

YEAR 7 SCIENCE CURRICULUM OVERVIEW

Autumn Term 2017



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

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Energy changes	<ul style="list-style-type: none">• Compare power ratings of appliances in watts (W, kW)• Compare amounts of energy transferred (J, kJ, kW hour)• Understand domestic fuel bills, fuel use and costs• State different fuels and energy resources.• Understand energy as a quantity that can be quantified and calculated; the total energy has the same value before and after a change• Describe other processes that involve energy transfer: changing motion, dropping an object, completing an electrical circuit, stretching a spring, metabolism of food, burning fuels.• 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	<ul style="list-style-type: none">• www.bbc.co.uk/schools/ks2bitesize/ <p>www.bbc.co.uk/schools</p> <ul style="list-style-type: none">• http://www.bbc.co.uk/education/topics/zc3q87h• www.bbc.co.uk/schools/ks3bitesize/• Keystage 3 revision guide• Google classroom