

EASTBURY SUBJECT CURRICULUM

Subject	Science Year 9
Overview	<p>Students in Year 9 will complete Unit 1 study Modules in preparation for their GCSE Science course. This means students will begin GCSE science in year 9. Students will study all three sciences; Biology; Chemistry and Physics. As part of this course, students will complete practical's to demonstrate their investigative skills.</p> <p>Students will also complete work in preparation for controlled assessments which involve a student designing and carrying out their own experiment and answering questions about this during an internal examination. One significant difference from Year 7 and year 8 is that students will be expected to write long answer explanations on topics and theories that they have learnt in science. These answers will need to focus on their spelling, punctuation and grammar alongside their scientific knowledge.</p>
Term by term	
Autumn	<p>BIOLOGY</p> <p>This unit covers seven different topics. These include the following: Keeping Healthy- looking at diets, human health and disease.; Co-ordination and control- Reflex actions, plant and human hormones; Medicine and drugs- Development of new medicines and legal and illegal drugs; Adaptation for Survival- Animal and plant adaptations and competition; Energy in Biomass- Pyramids of Biomass, Decay and the Carbon cycle; Variation, reproduction and new technology- Types of reproduction, cloning and genetic engineering; Evolution- Theories, natural selection and classification. Students will carry out practical investigations where possible to explore these in depth.</p>
Spring	<p>CHEMISTRY</p> <p>This unit covers seven different topics. These include the following: Fundamental Ideas- Atomic structure, forming bonds and chemical equations; Rocks and building materials- Reactions in carbonates, Limestone cycle, cement and concrete; Crude oil and fuels-Fractional distillation, Burning fuels and alternative fuels; Products from oil- Cracking, making polymers and Ethanol; Plant oils-Extraction, Emulsions and Food issues; Our changing planet-Structure of the Earth, Earth's atmosphere in the past and future. Students will carry out practical investigations where possible to explore these in depth.</p>
Summer	<p>PHYSICS</p> <p>This unit covers six different topics. These include the following: Energy transfer by heating- Surfaces and radiation, Conduction, convection, evaporation and specific heat capacity; Using Energy- Forms of energy, conservation of energy, Efficiency; Electrical Energy- Calculating power and cost of electricity; Generating Electricity-Fossil fuels for electricity, Renewable energy, National Grid; Waves- Structure of waves, Wave behaviour, Sound; Electromagnetic waves- Electromagnetic spectrum, Expanding universe and the Big bang.</p>
Homework	<p>Students will have two teachers and will be given homework every week on a rotation. Homework tasks will consist of exam questions, research and or</p>

	short projects. Homework will be on www.showmyhomework.com .
Additional information	Students will follow the AQA GCSE SCIENCE A Course Unit 1 Biology, Chemistry and Physics.
Useful resources	Here are some helpful resources including course information www.aqa.org.uk –Search for GCSE SCIENCE A. Here you can access exam papers and mark schemes http://www.bbc.co.uk/schools/gcsebitesize/ - Click on Science AQA topics http://www.my-gcscience.com/ -Click on Core Science Videos