**CHEMISTRY**

Chemistry explores and explains the composition and behaviour of matter and the chemical processes that occur on Earth and beyond.

VCE Chemistry provides for continuing study pathways within the discipline and leads to a wide range of careers.

**Unit 1: How can the diversity of materials be explained?**

1. How can knowledge of elements explain the properties of matter?

2. How can the versatility of non-metals be explained?

3. Students undertake a research investigation relevant to one of the following ten options:

Option 1: The origin of the elements

Option 2: The development of the periodic table

Option 3: The lanthanoids and actinoids

Option 4: Using light to solve chemical puzzles

Option 5: Glass

Option 6: Crude oil

Option 7: Surfactants

Option 8: Polymers and composite materials

Option 9: Nanomaterials

Option 10: The life cycle of a selected material or chemical

**Unit 2: What makes water such a unique chemical?**

1. How do substances interact with water?

2. How are substances in water measured and analysed?

3. Practical investigation

**Unit 3: How can chemical processes be designed to optimise efficiency?**

1. What are the options for energy production?

2. How can the yield of a chemical product be optimised?

**Unit 4: How are organic compounds categorised, analysed and used?**

1. How can the diversity of carbon compounds be explained and categorised?

2. What is the chemistry of food?

3. Practical investigation

**Entry**

Students are strongly advised to do at least Units 1 & 2 Chemistry if they intend to study Unit 3 and 4 Chemistry.