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# YEAR 10 SUBJECTS

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## Chemistry

This course is intended for students who have an interest in the chemistry of the elements. You will analyse how the Periodic Table organises elements and use it to make predictions about the physical and atomic properties of the elements. You will learn to write balanced chemical equations and apply these to qualitative and quantitative investigations of chemical reactions. The study of models for metallic, ionic and covalent bonding are used to explain the properties and applications of materials. You will develop your understanding of the language of chemistry to explain observations and data collected from experiments.

Generic skills that are considered across all the subjects in the Science faculty include:

- Application and analysis of theory to practical situations
- Use equipment, materials and instruments responsibly and safely
- Present experimental results appropriately; correct use of the selected report writing format
- Apply techniques to locate more precise information from websites, including searching general and specialised directories; use of selected software and hardware to enhance and support the application of content

Subject specific skills are:

- You will understand behaviour and properties of materials in terms of constituent particles
- You will use the Periodic Table to write electronic configurations, major groups and periods, simple chemical equations
- You will be able to describe the properties of ionic, metallic and covalent bonding and how the position of elements in the Periodic Table relate to their bonding characteristics
- You will be able to describe how atomic structure and properties of elements relate to their positions in the periodic table
- You will be able to describe the properties and products of various types of simple chemical reactions
- You will explain how different factors influence the rate of reactions
- You will design and undertake practicals that then require analysis and appropriate presentation



*“Chemistry is an interactive and enjoyable subject that keeps students intrigued, as there is always something new to learn. So far throughout this subject, we have studied the Periodic Table and the elements found on it. Currently, we are learning how to balance chemical bonds and the names of these newly formed substances. A definite highlight, so far, in Chemistry, was working with dry ice, Being our first time working with such a fascinating substance, everyone loved investigating what dry ice is capable of doing. Placing a strawberry in dry ice then smashing it with a hammer, who doesn't find that fun? I would recommend Chemistry to all Year 10 students, who enjoy hands on activities and not your typical 'reading from the textbook' lesson.”*

*Brianna Castaldo & Sajal Dhavala*