Colour Key		Chemistry	Biology	Physics				
Subject: Science		**A1**	**A2**	**Sp1**	**Sp2**	**Su1**	**Su2**	**On-going throughout the year**
Y1	**Focus**	**Animals including humans Working Scientifically**		**Materials Working Scientifically**		**Plants Working Scientifically**		**Seasons**
	Revision sheet	https://drive.google.com/open?id=1xNDbAJgObZnyjRs1OlsjX5oJX0o8DlCH		https://drive.google.com/open?id=17P9D6s1p-eJRsoG-kaO9MSZ6oCzaauY6		https://drive.google.com/open?id=13YwbxPV7m-sBFHmF4wtsg_NtqGykVpsS		**https://drive.google.com/open?id=1bwxlgZunk9fZYoEsCFkiH_d7XkaebKrq**
	Assessment	https://drive.google.com/open?id=1S3fedyW4eriufo1WydLk4Nn0PxgoQAFn		https://drive.google.com/open?id=1MI5HxTyQ-QlCGqHLxNnSak3ye6oFh7jV		https://drive.google.com/open?id=1ZlUwsH7t91NT7UYc0XqFc2hMi2WuOi-1		**https://drive.google.com/open?id=1iZVQqAFXyrI5CCvIFPfGA87dmXTVL2ad**
	Knowledge	I know and understand the vocabulary for this topic. (See Vocabulary box) I know that the difference between a fish,amphibian, bird, reptile and mammal. I know difference between a herbivore, carnivore and omnivore and can identify these to common animals and the type of food they eat. I know how to use a classification key to identify animals. I know the structure of different common animals. These should include fish, ampibians, reptiles, birds and mammals. I know the human senses and can identify on a face. I can name basic parts of the human body and have an understanding of why we have them. (eg, skull to protect brain, ribcage to protect organs)		I know and understand the vocabulary for this topic. (See Vocabulary box) I know what raw material different objects come from including plastic, wool, glass and paper. I know and can identify different materials used on an object. I know the material used for different every day objects. I know why we use specific materials for a purpose, eg. glass windows to let in light and to see outside. I know words used to describe an object. Eg. metal can be shiny, sponge is absorbent. I know how to group materials using a venn diagram.		I know and understand the vocabulary for this topic. (See Vocabulary box) I know the names of and can identify common wild and garden plants and trees. I know and can describe the basic structure of flowers and trees. I know when leaves fall off deciduous trees. I know which leaves come from common trees by identifying their shape.		I know that we have 4 seasons and the months they fall into. I know the different weather we experience during these seasons. I know how plants, flowers and trees change throughout the seasons. I know how to identify a season with clues. I know why you should wear certain clothes during different seasons and how to keep safe.
	Skills	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.		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 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.		Observe changes across the 4 seasons. Observe and describe weather associated with the seasons and how day length varies.
	Working Scientifically Objectives **To be taught alongside each focus.**	• ask their own questions about what they notice • use different types of scientific enquiry to gather and record data, using simple equipment where appropriate, to answer questions: · observing changes over time · noticing patterns · grouping and classifying things · carrying out simple comparative tests · finding things out using secondary sources of information • communicate their ideas, what they do and what they find out in a variety of ways.						
	Working Scientifically Ideas	Using their observations to compare and contrast animals at first hand or through videos and photographs, describing how they identify and group them; grouping animals according to what they eat; and using their senses to compare different textures, sounds and smells.		Performing simple tests to explore questions, for example: 'What is the best material for an umbrella? … for lining a dog basket? … for curtains? … for a bookshelf? … for a gymnast's leotard?'		Observing closely, perhaps using magnifying glasses, and comparing and contrasting familiar plants; describing how they were able to identify and group them, and drawing diagrams showing the parts of different plants including trees. Pupils might keep records of how plants have changed over time, for example, the leaves falling off trees and buds opening; and compare and contrast what they have found out about different plants.		Making tables and charts about the weather; and making displays of what happens in the world around them, including day length, as the seasons change.
	Key Vocabulary	Fish, Reptiles, Mammals, Birds, Amphibians (+ examples of each) Herbivore, Omnivore, Carnivore, Wings, Beak, fur, scales, feathers, gills, warm-blooded, cold-blooded, fins, tusks, webbed-feet, Leg, Arm, Elbow, Head, Ear, Nose, Back, brain, skull, ribcage, knee, spine (backbone)		Wood, Plastic, Glass, Paper, Water, Metal, Rock, rubber, fabric, wool, sand, oil, tree, animals, Hard, Soft, stiff, stretchy, Bendy, Rough, absorbent, Smooth, shiny		Deciduous, Evergreen trees, Leaves, Flowers (blossom), Petals, Fruit, Roots, Bulb, Seed, leaves, flower, bark, crown, Trunk, Branches, Stem, spring, summer, autumn, winter, daffodil, daisy, sunflower, dandelion, holly tree, oak tree, (roots) anchor.		Summer, Spring, Autumn, Winter, Sun, Day, Moon, Night, Light, Dark, cold, warm, hot, windy, chilly, temperature, long days, short days, months in year,

Colour Key	Chemistry	Biology	Physics				
Subject: Science	**A1**	**A2**	**Sp1**	**Sp2**	**Su1**	**Su2**	**On-going throughout the year**
	Focus	**Living things and their habitats Working Scientifically**	**Materials Working Scientifically**	**Plants Working Scientifically**		**Animals including humans Working Scientifically**	
	Revision sheet	https://drive.google.com/open?id=1uJ0ilRZcpUc6V_KUCDq-qez3AneUYfiu	https://drive.google.com/open?id=19w-RNgurL2a5LaEw5QR8iwmrLAh6WuS1	https://drive.google.com/open?id=1gRiG8Jhphj3ri_HBmd12nmHhj1wqW7ux		https://drive.google.com/open?id=1wpcMcbhMeFkmp2ETaq_tBd-dNqYDsYOo	
	Assessment	https://drive.google.com/open?id=18ZgVsLhDMu9LZKHX21wB51VAkL2I3gUo	https://drive.google.com/open?id=1fFuBQEbZHHPnCFogE910m85sUjEmAveG	https://drive.google.com/open?id=1spkdvhhC78_HLGfmYhD_DByDgJsFTyBv		https://drive.google.com/open?id=1oivwDyIlbUj7GCgIWCiugbqf3n8ylYHb	
Y2	**Knowledge**	I know and understand the vocabulary for this topic. (See Vocabulary box) I know the difference between objects and whether they are alive, never been alive, used to be alive. I know the different habitats of animals. I know that animals can camouflage themselves and why. I know what aniamls use plants for, inc, food, shelter, shade etc. I know the microhabitats that minibeasts live in. I know how to use a classification key to identify	I know and understand the vocabulary for this topic. (See Vocabulary box) I know what everyday materials are man made or natural. I know that specific materials are more suitable to make an object. I know the material and properties of objects such as window, tights, raincoat, table. I know that some objcts made of specific materials can be changed by squeezing, bending etc. I can group items by material.	I know and understand the vocabulary for this topic. (See Vocabulary box) I know the stages of a plants life. I know why plants produce seeds. I know what a plant needs to grow and survive. I know what is inside a seed. I can label a plant.		I know and understand the vocabulary for this topic. (See Vocabulary box) I know the stages of a human life and can order them. I know the life cycle of animals such as a chicken, butterfly and frog. I know that some animals are born in eggs that hatch. I know the basic needs of animals and humans to survive. I know the importance of being careful around animals. I know the importance of exercise to stay healthy. I know the importance of good hygiene to stay healthy. I know the difference between healthy and unhealthy foods.	
	Skills	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.	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.	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		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	
	Working Scientifically Objectives **To be taught alongside each focus.**	• ask their own questions about what they notice • use different types of scientific enquiry to gather and record data, using simple equipment where appropriate, to answer questions: · observing changes over time · noticing patterns · grouping and classifying things · carrying out simple comparative tests · finding things out using secondary sources of information • communicate their ideas, what they do and what they find out in a variety of ways.					
	Working Scientifically Ideas	Sorting and classifying things according to whether they are living, dead or were never alive, and recording their findings using charts. They should describe how they decided where to place things, exploring questions for example: 'Is a flame alive? Is a deciduous tree dead in winter?' and talk about ways of answering their questions. They could construct a simple food chain that includes humans (e.g. grass, cow, human). They could describe the conditions in different habitats and micro-habitats (under log, on stony path, under bushes) and find out how the conditions affect the number and type(s) of plants and animals that live there.	Comparing the uses of everyday materials in and around the school with materials found in other places (at home, the journey to school, on visits, and in stories, rhymes and songs); observing closely, identifying and classifying the uses of different materials, and recording their observations.	Observing and recording, with some accuracy, the growth of a variety of plants as they change over time from a seed or bulb, or observing similar plants at different stages of growth; setting up a comparative test to show that plants need light and water to stay healthy.		Observing, through video or first-hand observation and measurement, how different animals, including humans, grow; asking questions about what things animals need for survival and what humans need to stay healthy; and suggesting ways to find answers to their questions.	
	Key Vocabulary	*Living, Dead, Habitat, microhabitat, Energy, Food chain, Predator, Prey, Woodland, grassland, forest, underground, ocean, river, Pond, Desert, alive, used to be alive, never lived, camouflaged,*	*Hard, Soft, Stretchy, Stiff, Shiny, Dull, Rough, Smooth, Bendy, Waterproof, Absorbent, Opaque, Transparent, Brick, Paper, Fabrics, Squashing, Bending, Twisting, Stretching Elastic, Foil, man-made, natural, suitable, reuse*	*Seeds, Bulbs, Water, Light, Temperature, Growth, roots, stem, leaves, flower, germination, food, soil,*		*Survival, Water, Air, Food, Adult, Baby, youngest, oldest, Offspring, Kitten, Calf, Puppy, Exercise, Hygiene, healthy food, unhealthy food, egg, hatch, active, inactive.*		

Colour Key		Chemistry	Biology	Physics				
Subject: Science		**A1**	**A2**	**Sp1**	**Sp2**	**Su1**	**Su2**	**On-going throughout the year**
Y3	**Focus**	**Animals including humans Working Scientifically**	**Forces and magnets Working Scientifically**	**Plants Working Scientifically**		**Light Working Scientifically**	**Rocks Working Scientifically**	
	Revision sheet	https://drive.google.com/open?id=1iw5Zgb9PUX2qLli8XVxOsqMSVVJWnNYp	https://drive.google.com/open?id=1mT6Y12ZQI4LY6CBqqPPigdFzolu6QJoo	https://drive.google.com/open?id=1fLZtVBBZ8L2mf-2MC4wKxn1GyCOBUxUL		https://drive.google.com/open?id=1NcAugAoJk8Tps5JgouENfdKOufl5tpbX	https://drive.google.com/open?id=11b8w4Br0GlqbPOd4W9nU1YFcvos9MGqp	
	Assessment	https://drive.google.com/open?id=1BXxUJ12OPlZOAMX-BWEoJlDjaF6wtzQO	https://drive.google.com/open?id=1UOZJsFMBVykQQBsUMYBO7O-j5yP4jnoh	https://drive.google.com/open?id=1F7Kf_5DY1EVirP6lI6RlLkNU0lOvcC2V		https://drive.google.com/open?id=1rTl0nAnBlavP1vE5LzMPcTtS5exJjV0G	https://drive.google.com/open?id=1gDn5lOYWUdWnqOgxM-nrXJ29K_M3HiwR	
	Knowledge	I know and understand the vocabulary for this topic. (See Vocabulary box) I know what food groups specific foods belong to. I know what the different food groups provide for the body. I know what a balanced diet is. I know what aniamls are carnivores, omnivores and herbivore. I can identify animals as vertebrates and intervertebartes. I know why skeletons are important. I can label the human skeleton. I know why birds bones are hollow.	I know and understand the vocabulary for this topic. (See Vocabulary box) I know how to make a fair test. I know that things move differently on different surfaces and why. I know that surfaces have different levels of friction. I know the difference between friction and gravity. I know why gravity and magnetism are different to other forces. I know if contact is required for contact to take place. I know how magnets attract and repel each other and some materials.	I know and understand the vocabulary for this topic. (See Vocabulary box) I know the names of the parts of the plant and can explain their function. I know that plants/trees have requirements to grow. I know how plants attract insects. I know how cacti survive in their habitat. I know why some enivorments are not good for plant growth such as the moon. I know how water is transported in plants. I know the names of the parts of a flower. I know the life cycle of a flower. I know how animals help to disperse seeds.		I know and understand the vocabulary for this topic. (See Vocabulary box) I know what objects are sources of light. I know that there are natural sources of light and man made sources of light. I know how Earth would be different if there were no light. I know that light travels in order to see things. I know that light is reflected from surfaces. I know what objects are best for reflecting light. I know that light from the sun can be dangerous and how to protect ourselves from it. I know how shadows are formed from light. I know that time and position of objects/light source can change the size of a shadow.	I know and understand the vocabulary for this topic. (See Vocabulary box) I know how to compare rocks and group them based on their appearance and simple physical properties. I know how to use a sorting diagram to identify rocks. I know the names of differnt rocks including:chalk, sandstone, pumice, slate and marble. I know the properties of rocks. I know the process of fossil formation. I know why not all animals become fossilied and why there are so many fossils not found. I know that soil is made of rocks and organic matter. I know the different purposes of soil and what it provides.	
	Skills	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.	Compare how things move on different surfaces. Notice that some forces need contact between two objects, but magnetic forces can act at a distance. Observe how magnets attract or repel each other and attract some materials and not others. 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. Describe magnets as having two poles. Predict whether two magnets will attract or repel each other, depending on which poles are facing.	Identify and describe the functions of different parts of flowering plants: roots, stem/trunk, leaves and flowers. 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. 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.		Recognise that they need light in order to see things and that dark is the absence of light. Notice that light is reflected from surfaces. Recognise that light from the sun can be dangerous and that there are ways to protect their eyes. 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.	Compare and group together different kinds of rocks on the basis of their appearance and simple physical properties. 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.	
	Working Scientifically Objectives **To be taught alongside each focus.**	*Asking relevant questions and using different types of scientific enquiries to answer them. *Setting up simple practical enquiries, comparative and fair tests. *Making systematic and careful observations and, where appropriate, taking accurate measurements using standard units, using a range of equipment, including thermometers and data loggers. *Gathering, recording, classifying and presenting data in a variety of ways to help in answering questions. *Recording findings using simple scientific language, drawings, labelled diagrams, keys, bar charts, and tables. *Reporting on findings from enquiries, including oral and written explanations, displays or presentations of results and conclusions. *Using results to draw simple conclusions, make predictions for new values, suggest improvements and raise further questions. *Identifying differences, similarities or changes related to simple scientific ideas and processes. Using straightforward scientific evidence to answer questions or to support their findings.						
	Working Scientifically Ideas	Identifying and grouping animals with and without skeletons and observing and comparing their movement; exploring ideas about what would happen if humans did not have skeletons. They might compare and contrast the diets of different animals (including their pets) and decide ways of grouping them according to what they eat. They might research different food groups and how they keep us healthy and design meals based on what they find out.	Comparing how different things move and grouping them; raising questions and carrying out tests to find out how far things move on different surfaces and gathering and recording data to find answers their questions; exploring the strengths of different magnets and finding a fair way to compare them; sorting materials into those that are magnetic and those that are not; looking for patterns in the way that magnets behave in relation to each other and what might affect this, for example, the strength of the magnet or which pole faces another; identifying how these properties make magnets useful in everyday items and suggesting creative uses for different magnets.	Comparing the effect of different factors on plant growth, for example, the amount of light, the amount of fertiliser; discovering how seeds are formed by observing the different stages of plant life cycles over a period of time; looking for patterns in the structure of fruits that relate to how the seeds are dispersed. They might observe how water is transported in plants, for example, by putting cut, white carnations into coloured water and observing how water travels up the stem to the flowers.		Looking for patterns in what happens to shadows when the light source moves or the distance between the light source and the object changes.	Observing rocks, including those used in buildings and gravestones, and exploring how and why they might have changed over time; using a hand lens or microscope to help them to identify and classify rocks according to whether they have grains or crystals, and whether they have fossils in them. Pupils might research and discuss the different kinds of living things whose fossils are found in sedimentary rock and explore how fossils are formed. Pupils could explore different soils and identify similarities and differences between them and investigate what happens when rocks are rubbed together or what changes occur when they are in water. They can raise and answer questions about the way soils are formed.	
	Key Vocabulary	*Movement, Muscles, Bones, Skull, Nutrition, Skeletons, carbohydrates, fats, proteins, minerals,fibre, vertebrates, intervertebrates,joints, muscles, calcium, sugar, decay,*	*Magnetic, Force, Contact, Attract, Repel, Friction, Poles, Push, Pull, surface, rough, smooth.*	*Air, Light, Water, Nutrients, Soil, Reproduction, Transportation, Dispersal, Pollination, Flower, anchors, transports, produces, attracts, supports, petal, sepal, ovary, anther, filament, style, stigma, stem.*		*Light, Shadows, Mirror, Reflective, Dark, Reflection, sources, transparent, translucent, heavy, opaque, solid.*	*Fossils, Soils, Sandstone, Granite, Marble, Pumice, Crystals, permeable, impermeable, durable Absorbent, hardness, buoyancy, fossil formation,*	

Colour Key		Chemistry	Biology	Physics				
Subject: Science		**A1**	**A2**	**Sp1**	**Sp2**	**Su1**	**Su2**	**On-going throughout the year**
Y4	**Focus**	**Animals including humans Working Scientifically**	**Electricity Working Scientifically**	**Sound Working Scientifically**	**States of matter Working Scientifically**	**Living things and their habitats Working Scientifically**		
	Revision Sheet	https://drive.google.com/open?id=1sBIAggCSoUvrzsnefLbNZuPAphFgqOZc	https://drive.google.com/open?id=111nnPBkbIMHy6S_O8_-Xcw3ffgujWRTQ	https://drive.google.com/open?id=1WJEauxVEbR9ZIYb3gMj	https://drive.google.com/open?id=1BtA5AwlwyaRjEkKZaZL6	https://drive.google.com/open?id=1FkPvzmQRk64tBp1atR_FKSY6X9w4lB2t		
	Assessment	https://drive.google.com/open?id=1mRHjLHschIzbavV2hJNN6VTM1CfmwdUa	https://drive.google.com/open?id=1sY5gioux6Pc5821vV4c8MGwBOdbeBxhc	https://drive.google.com/open?id=1p2zla3XJAPMbc-	https://drive.google.com/open?id=1rJdf14lzOkoMEbTyYun42	https://drive.google.com/open?id=1Glr-YMrwyCjRWyLPyHsgNWm8z36Hn_EH		
	Knowledge	I know the parts of the digestive system and their function. I know how to order the stages of the digestive system. I know the names of the human teeth and their function. I know how to keep my teeth healthy. I know why human babies do not need teeth when they are born. I know how to identify producers, predators and prey. I know how to create a food chain, interpret a food chain and interpret a food web.	I know how to identify items as eectrical and non electrical. I know the main source produced from electrical items and can sort into light, sound, movement and heat. I know the names of the parts used in an electircal circuit. I know how to construct a simple circuit. I know how to place batteries correctly in order for them to work. I know how to identify if a circuit works and understand why a bulb wont light if doesn't have the right components/ a switch is open. I know that the amount of bulbs and batteries will effect the brightness of the bulbs. I know that if an object conducts electricty, a circuit will still work. I know how to recognise objects as conductors and insulators and understand that associate metals are good conductors.	I know how sounds are made. I know what vibrating means. I know that virations from sounds travel through the medium to the ear. I know what part of the object vibrates to make the sound. I know how we can hear things that are outside when we are inside. I know that sounds are louder when closer and fainter when further away. I know that light travels faster than sound. I know how to recognise the pattern between the volume of a sound and the vibrations that produced it. I know why you cant hear the sound of virations on the moon. I know that an echo is produced by sound rebounding/reflecting off solid surfaces. I know that sound can be measured in decibels. I know how to find patterns betweem the pitch of a sound and the features of the object that produced it.	I know whether materials are solids, gases or liquids and their properties. I know the state of matter and the behaviour of it's particles. I know some materials change state when they are heated or cooled. I know the part played by evaporations and condensation in the water cycle. I know temperature is associated with the rate of evaporation. I know what temperature water will turn into a gas, a solid and evaporate. I know factors that can increase the time it tak for water to evaporate. I know that water evaporates but that other materials in the water do not.	I know that living things can be grouped in a variety of ways. I know how to group, identify and name a variety of living things in my local and wider enviror I know that environments can change and this can pose danger to living things. I can name features of different animals. I know why scientists group animals. I know how to use a classification key to sort groups of animals. I know inverterbrate groups for insects. I know different questions I can ask to seperate groups. I know some human actions which can have a negative impact on wildlife. I know some actions humans could take to help wildlife.		
	Skills	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.	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.	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.	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.	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.		
	Working Scientifically Objectives **To be taught alongside each focus.**	*Asking relevant questions and using different types of scientific enquiries to answer them. *Setting up simple practical enquiries, comparative and fair tests. *Making systematic and careful observations and, where appropriate, taking accurate measurements using standard units, using a range of equipment, including thermometers and data loggers. *Gathering, recording, classifying and presenting data in a variety of ways to help in answering questions. *Recording findings using simple scientific language, drawings, labelled diagrams, keys, bar charts, and tables. *Reporting on findings from enquiries, including oral and written explanations, displays or presentations of results and conclusions. *Using results to draw simple conclusions, make predictions for new values, suggest improvements and raise further questions. *Identifying differences, similarities or changes related to simple scientific ideas and processes. Using straightforward scientific evidence to answer questions or to support their findings.						
	Working Scientifically Ideas	Comparing the teeth of carnivores and herbivores, and suggesting reasons for differences; finding out what damages teeth and how to look after them. They might draw and discuss their ideas about the digestive system and compare them with models or images.	Observing patterns, for example, that bulbs get brighter if more cells are added, that metals tend to be conductors of electricity, and that some materials can and some cannot be used to connect across a gap in a circuit.	Finding patterns in the sounds that are made by different objects such as saucepan lids of different sizes or elastic bands of different thicknesses. They might make earmuffs from a variety of different materials to investigate which provides the best insulation against sound. They could make and play their own instruments by using what they have found out about pitch and volume.	Grouping and classifying a variety of different materials; exploring the effect of temperature on substances such as chocolate, butter, cream (for example, to make food such as chocolate crispy cakes and ice-cream for a party). They could research the temperature at which materials change state, for example, when iron melts or when oxygen condenses into a liquid. They might observe and record evaporation over a period of time, for example, a puddle in the playground or washing on a line, and investigate the effect of temperature on washing drying or snowmen melting.	Using and making simple guides or keys to explore and identify local plants and animals; making 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 that they have researched.		
	Key Vocabulary	*Mouth, Tongue, Teeth, Oesophagus, Stomach, Small Intestine, Large Intestine, rectum, anus, producer, predator, prey, Herbivore, Carnivore, Canine, Incisor, Molar*	*Cells, Wires, Bulbs, Switches, Buzzers, Battery, Circuit, Series, Conductors, Insulators, electrical, non electirical, simple circuit, complex circuit.*	*Volume, Vibration, Wave, Pitch, Tone, Speaker*	*Solid, Liquid, Gas, Evaporation, Condensation, Particles, Temperature, Freezing, Heating, solidify, degrees celsius, water cycle, properties, volume, particles, state of matter, melting, boiling, elements, water vapour, precipitation, solar energy*	*Vertebrates, Fish, Amphibians, Reptiles, Birds, Mammals, Invertebrates, Snails, Slugs, Worms, Spiders, Insects, Environment, Habitats, drought, dehydration, endangered species, sanctuaries, poaching, conservation projects, habitat, deforestation, pollution, littering, crustacean, classification key, features,*		

Colour Key		Chemistry	Biology	Physics				
Subject: Science		**A1**	**A2**	**Sp1**	**Sp2**	**Su1**	**Su2**	**On-going throughout the year**
Y5	**Focus**	**Animals including humans Working Scientifically**	**Earth and space Working Scientifically**	**Forces Working Scientifically**	**Properties and changes of materials. Working Scientifically**	**Living things and their habitats. Working Scientifically**		
	Revision Sheets	https://drive.google.com/open?id=1gdadMMi8iMBWL_c-ZU9wbUe_yqHyXMbC	https://drive.google.com/open?id=1V53j_w0BPr6UJ1okSKg8e1gDlZyLR6jP	https://drive.google.com/open?id=1cgfnspwN_Oi47mTzBOGHJ2tNb-JR_ZGd	https://drive.google.com/open?id=1U0vsBxN_HXsmeEaTDptf_RGj3WesVcRR	https://drive.google.com/open?id=1dco3s3ZuM8GKWvGnv9HDh0XPLf1RfNDs		
	Assessment	https://drive.google.com/open?id=1C5zaL_SqBcbMTmaNvTP0Q1XLRiw0qceX	https://drive.google.com/open?id=1LayhloHu7ML0h_yiahTub_7gUfyvvQsC	https://drive.google.com/open?id=1rZXXkXOQfYsy_-a6jqE_hIG8U_3q6YLe	https://drive.google.com/open?id=17ckFktHvwfJ0k8seDQrljxk4wiqJPkt3	https://drive.google.com/open?id=1MGMt3c7S4y2Sy_I8htEb12AgR3Vr2oFz		
	Knowledge	I know the changes as a human develop to old age. I know the stages of the human life cycle. I know the average gestation period for some animals and humans. I know what a gestation period is. I know some aspects which may affect the growth of a baby during the gestation period. I know about changes in puberty to boys and girls. I know some lifestyle choices that can affect life expectancy.	I know how the Earth moves and other planets relative to the sun in the solar system. I know how the moon moves relative to the Earth. I know the description of the shape of the Sun, Earth and Moon. I know how to explain the day and night and the apparent movement of the sun. I know the solar system and order of the planets from the sun. I know the composition of the different planets. I know how many days it takes the Earth do complete a full orbit of the Sun. I know why the orbits of planets may be different. I know why we can't see the moon during the day. I know why I know the Earth is not flat. I know how the Earth's movement causes day and night.	I know that unaffected objects fall to Earth because of the force of gravity. I know the effects of air resistance, water resistance and friction that act between moving surfaces. I know that some mechanisms, including levers, pulleys and gears, allow a smaller force to have greater effect. I know the effects of force can alter on different objects. I know which objects use a lever, pulley or gear system.	I know names of everday materials and their properties including solubility, hardness, transparency, conductivity (electrical and thermal) and their response to magnets. I know what happens when some solids are mixed with a liquid and how to retrieve them. I know how mixtures may be seperated using my knowledge of solids, liquids and gases. I know some changes are reversible changes. I know some changes result in irreversible changes. I know the scientific name given to a material that allows heat to travel through it quickly.	I know the differences in the life cycle of a mammal, an amphibian, an insect and a bird. I know the life process of reproduction in some plants and animals. I know the life cycle of a frog. I know the order of the stages of human reproduction. I know the order of sexual reproduction in plants. I know the way some plants disperse their seeds in different ways. I know that some plants reproduce asexually. I know why all living things need to be able to reproduce.		
	Skills	Describe the changes as humans develop to old age.	Describe the movement of the Earth, and other planets, relative to the Sun in the solar system. Describe the movement of the Moon relative to the Earth. Describe the Sun, Earth and Moon as approximately spherical bodies. Use the idea of the Earth's rotation to explain day and night and the apparent movement of the sun across the sky.	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, that act between moving surfaces. Recognise that some mechanisms, including levers, pulleys and gears, allow a smaller force to have a greater effect.	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.	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.		
	Working Scientifically Objectives **To be taught alongside each focus.**	*Planning different types of scientific enquiries to answer questions, including recognising and controlling variables where necessary. *Taking measurements, using a range of scientific equipment, with increasing accuracy and precision, taking repeat readings when appropriate. *Recording data and results of increasing complexity using scientific diagrams and labels, classification keys, tables, scatter graphs, bar and line graphs. *Using test results to make predictions to set up further comparative and fair tests. *Reporting and presenting findings from enquiries, including conclusions, causal relationships and explanations of and degree of trust in results, in oral and written forms such as displays and other presentations. *Identifying scientific evidence that has been used to support or refute ideas or arguments.						
	Working Scientifically Ideas	Research the gestation periods of other animals and comparing them with humans; by finding out and recording the length and mass of a baby as it grows.	Comparing the time of day at different places on the Earth through internet links and direct communication. Creating simple models of the solar system. Constructing simple shadow clocks and sundials, calibrated to show midday and the start and end of the school day. Finding out why some people think that structures such as Stonehenge might have been used as astronomical clocks.	Exploring falling paper cones or cup-cake cases, and designing and making a variety of parachutes and carrying out fair tests to determine which designs are the most effective. They might explore resistance in water by making and testing boats of different shapes. They might design and make products that use levers, pulleys, gears and/or springs and explore their effects.	Carrying out tests to answer questions, for example, 'Which materials would be the most effective for making a warm jacket, for wrapping ice cream to stop it melting, or for making blackout curtains?' They might compare materials in order to make a switch in a circuit. They could observe and compare the changes that take place, for example, when burning different materials or baking bread or cakes. They might research and discuss how chemical changes have an impact on our lives, for example, cooking, and discuss the creative use of new materials such as polymers, super-sticky and super-thin materials.	Observing and comparing the life cycles of plants and animals in their local environment with other plants and animals around the world (in the rainforest, in the oceans, in desert areas and in prehistoric times), asking pertinent questions and suggesting reasons for similarities and differences. They might try to grow new plants from different parts of the parent plant, for example, seeds, stem and root cuttings, tubers, bulbs. They might observe changes in an animal over a period of time (for example, by hatching and rearing chicks), comparing how different animals reproduce and grow.		
	Key Vocabulary	*Foetus, Embryo, Womb, Gestation, Baby, Toddler, Teenager, Elderly, Growth, Development, Puberty*	*Earth, Sun, Moon, Axis, Rotation, Day, Night, Phases of the Moon, star, constellation*	*Air resistance, Water resistance, Friction, Gravity, Newton, Gears, Pulleys*	*Hardness, Solubility, Transparency, Conductivity, Magnetic, Filter, Evaporation, Dissolving, Mixing*	*Mammal, Reproduction, Insect, Amphibian, Bird, Offspring*		

Colour Key		Chemistry	Biology	Physics				
Subject: Science		**A1**	**A2**	**Sp1**	**Sp2**	**Su1**	**Su2**	**On-going throughout the year**
Y6	**Focus**	**Animals including humans Working Scientifically**	**Light Working Scientifically**	**Electricity Working Scientifically**	**Evolution and inheritance Working Scientifically**	**Living things and their habitats. Working Scientifically**		
	Revision sheets	https://drive.google.com/open?id=1UG5sikV3goxzuS607o4K2L6QwXs7OVwl	https://drive.google.com/open?id=1zGawDT3FH3bDNkWSI-ndk3WOmb9ElJvD	https://drive.google.com/open?id=1Ou79jF-DZqwQqV0MXbFIFN0NK7E41K12	https://drive.google.com/open?id=1WQ4SyTMpAuIyI7vdERu8KXr2QqpT40QU	https://drive.google.com/open?id=1pi9d4E3_29CA-36rbTWUht8ypT9R1fUb		
	Assessment	https://drive.google.com/open?id=1iVdSN5Gk_7xI-FMOXQkn_UiJx5lojIii	https://drive.google.com/open?id=1_ZGi03CU-lbegR2bg64kU6Hpo2pbrNAu	https://drive.google.com/open?id=14_bc1ZCM1VXgw2PdERBWfz3nri5hHHYk	https://drive.google.com/open?id=1eLeei5CS4wlJZgPvMZZD2ekE1TiZk1jw	https://drive.google.com/open?id=1k01BD8aAnrROX4K2WqL4Hl_9napYegEC		
	Knowledge	I know the parts of the main human circulatory system. I know the function of the heart, blood vessels and blood. I know the impact of exercise, diet, drugs and lifestyle on the way their bodies function. I know the ways in which nutrients and water are transported within animals including humans. I know what the heart is made of. I know what bpm are. I know why you're heart beats faster after exercise. I know how the intestine help with the absorption of nutrients and minerals.	I know how light travels to explain how objects are seen. I know how light appears to travel. I know that we see things because lights travels. I know that light travels in straight lines and I can explain why shadows have the same shape as the objects that cast them.	I know the brightness of a lamp or the volume of a buzzer is associated with the number and voltage of cells used in the circuit. I know reasons for variations in how components function, including the brightness of bulbs, the loudness of buzzers and the on/off position of switches. I know recognised symbols when representing a simple circuit in a diagram. I know the function of a switch. I know how to make a test fair. I know why its not safe to use a metal knife in a toaster.	I know that living things have changed over time and that fossils provide information about living things that inhabited the Earth millions of years ago. I know that living things produce offspring of the same kind. I know how animals and plants are adapted to suit their environment in different ways and what adaptation may lead to. I know where fossils can be found. I know why the oldest rocks are of those of simple organisms and why the newest rocks are those of complex organisations. I know whether traits are inherited or acquired. I know what may happen when a species struggles to adapt. I know some differences between the skeleton of a human and a chimpanzee.	I know 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 know reasons for classifying plants and animals based on specific characteristics. I know things that all insects have in common. I know about bacteria, viruses and fungi. I know that there are micro-organisms living in water that can't be seen. I know how to read a classification key.		
	Skills	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.	Recognise that light appears to travel in straight lines. 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. 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. Use the idea that light travels in straight lines to explain why shadows have the same shape as the objects that cast them.	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.	Recognise that living things have changed over time and that fossils provide information about living things that inhabited the Earth millions of years ago. Recognise that living things produce offspring of the same kind, but normally offspring vary and are not identical to their parents. Identify how animals and plants are adapted to suit their environment in different ways and that adaptation may lead to evolution.	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.		
	Working Scientifically Objectives **To be taught alongside each focus.**	*Planning different types of scientific enquiries to answer questions, including recognising and controlling variables where necessary. *Taking measurements, using a range of scientific equipment, with increasing accuracy and precision, taking repeat readings when appropriate. *Recording data and results of increasing complexity using scientific diagrams and labels, classification keys, tables, scatter graphs, bar and line graphs. *Using test results to make predictions to set up further comparative and fair tests. *Reporting and presenting findings from enquiries, including conclusions, causal relationships and explanations of and degree of trust in results, in oral and written forms such as displays and other presentations. *Identifying scientific evidence that has been used to support or refute ideas or arguments.						
	Working Scientifically Ideas	Exploring the work of scientists and scientific research about the relationship between diet, exercise, drugs, lifestyle and health.	Deciding where to place rear-view mirrors on cars; designing and making a periscope and using the idea that light appears to travel in straight lines to explain how it works. They might investigate the relationship between light sources, objects and shadows by using shadow puppets. They could extend their experience of light by looking a range of phenomena including rainbows, colours on soap bubbles, objects looking bent in water and coloured filters (they do not need to explain why these phenomena occur).	Observing and raising questions about local animals and how they are adapted to their environment; comparing how some living things are adapted to survive in extreme conditions, for example, cactuses, penguins and camels. They might analyse the advantages and disadvantages of specific adaptations, such as being on two feet rather than four, having a long or a short beak, having gills or lungs, tendrils on climbing plants, brightly coloured and scented flowers.	Systematically identifying the effect of changing one component at a time in a circuit; designing and making a set of traffic lights, a burglar alarm or some other useful circuit.	Using classification systems and keys to identify some animals and plants in the immediate environment. They could research unfamiliar animals and plants from a broad range of other habitats and decide where they belong in the classification system.		
	Key Vocabulary	*Circulatory, Heart, Blood Vessels, Veins, Arteries, Oxygenated, Deoxygenated, Valve, Exercise, Respiration, internal organs, muscle, cartilage, capillaries, bpm, nutrients, digestive system, small intestine, large intestine, rectum, absorption,*	*Refraction, Reflection, Light, Spectrum, Rainbow, Colour, shadows, omitted, light pollution, periscope, light sensor, opaque, translucent, transparent,*	*Cells, Wires, Bulbs, Switches, Buzzers, Battery, Circuit, Series, Conductors, Insulators, Amps, Volts, Cell, variable resistor, electrical symbols, motor, non-retilinear circuit, voltage,*	*Fossils, Adaptation, Evolution, Characteristics, Reproduction, Genetics*	*Classification, Vertebrates, Invertebrates, Micro-organisms, Amphibians, Reptiles, Mammals, Insects*		