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| Scheme of Work  Science  Years 7 - 11 |
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| **Scheme of Work** | |
| **Science Years 7 - 11** | |
| Version Number | 1.0 |
| Implementation Date | 01 JULY 2017 |
| Peregrinate Scheme Manager | Angela Mollan, Chris Mollan |
| Approved by Senior Management | 01 JUNE 2017 |
| Approving Signature | Angela Mollan |
| Review Date | 01 JULY 2019 |

**Year 7 and 8**

In years 7 and 8, all students will study modules in Physics, Chemistry and Biology with a greater emphasis on 'How Science Works' - developing key scientific skills and laying the foundations for further study.

**Year 7 Curriculum**

The following is a list of modules taught over each term in Year 7. Pupils will be assessed at least twice per term.

**Autumn Term**

• Cells

• Particles

• Solar System

• Acids

• Variation and Classification

**Spring Term**

• Earth

• Reproduction

• Electrical Circuits

• Forces and their effects

**Summer Term**

• Magnets

• Plants

• Environmental relationships

# Year 8 Curriculum

The following is a list of modules taught over each term in Year 8. Pupils will be assessed at least twice per term.

### **Autumn Term**

* Light
* Food and nutrients
* Chemical reactions
* Heating and cooling

### **Spring Term**

* Inheritance
* Environmental Chemistry
* Energy and the Environment
* Exercise

### **Summer Term**

* Reactivity
* Staying healthy (microbes and disease)
* Pressure and moments

**Year 9 Curriculum**

In Year 9 most students will begin by starting to study the Pearson BTEC Edexcel Diploma Level 1 or 2 Applied Science. This is taught as Biology, Physics and Chemistry by specialist teachers. Peregrinate Ltd. Also plans to become an accredited centre for GCSE qualifications. All GCSE students will go on to cover the Core and Additional specifications, but with the majority aiming to complete separate qualifications in Biology, Physics and Chemistry.

Some students are working towards the Edexcel Level 1 and/or Level2 BTEC First Diploma in Applied Science. This combines equal proportions of the 3 sciences. It is a vocational course, incorporating more practical aspects of science. Students will be assessed mainly on their coursework and practical skills with a single written examination. A pass is the equivalent of 4 GCSE grade Cs, a merit is the equivalent of 4 GCSE grade Bs.

The Pearson BTEC Level 1/Level 2 First Award in Application of Science is taught over 120 guided learning hours (GLH). It has four mandatory units.

Learners must complete all mandatory units.

This BTEC First Award has units that the centre assesses (internal) and a unit that

Pearson sets and marks (external). The four mandatory units are:

Unit 5 Application of Chemical Substances Internal Assessment

Unit 6 Application of Physical Science Internal Assessment

Unit 7 Health Applications of Life Science Internal Assessment

Unit 8 Scientific Skills External Assessment

**Year 10 and 11 Curriculum**

The following is a list of modules taught in Years 10 and 11. Pupils will be assessed at least twice per term. Learners will be entered for the qualification that they are most likely to achieve the best grades for, BTEC Applied Science or separate GCSE’s as appropriate, as Peregrinate Ltd., aim to become an accredited GCSE centre.

### Biology

* 1. Cell biology
* 2. Organisation
* 3. Infection and response
* 4. Bioenergetics
* 5. Homeostasis and response
* 6. Inheritance, variation and evolution
* 7. Ecology

### Chemistry

* 8. Atomic structure and the periodic table
* 9. Bonding, structure, and the properties of matter
* 10. Quantitative chemistry
* 11. Chemical changes
* 12. Energy changes
* 13. The rate and extent of chemical change
* 14. Organic chemistry
* 15. Chemical analysis
* 16. Chemistry of the atmosphere
* 17. Using resources

### Physics

* 18. Energy
* 19. Electricity
* 20. Particle model of matter
* 21. Atomic structure
* 22. Forces
* 23. Waves
* 24. Magnetism and electromagnetism