



# Rowe Scientific Depth Study Awards

## Year 11 & 12



For eighteen Year 11 & 12 practical investigations or secondary-sourced investigations that **most effectively communicate** how their depth study has enabled the student to develop and acquire a **deeper knowledge and understanding of one or more clearly identified concepts** found within or inspired by the syllabus.

The Rowe Scientific Depth Study Awards are only for students who have never won a secondary award in the STANSW Young Scientist Awards and at least nine of the eighteen awards are to be for students from low SES schools.

A Gold Award of \$500 will be presented to the best entry with four Silver Awards of \$300 and thirteen Bronze Awards of \$200 to the next best entries, totalling \$4,300 in prize-money.

## Judging Rubric

These Rowe Scientific Depth Study Awards are not aimed at the best overall scientific investigations. According to the structure of each Stage 6 Science Syllabus, every depth study must incorporate the outcomes **Questioning and Predicting** and **Communicating**. A minimum two additional Working Scientifically skills outcomes, and further development of at least one Knowledge and understanding outcome, are to be addressed. To cater for every depth study investigation, these awards will be won by the depth studies that best incorporate the mandatory **Questioning and Predicting** and **Communicating** outcomes outlined below:

### Outcome 1: Questioning and Predicting

The student has provided clear and convincing evidence that he/she:

- **proposed inquiry questions** to **identify a concept** found within or inspired by the **Year 11 or Year 12 content** of one of the **Stage 6 Science syllabuses** (but not Science Extension)
- **evaluated** inquiry questions to select a **final challenging question** for a depth study that can be investigated using a **practical investigation** or a **secondary-sourced investigation**
- **identified** independent and dependent **variables** in the questioning process
- developed selected inquiry question to **formulate a testable hypothesis** based on prior research or previous observations
- **modified questions** and hypotheses to **reflect new evidence**

### Outcome 2: Communicating

The student has provided clear and convincing evidence that he/she:

- had a **well-defined concept** or phenomenon that was investigated in the depth study
- **clearly expressed** the **depth of scientific understanding** that was **acquired** by carrying out the depth study
- communicated all components of the Working Scientifically processes with **clarity** and **accuracy**
- used **scientific language** and terminology that is **suitable** for a specific audience or purpose
- selected and used **suitable forms** of digital, visual, written and/or oral forms of **communication**
- used **qualitative** and **quantitative** information gained from the investigation to effectively communicate the major findings of their depth study
- constructed **evidence-based arguments** and engaged in **peer feedback** to **evaluate** arguments and **conclusions**