Year Seven residential Science program successfully trialled in first term

Our new Year Seven Science program, What's in the Water? (based on the two Year Seven “Water” units), was successfully trialled in first term by seven classes from two schools.

For five classes, we were able to offer a pre-visit program that gave students a comprehensive introduction to the Science units. Feedback from class teachers on the pre-visit activities is that these are useful, as they

• Engaged students and clearly demonstrated the local river catchment area, enabling the class teacher to make the most of student-initiated discussions during later lessons
• Introduced both students and teachers to new resources e.g. Bureau of Meteorology catchment maps
• Covered curriculum content that then didn’t need to be completed in a science lesson
• Were led by teachers with “specialist” knowledge

Class teachers also reported that our video Theo and Winston (on what to wear in the forest) engaged students while getting the message across.

In regards to the actual implementation of the excursion program and its support of the V2.0 C2C units, all teachers were pleased with the new program. Their honest feedback highlighted the need to clarify some misconceptions:

• We had made the shift to the new version (V2.0) of the C2C unit, with its change of assessment task, while the class teachers hadn’t (still working on V1.1)
• Some class teachers believed students would complete the whole assessment task in Paluma, while we thought we could only scaffold an introduction to the assessment task, which would be completed back in the classroom.
• The program’s intent—to compare the movement of water through the natural system with that of artificial water treatment processes—wasn’t realised with every group. There were a number of reasons for this—it being a brand-new program on a brand-new unit, our own lack of adherence to our designed program, even seasonal weather conditions (which precluded some groups from working at sites specifically chosen to focus on the natural water cycle as an introduction to the assessment task).
• Some class teachers felt we should lead the filtration and separation activities at Paluma. We need to clarify that our programs focus on learning experiences best delivered through the natural environment.
• More focus is needed on the impact of variances in abiotic water quality parameters. This learning experience is a very busy one, as it includes riparian vegetation assessment and identifying macro invertebrates, and may need a re-design or a reallocation of time.

What's in the Water? Excursion Program—Itinerary & GTMJs for work samples

Biochar investigation this term (can replace Year Six Mould Investigation)

2013 sees the third of our Earth SmarTies district projects, this time focusing on waste and recycling. Our first and second Earth SmarTies 8-week projects (biodiversity assessment through insect trapping; water quality monitoring) involved only Ingham schools. This year, we offer the Earth SmarTies schools project to teachers of Year 6 classes in Ingham, Townsville, the Burdekin and Charters Towers.

Students have the opportunity to conduct an investigation into the effects of biochar (charcoal) on soil improvement. We have modelled the biochar investigation on the “mould” investigation and will provide all materials for small groups of students to complete this task over six weeks this term. Students write up their investigation and present their results to fully-funded district Science Week events in August.

We have funding available to support additional schools in Townsville, Charters Towers and the Burdekin, but time is running out to commence the investigation. Please contact Linda Venn to enrol your class. lvenn1@eq.edu.au

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The second iteration of our *Earth Smarties* sustainability curriculum delivery model last week won a national sugar cane industry award. The *Earth Smarties* model, developed by teachers Linda Venn and Colleen Way in 2010, was used in 2011 to engage eleven schools in the Ingham area in a real-life science project. Almost 160 students monitored the biotic and abiotic parameters of water quality in creeks near their schools, paralleling a similar district project involving cane growers, graziers and fishers. Students presented their results to local Growers Meetings and the district Natural Resources Management Forum, impressing growers and resource managers with their research.

The celebratory poster and academic paper were presented to the Townsville conference, detailing the educational outcomes of the water quality monitoring project for students while making recommendations to the cane industry on how they could achieve their community engagement objectives by working with their local schools.

Secondary day and residential excursion programs satisfy field work component of Science and Geography

Secondary classes traditionally do not form a large component of our visitation numbers. However, we are aware of the field work component in many secondary subjects and work closely with visiting secondary schools to fine-tune an excursion program to support assessment and field work requirements. This term, we will deliver Senior Biology programs to Ingham State High School (day excursion) and All Souls and St Gabriels (residential excursion). We have also updated our botany learning experience (identification of rainforest trees using a dichotomous key), necessary since Cyclone Yasi destroyed our previous selection of species.

*Earth Smarties NQ West*

In memory of Andree Griffin, an avid local amateur ornithologist who supported educational activities at Paluma EEC since its establishment, the Centre will once again sponsor the accommodation, on-site catering and program fees for students from western schools. This year, students from Hughenden and Cloncurry State Schools will live and work at Paluma in the week beginning 15 July.