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| Unit Title | Elements and compounds | | | | |
| Subject group and discipline | Science | MYP year | 1 | Unit duration (hrs) | 18 |

Inquiry: Establishing the purpose of the unit

| Key concept | Related concept(s) | Global context <i>choose 1 and then drill down to exactly which aspect of these the unit will focus on</i> |
|--------------------|---------------------------|---|
| Relationships | Form | Scientific and technical innovation |

Statement of inquiry

Relationships can develop between different forms which are investigated through scientific and technical innovation

Inquiry questions

Factual—

What is an element, compound and mixture?

What is a solute, solvent and solution?

Name key scientific equipment used to separate mixtures.

What do the symbols and numbers mean in the formula for a compound?

Conceptual—

What is the difference between a chemical and physical change?

Describe what happens to a solid when it dissolves using key words such as solute, solvent and solution.

Describe how to separate mixtures into their different components using techniques such as filtration, evaporation and chromatography.

Debatable—

Is the periodic table the best way of arranging the elements?

Is clear water always pure water?

| Objectives | Summative assessment | |
|--|--|---|
| <p><i>Learning objectives for the unit</i></p> <p>Ai outline scientific knowledge Biii outline how to manipulate the variables, and outline how data will be collected Biv design scientific investigations. Cv describe improvements or extensions to the method. Dii describe and summarize the various implications of using science and its application in solving a specific problem or issue</p> | <p>Outline of summative assessment task(s) including assessment criteria:</p> <p>Goal: to show understanding of practical techniques learnt and an ability to interpret the results of these techniques.</p> <p>Role: Forensic Scientist</p> <p>Audience: Findings report for police</p> <p>Situation: Investigating a crime</p> <p>Produce a document outlining who committed the crime and give reasons using evidence from the information provided.</p> <p>Standards and criteria</p> <p>A i outline scientific knowledge</p> <p>D ii describe and summarise the various implications of using science and its application in solving a specific problem or issue.</p> <p>Working scientifically:</p> <p>Write a method for how to investigate how temperature affects the time for a solute to dissolve. B iii, Biv and Cv</p> <p>Exam Question: interpreting chemical formulae using the periodic table.</p> | <p>Relationship between summative assessment task(s) and statement of inquiry:</p> <p>Students will demonstrate they know how relationships can be investigated by planning a scientific method</p> |
| <p>Approaches to learning (ATL)</p> | | |

Thinking

Communication

Social

Research

Self management