CONASTA 63: TRB Sponsorship Report

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As a specialist Science teacher at Two Wells Primary School, I was delighted to be given the opportunity to be sponsored to attend CONASTA 63. In my first year as a specialist teacher in 2013 I attended the SASTA conference as well as the SSTA Beginning Teachers professional development course, so I knew many of the benefits of attending such a conference. The national CONASTA 63 conference exceeded my expectations. The three days were packed with interesting and informative keynote speakers and a wide range of useful practical workshops.

Professor Bob Hill’s “History of Fire” presentation made us aware of the changes that have taken place in the makeup of our atmosphere over time. It highlighted how archaeology is being used to help us understand the changes that are happening to our atmosphere today and in the future. It also highlighted how scientists don’t just use one source of information. They try to correlate their results with other research.

Dr Roslyn Prinsley spoke about the importance of a Science Technology Engineering and Mathematics (STEM) education, and that STEM graduates are desirable to employers even when not working in their field of study. The key point here was that a STEM education trains students in a way of thinking. Students enjoy finding things out for themselves, so it’s important to not always give them the answers.

Professor Lynne Cobiac presented on the impact that science has made to our lives - longevity, lifestyle, quality of life and health systems.

Professor Tanya Munro presented a very informative lecture about photonics, selling it as a discipline that crosses the conventional boundaries of science between physics (light) and chemistry (materials science - glass). This presentation was the first of a few that highlighted just how small the technology of science is getting. Students need to grasp concepts and imaginings about things that they cannot and may never see.

Professor Roy Tasker gave a very enjoyable and humorous talk about how we teach chemistry in schools, and how this isn’t necessarily to way we should be teaching it. The molecular simulations he presented were amazing and reinforced the world of science getting smaller.

Tara Pukala presented from her research on Structural Biology which is down to the molecular and atomic level. Part of her message was that researching these really small things requires creative ways of working out what they look like. She described some of the new methods that scientists are
using to work out what complex biological molecules look like without being able to see them. The language Tara used highlighted that science requires a new level of literacy.

Two workshops that had immediate relevance to my own situation were the Trebuchet’s workshop, presented by Questicon, and the Setting up a Science Club workshop. Both of these related to extracurricular activities that I had planned for my school. They gave useful either hands-on experience, in the case of the Trebuchet’s, or electronic resources and advice, in the case of the Science Club, that assisted me making decisions in my school.

Other workshops, like Vicki Stavopolos and Rebecca Harrington’s Inquiry in the Science Classroom, presented the CSIRO’s Science Awards and described how they can be used in the classroom to help meet the Inquiry strand of the AC Science. Julie King also presented about the new Technologies being added to the AC and how this may be incorporated with Science.

In addition to the Keynote speakers and workshops, the trade stalls and ability to discuss and share ideas with like-minded teachers during the breaks made the three days very enjoyable.

It is my intent to share what I have experienced from CONASTA 63 in the following ways:

- Through whole school Staff PD sessions in our staff meetings
  - I have discussed with my leadership team the possibility of running some Science PD sessions during our staff meetings. I currently deliver most of the Australian Curriculum for Science, however, the classroom teachers within the school need to keep up with Science as I need to keep up with English, Maths and all the other subjects being introduced into the AC.

- Through workshop/breakout session at whole cluster PD day
  - I will be facilitating a Science breakout session during our upcoming whole partnership PD day.

- Through Science professional interest group
  - In addition to our Partnership PD day, I am also involved in a Science Special Interest Group combining specialist Science teachers and interested classroom teachers from across multiple partnerships. I will be presenting some of my experiences from CONASTA 63 at our next meeting.

- Through Edmodo Science special interest group.
  - The Science Special Interest Group also has a group on Edmodo, where teachers can share resources. I plan to share some of my findings on this forum.

I’d like to thank the Teacher’s Registration Board for the opportunity to attend CONASTA 63, and hope that they choose to sponsor teachers for future events.