

Curriculum Overview

Subject: Science

Year Group: 9

Pupils are encouraged to secure knowledge into the importance of Science in the world around them. Pupils will continue to develop the powerful knowledge needed to go beyond the common understanding of science to a deeper, more rounded world view. With a focus on fundamental concepts, Apparatus and Techniques pupils will utilise the subject disciplinary knowledge needed to think, write, communicate and relate Scientific ideas to the wider world. Pupils will follow the national curriculum and have opportunities to undertake open ended investigations each term developing analytical and rational thought processes.

TERM 1	TERM 2	TERM 3
<p>KNOWLEDGE/SKILLS</p> <p>Biology: Intro to Cell biology, Cell division</p> <p>Chemistry: Intro to Atomic structure, Periodic table</p> <p>Physics: Intro to Energy Conservation, Energy transfer of heating.</p> <p>Skills:</p> <ul style="list-style-type: none"> • Development of scientific thinking (modelling). • Experimental skill and strategies (risks and variables) • Analysis and evaluation (graphing) • Use of scientific vocabulary, units and symbols. 	<p>KNOWLEDGE/SKILLS</p> <p>Biology: Intro to Organisation of digestive system</p> <p>Chemistry: Intro to Structure and bonding</p> <p>Physics: Intro to Energy resources</p> <p>Skills:</p> <ul style="list-style-type: none"> • Development of scientific thinking (modelling). • Experimental skill and strategies (risks and variables) • Analysis and evaluation (graphing) • Use of scientific vocabulary, units and symbols. 	<p>KNOWLEDGE/SKILLS</p> <p>Biology: Intro to Organisation of animals and plants</p> <p>Chemistry: Intro to Chemical calculations</p> <p>Physics: Intro to Electricity and circuits</p> <p>Skills:</p> <ul style="list-style-type: none"> • Development of scientific thinking (modelling). • Experimental skill and strategies (risks and variables) • Analysis and evaluation (graphing) • Use of scientific vocabulary, units and symbols.
<p>KEY ASSESSMENTS</p> <p>Half term 1: Extended writing – History of the atom</p> <p>Half term 2: Investigation focus – Variables EOT test</p>	<p>KEY ASSESSMENTS</p> <p>Half term 1: Extended writing – uses of bonding, Topic test</p> <p>Half term 2: Investigation focus – Maths skills in Science, EOT test</p>	<p>KEY ASSESSMENTS</p> <p>Half term 1: Chapter 4 topic tests</p> <p>Half term 2: PPE's</p>

Extended reading suggestions and external resources:

KS4 Bitesize Science <https://www.bbc.co.uk/bitesize/subjects/zrkw2hv>

Oak National Academy Lessons <https://classroom.thenational.academy/subjects-by-key-stage/key-stage-4/subjects/combined-science>

Chase High Youtube Playlists <https://www.youtube.com/channel/UCSK4ImJfi5sPH4UBp7cZtyQ>

We actively encourage pupils to read and research about the wider Scientific world- Planet Earth and Perfect Planet both on BBC iPlayer are examples of where pupils can engage with Science from the safety and comfort of their own homes.