The Science Curriculum at Winford

	Biology		Chemistry		Physics

	Term 1	Term 2	Term 3	Term 4	Term 5	Term 6
Year 1	Animals including humans: -classify fish, amphibians, reptiles, birds and mammals -carnivores, herbivores and omnivores		Everyday materials: -identify: wood, plastic, glass, metal, water, and rock - describe and compare materials based on physical properties		Plants: -deciduous and evergreen -label leaves, flowers, petals, roots, bulb, seed, trunk, stem	Seasonal changes: -the four seasons - the weather linked to the seasons and how the day length changes
Working Scientifically	-Ask simple questions and recognise they can be answered in different ways. -Observe closely using simple equipment. Perform simple tests. Identify and classify. Use observations					
Year 2	Animals including humans: -animal offspring -that animals need water, food and air -importance of healthy food and exercise for humans		Use of everyday materials: identify and compare the suitability of materials for different uses -manipulating solid objects (squashing, bending, twisting)		Plants: -how seeds and bulbs grow - discover what plants needs to grow healthy	Living things and their habitats: -things that are living, dead and have never been alive -habitats - simple food chains
Working Scientifically	-Ask simple questions and recognise they can be answered in different ways. -Observe closely using simple equipment. -Perform simple tests. -Identify and classify. -Use observations and ideas to suggest answers to questions. -Gather and record data to help answer questions					
Year 3	Animals including humans: -nutrition for animals and humans Skeletons and muscles	Light: -why we need light -that the darkness is the absence of light -light reflects - that the sun can be dangerous -how	Rocks: -compare properties of rocks -how fossils are formed -that soils are made from rocks	Forces and magnets: -how things move on different surfaces -magnetic forces act at a distance -	Plants: -functions of: roots, flower, leaves, stem - requirements of different plants -how water is transported through plants -pollination and seeds	

		shadows are formed and how they change		magnets: attracting, repelling, the poles and which objects are magnetic		
Working Scientifically	-Ask relevant questions and use different types of scientific equipment to answer them. -Set up simple practical enquiries, comparative and fair tests. -Make systematic and careful observations and, where appropriate, take accurate measurements using standard units, using a range of equipment including thermometers and data loggers. -Gather, record, classify and present data in a variety of ways to help answer questions. -Record findings using simple scientific language, drawings, labelled diagrams, keys, bar charts and tables. -Report on findings from enquiries, including oral and written explanations, displays or presentations of results and conclusions. -Use results to draw simple conclusions, make predictions for new values, suggest improvements and raise further questions. -Identify differences, similarities or changes related to simple scientific ideas and processes. -Use straightforward scientific evidence to answer questions or to support their findings.					
Year 4	Animals including humans: -digestive system -types of teeth -food chains, predators and prey	Living things and their habitats: -grouping living things -use classification keys -environmental changes and dangers	Sound: how sounds are made -how vibrations travel -pitch and volume	Electricity: -appliances that use electricity -simple series circuits (cell, wires, bulbs, switches and buzzers) -switches -conductors and insulators	States of matter: -solids, liquids and gasses -changing states when heated or cooled (degrees Celsius) -evaporation, condensation and the water cycle	
Working Scientifically	Ask relevant questions and use different types of scientific equipment to answer them. -Set up simple practical enquiries, comparative and fair tests. -Make systematic and careful observations and, where appropriate, take accurate measurements using standard units, using a range of equipment including thermometers and data loggers. -Gather, record, classify and present data in a variety of ways to help answer questions. -Record findings using simple scientific language, drawings, labelled diagrams, keys, bar charts and tables. -Report on findings from enquiries, including oral and written explanations, displays or presentations of results and conclusions. -Use results to draw simple conclusions, make predictions for new values, suggest improvements and raise further questions. -Identify differences, similarities or changes related to simple scientific ideas and processes. -Use straightforward scientific evidence to answer questions or to support their findings.					
Year 5	Animals including humans: -changes as	Living things and their habitats: differences in the	Earth & Space: -movement of the earth and planets	Forces: -gravity -air resistance, water	Properties of materials: - Solubility	Changes in materials:

	humans develop to old age	life cycles of: mammals, amphibians, insects and birds - reproduction in plants and animals	relative to the sun - movement of the moon relative to the earth -the earth's rotation day and night	resistance and friction - mechanisms, levers, pulleys and gears	- Hardness - Conductors and insulators - filtering materials	-Reversible and irreversible changes -Chemical, rusting and burning reactions. - Evaporation and condensation.
Working Scientifically	-Plan different types of scientific enquiries to answer questions, including recognising and controlling variables where necessary. -Take measurements, using a range of scientific equipment, with increasing accuracy and precision, taking repeat readings when appropriate. -Record data and results of increasing complexity using scientific diagrams and labels, classification keys, tables, scatter graphs, bar and line graphs. -Use test results to make predictions to set up further comparative and fair tests. -Report and present findings from enquiries, including conclusions, causal relationships and explanations of degree of trust in results, in oral and written forms such as displays or other presentations. -Identify scientific evidence that has been used to support or refute ideas or arguments.					
Year 6	Animals including humans: -circulatory system -impact of diet, exercise and drugs on the function of bodies -describe how nutrients and water are transported in animals	Light: - recognise that light appears to travel in straight lines -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	Electricity: -associate brightness or lamp or volume of buzzers with voltage and number of cells - changes in brightness of bulbs and loudness of buzzers -use symbols to draw circuit diagrams	Living things and their habitats: -detailed classification of micro-organisms, animals and plants -give reasons for classification based on characteristics	Evolution and inheritance: -the information that fossils provide -variation and adaptation	Looking after our environment: -explore what the climate is, how it changes, the difference between a man-made and natural environment -where different types of animals live - explore how to reduce rubbish and energy consumption -compare data

		-explain why shadows have the same shape as the objects that cast them				associated with weather
Working Scientifically	-Plan different types of scientific enquiries to answer questions, including recognising and controlling variables where necessary. -Take measurements, using a range of scientific equipment, with increasing accuracy and precision, taking repeat readings when appropriate. -Record data and results of increasing complexity using scientific diagrams and labels, classification keys, tables, scatter graphs, bar and line graphs. -Use test results to make predictions to set up further comparative and fair tests. -Report and present findings from enquiries, including conclusions, causal relationships and explanations of degree of trust in results, in oral and written forms such as displays or other presentations. -Identify scientific evidence that has been used to support or refute ideas or arguments.					