



KS4 Learning overview

Subject: Combined Science

Exam board: AQA

Year 11		
Term	Topics	Extra learning opportunities
Autumn 1	<ol style="list-style-type: none">1. Rate and extent of chemical change2. Organic Chemistry	<p>Research the effect of temperature on rate of reaction by making lava at home. Write a report on the outcome. Make sure you include pictures of your fun experiment.</p> <p>Use this link: Make an Alka-Seltzer Powered Lava Lamp STEM Activity (sciencebuddies.org)</p> <p>Find out how perfumes are made and what are the key ingredients in them</p>
Autumn 2	<ol style="list-style-type: none">1. Chemical Analysis2. Chemistry of the atmosphere	<p>Research how chemical analysis is used in forensic science to solve a crime scene</p> <p>Using the link below, monitor the levels of pollutants example sulfur dioxide, particulates on a daily basis for a week, and write down what you notice, for example are there certain days or time of day where pollutants are highest/lowest and why you think that might be</p> <p>Latest measured levels based on data provided by the Environment Agency - Defra, UK.</p>
Spring 1	<ol style="list-style-type: none">1. Earth's resources2. Forces	<p>Worldwide one in three people do not have access to safe drinking water. Research how different countries get their water</p> <p>How Different Countries Get Their Water (businessinsider.com)</p> <p>Magazines and journals:</p> <p>Physics World- The Institute of Physics own magazine covering current Physics research and latest developments</p> <p>New Scientist- Reports on current developments from across the world of science</p>

		<p>BBC Science News- the latest news in science from around the world</p> <p>Science Daily- Website featuring the latest Science developments, with a specific area for Physics research</p> <p>Specific Topic resources:</p> <p>Formula 1 Car Development And Production HOW IT'S MADE - YouTube</p> <p>BBC Documentary - Super Sub USS Submarines Ultimate Structures -National Geographic - YouTube</p> <p>How Gravity Shapes The Human Body With Jim Al-Khalili Gravity And Me Spark - YouTube</p> <p>Gravity, size and mass Physics - Wonders of Life - YouTube</p> <p>BBC iPlayer - Brian Coxs Adventures in Space and Time - Series 1: 3. What Is Gravity?</p>
Spring 2	1. Waves	<p>Magazines and journals:</p> <p>Physics World- The Institute of Physics own magazine covering current Physics research and latest developments</p> <p>New Scientist- Reports on current developments from across the world of science</p> <p>BBC Science News- the latest news in science from around the world</p> <p>Science Daily- Website featuring the latest Science developments, with a specific area for Physics research</p> <p>Specific Topic resources:</p> <p>Electromagnetism: Documentary on How the Electromagnetic Spectrum Works (Full Documentary) - YouTube</p> <p>NASA - Tour of the Electromagnetic Spectrum - YouTube</p> <p>How to Measure the Speed of Light with Marshmallows - Christmas Lectures with Neil Johnson - YouTube</p> <p>Light waves, visible and invisible - Lucianne Walkowicz - YouTube</p>

	<p>2. Magnets and electromagnets</p>	<p>Magazines and journals:</p> <p>Physics World- The Institute of Physics own magazine covering current Physics research and latest developments</p> <p>New Scientist- Reports on current developments from across the world of science</p> <p>BBC Science News- the latest news in science from around the world</p> <p>Science Daily- Website featuring the latest Science developments, with a specific area for Physics research</p> <p>Specific Topic resources:</p> <p>Nikola Tesla Documentary The Forgotten Inventor - YouTube</p> <p>Research Nikola Tesla, and how electric cars work.</p>
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