

 **Key Stage 4**

 **AQA Science Double Award with GCSE extension**

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|  | **Autumn term** |  |  | **Spring term** |  |  | **Summer term** |
| **Year 11** | **Component 2: Environment, evolution & inheritance.****Key elements of the module:*** Understanding the processes involved in photosynthesis
* Exploring interaction between organisms
* Considering how natural selection has led to the variety of life on Earth

**Suggested ELC TDA**: Investigating the conditions in which bread goes mouldy |  | **Yaar 11** | **Component 4: Chemistry in our world****Key elements of the module:*** Understanding the reactions of acids
* Investigating energy transfers in chemical reactions and rated of reactions
* Exploring the structure of the Earth’s atmosphere

**Suggested ELC TDA:** Investigating variables that affect the rate of reaction. |  | **Year 11** | **Component 6: Electricity, magnetism & waves****Key elements of the module:*** Understanding electric current as a flow of electric charge
* Investigating magnets and electromagnets
* Exploring transverse and longitudinal waves including electromagnetic waves

**Suggested ELC TDA:** Investigating the range over which a Bluetooth device is effective. |

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|  | **Autumn term** |  |  | **Spring term** |  |  | **Summer term** |
| **Year 10** | **Component 1: the Human Body****Key knowledge:*** Understanding how the body is organised
* Exploring how the body’s processes are co-ordinated
* Looking at how health and disease can impact our body

**Suggested ELC TDA:** Investigating which food (biscuits or crisps) contain the most energy.*Where practicable some elements of this topic will be taught at the end of KS3 at the point that all KS3 knowledge is secure* |  | **Year 10** | **Component 3: Elements, mixtures & compounds****Key elements of the module:*** Understanding that everything in the Universe is made of atoms.
* Know that mixtures contain two or more elements and that these can be separated.
* Understand that compounds are formed when two or more elements are joined by chemical bonds.

**Suggested ELC TDA**: Investigating the different colours in food colouring using paper chromatography |  | **Year 10** | **Component 5: Energy, forces & the structure of matter.****Key elements of the module:*** Understanding the principles behind energy stores and transfers
* Exploring how forces impact our everyday lives and the principle of work
* Looking at how nuclear radiation is produced

**Suggested ELC TDA:** Investigating which material keeps my cup of tea the hottest the longest. |