

Aintree Davenhill Primary School – Science Curriculum Map

	Autumn		Spring		Summer	
Nursery	All About Me/Autumn 3 & 4-year-olds will be learning to: Communication and Language • Understand why questions, lke: "Why do youthing the control of the c	ty and toothbrushing natural materials d/or different properties	Winter Traditional Tales and Famous Book Characters	Spring Minibeasts, Plants and Growth	Houses and Homes	Journeys and Transport Summer
	 Explore and talk about different forces they ca Talk about the differences between material a 	f family's history f a plant and an animal are for the natural environment and all living things n feel nd changes they notice	Winter	Spring	Houses and Homes	Journeys and Transport
Reception	All About the Challenge of California and Californi					
Van 4		anges in the natural world around them, including the se Seasonal Changes	onments, drawing on their experiences and what has been easons and changing states of matter Everyday Materials	Seasonal Changes	Plants	Seasonal Changes
Year 1	Programme of Study Identify, name, draw and label the basic parts of the human body and say which part of the body is associated with each sense Recognise that humans are animals Compare and describe differences in their own features (eye, hair, skin colour, etc.) Recognise that humans have many similarities Working Scientifically Compare and contrast animals (humans) at first hand or through videos and photographs Use their senses to compare different	Programme of Study Observe changes across the four seasons Observe and describe weather associated with the seasons and how day length varies Working Scientifically Make tables and charts about the weather Make displays of what happens in the world around them, including day length, as the seasons change	Programme of Study 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 Working Scientifically Perform simple tests to explore questions	Programme of Study Observe changes across the four seasons Observe and describe weather associated with the seasons and how day length varies Working Scientifically Make tables and charts about the weather Make displays of what happens in the world around them, including day length, as the seasons change	Programme of Study 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 Working Scientifically Observe closely, using magnifying glasses Compare and contrast familiar plants Describe how they were able to identify and group them, and Draw diagrams showing the parts of different plants including trees	Programme of Study Observe changes across the four seasons Observe and describe weather associated with the seasons and how day length varies Working Scientifically Make tables and charts about the weather Make displays of what happens in the world around them, including day length, as the seasons change

	Describe how they identify and group them Grouping animals according to what they eat				Keep records of how plants have changed over time, for example the leaves falling off trees and buds opening	
					Compare and contrast what they have found out about different plants	
Year 2	Animals, including humans (Health and Growth)	Animals, including humans (Survival and Growth)	Use of everyday materials	Use of everyday materials	Living things and their habitats	Plants
	Programme of Study Notice that humans, have offspring which grow into adults Find out about and describe the basic needs of 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 Medicines can be useful when we are ill Medicines can be harmful if not used properly Working Scientifically Observet, through video or first-hand observation and measurement, how humans grow Record their findings using charts Ask questions about what things animals [humans] need for survival and what humans need to stay healthy Suggest ways to find answers to their questions	Programme of Study Notice that animals, have offspring which grow into adults Find out about and describe the basic needs of animals, for survival (water, food and air) Working Scientifically Observe, through video or first-hand observation and measurement, how different animals grow Ask questions about what things animals need for survival suggesting ways to find answers to their questions	Programme of Study 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 Working Scientifically Compare 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) Observe closely Identify and classify the uses of different materials Record their observations Think about unusual and creative uses for everyday materials	Programme of Study 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 Working Scientifically Compare 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) Observe closely Identify and classify the uses of different materials Record their observations Think about unusual and creative uses for everyday materials	Programme of Study Explore and compare the differences between things that are living, dead, and things that have never been alive I dentify 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 dentify and name a variety of plants and animals in their habitats, including micro-habitats 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 Different kinds of plants and animals live in different kinds of places There are different kinds of habitat near school which need to be cared for Habitats provide the preferred conditions for the animals/plants that live there (compare local habitats and less familiar examples) Working Scientifically Sort and classify things as to whether they are living, dead or were never alive Record their findings using charts Describe how they decided where to place things, Explore questions such as: 'Is a flame alive? Is a deciduous tree dead in winter?' Talk about ways of answering their questions Construct a simple food chain that includes humans (e.g. grass, cow, human) Describe the conditions in different habitats and micro-habitats (under log, on stony path, under bushes) Find out how the conditions affect the number and	Programme of Study 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 Plants are living and eventually die Working Scientifically Observe and record, with some accuracy, the growth of a variety of plants as they change over time from a seed or bulb Observe similar plants at different stages of growth Set up a comparative test to show that plants need light and water to stay healthy
	Forces and Magnets	Animals, including humans	Animals, including humans	Plants	type(s) of plants and animals that live there Rocks and Soils	Light and Shadows
Year 3	Programme of Study Compare how some 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 Pescribe magnets a having two poles Predict whether two magnets will attract or repel each other, depending on which poles are facing Working Scientifically Compare how different things move and group them Raise questions and carry out tests to find out how far things move on different surfaces Gather and record data to find answers to their questions Explore the strengths of different magnets and find a fair way to compare them Sort materials into those that are magnetic and those that are not Look 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 Identify how these properties make magnets useful in everyday items	Programme of Study Identify that humans and some other animals have skeletons and muscles for support, protection and movement Identify animals (vertebrates) which have a skeleton which supports their body, aids movement & protects vital organs (be able to name some of the vital organs) Identify animals without internal skeletons/backbones (invertebrates) and describe how they have adapted other ways to support themselves, move & protect their vital organs Know how the skeletons of birds, mammals, fish, amphibians or reptiles are similar (backbone, ribs, skull, bones used for movement) and the differences in their skeletons Know that muscles, which are attached to the skeleton, help animals move parts of their body Explore how humans grow bigger as they reach maturity by making comparisons linked to body proportions and skeleton grown – e.g. do people with longer legs have longer arm spans? Recognise that animals are alive; they move, feed, grow, use their senses and reproduce Working Scientifically Identify and group animals with and without skeletons Observe and compare their movement Explore ideas about what would happen if humans did not have skeletons	Programme of Study 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 An adequate and varied diet is beneficial to health (along with a good supply of air and clean water) Regular and varied exercise from a variety of different activities is beneficial to health (focus on energy in versus energy out Include information on making informed choices) Working Scientifically Compare and contrast the diets of different animals (including their pets) Decide ways of grouping them according to what they eat Research different food groups and how they keep us healthy Design meals based on what they find out	Programme of Study 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 Roots grow downwards and anchor the plant Water, taken in by the roots, goes up the stem to the leaves, flowers and fruit Nutrients (not food) are taken in through the roots Stems provide support and enable the plant to grow towards the light Plants make their own food in the leaves using energy from the sun Flowers attract insects to aid pollination Pollination is when pollen is transferred between plants by insects, birds, other animals and the wind Fertilisation occurs in the ovary of the flower Seeds are formed as a result of fertilisation Many flowers produce fruits which protect the seed and/or aid seed dispersal Seed dispersal, by a variety of methods, helps ensure that new plants survive Plants need nutrients to grow healthily (either naturally from the soil or from fertiliser added to soil) Working Scientifically	Programme of Study 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 Rocks and soils can feel and look different Rocks and soils can feel and look different places/environments Working Scientifically Observe rocks, including those used in buildings Explore how and why they might have changed over time, using a hand lens to help them I dentify and classify rocks according to whether they have grains or crystals, and whether they have fossils in them Research and discuss the different kinds of living things whose fossils are found in sedimentary rock Explore how fossils are formed Explore different soils Identify similarities and differences between them Investigate what happens when rocks are rubbed together or what changes occur when they are in water Raise and answer questions about the way soils are formed	Programme of Study 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 a solid object Find patterns in the way that the size of shadows change Working Scientifically Looking for patterns in what happens to shadows when the light source moves or the distance between the light source and the object changes

Year 4	States of Matter Programme of Study • 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)	Electricity Programme of Study • 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	Sound Programme of Study • Identify how sounds are made, associating some of them with something vibrating • Recognise that wibrations from sounds travel through at medium to the ear + Find patterns between the volume of a sound and the strength of the vibrations that produced it • Recognise that sounds set fainter as the distance	Compare the effect of different factors on plant growth, for example the amount of light or the amount of fertiliser Discover how seeds are formed by Observing the different stages of plant cycles over a period of time Looking for patterns in the structure of fruits that relate to how the seeds are dispersed Observe how water is transported in plants, for example, by putting cut, white carnations into coloured water Observe how water travels up the stem to the flowers Living things and their habitats Programme of Study 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 environment Recognise that environment	Animals, including humans (Teeth, Eating & Digestion) Programme of Study • 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 • Describe how teeth and gums have to be cared for	Animals, including humans (Teeth, Eating & Digestion) Programme of Study • 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 • Describe how teeth and gums have to be cared for in
	I identify the part played by evaporation and condensation in the water cycle and associate the rate of evaporation with temperature Solids, liguids and gases can be identified by their observable properties Solids have a fixed size and shape (the size and shape can be changed but it remains the same after the action) Liquids can pour and take the shape of the container in which they are put Liquids form a pool not a pile Solids in the form of powders can pour as if they were liquids but make a pile not a pool Gases filt the container in which they are put Gases ease be made smaller by squeezing/pressure Liquids and gases can flow Working Scientifically Group and classify 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) Research the temperature at which materials change state, for example, when oxygen condenses into a liquid Observe and record evaporation over a period of time, such as a puddle in the playground or washing on a line Investigate the effect of temperature on washing drying or snowmen melting	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 this with being good conductors Electricity can be dangerous Electricity can be dangerous Electricity sources can be mains or battery Batteries 'push' electricity round a circuit and can make bulbs, buzzers and motors work Faults in circuits can be found by methodically testing connections Drawings, photographs and diagrams can be used to represent circuits (although standard symbols need not be introduced until UKS2) Working Scientifically Observe 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	from the sound source increases Sounds can be made in a variety of ways (pluck, bang, shake, blow) using a variety of things (instruments, everyday materials, body) Sounds travel away from their source in all directions Vibrations may not always be visible to the naked eye Pitch Find patterns between the pitch of a sound and features of the object that produced it Sounds can be high or low pitched The pitch of a sound can be altered Pitch can be altered either by changing the material, tension, thickness or length of vibrating objects or changing the length of a vibrating air column Muffling/blocking sounds Recognise that vibrations from sounds travel through a medium to the ear Sounds are heard when they enter our ears (although the structure of the ear is not important key learning at this age phase) Sounds can travel through solids, liquids and air/gas by making the materials vibrate Sound travel can be blocked Working Scientifically Find patterns in the sounds that are made by different objects such as saucepan lids of different sizes or elastic bands of different thicknesses Investigate a variety of different materials to discover which provides the best insulation against sound Make and play their own instruments by using	Use and make identification keys for plants and animals Working Scientifically Use and make simple guides or keys [sorting, grouping, comparing, classifying] to explore and identify local plants and animals Make a guide [sorting, grouping, comparing, classifying] to local living things Raise and answer questions based on their observations of animals	in order to keep them healthy Working Scientifically Compare the teeth of carnivores and herbivores Suggest reasons for differences Finding out what damages teeth and how to look after them Draw and discuss their ideas about the digestive system and compare them with models or images	order to keep them healthy Working Scientifically • Compare the teeth of carnivores and herbivores • Suggest reasons for differences • Finding out what damages teeth and how to look after them • Draw and discuss their ideas about the digestive system and compare them with models or images
	Farth and Space	Properties of Materials/Changes of Materials	what they have found out about pitch and volume Scientists and Inventors	Forces	Living things and their habitats	Animals including humans
Year 5	Programme of Study 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 Sun/Earth/Moon as approximately spherical bodies Use the idea of the Earth's rotation to explain day and night The Earth spins once around its own axis in 24 hours, giving day and night The Earth rothist the Sun in one year We can see the Moon because the Sun's light reflects off it The Moon orbits the Earth in approximately 28 days and changes to the appearance of the moon are evidence of this The Sun appears to move across the sky from East to West and this causes shadows to change during the day	Properties of Materials/Changes of Materials Properties of Materials Properties of Materials Programme of Study • 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 • Give reasons, based on evidence from comparative and fair tests, for the particular uses of everyday materials, including metals, wood and plastic • Compare a variety of materials and measure their effectiveness (e.g. hardness, strength, flexibility, solubility, transparency, thermal conductivity, electrical conductivity) • Temperature and Thermal Insulation • Heat always moves from hot to cold • Some materials (insulators) are better at slowing down the movement of heat than others	Scientists and Inventors Programme of Study answer questions about David Attenborough's life and work research and present facts about living things, including diet and habitat identify different types of evidence describe Margaret Hamilton's work on programming the on-board computer for the Apollo 11 spacecraft list the planets in our solar system describe Leonardo da Vinci's life and his famous work order facts about Eva Crane's life and work group and rank materials based on their hardness and weight Working Scientifically carry out an inquiry to test the accuracy of Leonardo da Vinci's ideas about proportion	Forces Programme of Study 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 There are different types of forces (push, pull, friction, air resistance, water resistance, magnetic forces, gravity) Gravity can act without direct contact between the Earth and an object Friction, air resistance and water resistance are forces which slow down moving objects Friction, air resistance and water resistance can be useful or unwanted	Living things and their habitats Programme of Study 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 Observe and compare 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 and in desert areas Ask pertinent questions Suggest reasons for similarities & differences Observe changes in an animal over a period of time (tadpoles) Comparing how different animals reproduce and grow	Animals including humans Programme of Study Describe the changes as humans develop to old age Animals are alive; they move, feed, grow, use their senses, reproduce, breathefrespire and excrete Working Scientifically Research the gestation periods other animals and comparing them with humans

	Changes to shadow length over a day or	Objects/liquids will warm up or cool down	describe the theory that Stonehenge could have	The effects of friction, air resistance and water		
	changes to sunrise and sunset times over a	until they reach the temperature of their	been used as an astronomical calendar.	resistance can be reduced or increased for a		
	year are evidence supporting the movement	surroundings		preferred effect		
	of the Earth	Marking Colontifically		More than one force can act on an object		
	Working Scientifically Compare the time of day at different places	Working Scientifically Carry out tests to answer questions such as		simultaneously (either reinforcing or opposing each other)		
	on the Earth through internet links and	'Which materials would be the most effective		Working Scientifically		
	direct communication	for making a lunchbox?'		Explore falling paper cones or cup-cake cases		
	Creating simple models of the solar system	Compare materials in order to make a switch		Design and make[exploring] a variety of		
	,	in a circuit		parachutes		
				Carry out fair tests to determine which designs are		
		Changes of Materials		the most effective		
		Programme of Study		 Explore resistance in water by making and testing 		
		Know that some materials will dissolve in		boats of different shapes		
		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				
		 Demonstrate that dissolving, mixing and 				
		changes of state are reversible changes				
		Changes can occur when different materials				
		are mixed				
		Some material changes can be reversed, and				
		some cannot Recognise that dissolving is a reversible change				
		Recognise that dissolving is a reversible change Distinguish between melting and dissolving				
		Mixtures of solids (of different particle size)				
		can be separated by sieving				
		Mixtures of solids and liquids can be separated				
		by filtering if the solid is insoluble (un-				
		dissolved)				
		Evaporation helps us separate soluble				
		materials from water				
		Changes to materials can happen at different				
		rates (factors affecting dissolving, factors				
		affecting evaporation – amount of liquid,				
		temperature, wind speed) Freezing, melting and boiling changes can be				
		reversed (revision from YR4)				
		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				
		Working Scientifically				
		Observe and compare the changes that take				
		place, for example, when burning different				
		materials or baking bread or cakes				
		Researching and discussing how chemical				
		changes have an impact on our lives, for				
	Electricity	example cooking Animals including humans	Light		Living things and their habitats	Evolution and Inheritance
Year 6	Programme of Study	Programme of Study	Programme of Study		Programme of Study	Programme of Study
	 Associate the brightness of a lamp or the volume of a buzzer with the number and 	Identify and name the main parts of the	Recognise that light appears to travel in straight lines		Describe how living things are classified into broad groups according to common observable.	 Recognise that living things have changed over time and that fossils provide information about living
	voltage of cells used in the circuit	human circulatory system, and describe the functions of the heart, blood vessels and blood	Use the idea that light travels in straight lines to		groups according to common observable characteristics and based on similarities and	things that inhabited the Earth millions of years ago
	Compare and give reasons for variations in	Recognise the impact of diet, exercise, drugs	explain that objects are seen because they give		differences, including micro-organisms, plants and	Recognise that living things produce offspring of the
	how components function, including the	and lifestyle on the way their bodies function	out or reflect light into the eye		animals	same kind, but normally offspring vary and are not
	brightness of bulbs, the loudness of buzzers	Describe the ways in which nutrients and	Explain that we see things because the light that		Give reasons for classifying plants and animals	identical to their parents
	and the on/off position of switches	water are transported within animals,	travels from light sources to our eyes or from light		based on specific characteristics	Identify how animals and plants are adapted to suit
	Use recognised symbols when representing	including humans	sources to objects and then to our eyes		 Living things can be grouped into micro-organisms, 	their environment in different ways and that
	a simple circuit in a diagram	The heart is a major organ and is made of	 Use the idea that light travels in straight lines to 		plants and animals	adaptation may lead to evolution
I	and the first of the second	muscle	explain why shadows have the same shape as the		Vertebrates can be grouped as fish, amphibians,	Working Scientifically
1	 Circuit diagrams can be used to construct a 		objects that cast them		 reptiles, birds and mammals Invertebrates can be grouped as snails and slugs, 	Observe and raise questions about local animals and
	variety of more complex circuits predicting	The heart pumps blood around the body	Marking Calcutifically			how they are adapted to the environment
	variety of more complex circuits predicting whether they will 'work'	through vessels and this can be felt as a pulse	Working Scientifically			
	variety of more complex circuits predicting whether they will 'work' Working Scientifically	through vessels and this can be felt as a pulse The heart pumps blood through the lungs in	Design a periscope and using the idea that light		worms, spiders and insects	Compare how some living things adapt to survive in
	variety of more complex circuits predicting whether they will 'work' Working Scientifically Systematically identify the effect of	through vessels and this can be felt as a pulse The heart pumps blood through the lungs in order to obtain a supply of oxygen			worms, spiders and insects Plants can be grouped as flowering plants (including	 Compare how some living things adapt to survive in extreme conditions, e.g. camels
	variety of more complex circuits predicting whether they will 'work' Working Scientifically • Systematically identify the effect of changing one [thing] component at a time in	through vessels and this can be felt as a pulse The heart pumps blood through the lungs in order to obtain a supply of oxygen Blood carries oxygen/essential materials to	Design a periscope and using the idea that light appears to travel in straight lines to explain how it works		worms, spiders and insects Plants can be grouped as flowering plants (including trees and grasses) and non-flowering plants (such	Compare how some living things adapt to survive in extreme conditions, e.g. camels Analyse the advantages and disadvantages of specific
	variety of more complex circuits predicting whether they will 'work' Working Scientifically Systematically identify the effect of	through vessels and this can be felt as a pulse The heart pumps blood through the lungs in order to obtain a supply of oxygen Blood carries oxygen/essential materials to different parts of the body	Design a periscope and using the idea that light appears to travel in straight lines to explain how it works Investigate the relationship between light sources,		worms, spiders and insects • Plants can be grouped as flowering plants (including trees and grasses) and non-flowering plants (such as ferns and mosses)	Compare how some living things adapt to survive in extreme conditions, e.g. camels Analyse the advantages and disadvantages of specific adaptations, such as being on two feet rather than
	variety of more complex circuits predicting whether they will 'work' Working Scientifically • Systematically identify the effect of changing one [thing] component at a time in	through vessels and this can be felt as a pulse The heart pumps blood through the lungs in order to obtain a supply of oxygen Blood carries oxygen/essential materials to	Design a periscope and using the idea that light appears to travel in straight lines to explain how it works		worms, spiders and insects Plants can be grouped as flowering plants (including trees and grasses) and non-flowering plants (such	Compare how some living things adapt to survive in extreme conditions, e.g. camels Analyse the advantages and disadvantages of specific
	variety of more complex circuits predicting whether they will 'work' Working Scientifically • Systematically identify the effect of changing one [thing] component at a time in	through vessels and this can be felt as a pulse The heart pumps blood through the lungs in order to obtain a supply of oxygen Blood carries oxygen/essential materials to different parts of the body During exercise muscles need more oxygen so	Design a periscope and using the idea that light appears to travel in straight lines to explain how it works Investigate the relationship between light sources,		worms, spiders and insects • Plants can be grouped as flowering plants (including trees and grasses) and non-flowering plants (such as ferns and mosses) Working Scientifically	Compare how some living things adapt to survive in extreme conditions, e.g. camels 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
	variety of more complex circuits predicting whether they will 'work' Working Scientifically • Systematically identify the effect of changing one [thing] component at a time in	through vessels and this can be felt as a pulse The heart pumps blood through the lungs in order to obtain a supply of oxygen Blood carries oxygen/essential materials to different parts of the body During exercise muscles need more oxygen so the heart beats faster and our breathing and pulse rates increase An adequate, varied and balanced diet is	Design a periscope and using the idea that light appears to travel in straight lines to explain how it works Investigate the relationship between light sources,		worms, spiders and insects Plants can be grouped as flowering plants (including trees and grasses) and non-flowering plants (such as ferns and mosses) Working Scientifically Use classification systems and keys Identify some animals and plants in the immediate environment	Compare how some living things adapt to survive in extreme conditions, e.g. camels 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
	variety of more complex circuits predicting whether they will 'work' Working Scientifically • Systematically identify the effect of changing one [thing] component at a time in	through vessels and this can be felt as a pulse The heart pumps blood through the lungs in order to obtain a supply of oxygen Blood carries oxygen/essential materials to different parts of the body During exercise muscles need more oxygen so the heart beats faster and our breathing and pulse rates increase An adequate, varied and balanced diet is needed to help us grow and repair our bodies	Design a periscope and using the idea that light appears to travel in straight lines to explain how it works Investigate the relationship between light sources,		worms, spiders and insects • Plants can be grouped as flowering plants (including trees and grasses) and non-flowering plants (such as ferns and mosses) Working Scientifically • Use classification systems and keys • identify some animals and plants in the immediate environment • Research unfamiliar animals and plants from a	Compare how some living things adapt to survive in extreme conditions, e.g. camels 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
	variety of more complex circuits predicting whether they will 'work' Working Scientifically • Systematically identify the effect of changing one [thing] component at a time in	through vessels and this can be felt as a pulse The heart pumps blood through the lungs in order to obtain a supply of oxygen Blood carries oxygen/essential materials to different parts of the body During exercise muscles need more oxygen so the heart beats faster and our breathing and pulse rates increase An adequate, varied and balanced diet is needed to help us grow and repair our bodies (proteins), provide us with energy (fats and	Design a periscope and using the idea that light appears to travel in straight lines to explain how it works Investigate the relationship between light sources,		worms, spiders and insects • Plants can be grouped as flowering plants (including trees and grasses) and non-flowering plants (such as ferns and mosses) Working Scientifically • Use classification systems and keys • Identify some animals and plants in the immediate environment • Research unfamiliar animals and plants from a broad range of other habitats and decide where	Compare how some living things adapt to survive in extreme conditions, e.g. camels 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
	variety of more complex circuits predicting whether they will 'work' Working Scientifically • Systematically identify the effect of changing one [thing] component at a time in	through vessels and this can be felt as a pulse The heart pumps blood through the lungs in order to obtain a supply of oxygen Blood carries oxygen/essential materials to different parts of the body During exercise muscles need more oxygen so the heart beats faster and our breathing and pulse rates increase An adequate, varied and balanced diet is needed to help us grow and repair our bodies (proteins), provide us with energy (fats and carbohydrates) and maintain good health	Design a periscope and using the idea that light appears to travel in straight lines to explain how it works Investigate the relationship between light sources,		worms, spiders and insects • Plants can be grouped as flowering plants (including trees and grasses) and non-flowering plants (such as ferns and mosses) Working Scientifically • Use classification systems and keys • identify some animals and plants in the immediate environment • Research unfamiliar animals and plants from a	Compare how some living things adapt to survive in extreme conditions, e.g. camels 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
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All medicines are drugs, not all drugs.	gs are		
medicines			
Working Scientifically			
Explore the work of scientists			
Research the relationship between	diet,		
exercise, drugs, lifestyle and healt			
Observe and measure changes to	ulse rates		
after exercise			