Y6	**Animals inc. Humans** **The Art of Being Human** I can identify and name the main parts of the human circulatory system, and describe the functions of the heart, blood vessels and blood I can recognise the impact of diet, exercise, drugs and lifestyle on the way their bodies function I can describe the ways in which nutrients and water are transported within animals, including humans.	**Electric Celebration** I can associate the brightness of a lamp or the volume of a buzzer with the number and voltage of cells used in the circuit I can 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 I can use recognised symbols when representing a simple circuit in a diagram.	**Light – Crime Lab** I can use the idea that light travels in straight lines to explain that objects are seen because they give out or reflect light into the eye I can explain that we see things because light travels from light sources to our eyes or from light sources to objects and then to our eyes I can use the idea that light travels in straight lines to explain why shadows have the same shape as the objects that cast them.	**Sport Science** I can describe how living things are classified into broad groups according to common observable characteristics and based on similarities and differences, including micro-organisms, plants and animals I can compare and group together everyday materials on the basis of their properties. I can give reasons, based on evidence from comparative and fair tests, for the particular uses of everyday materials, including metals, wood and plastic. I can explain that unsupported objects fall towards the Earth because of the force of gravity acting between the Earth and the falling object. I can identify the effects of air resistance, water resistance and friction that act between moving surfaces. I can recognise that some mechanisms, including levers, pulleys and gears, allow a smaller force to have a greater effect. I can recognise the impact of diet, exercise, drugs and lifestyle on the way their bodies function. I can recognise that living things produce offspring of the same kind, but normally offspring vary and are not identical to their parents. I can associate the brightness of a lamp or the volume of a buzzer with the number and voltage of cells used in the circuit. I can 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. representing a simple circuit in a diagram.	**Classification Connoisseurs** I can describe how living things are classified into broad groups according to common observable characteristics and based on similarities and differences, including micro-organisms, plants and animals I can give reasons for classifying plants and animals based on specific characteristics.	**Evolution – Survival of the Fittest** I can recognise that living things have changed over time and that fossils provide information about living things that inhabited the Earth millions of years ago I can recognise that living things produce offspring of the same kind, but normally offspring vary and are not identical to their parents I can identify how animals and plants are adapted to suit their environment in different ways and that adaptation may lead to evolution.

Working Scientifically

I can plan different types of scientific enquiries to answer questions, including recognising and controlling variables where necessary

I can take measurements, using a range of scientific equipment, with increasing accuracy and precision

I can record data and results of increasing complexity using scientific diagrams and labels, classification keys, tables, and bar and line graphs

I can use test results to make predictions to set up further comparative and fair tests

I can report and presenting findings from enquiries, including conclusions, causal relationships and explanations of results, in oral and written forms such as displays and other presentations

I can identifying scientific evidence that has been used to support or refute ideas or arguments

Y5	**Music Festival Materials** I can 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 I can give reasons, based on evidence from comparative and fair tests, for the particular uses of everyday materials, including metals, wood and plastic	**Changing Materials** I know that some materials will dissolve in liquid to form a solution, and describe how to recover a substance from a solution I can use knowledge of solids, liquids and gases to decide how mixtures might be separated, including through filtering, sieving and evaporating I can demonstrate that dissolving, mixing and changes of state are reversible changes I can 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.	**'Forces' - May the forces be with you** I can explain that unsupported objects fall towards the Earth because of the force of gravity acting between the Earth and the falling object I can identify the effects of air resistance, water resistance and friction, that act between moving surfaces I can recognise that some mechanisms, including levers, pulleys and gears, allow a smaller force to have a greater effect.	**Earth and Space – Space Presenters** I can describe the movement of the Earth, and other planets, relative to the Sun in the solar system I can describe the movement of the Moon relative to the Earth I can describe the Sun, Earth and Moon as approximately spherical bodies I can use the idea of the Earth's rotation to explain day and night and the apparent movement of the sun across the sky.	**Life Explorers (SRE)** I can describe the changes as humans develop to old age.	**The Art of Living** I can describe the differences in the life cycles of a mammal, an amphibian, an insect and a bird I can describe the life process of reproduction in some plants and animals.

Working Scientifically

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I can use test results to make predictions to set up further comparative and fair tests

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I can identifying scientific evidence that has been used to support or refute ideas or arguments.

Y4	**Animals inc. Humans Teeth and Eating** I can identify the different types of teeth in humans and their simple functions I can describe the simple functions of the basic parts of the digestive system in humans I can construct and interpret a variety of food chains, identifying producers, predators and prey	**States of Matter** I can compare and group materials together, according to whether they are solids, liquids or gases I can 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) I can identify the part played by evaporation and condensation in the water cycle and associate the rate of evaporation with temperature.	**Sound – Listen Up!** I can identify how sounds are made, associating some of them with something vibrating I can recognise that vibrations from sounds travel through a medium to the ear I can find patterns between the pitch of a sound and features of the object that produced it I can find patterns between the volume of a sound and the strength of the vibrations that produced it I can recognise that sounds get fainter as the distance from the sound source increases	**It's Electric!** I can identify common appliances that run on electricity I can construct a simple series electrical circuit, identifying and naming its basic parts, including cells, wires, bulbs, switches and buzzers I can 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 I can recognise some common conductors and insulators, and associate metals with being good conductors I can recognise that a switch opens and closes a circuit and associate this with whether or not a lamp lights in a simple series circuit	**Name that Living Thing** I can recognise that living things can be grouped in a variety of ways I can explore and use classification keys to help group, identify and name a variety of living things in their local and wider environment I can recognise that environments can change and that this can sometimes pose dangers to living things	**Help our Habitats** I can construct and interpret a variety of food chains, identifying producers, predators and prey

Working Scientifically

I can ask relevant questions and using different types of scientific enquiries to answer them

I can set up simple practical enquiries, comparative and fair tests

I can make systematic and careful observations and, where appropriate, taking accurate measurements using standard units, using a range of equipment, including thermometers and data loggers

I can gather, recording, classifying and presenting data in a variety of ways to help in answering questions

I can record findings using simple scientific language, drawings, labelled diagrams, keys, bar charts, and tables

I can report on findings from enquiries, including oral and written explanations, displays or presentations of results and conclusions

I can use results to draw simple conclusions, make predictions for new values, suggest improvements and raise further questions

I can identify differences, similarities or changes related to simple scientific ideas and processes

I can use straightforward scientific evidence to answer questions or to support their findings.

Y3	**Animals inc. Humans (Keeping Healthy)** I can 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 I can identify that humans and some other animals have skeletons and muscles for support, protection and movement	**Rocks – Stone Girl, Bone Girl** I can compare and group together different kinds of rocks on the basis of their appearance and simple physical properties I can describe in simple terms how fossils are formed when things that have lived are trapped within rock I can recognise that soils are made from rocks and organic matter	**Amazing Magnets** I can compare how things move on different surfaces I can notice that some forces need contact between 2 objects, but magnetic forces can act at a distance I can observe how magnets attract or repel each other and attract some materials and not others I can 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 I can describe magnets as having 2 poles I can predict whether 2 magnets will attract or repel each other, depending on which poles are facing	**Light and shadows – Lights, Camera, Action** I can recognise that they need light in order to see things and that dark is the absence of light I can notice that light is reflected from surfaces I can recognise that light from the sun can be dangerous and that there are ways to protect their eyes I can recognise that shadows are formed when the light from a light source is blocked by an opaque object I can find patterns in the way that the size of shadows change	**Plants – Roots and Shoots** I can identify and describe the functions of different parts of flowering plants: roots, stem/trunk, leaves and flowers I can explore the requirements of plants for life and growth (air, light, water, nutrients from soil, and room to grow) and how they vary from plant to plant I can investigate the way in which water is transported within plants	**Plants – Flowers, Fruit and Seeds** I can explore the part that flowers play in the life cycle of flowering plants, including pollination, seed formation and seed dispersal

Working Scientifically

I can ask relevant questions and using different types of scientific enquiries to answer them

I can set up simple practical enquiries, comparative and fair tests

I can make systematic and careful observations and, where appropriate, taking accurate measurements using standard units, using a range of equipment, including thermometers and data loggers

I can gather, recording, classifying and presenting data in a variety of ways to help in answering questions

I can record findings using simple scientific language, drawings, labelled diagrams, keys, bar charts, and tables

I can report on findings from enquiries, including oral and written explanations, displays or presentations of results and conclusions

I can use results to draw simple conclusions, make predictions for new values, suggest improvements and raise further questions

I can identify differences, similarities or changes related to simple scientific ideas and processes

I can use straightforward scientific evidence to answer questions or to support their findings.

Y2	**Animals inc. Humans (Healthy Animals)** I can identify and name a variety of common animals that are carnivores, herbivores and omnivores I can find out about and describe the basic needs of animals, including humans, for survival (water, food and air) I can notice that animals, including humans, have offspring which grow into adults I can describe the importance for humans of exercise, eating the right amounts of different types of food, and hygiene **Working Scientifically** Identify and classify. Use their observations and ideas to suggest answers to questions. Gather and record data to help answer questions.	**Ready, Steady, Grow (Incredible edibles)** I can observe and describe how seeds and bulbs grow into mature plants. I can find out and describe how plants need water, light and a suitable temperature to grow and stay healthy. **Working Scientifically** Ask simple questions and recognise that they can be answered in different ways. Observe closely, using simple equipment. Perform simple tests. Gather and record data to help answer questions.	**Materials Matter** I can identify and compare the suitability of a variety of everyday materials, including wood, metal, plastic, glass, brick, rock, paper and cardboard for particular uses **Working Scientifically** Ask simple questions and recognise that they can be answered in different ways. Observe closely, using simple equipment. Perform simple tests. Identify and classify. Use their observations and ideas to suggest answers to questions. Gather and record data to help answer questions.	**Squash, Bend, Twist, Stretch** I can find out how the shapes of solid objects made from some materials can be changed by squashing, bending, twisting and stretching **Working Scientifically** Ask simple questions and recognise that they can be answered in different ways. Observe closely, using simple equipment. Perform simple tests. Identify and classify. Use their observations and ideas to suggest answers to questions. Gather and record data to help answer questions.	**Living things in the environment** I can explore and compare the differences between things that are living, dead, and things that have never been alive I can 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 I can identify and name a variety of common animals including fish, amphibians, reptiles, birds and mammals I can describe and compare the structure of a variety of common animals (fish, amphibians, reptiles, birds and mammals including pets) **Working Scientifically** Ask simple questions and recognise that they can be answered in different ways. Perform simple tests.	**Gardens and Allotments** I can identify and name a variety of plants and animals in their habitats, including microhabitats I can 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 **Working Scientifically** Ask simple questions and recognise that they can be answered in different ways. Observe closely, using simple equipment. Identify and classify. Use their observations and ideas to suggest answers to questions. Gather and record data to help answer questions.

Y1	**Animals inc. Humans – (Ourselves)** I can identify, name, draw and label the basic parts of the human body and say which part of the body is associated with each sense **Working Scientifically** Ask simple questions and recognise that they can be answered in different ways: Observe closely, using simple equipment. Perform simple tests. Identify and classify.	**Seasonal Changes (Wonderful Weather)** I can observe and recognise changes across the four seasons. I can observe and describe weather associated with the seasons and how day length varies. **Working Scientifically** Ask simple questions and recognise that they can be answered in different ways: Observe closely, using simple equipment. Identify and classify. Gather and record data to help answer questions	**Everyday Materials – (Marvellous Materials)** I can describe the simple physical properties of a variety of everyday materials I can compare and group together a variety of everyday materials on the basis of their simple physical properties. **Working Scientifically** Use their observations and ideas to suggest answers to questions. Perform simple tests. Identify and classify.	**Everyday Materials (Let's Build)** I can distinguish between an object and the material from which it is made I can identify and name a variety of everyday materials, including wood, plastic, glass, metal, water, and rock **Working Scientifically** Perform simple tests. Use their observations and ideas to suggest answers to questions.	**Animals inc. Humans – Our Pets and Baby Animals** I can identify that most living things live in habitats to which they are suited I can describe how different habitats provide for the basic needs of different kinds of animals and **plants**, and how they depend on each other I can identify and name a variety of **plants** and animals in their habitats **Working Scientifically** Ask simple questions and recognise that they can be answered in different ways: Identify and classify. Use their observations and ideas to suggest answers to questions. Gather and record data to help answer questions	**Living Thing in the environment (Plants) – What's growing in our garden?** I can identify and name a variety of common wild and garden plants, including deciduous and evergreen trees I can identify and describe the basic structure of a variety of common flowering plants, including trees I can observe and describe how seeds and bulbs grow into mature plants I can find out and describe how plants need water, light and a suitable temperature to grow and stay healthy I can 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 **Working Scientifically** Ask simple questions and recognise that they can be answered in different ways: Perform simple tests. Identify and classify. Use their observations and ideas to suggest answers to questions. Gather and record data to help answer questions

EYFS	**All about Me!** Knows what a healthy range of food stuffs is, eats healthily and understands need for variety in food. Shows some understanding that good practises with exercise, eating, sleeping and hygiene can contribute to good health Can talk about some of the things they have observed about themselves, animals, plants, natural and found objects **Finding out and exploring** Showing curiosity about objects, events and people Using senses to explore the world around them Engaging in an open ended activity Showing particular interests	**Healthy Me** Children know the importance for good health of physical exercise, and a healthy diet, and talk about ways to keep healthy and safe. They manage their own basic hygiene and personal needs successfully. 1	**Everyday Materials** Can talk about why things happen and how things work Uses simple tools to effect changes to materials Demonstrates how to handle tools, objects, construction and malleable materials safely and with increasing control **Being willing to have a go:** Initiating activities Seeking challenge Showing a can do attitude Taking a risk Engaging in new experiences Learning by trial and error	**Construction Corner** Uses familiar objects and common shapes to create and recreate patterns and build models They explore characteristics of everyday objects and shapes. Children use everyday language to talk about size, weight, capacity, position, distance, time and money to compare quantities and objects to solve problems.	**Living Things** They make observations of animals and plants and explain why some things occur, and talk about changes Comments and asks questions about aspects of their familiar world such as the place where they live or the natural world Show care and concern for living things and the environment **Having their own ideas:** Thinking of ideas Finding ways to solve problems Finding new ways of doing things	**The environment** Can talk about some of the things they have observed such as plants, animals, natural and found objects They talk about the features of their own immediate environment and how environments might vary from one another