<table>
<thead>
<tr>
<th>Unit Name</th>
<th>Main Ideas</th>
<th>Duration</th>
<th>Assessment Item</th>
<th>Due Date</th>
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<tbody>
<tr>
<td>Polymers</td>
<td>Students will examine different types of reactions and consider the usefulness of the products and chemical processes, particularly polymers and pharmaceutical have been driven by societal needs and the impact this has had on society and the environment. They will explore how traditional knowledge has led to the development of new pharmaceuticals and issues related to the intellectual ownership of the knowledge of these products.</td>
<td>4 weeks</td>
<td>Assignment Extended Response Task (approx. 800 words)</td>
<td>Week 5 Tuesday 8th August</td>
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<td>Rates of Reaction</td>
<td>Students will explore the factors that affect the reaction rates through observation and experimentation. Students will plan, conduct, evaluate and report on an investigation into the reaction rate of a chemical process.</td>
<td>5 weeks</td>
<td>Practical Assignment Extended Experimental Investigation</td>
<td>Week 9 Tuesday 5th September</td>
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<tr>
<td>Physics of light and electricity</td>
<td>Students will explore the effect of mirrors and lenses on light waves, and investigate the relationship between voltage, current and resistance in electrical circuits. They will also consider the history of the study of these two phenomena, and how our understanding of these concepts has developed over time.</td>
<td>7 weeks</td>
<td>Exam 1hr Supervised Assessment Task</td>
<td>Week 8 Tuesday 21st November</td>
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**Literacy Components**
- Speaking and Listening: students will collaborate throughout the lessons
- Reading & Viewing: Students will engage with a variety of text types.
- Writing & Designing: The genres of informative, persuasive and evaluative writing, and short/long responses will be used.

**Numeracy Components**
- Number: students will work extensively with scientific notation, and use a range of strategies to solve chemical problems
- Algebra: Students will use chemical equations to solve problems
- Measurement: students will use a variety of measuring techniques and units in practical classes. The units involved in various forensic analysis techniques will be studied.

**ICT/Technology Components**
- Select and use ICTs in the processes of inquiry and research: throughout the course, students will access electronic sources of information, and use data-loggers / pH meters
- Select and use ICTs to create a range of responses to suit the purpose and audience:
- Select and use ICTs to collaborate and enhance communication for an identified purpose and audience: producing an evaluative forensic analysis report
- Develop and apply ethical, safe and responsible practices when working with ICTs:
- Use a range of advanced ICT functions and applications: