

Year 6 Science			
	<u>Autumn Term 1</u>		
<u>Topic</u>	<u>Objectives linked to curriculum</u>	<u>Working Scientifically</u>	<u>Vocabulary</u>
<u>Changes to materials</u> <u>(reversible and irreversible)</u> <u>(Y5 objective)</u>	- I can explore reversible changes, including, evaporating, - I can explore the reversible change of filtering. - I can explore the reversible change of sieving. - I can explore the reversible change of melting. - I can explore the reversible change of dissolving, - I can recognise that melting and dissolving are different processes. (Yr. 5 Objectives)	WS1 planning different types of scientific enquiries to answer questions, including recognising and controlling variables where necessary WS2 taking measurements, using a range of scientific equipment, with increasing accuracy and precision, taking repeat readings when appropriate WS3 recording data and results of increasing complexity using scientific diagrams and labels, classification keys, tables, scatter graphs, bar and line graphs WS4 using test results to make predictions to set up further comparative and fair tests WS5 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 WS6 identifying scientific evidence that has been used to support or refute ideas or arguments. WS7 explore and talk about their ideas; asking their own questions about scientific phenomena; and analysing functions, relationships and interactions more systematically.	Thermal/electrical insulator/conductor, change of state, mixture, dissolve, solution, soluble, insoluble, filter, sieve, reversible/non-reversible change, burning, rusting, new material

		WS8 recognise that scientific ideas change and develop over time. WS9 draw conclusions based on their data and observations, use evidence to justify their ideas, and use their scientific knowledge and understanding to explain their findings. WS10 Pupils should read, spell and pronounce scientific vocabulary correctly.	
	<u>Year 6 Autumn Term 2</u>		
<u>Topic</u>	Objectives linked to curriculum	Working Scientifically	Vocabulary
<u>Light</u>	- I can understand Light appears to travel in straight lines, and we see objects when light from them goes into our eyes. - I can understand the light may come directly from light sources, but for other objects some light must be reflected from the object into our eyes for the object to be seen. - I can understand Objects that block light (are not fully transparent) will cause shadows. Because light travels in straight lines the shape of the shadow will be the same as the outline shape of the object.	WS1 planning different types of scientific enquiries to answer questions, including recognising and controlling variables where necessary WS2 taking measurements, using a range of scientific equipment, with increasing accuracy and precision, taking repeat readings when appropriate WS3 recording data and results of increasing complexity using scientific diagrams and labels, classification keys, tables, scatter graphs, bar and line graphs WS4 using test results to make predictions to set up further comparative and fair tests WS5 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	As for Year 3 - Light, Light, light source, dark, absence of light, transparent, translucent, opaque, shiny, matt, surface, shadow, reflect, mirror, sunlight, dangerous New vocabulary straight lines, light rays

		WS6 identifying scientific evidence that has been used to support or refute ideas or arguments. WS7 explore and talk about their ideas; asking their own questions about scientific phenomena; and analysing functions, relationships and interactions more systematically. WS8 recognise that scientific ideas change and develop over time. WS9 draw conclusions based on their data and observations, use evidence to justify their ideas, and use their scientific knowledge and understanding to explain their findings. WS10 Pupils should read, spell and pronounce scientific vocabulary correctly.	
	<u>Year 6 Spring Term 1</u>		
<u>Topic</u>	<u>Objectives Linked to curriculum</u>	<u>Working Scientifically</u>	<u>Vocabulary</u>
<u>Electricity (what affects bulb brightness, buzzer volume, voltage, symbols)</u>	- I can understand Adding more cells to a complete circuit will make a bulb brighter, a motor spin faster or a buzzer make a louder sound. - I can understand that if you use a battery with a higher voltage, the same thing happens. - I can understand Adding more bulbs to a circuit will make each bulb less bright.	WS1 planning different types of scientific enquiries to answer questions, including recognising and controlling variables where necessary WS2 taking measurements, using a range of scientific equipment, with increasing accuracy and precision, taking repeat readings when appropriate WS3 recording data and results of increasing complexity using scientific diagrams and	Circuit, complete circuit, circuit diagram, circuit symbol, cell, battery, bulb, buzzer, motor, switch,

	- I can understand Using more motors or buzzers, each motor will spin more slowly and each buzzer will be quieter. - I can understand turning a switch off (open) breaks a circuit so the circuit is not complete and electricity cannot flow. Any bulbs, motors or buzzers will then turn off as well. - I can use recognised circuit symbols to draw simple circuit diagrams.	labels, classification keys, tables, scatter graphs, bar and line graphs WS4 using test results to make predictions to set up further comparative and fair tests WS5 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 WS9 draw conclusions based on their data and observations, use evidence to justify their ideas, and use their scientific knowledge and understanding to explain their findings. WS10 Pupils should read, spell and pronounce scientific vocabulary correctly.	voltage N.B. Children do not need to understand what voltage is, but will use volts and voltage to describe different batteries. The words “cells” and “batteries” are now used interchangeably
	<u>Year 6 Spring Term 2</u>		
<u>Topic</u>	<u>Objectives linked to curriculum</u>	<u>Working Scientifically</u>	<u>Vocabulary</u>
<u>Living things and their Habitats</u>	- I can describe how living things are classified into broad groups according to common observable characteristics and based on similarities and differences, including micro-organisms. - I can describe how living things are classified into broad groups according to common observable characteristics and based on similarities and differences, plants. - I can describe how living things are classified into broad groups according to common	WS5 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 WS6 identifying scientific evidence that has been used to support or refute ideas or arguments. WS7 explore and talk about their ideas; asking their own questions about scientific phenomena; and analysing functions,	Vertebrates, fish, amphibians, reptiles, birds, mammals, invertebrates, insects, spiders, snails, worms,

	observable characteristics and based on similarities and differences, animals. - I can give reasons for classifying plants and animals based on specific characteristics. - I can recognise that broad groupings, such as micro-organisms, plants and animals can be subdivided. - I can classify animals into commonly found invertebrates (such as insects, spiders, snails, worms) and vertebrates (fish, amphibians, reptiles, birds and mammals). (Y4) - I can find out about significance of the work of scientists such as Carl Linnaeus, a pioneer of classification	relationships and interactions more systematically. WS8 recognise that scientific ideas change and develop over time. WS9 draw conclusions based on their data and observations, use evidence to justify their ideas, and use their scientific knowledge and understanding to explain their findings. WS10 Pupils should read, spell and pronounce scientific vocabulary correctly.	flowering, non-flowering
	<u>Year 6 Science Summer Term 1</u>		
<u>Topic</u>	<u>Objectives linked to the curriculum</u>	<u>Working Scientifically</u>	<u>Vocabulary</u>
<u>Animals including humans</u>	- I can identify and name the main parts of the human circulatory system, and describe the functions of the heart, blood vessels and blood Activity: Create a role play model for the circulatory system. - I can recognise the impact of diet, exercise, drugs and lifestyle on the way their bodies function Activity: Carry out a range of pulse rate investigations: ▀ fair test – effect of different activities on my pulse rate ▀ pattern seeking – exploring which groups of people may have higher or lower resting pulse rates ▀ observation over time - how long does it take my pulse rate to return to my resting pulse rate (recovery rate) ▀ pattern	WS1 planning different types of scientific enquiries to answer questions, including recognising and controlling variables where necessary WS2 taking measurements, using a range of scientific equipment, with increasing accuracy and precision, taking repeat readings when appropriate WS3 recording data and results of increasing complexity using scientific diagrams and labels, classification keys, tables, scatter graphs, bar and line graphs WS4 using test results to make predictions to set up further comparative and fair tests	Heart, pulse, rate, pumps, blood, blood vessels, transported, lungs, oxygen, carbon dioxide, nutrients, water, muscles, cycle,

	seeking – exploring recovery rate for different groups of people. - I can describe the ways in which nutrients and water are transported within animals, including humans. - I can explore questions to understand how the circulatory system enables the body to function. - I can learn how to keep their bodies healthy and how their bodies might be damaged – including how some drugs and other substances can be harmful to the human body. - Activity: - Research the negative effects of drugs (e.g. tobacco) and the benefits of a healthy diet and regular exercise by asking an expert or using carefully selected secondary sources. - I can explore the work of scientists and scientific research about the relationship between diet, exercise, drugs, lifestyle and health.	WS5 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 WS6 identifying scientific evidence that has been used to support or refute ideas or arguments. WS7 explore and talk about their ideas; asking their own questions about scientific phenomena; and analysing functions, relationships and interactions more systematically. WS8 recognise that scientific ideas change and develop over time. WS9 draw conclusions based on their data and observations, use evidence to justify their ideas, and use their scientific knowledge and understanding to explain their findings. WS10 Pupils should read, spell and pronounce scientific vocabulary correctly.	circulatory system, diet, exercise, drugs, lifestyle
	<u>Year 6 Summer Term 2</u>		
<u>Topic</u>	<u>Objectives linked to the curriculum</u>	<u>Working Scientifically</u>	<u>Vocabulary</u>
<u>Evolution and Inheritance</u>	- I can recognise that living things have changed over time and that fossils provide information about living things that inhabited the Earth millions of years ago. - I can recognise that living things produce offspring of the same kind, but normally	WS6 identifying scientific evidence that has been used to support or refute ideas or arguments. WS7 explore and talk about their ideas; asking their own questions about scientific phenomena; and analysing functions,	Offspring, sexual reproduction, vary, characteristics, suited, adapted,

	offspring vary and are not identical to their parents - I can identify how plants are adapted to suit their environment in different ways and that adaptation may lead to evolution. - I can identify how animals are adapted to suit their environment in different ways and that adaptation may lead to evolution. - I can begin to understand that characteristics are passed from parents to their offspring, (i.e. different breeds of dogs, and what happens when, for example, Labradors are crossed with poodles). - I can appreciate that variation in offspring over time can make animals more or less able to survive in particular environments. (for example, by exploring how giraffes' necks got longer). - I can find out about the work of palaeontologists such as Mary Anning. I can find out about how Charles Darwin and Alfred Wallace developed their ideas on evolution.	relationships and interactions more systematically. WS8 recognise that scientific ideas change and develop over time. WS9 draw conclusions based on their data and observations, use evidence to justify their ideas, and use their scientific knowledge and understanding to explain their findings. WS10 Pupils should read, spell and pronounce scientific vocabulary correctly.	environment, inherited, species, fossils
--	---	--	--