2017 iScience

Stages 4 & 5, Years 8 & 9

Description
Compass offers Stage 4 & 5 students from Compass partner schools the opportunity to participate in the iScience program delivered by the Faculty of Education and Social Work at the University of Sydney. Small groups of Stage 4 & 5 students work collaboratively with Faculty of Education Secondary Education (Science) University students to carry out an open ended inquiry focusing on a topic within Biology, Physics & Chemistry over a series of four on-campus workshops. Supported by their University student counterparts, each group of students designs and carries out their own researchable question in one of these topic areas and then reports on their findings in a formal presentation at the University of Sydney.

Aims
- To enrich and inspire high school students to undertake hands-on scientific investigations to solve a problem or question linked to real-life issues
- To build student capacity in problem solving, critical thinking, teamwork and communication skills through project based learning on a topic within Biology, Physics and Chemistry
- Provide a supportive environment to meet peers, University students and academics
- Highlight the importance of Science and Technology education in the school community

Objectives
As a result of this project, students will:
- Increase their interest in and understanding of science
- Articulate an increased motivation to pursue higher education
- Develop skills in inquiry-based investigations of topics they are interested in
- Collaborate with peers and university student mentors on a problem-solving task
- Become more familiar with the university environment including spaces, academic staff, and students

As a result of this project, teachers will:
- Increase their confidences and skills in teaching science through inquiry to school students
- Have the opportunity to expand or maintain school-university partnerships

As a result of this program Service Learning students will:
- Develop their practical knowledge, experience and skills in a professional environment
- Identify impact of program on building graduate attributes and personal development
- Establish a link with higher education and the opportunities it provides for students
Key Learning Areas

- Science (SC4-4WS – SC4-9 WS)
- Numeracy
- Critical & Creative Thinking

Model

<table>
<thead>
<tr>
<th>Structure</th>
<th>Students and teacher attend four on-campus days at the University of Sydney. Over the four days they plan, design, execute and report on their inquiries.</th>
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<tbody>
<tr>
<td>Compass representatives</td>
<td>Amy Bywater</td>
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</table>
| Other participants | Faculty of Education & Social Work  
Pre-service candidates (Secondary Science)  
Faculty staff |
| Delivery schedule | TERM 2  
Wednesday May 17th (9.30am-1.30pm) Meet and Greet Day  
Wednesday, 31st May (9.30am-2pm) Experiment Day 1.  
Wednesday, 7th June (9.30am-2pm) Experiment Day 2.  
Wednesday, 14th June (9.30 pm - 2pm) Final Presentation and Judging of Project. |
| Monitoring and evaluation | Via Faculty of Education – evaluations exported to Compass for records |
| Materials and equipment: | Compass to provide:  
– Project coordination support  
– Teacher relief funding  
– Transport reimbursement  
– Event support for Day 4 |
| Faculty to provide: | – All materials  
– Venues  
– Program instruction  
– Project coordination |

Resources

Registration

Via Louise Sutherland, project lead.

Project contact

Project Officer, Compass