Grimsargh St Michael's CE Primary School

Science progression KS1 and KS2

Topic/Year group	Animals, including humans	Living things and their habitats	Plants	Materials	Rocks	States of matter	Electricity	Earth and Space	Seasonal changes	Sound	Light	Forces and magnets	Evolution
Year 1													
Year 2													
Year 3													
Year 4													
Year 5													
Year 6													

EYFS	Talk about memb	pers of their immediate fan	nily and community						
	 Name and descri 	be people who are familiar	to them						
Early learning	Comment on images of familiar situations in the past								
goals	 Compare and contrast characters from stories, including figures from the past. 								
	 Draw information from a simple map 								
	÷ .	similarities and differences	•	•	es				
	-	ral world around them							
	•	ey see, hear and feel whils	t outside						
		environments that are diffe		they live					
	•	effect of changing seasons of		•					
Year/Topic	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6			
Animals,	 Identify and name a 	 Notice that animals, 	 Identify that 	• Describe the simple	• Describe the changes as	 Identify and name 			
including	variety of common	including humans, have	animals, including	functions of the basic	humans develop to old age	the main parts of the			
humans	animals including fish,	offspring which grow	humans, need the	parts of the digestive		human circulatory			
	amphibians, reptiles,	into adults • Find out	right types and	system in humans		system, and describe			
	birds and mammals	about and describe the	amount of nutrition,	 Identify the different 		the functions of the			
	 Identify and name a 	basic needs of animals,	and that they cannot	types of teeth in		heart, blood vessels			
	variety of common	including humans, for	make their own food;	humans and their		and blood			
	animals that are	survival (water, food	they get nutrition	simple functions		 Recognise the 			
	carnivores, herbivores	and air)	from what they eat	 Construct and 		impact of diet,			
	and omnivores	 Describe the 	 Identify that humans 	interpret a variety of		exercise, drugs and			
	 Describe and 	importance for humans	and some other	food chains, identifying		lifestyle on the way			
	compare the structure	of exercise, eating the	animals have	producers, predators		their bodies function			
	of a variety of common	right amounts of	skeletons and muscles	and prey		• Describe the ways in			
	animals (fish,	different types of food,	for support,			which nutrients and			
	amphibians, reptiles, and hygiene protection and water are transported								
	birds and mammals		movement			within animals,			
	including pets)					including humans			
	• Identify, name, draw								
	and label the basic								
	parts of the human								
	body and say which								

	part of the body is associated with each sense				
Living things and their habitats		 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. 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 	 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 	 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 	 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

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Plants	Identify and name a	Observe and describe	Identify and describe		
	variety of common wild	how seeds and bulbs	the functions of		
	and garden plants,	grow into mature plants	different parts of		
	including deciduous	 Find out and describe 	flowering plants:		
	and evergreen trees	how plants need water,	roots, stem/trunk,		
	 Identify and describe 	light and a suitable	leaves and flowers		
	the basic structure of a	temperature to grow	 Explore the 		
	variety of common	and stay healthy	requirements of plants		
	flowering plants,		for life and growth		
	including trees		(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		
Materials	Distinguish between	Identify and compare	aloperoul	 Compare and group 	
inaccinais	an object and the	the suitability of a		together everyday	
	material from which it	variety of everyday		materials on the basis of	
	is made	materials, including		their properties, including	
	Identify and name a	wood, metal, plastic,		their hardness, solubility,	
	variety of everyday	glass, brick, rock, paper		transparency, conductivity	
	materials, including	and cardboard for		(electrical and thermal),	
	wood, plastic, glass,	particular uses		and response to magnets	
	metal, water, and rock	• Find out how the		Know that some	
	Describe the simple	shapes of solid objects		materials will dissolve in	

physical properties of a	made from some		liquid to form a solution,	
variety of everyday	materials can be		and describe how to	
materials	changed by squashing,		recover a substance from a	
 Compare and group 	bending, twisting and		solution	
together a variety of	stretching		 Use knowledge of solids, 	
everyday materials on			liquids and gases to decide	
the basis of their			how mixtures might be	
simple physical			separated, including	
properties			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	
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Rocks	 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	
States of		Compare and group
matter		materials together,
matter		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

Electricity		Identify common		Associate the
,		appliances that run on		brightness of a lamp
		electricity		or the volume of a
		Construct a simple		buzzer with the
		series electrical circuit,		number and voltage of
		identifying and naming		cells used in the circuit
		its basic parts, including		 Compare and give
		cells, wires, bulbs,		reasons for variations
		switches and buzzers		in how components
		 Identify whether or 		function, including the
		not a lamp will light in a		brightness of bulbs,
		simple series circuit,		the loudness of
		based on whether or		buzzers and the on/off
		not the lamp is part of a		position of switches
		complete loop with a		 Use recognised
		battery		symbols when
		 Recognise that a 		representing a simple
		switch opens and closes		circuit in a diagram
		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		
Earth and			Describe the movement	
Space			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 	
Seasonal	Observe changes				
changes	across the 4 seasonsObserve and describe				
	weather associated				
	with the seasons and				
	how day length varies				
Sound			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		
Light	Recognise that they			Recognise that light
	need light in order to			travels in straight lines
	see things and that			 Use the idea that
	dark is the absence of			light travels in straight
	light			lines to explain that
	 Notice that light is 			objects are seen
	reflected from			because they give out
	surfaces			or reflect light into the
	 Recognise that light 			eye
	from the sun can be			 Explain that we see
	dangerous and that			things because light
	there are ways to			travels from light
	protect their eyes			sources to our eyes or
	 Recognise that 			from light sources to
	shadows are formed			objects and then to
	when the light from a			our eyes
	light source is blocked			• Use the idea that
	by an opaque object			light travels in straight
	• Find patterns in the			lines to explain why
	way that the size of			shadows have the
	shadows change			same shape as the
	5			objects that cast them
Forces and	Compare how things		• Explain that unsupported	-
magnets	move on different		objects fall towards the	
U	surfaces		Earth because of the force	
	Notice that some		of gravity acting between	
	forces need contact		the Earth and the falling	
	between 2 objects,		object	
	but magnetic forces		 Identify the effects of air 	
	can act at a distance		resistance, water	
			resistance and friction, that	
			resistance and metion, that	

		Observe how	act between moving	
		magnets attract or	surfaces	
		repel each other and	 Recognise that some 	
		attract some materials	mechanisms including	
		and not others	levers, pulleys and gears	
		 Compare and group 	allow a smaller force to	
		together a variety of	have a greater effect	
		everyday materials on		
		the basis of whether		
		they are attracted to a		
		magnet, and identify		
		some magnetic		
		materials		
		 Describe magnets as 		
		having 2 poles		
		• predict whether 2		
		, magnets will attract or		
		repel each other,		
		depending on which		
		poles are facing		
Evolution and		p =		 Recognise that living
inheritance				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
	1			parents

			 Identify how animals
			and plants are
			adapted to suit their
			environment in
			different ways and
			that adaptation may
			lead to evolution