

Exploring Science (Critical Thinking)

Critical Thinking is a NSW Department of Education Approved Elective Course

Course details are not included on RoSA

Course details are included on School Report

Do you want skills that will prepare you for any future career?

- ✓ Are you open-minded and love solving problems?
- ✓ Do you want to understand how your mind and the world around you work?
- ✓ Do you like to delve deeper into issues?
- ✓ Would you like to do research and laboratory work on things you are passionate about?

Exploring Science (Critical Thinking) delves deeper into real-life Science and provides students with the skills, tools, and opportunities to improve their problem-solving and higher-order thinking skills. Students will conduct laboratory and project work that provides opportunities to engage with Scientists in Industry/Research, develop practical skills, think critically, build creatively, and write/report for an audience.

This course aims to engage and encourage students to develop their scientific reasoning and critical thinking skills as well as recognise the key aspects of a critical thinking mind. They will develop the essential skills to plan and conduct first-hand investigations, literature reviews and evaluate the vast and diverse amount of information they encounter in their daily lives. This will help them face future challenges in a continually evolving world.

Course components

- Core 1 (Year 9): History and development of scientific thought - Critical thinking in action
- Core 2 (Year 10): Research skills to support the critical scientific mind
- Options (minimum of four options will be completed throughout Year 9 and 10):
 - Forensic Science - Blind justice: You've been selected for jury duty.
 - Neuroscience - Recreating the human mind: The future of artificial intelligence (AI).
 - Sports Science - Strategies and innovations in sports: The path to victory.
 - Unearthing Science – Local ecosystem study partnering with the University of Sydney.
 - Conspiracy theories: Where are the facts?
 - Advertising: Have they got your attention?
 - Solving problems of today and the future.
 - Predicting the future: How certain can we be?
 - Strategies used in business and war.

Subject Assessment: Practical and research-based assessments.

Course Adviser: Mrs S Dubois, Mrs K Buchan