COURSE INFORMATION **Subject: CHEMISTRY** **Head of Subject: DR ANGELA KELLY**

	Year 12	Year 13
	Chemistry is a science that investigates matter in both living and non-living systems. Today we can fingerprint and identify millions of organic and inorganic compounds. There are probably no aspects of our lives in which chemical principles are not apparent. A background of Chemistry is required or preferred in a wide variety of careers, for example Agricultural Science, Biochemistry, Medical and Allied Health fields, Forensic Science, Veterinary Science, Winemaking, and Zoology. The Rathkeale College Chemistry program caters for everyone from those who will need a background in the subject, to the very able and serious science students. By relating chemical principles and the development of skills to the context in which they are used, both in and outside the classroom, the students' learning will be relevant and meaningful.	
Course Content	Chemistry (2.2) This standard involves analysing solutions from a consumer product using qualitative analysis. Chemistry (2.4) This standard involves describing the bonding in simple molecules, the nature of various types of solids and thermo-chemical principles. Chemistry (2.5) This standard involves describing the structural formulae and reactions of compounds containing selected organic functional groups. Chemistry (2.6) This standard involves the understanding of principles of chemical reactivity by describing and using equilibrium information. Chemistry (2.7) This standard involves demonstrating an understanding of oxidation-reduction reactions.	Chemistry (3.2) This standard involves the understanding of the function and how to interpret the data of three spectroscopic techniques. Chemistry (3.7) This standard involves the understanding of oxidation and reduction chemical reactions. Chemistry (3.4) This achievement standard involves describing properties of atoms, molecules, and ions, and thermo-chemical principles. Chemistry (3.5) This achievement standard involves describing the structure, physical properties, and reactions of organic compounds. Chemistry (3.6) This achievement standard involves describing properties of aqueous systems using equilibrium principles.
Prerequisites	Year 11 Science course.	Recommended that all three externals at level 2 should have been attempted with a passing grade obtained in two of them.
Assessment	**Internal (6 credits)** 91167 Demonstrate an understanding of oxidation and reduction (3) 91911 Carry out Qualitative analysis (3) **External (13 credits)** 91164 Describe the nature of structure, bonding and energy changes in different substances (5) 91165 Describe the structural formulae and reactions of compounds containing selected organic functional groups (4) 91166 Describe chemical reactivity and equilibrium principles (4)	**Internal (6 Credits)** 91388 Demonstrate understanding of spectroscopic data in chemistry (3) 91393 Demonstrate understanding of oxidation-reduction processes. (3) **External (15 credits)** 91390 Describe properties of particles and thermo-chemical principles (5) 91391 Describe principles of organic chemistry (5) 91392 Describe properties of aqueous systems (5)
Costs (approximate)	SciPad workbooks externals and internals $35.00	SciPad workbook externals and internals $35.00