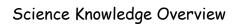


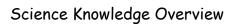


A year 1 scientist	A year 2 scientist	A year 3 scientist	A year 4 scientist	A year 5 scientist	A year 6 scientist
Working scientifically: • ask simple scientific questions. • use simple equipment to make observations. • carry out simple tests. • identify and classify things.		A year 3 scientist Working scientifically: • ask relevant scientific questions. • use observations and knowledge to answer scientific questions. • set up a simple enquiry to explore a scientific question. • set up a test to compare two things.		A year 5 scientist A year 6 scientist Working scientifically: • plan different types of scientific enquiry. • control variables in an enquiry. • measure accurate and precisely using a range of equipment. • record data and results using scientific	
suggest what they have found out. simple data to answer questions.		 set up a fair test and explain why it is fair. make careful and accurate observations, including the use of standard units. use equipment, including thermometers and data loggers to make measurements. gather, record, classify and present data in different ways to answer scientific questions. use diagrams, keys, bar charts and tables; using scientific language. use findings to report in different ways, including oral and written explanations, presentation. draw conclusions and suggest improvements. make a prediction with a reason. identify differences, similarities and changes related to an enquiry. 		diagrams and labels, classification keys, tables, scatter graphs, bar and line graphs. use the outcome of test results to make predictions and set up a further comparative fair test. report findings from enquiries in a range of ways. explain a conclusion from an enquiry. explain casual relationships in an enquiry. relate the outcome from an enquiry to scientific knowledge in order to state whether evidence supports or refutes an argument or theory. read, spell and pronounce scientific vocabulary accurately.	
Biology:	Biology:	Biology: • describe the	Biology: • group living things	Biology: • describe the life	Biology: • classify living
 name a variety of common wild and garden plants. name the petals, stem, leaf and root of a plant. name the roots, trunk, branches and leaves of a tree. name a variety of animals including fish, amphibians, reptiles, birds 	 identify things that are living, dead and never lived. describe how a specific habitat provides for the basic needs of things living there (plants and animals). identify and name plants and animals in a range of 	function of different parts of flowing plants and trees. explore and describe the needs of different plants for survival. explore and describe how water is transported within plants. describe the plant life cycle,	in different ways. Use classification keys to group, identify and name living things. create classification keys to group, identify and name living things describe how changes to an environment could endanger living	cycle of different living things. describe the differences between different life cycles. describe the process of reproduction in plants. describe the process of	things into broad groups, according to observable characteristics and based on similarities and differences describe how living things have been classified. give reasons for classifying plants and animals in a specific way.





and mammals. sort animals into the categories above. classify and name animals by what they eat: (carnivore/herbiv ore/omnivore) sort living and non-living things. name the parts of the human body that they can see. links the senses to the correct parts of the human body	habitats. match living things to their habitat. describe how animals find their food. name some different sources of food for animals. explain a simple food chain. describe how seeds and bulbs grow into plants. describe what plants need in order to grow and stay healthy. explain the basic stages in a life cycle for animals, including humans. describe what animals and humans need to survive. describe why exercise, a balanced diet and good hygiene are important for humans.	especially the importance of flowers. explain the importance of a nutritious, balanced diet. explain how nutrients, water and oxygen are transported within animals and humans. describe and explain the skeletal system of a human. describe and explain the muscular system of a human. describe the purpose of the skeleton in humans and animals.	things. identify and name the parts of the human digestive system. describe the functions of the organs in the human digestive system. identify and describe the different types of teeth in humans. describe the functions of different human teeth. use food chains to identify producers, predators and prey. construct food chains to identify producers, predators and prey.	reproduction in animals. create a timeline to indicate stages of growth in humans. identify and name the main parts of the human circulatory system. describe the function of the heart, blood vessels and blood. discuss the impact of diet, exercise, drugs and life style on health. describe the ways in which nutrients and water are transported in animals, including humans.	describe how the Earth and living things have changed over time. explain how fossils can be used to find out about the past. explain about reproduction and offspring. explain how animals and plants are adapted to suit their environment. link adaptation over time to evolution. explain evolution.
Chemistry:	Chemistry:	Chemistry:	Chemistry:	Chemistry:	• Chemistry:
 can distinguish between an object and the material it is made from. can explain the 	 identify and name a range of materials, including wood, metal, plastic, glass, brick, rock, paper and 	 compare and group rocks based on their appearance and physical properties, giving a reason. 	 group materials based on their state of matter (solid, liquid, gas). describe how some materials can 	 compare and group materials based on their properties. describe how a material dissolves 	





materials that an object is made from. can name wood, plastic, glass, metal, water and rock. can describe the properties of everyday materials. can group objects based on the materials they are made from.	cardboard. • suggest why a material might or might not be used for a specific job. • explore how shapes can be changed by squashing, bending, twisting and stretching.	describe how fossils are formed. describe how soil is made. describe and explain the difference between sedimentary and igneous rock.	change state. explore how materials change state. measure the temperature at which materials change state. describe the water cycle. explain the part played by evaporation and condensation in the water cycle.	to form a solution; explaining the process of dissolving. • describe and show how to recover a substance from a solution. • describe how some materials can be separated. • demonstrate how materials can be separated. • know and demonstrate that some changes are reversible and some are not. • explain how some changes result in the formation of a new material and that this is usually irreversible. • discuss reversible and irreversible changes. • give evidenced reasons why materials should be used for specific	
				purposes.	



Science Knowledge Overview



Physics:		Physic	s:	Physics:	Physics:	Physics:	
• c	can observe and	•	describe what dark	describe how		•	explain how light
С	comment on		is.	is made.	explain the		travels.
С	changes in the	•	explain that light is	 explain how se 	ound movement of the	•	explain and
s	seasons.		needed in order to	travels from	a Earth and other		demonstrate how
• c	can name the		see.	source to our	ears. planets relative		we see objects.
s	seasons and	•	explain that light is	 explain the pl 	ace of to the Sun.	•	explain why
s	suggest the type		reflected from a	vibration in	 describe and 		shadows have the
0	of weather in		surface.	hearing.	explain the		same shape as
e	each season.	•	explain and	 explore the 	movement of the		the object that
			demonstrate how a	correlation	Moon relative to		casts them.
			shadow is formed.	between pitch		•	explain how
		•	explore shadow	the object	 explain and 		simple optical
			size and explain.	producing a s			instruments work
		•	explain the danger	 explore the 	night and day are	•	explain how the
			of direct sunlight	correlation	created.		number & voltage
			and describe how	between the	 describe the Sun, 		of cells in a
			to keep protected.	volume of a so			circuit links to
		•	explore and	and the stren	igth (using the term		the brightness of
			describe how	of the vibrati			a lamp or the
			objects move on	that produced	•		volume of a
			different surfaces.	 describe what 	. J /		buzzer.
		•	explain how some	happens to a		•	compare and give
			forces require	as it travels o	· 1		reasons for why
			contact and some	from its sour	. ,		components work
			do not, giving	 identify and r 			and do not work
			examples.	applications t			in a circuit.
		•	explore and explain	require electi	·	•	draw circuit
			how objects	to function.	 identify and 		diagrams using
			attract and repel in	construct a se	eries explain the		correct symbols.
			relation to objects	circuit.	effect of water		
			and other magnets.	 identify and r 	name resistance.		
		•	predict whether	the componer	,		
			objects will be	a series circu			
1			magnetic and carry	 draw a circuit 			
			out an enquiry to	diagram.	friction.		
			test this out.	 predict and to 			
		•	describe how	whether a lan	np will levers, pulleys		
			magnets work.	light within a	and gears allow a		



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	 predict whether magnets will attract or repel and give a reason. 	circuit. describe the function of a switch in a circuit. describe the difference between a conductor and insulators	smaller force to have a greater effect.	
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