**PLUME ACADEMY - LEARNING OVERVIEW**

| Year | 10 |
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| Course | GCSE Combined Science: Trilogy |
| Specification Number/Exam Board | AQA (8464) |
| End of course assessment and weightings | • Total of 6 exams, two in Biology, two in Chemistry and two in Physics<br>• Each paper is 1 hour 15 minutes.<br>• Foundation and Higher Tier<br>• 70 marks each<br><br>Total of 6 exams, two in Biology, two in Chemistry and two in Physics<br>Each paper is 1 hour 15 minutes<br>• Foundation and Higher Tier<br>• 70 marks<br><br>WHAT IS ON PAPERS 1 AND 2?<br><br><u>Paper 1</u>: (Higher and Foundation)<br>BIOLOGY:<br>• Cell Biology<br>• Organisation<br>• Infection and Response<br>• Bioenergetics<br><br>CHEMISTRY:<br>• Atomic structure and the periodic table<br>• Bonding, structure, and the properties of matter<br>• Quantitative chemistry<br>• Chemical changes<br>• Energy changes<br><br>PHYSICS:<br>• Energy<br>• Electricity<br>• Particle Model<br>• Atomic Structure<br><br><u>Paper 2</u>: (Higher and Foundation)<br><br>BIOLOGY:<br>1. Homeostasis and response<br>2. Inheritance, variation and evolution<br>3. Ecology<br><br>CHEMISTRY: |

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| | • The rate and extent of chemical change<br>• Organic chemistry<br>• Chemical analysis<br>• Chemistry of the atmosphere<br><br>PHYSICS:<br>• Forces<br>• Waves<br>• Magnetism and Electromagnetis |

**Prior Learning**

We teach content from the basics to give a consolidated base for all students to progress forward into their Key Stage 4 topics and concepts spiralling back and building on previous taught work. Many topics have been introduced at Key Stage 2 and have been sequenced to build challenge. Year 9 is used as a "bridging year" where key concepts and skills of KS4 are introduced.

**Curriculum Intent – What are the curriculum aims?**

• Develop scientific knowledge and conceptual understanding
• Develop understanding of the nature, processes and methods of science through different types of scientific enquiries that help them to answer scientific questions about the world around them
• Develop and learn to apply observational, practical, modelling, enquiry and problem-solving skills, both in the laboratory, in the field and in other learning environments
• Develop their ability to evaluate claims through critical analysis of the methodology, evidence and conclusions, both qualitatively and quantitatively.

**Curriculum Implementation – What will my child be learning?**

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| Term 1 | Half Term 1 | Biology: Homeostasis<br>Chemistry: The rate and extent of chemical change<br>Physics: Electricity part A |
| | Half Term 2 | Biology: Human reproduction & Communicable disease<br>Chemistry: Bonding, structure and the properties of matter part A<br>Physics: Electricity part B and energy part B |
| Term 2 | Half Term 3 | Biology: Communicable disease cont. & Variation and evolution<br>Chemistry: Bonding structure and chemical changes<br>Physics: Waves part A |
| | Half Term 4 | Biology: Communicable disease cont. & Variation and evolution<br>Chemistry: Bonding structure and chemical changes<br>Physics: Waves part A |
| Term 3 | Half Term 5 | Biology: Biodiversity<br>Chemistry: Quantitative calculations & Earth's resources<br>Physics: Nuclear Physics |
| | Half Term 6 | Biology: Biodiversity<br>Chemistry: Quantitative calculations & Earth's resources<br>Physics: Nuclear Physics |

**Curriculum Impact – How will progress be assessed as I learn?**

- Standard Homework Booklets that cover the current topic.
- 6 mark extended writing questions
- Homework tasks
- General marking and feedback from the teacher

**Super-Curricular Opportunities – Support and Extending Learning**

| Useful study resources | If a student is really passionate about this subject... | As a parent/carer, I can assist my child in this subject by: |
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| • BBC Bitesize<br>• Seneca Learning<br>• Oak National Academy | Watch TV documentaries (e.g. BBC iPlayer)<br>Listen to BBC Sounds podcasts on science related concepts | Encourage students to revise work on a weekly or fortnightly basis using their books and/or You tube, free science AQA videos to check their understanding.<br>Seneca learning.<br><br>From the January before the final exams, encourage students to draw up a revision timetable to aid their preparation. |