The Water Lab sets the scene for real water science investigations with sophisticated equipment, open student led challenges and strong links to local water issues and sustainable water use.

It is designed to meet Stage 3 & 4 Science Syllabus outcomes. Students work in collaborative research teams, using a Scientific Investigation Form to undertake Fair Tests, guiding them to make predictions and record their methods, observations and results.

A website supports student and teacher learning and provides a platform to promote water science interest, understanding and engagement well past their visit to the Water Lab.

The Lab is situated at Dorroughby Environmental Education Centre. It is a joint project of the Centre and Rous Water, with funding from a NSW Environmental Trust Grant.

**Cost:** $20

**Date:** Monday 13th July

**Venue:**
The Water Lab at Dorroughby Environmental Education Centre (DEEC), 2101 Dunoon Road.

**Booking:**
DET Schools:
MyPL@Edu Course Code RG00182

Non DET Schools:
Contact DEEC: Ph 6689 5286

**Course Presenters**
Matt Corbett: DEEC Teacher, Water Lab team member and an ecological researcher at University of Queensland for a decade.

Chris Freeman: Principal DEEC, Water Lab team member and 20 years experience teaching science and sustainability education in Environmental Education Centres.

Barb Jensen: Rous Water Community Education Officer, Water Lab team member and 30 years supporting Schools and the local Community with Environmental Education knowledge, skills and actions.

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About the PL course

This Teacher Professional Learning course is designed to inform and engage participants in implementing scientific investigations in their classroom.

Using group discussion and experiential learning it leads Teachers through the knowledge and skills for Science education. The activities include a fair test, working in collaborative teams, science inquiry skills, the 3 types of scientific investigations and the 5E's teaching and learning model; Engage; Explore; Explain; Elaborate; Evaluate (Australian Academy of Science, 2009).

This course will contribute 10 hours towards BOSTES Registered Professional Development. It address the Professional Teaching Standards:

- 1.2.2
- 2.1.2
- 3.3.2
- 6.4.2

Working Scientifically PL Program

<table>
<thead>
<tr>
<th>Time</th>
<th>Activity</th>
</tr>
</thead>
<tbody>
<tr>
<td>8.30</td>
<td>Welcome &amp; Registration</td>
</tr>
<tr>
<td>9 am</td>
<td>Introduction and course outline</td>
</tr>
<tr>
<td>9.15</td>
<td>Correlating Teacher anxiety in Science: Capturing Teacher’s current beliefs about their Science teaching skills.</td>
</tr>
<tr>
<td>9.30</td>
<td>Scientific skills &amp; “Science in a cup of tea and lamington”: Introducing and practicing observation &amp; interpretation skills through the science in everyday activities.</td>
</tr>
<tr>
<td>10.15</td>
<td>Morning Tea: Tea, Coffee &amp; Lamingtons</td>
</tr>
<tr>
<td>10.45</td>
<td>Introducing the Fairness Test and the Water Lab Science Investigation scaffold: Video, form and grid to develop understanding of Fair Test predictions, variables &amp; reporting.</td>
</tr>
<tr>
<td>11.15</td>
<td>Three ways to “do” Science: Comparing open ended, challenge based and closed investigations. Working in small research teams to conduct an investigation. Examining science investigation assessment examples.</td>
</tr>
<tr>
<td>12.15</td>
<td>Planning a Science Unit based on the 5E’s model and Water Lab: Using a 5E planning sheet to identify a program development structure.</td>
</tr>
<tr>
<td>1pm</td>
<td>Lunch: BYO</td>
</tr>
<tr>
<td>1.30</td>
<td>White coats on! Cooperative challenged based Science in the Water Lab - Stage 3 Practical Session for Science Investigation - Stage E1, 1 &amp; 2.</td>
</tr>
<tr>
<td>3.30</td>
<td>Correlating Teacher anxiety in Science: Revisit the Teacher’s beliefs about their Science teaching skills.</td>
</tr>
<tr>
<td>3.45</td>
<td>Conclusion, evaluation and what next: DET participants will be asked to join a Video Conference later in the term to share evaluations of their Science investigations post Course and complete a survey as per BOSTES requirements.</td>
</tr>
<tr>
<td>4pm</td>
<td>Close</td>
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