul style="list-style-type: none">• May have some understanding that objects make different sounds.• Some understanding that they use their ears to hear sounds.• Know about their different senses.	<ul style="list-style-type: none">• Identify how sounds are made, associating some of them with something vibrating.• Recognise that vibrations from sounds travel through a medium to the ear.• Find patterns between the pitch of a sound and features of the object that produced it.• 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.		Amplitude, volume, quiet, loud, ear, pitch, high, low, particles, instruments, wave.

Working Scientifically

Find patterns in the sounds that are made by different objects, such as elastic bands of different sizes. Investigate the best insulation against sound. Make or play their own instruments, using what they have found out about pitch and volume.



Year 4- States of Matter



Prior Learning	In Year 4	Later learning: Children do not need to be taught this year.	Key Vocabulary
<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.• 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.	<ul style="list-style-type: none">• Compare and group materials 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.	<p>In Year 5 pupils will be taught to: Compare and group together everyday materials on the basis of their properties, including their hardness, solubility, transparency, conductivity (electrical and thermal), and response to magnets. 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. Give reasons, based on evidence from comparative and fair tests, for the particular uses of everyday materials, including metals, wood and plastic. Demonstrate that dissolving, mixing and changes of state are reversible changes. 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 and the action of acid on bicarbonate of soda.</p>	Solid, liquid, gas, particles, state, materials, properties, matter, melt, freeze, water, ice, temperature, process, condensation, evaporation, water vapour, energy, precipitation, collection,

Working Scientifically

Grouping and classifying a variety of different materials. Explore the effects of temperature on substances such as butter, cream and chocolate. Research the temperature at which a material changes state, for example, iron melting or oxygen condensing into a liquid. Observe and record evaporation.



Year 4- States of Matter

