

VCE science study designs: Biology, Chemistry, Physics, Psychology

Study	Accreditation	Unit 3 SACs	Unit 4 SACs	Examination
Biology	2022 to 2026 (v1.2, April 2026); no successor published as of Oct 2026	20%	30%	50%, 2.5 hours
Chemistry	Units 1 and 2 from 2023; Units 3 and 4 from 2024; to 2027	20%	30%	50%, 2.5 hours; data book provided
Physics	Units 1 and 2 from 2023; Units 3 and 4 from 2024; to 2027	30%	20%	50%, 2.5 hours; formula sheet provided
Psychology	2023 to 2027	20%	30%	50%, 2.5 hours

Biology 2022 to 2026

Unit	Area of Study 1	Area of Study 2	Area of Study 3
1. How do organisms regulate their functions?	How do cells function?	How do plant and animal systems function?	How do scientific investigations develop understanding of how organisms regulate their functions?
2. How does inheritance impact on diversity?	How is inheritance explained?	How do inherited adaptations impact on diversity?	How do humans use science to explore and communicate contemporary bioethical issues?
3. How do cells maintain life?	What is the role of nucleic acids and proteins in maintaining life?	How are biochemical pathways regulated?	
4. How does life change and respond to challenges?	How do organisms respond to pathogens?	How are species related over time?	How is scientific inquiry used to investigate cellular processes and/or biological change?

Chemistry: Units 1 and 2 from 2023, Units 3 and 4 from 2024

Unit	Area of Study 1	Area of Study 2	Area of Study 3
1. How can the diversity of materials be explained?	How do the chemical structures of materials explain their properties and reactions?	How are materials quantified and classified?	How can chemical principles be applied to create a more sustainable future?
2. How do chemical reactions shape the natural world?	How do chemicals interact with water?	How are chemicals measured and analysed?	How do quantitative scientific investigations develop our understanding of chemical reactions?
3. How can design and innovation help to optimise chemical processes?	What are the current and future options for supplying energy?	How can the rate and yield of chemical reactions be optimised?	
4. How are carbon-based compounds designed for purpose?	How are organic compounds categorised and synthesised?	How are organic compounds analysed and used?	How is scientific inquiry used to investigate the sustainable production of energy and/or materials?

Physics and Psychology, and what the four share

Physics: Units 1 and 2 from 2023, Units 3 and 4 from 2024 (Unit 3 SACs 30%, Unit 4 SACs 20%)

Unit	Area of Study 1	Area of Study 2	Area of Study 3
1. How is energy useful to society?	How are light and heat explained?	How is energy from the nucleus utilised?	How can electricity be used to transfer energy?
2. How does physics help us to understand the world?	How is motion understood?	Options: How does physics inform contemporary issues and applications in society?	How do physicists investigate questions?
3. How do fields explain motion and electricity?	How do physicists explain motion in two dimensions?	How do things move without contact?	How are fields used in electricity generation?
4. How have creative ideas and investigation revolutionised thinking in physics?	How has understanding about the physical world changed?	How is scientific inquiry used to investigate fields, motion or light?	

Psychology 2023 to 2027

Unit	Area of Study 1	Area of Study 2	Area of Study 3
1. How are behaviour and mental processes shaped?	What influences psychological development?	How are mental processes and behaviour influenced by the brain?	How does contemporary psychology conduct and validate psychological research?
2. How do internal and external factors influence behaviour and mental processes?	How are people influenced to behave in particular ways?	What influences a person's perception of the world?	How do scientific investigations develop understanding of influences on perception and behaviour?
3. How does experience affect behaviour and mental processes?	How does the nervous system enable psychological functioning?	How do people learn and remember?	
4. How is mental wellbeing supported and maintained?	How does sleep affect mental processes and behaviour?	What influences mental wellbeing?	How is scientific inquiry used to investigate mental processes and psychological functioning?

What the four share

- [] The exam is 50% and the SACs are statistically moderated to the school's exam results: the exam sets the level of the whole study score
- [] All key knowledge in Units 3 and 4 and the key science skills (variables, accuracy, precision, uncertainty, evaluating data) are examinable
- [] The student-designed investigation closes Unit 2 and Unit 4; it is both a SAC and the exam's data-question practice
- [] At least 50 hours of class time per unit; ten hours of practical work in Areas of Study 1 and 2, seven for the investigation
- [] The study design document is the syllabus and the VCAA Bulletin the only official channel for changes; read the Unit 3 and 4 pages in January

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