

KS2 Science 2016-17

Age-Related Assessment Objectives

	Year 5				Year 6			
	5E	5D	5S	5M	6E	6D	6S	6M
Topic 1	<p>Pupils will be able to able to 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.</p> <p>Pupil will be able to record data and results of increasing complexity using scientific diagrams and labels, classification keys, tables, and bar and line graphs.</p> <p>Pupils will be able to use test results to make predications to set up further comparative and fair tests.</p> <p>Pupils will be able to report and present findings from enquiries, including conclusions, causal relationship and explanations of results, in oral and written forms such as displays and other presentations.</p> <p>Pupils will be able to identify scientific evidence that has been used to support or refute ideas or arguments.</p>				<p>Pupils will be able to identify and name the main parts of the human circulatory system, and describe the functions of the heart, blood vessels and blood.</p> <p>Pupils will be able to recognise the impact of diet, exercise, drugs and lifestyle on the way their bodies function.</p> <p>Pupils will be able to describe the ways in which nutrients and water are transported within animals, including humans.</p> <p>Pupils will be able to discover the beneficial and harmful effects of different microbes on the human body.</p> <p>Pupils will be able to look at the role of microbes and drugs in diseases.</p>			
Topic 2	<p>Pupils will be able to describe the movement of the Earth, and other planets, relative to the Sun in the solar system.</p> <p>Pupils will be able to describe the movement of the Moor relative to the Earth.</p> <p>Pupils will be able to describe the Sun, Earth and Moon as approximately spherical bodies.</p> <p>Pupils will be able to use the idea of the Earth's rotation to explain day and night, and the apparent movement of the sun across the sky.</p>				<p>Pupils can associate the brightness of a lamp or the volume of a buzzer with the number and voltage of cells sued in the circuit.</p> <p>Pupils can compare and give reasons for variations in how components function, including the brightness of bulbs, the loudness of buzzers and the on/off position of switches.</p> <p>Pupils can recognise symbols when representing a simple circuit in a diagram.</p>			
Topic 3	<p>Pupils will 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.</p> <p>Pupils will give reasons, based on evidence from comparative and fair tests, for the particular uses of everyday materials, including metals, wood and plastic.</p> <p>Pupils will classify materials as solids, liquids or gases. Describe how some materials can change state. Be able to describe these changes using correct scientific vocabulary.</p> <p>They will also know the water cycle.</p> <p>Pupils will know that some materials will dissolve in liquid to form a solution, and describe how to recover a substance from a solution.</p> <p>Pupils will use knowledge of solids, liquids and gases to decide how mixtures might be separated, including through filtering, sieving and evaporating.</p> <p>Pupils will demonstrate that dissolving, mixing and changes of state are reversible changes.</p> <p>Pupils will 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.</p>				<p>Pupils will be able to discuss plants as living things, concentrating on plants producing good by photosynthesis.</p> <p>Pupils will be able to investigate the interdependence of plants and animals using food chains and webs.</p> <p>Pupils will be able to look at the history of classification of living things from Aristotle to the present day.</p> <p>Pupils will be able to study the binomial system introduced by Linnaeus and the 7 levels of classification used today.</p> <p>Pupils will be able to understand why classification is important and use and create classification keys.</p>			
Topic 4	<p>Pupils will be able to describe some life cycles of mammals, amphibians, insects and birds, including some unusual examples like egg-laying mammals and marsupials.</p> <p>They will compare complete and incomplete metamorphosis.</p> <p>Pupils will find out about well-known naturalist and animal behaviourists. Propagate plans from different parts of the parent plant.</p>				<p>Pupils will recognise that light appears to travel in straight lines.</p> <p>Pupils will use the idea that light travels in straight lines to explain that objects are seen because they give out objects light into the eye.</p> <p>Pupils will 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.</p> <p>Pupils will use the idea that light travels in straight lines to explain why shadows have the same shape as the objects that cast them.</p>			

Topic 5	<p>Pupils will be able to explain that unsupported objects fall towards Earth because of the force of gravity acting between the Earth and the falling object.</p> <p>Pupils will be able to identify the effects of air resistance, water resistance and friction that act between moving surfaces.</p> <p>Pupils will be able to recognise that some mechanisms including levers, pulleys and gears allow a smaller force to have a greater effect.</p>	<p>Pupils will recognise that living things have changed over time and that fossils provide information about living things that inhabited the Earth millions of years ago.</p> <p>Pupils will recognise that living things produce offspring of the same kind, but normally offspring vary and are not identical to their parents.</p> <p>Pupils will identify how animals and plants are adapted to suit their environment in different ways and that adaptation may lead to evolution.</p>
Topic 6	<p>Pupils will be able to describe the changes as humans develop to old age.(Topic 6)</p>	