Term 3 Science Achievements

Biological science was the focus last term. Students engaged in an exciting range of biological investigations, for example ...

**Mildew Mania** - Curtin University citizen science project investigating mildew on barley. Classes in Years 4/5 and 6 participated in the Mildew Mania program. Students were very excited to see mildew growing on some species of their barley, and not on others. Our new digital microscopes were a boon for this investigation!

![Baudin Barley](image1)
![Jockey Treated Baudin Barley](image2)
![Oxford Barley](image3)
![Lockyer Barley](image4)
![Flinders Barley](image5)
**Greenhouse Effect, Compost Biology and the Carbon Cycle** – Incursions were conducted across the school with *Carbon Kids* coordinator, Belinda Bloxsome, from Scitech. Students made newspaper pots and planted bean seeds for investigations on plant growth. Seedlings have been planted out in garden beds.

**Term 4 Science**

Earth and Space Sciences will be explored this term.

Students will be:
- using the new solar cooker,
- joining an incursion with Scitech’s Space Dome and
- participating in an Astronomy Camp on the oval.

What out for the exciting details as they are announced throughout the term.

**Teacher Development School (TDS): Term 3 & 4 Activities**

Professional learning sessions conducted during Term 3:

- 21 July Elaine Lewis presented a session at our school on using our new solar cooker, relevant to the Earth and Space Sciences curriculum and science investigation skills.
- 1 August Elaine presented a session summarising ‘TDS at Coolbinia: Hands on minds on’ at a TDS conference in Perth.
- 15 August a teacher from Boddington High School work shadowed Elaine Lewis all day, to provide first-hand experience on how science is embedded into the cross curriculum priorities.
- 27 August Elaine presented a session at ECU, Mt Lawley campus on our 100 Tonne Plan, illustrating how the cross curriculum priorities are embedded into science.
- 3 September Elaine presented a session at our school on science resources and their management.
- 4 September Elaine presented a session at the One World Centre on our 100 Tonne Plan focussing on its global links.
- 24 September Debra Holland and Elaine presented a session at the school on Assessment in Science.

Professional learning sessions to be conducted during Term 4:

- 13 October Elaine will present an evaluation session on the Cross Curriculum priorities at the school.
- 27 October Rebekah Melville will open her class for work shadowing to teachers from other schools.
- 4 November Elaine will present a session at the Australian Association for Environmental Education conference in Hobart on Education for Sustainability: The 100 Tonne Plan.
- 7 November a staff member (TBC) will present an evaluation session on the Cross Curriculum priorities at a Sustainability workshop at Padbury SHS.
• 10 November Rebekah will provide another work shadowing opportunity for teachers from other schools.

• 26 November Debra Holland and Elaine will present a session at the school on Assessment in Science.

• More to be announced ...

**Science focus for River Rangers**

**Chemistry Labs**

The River Rangers recently visited Curtin University science labs to conduct a range of chemistry experiments. The photos demonstrate the level of engagement in these activities:

![Chemistry Labs photos]

**Clean Drains**

In August the River Rangers attended a series of workshops at Murdoch University. One of these sessions related to water quality of the Swan River. A follow-up action related to this workshop involved students stencilling school drains with the message - Clean Drains River Gains. The following photos show the Year 7 River Rangers in action ...

![Clean Drains photos]

Year 7 students stencilling drains around the library
National Water Week

National Water Week is being held from 20-24 October. We are participating in this initiative by:

- Year 6 and 1 students performing their Waterwise song at the school assembly on Friday 24 October.
- Posters and displays around the school.
- Incursions by the Water Corporation.
- Design a sticker slogan and logo competition about the Western Swamp Tortoise related to ‘water pollution harms wildlife’.
- Exploring the importance of access to clean water.

In relation to ‘access to clean water’ Coolbinia PS is collaborating with the One World Centre (OWC). Our school is a member of the OWC, a not for profit organisation that focuses on “education for a just and sustainable world”. Elaine has been working with Cameron Tero, OWC Education Officer, on a project about ‘water’.

The project focussed on a water filtration system. Such a system can make a huge difference to the health of people living in areas where readily accessible clean water is a challenge. A model of the bio-sand filter system, made with clear Perspex, demonstrates what is happening inside as water is filtered through the various layers. Water is poured onto the top of the bio-sand filter system, then it passes through the following layers:

- Diffuser – allows water to drip slowly into the system.
- Biological layer – made up of non-disease causing bacteria and parasites which trap and destroy harmful organisms.
- Filtration layer – consists of a thick layer of sand which physically traps dirt and other impurities.
- Gravel layers – consists of fine and course gravel to stop dirt moving through the system.
- Collection pipe – is bent upwards to stop all the water flowing out of the filter.

Cameron Tero explaining how the bio-sand filter system works. Elaine will link this information to our National Water Week activities.
Solar Cooker Hotting Up!

A lunchtime demonstration of our new solar cooker was enthusiastically received by students and staff...

Article Published in Teaching Science

An article about innovative science education strategies was published in the Australian Science Teachers Association journal in September:

If you would like to read the article please ask Elaine for a copy.

Elaine Lewis
Teacher Development School: Science Co-ordinator
River Rangers Coordinator
(Part time role; located in the Kwobadarn on Fridays)
14 October 2014