

# YEAR 7 SCIENCE CURRICULUM OVERVIEW

Autumn Term 2017



UNIT	Objectives	Resources & Websites
Measurements	<ul style="list-style-type: none"> <li>• To use equipment safely and for the right purpose.</li> <li>• To learn the names and symbols of common lab equipment.</li> <li>• To take measurements of common quantities and record them in tables.</li> <li>• To learn the units of measurements for common</li> </ul>	<ul style="list-style-type: none"> <li>• A variety of basic lab equipment</li> <li>• Essentials of Science Text book</li> <li>• <a href="http://www.bbc.co.uk/schools/ks3bitesize/">www.bbc.co.uk/schools/ks3bitesize/</a></li> </ul> <p><a href="http://www.bbc.co.uk/schools">www.bbc.co.uk/schools</a></p>
Cells to organisms	<ul style="list-style-type: none"> <li>• Identify the seven characteristics of living things and relate these to a wide range of organisms in the local and wider environment.</li> <li>• Recognise the positions, and know the functions of the major organs of flowering plants, e.g. root, stem, leaf.</li> <li>• Recognise the positions and know the functions of the major organ systems of the human body.</li> <li>• Identify the structures present in plant and animal cells as seen with a simple light microscope and/or a computer microscope.</li> <li>• Compare the structure of plant and animal cells.</li> <li>• Relate the structure of some common cells to their functions.</li> <li>• Understand that cells can be grouped together to form tissues, organs and organisms.</li> <li>• Explore the role of the skeleton and joints and the principle of antagonistic muscles.</li> </ul>	<ul style="list-style-type: none"> <li>• Essentials of Science Text book</li> <li>• <a href="http://www.bbc.co.uk/schools/ks3bitesize/">www.bbc.co.uk/schools/ks3bitesize/</a></li> </ul> <p><a href="http://www.bbc.co.uk/schools">www.bbc.co.uk/schools</a></p>
States of Matter	<ul style="list-style-type: none"> <li>• Show in outline how the particle theory of matter can be used to explain the properties of solids, liquids and gases, including changes of state.</li> </ul>	<ul style="list-style-type: none"> <li>• <a href="http://www.bbc.co.uk/schools/ks3bitesize/science/organisms_behaviour_health/">http://www.bbc.co.uk/schools/ks3bitesize/science/organisms_behaviour_health/</a></li> <li>• Essentials of Science Text book</li> </ul>

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Energy changes	<ul style="list-style-type: none"><li>• Compare power ratings of appliances in watts (W, kW)</li><li>• Compare amounts of energy transferred (J, kJ, kW hour)</li><li>• Understand domestic fuel bills, fuel use and costs</li><li>• State different fuels and energy resources.</li><li>• Understand energy as a quantity that can be quantified and calculated; the total energy has the same value before and after a change</li><li>• Describe other processes that involve energy transfer: changing motion, dropping an object, completing an electrical circuit, stretching a spring, metabolism of food, burning fuels.</li><li>• Understand heating and thermal equilibrium: temperature difference between two objects leading to energy transfer from the hotter to the cooler one, through contact (conduction) or radiation; such transfers tending to reduce the temperature difference: use of insulators</li></ul>	<ul style="list-style-type: none"><li>• <a href="http://www.bbc.co.uk/schools/ks2bitesize/">www.bbc.co.uk/schools/ks2bitesize/</a></li></ul> <p><a href="http://www.bbc.co.uk/schools">www.bbc.co.uk/schools</a></p> <ul style="list-style-type: none"><li>• <a href="http://www.bbc.co.uk/education/topics/zc3q87h">http://www.bbc.co.uk/education/topics/zc3q87h</a></li><li>• <a href="http://www.bbc.co.uk/schools/ks3bitesize/">www.bbc.co.uk/schools/ks3bitesize/</a></li><li>• Keystage 3 revision guide</li><li>• Google classroom</li></ul>