science postcards

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Free, innovative resource

Primary Science has certainly been in the spotlight since the publication of the New Zealand's National Education Monitoring Project (NEMP 2007) and The Trends in International Mathematics and Science Study (TIMSS 2007), and there has never been a better time to share the Science Postcard resource.

The NEMP (2007) report identified that Year 4 students 'sensed a lack of science activities at school, and particularly a lack of "really good things" such as experiments and research/projects.' Science Postcards were developed with the support of the NZASE to offer children science experiences whilst supporting the non-specialist primary teachers.

Science Postcards are free, innovative resources designed to support your primary science teaching and downloadable from **www.sciencepostcards.com**, and provide children with 'hands-on, minds-on' learning experiences, coupled with the curriculum support for primary teachers. There is a real need to offer children valuable learning experiences based around clearly identified science concepts, whilst at the same time making the teaching of the Nature of Science explicit. Using children's fiction texts provides a framework and context for the science activity, allowing the teacher to engage the children. The Science Postcard provides the motivating link between the book and the science activities which are chosen, and offer both the 'wow' and 'awe' factor of science.

Development of science postcards

The idea of the postcards developed from the 2007 NZASE Primary Science Conference *'Enhancing Science Understanding With Literacy Practices: Using and Creating Texts.'* A group of enthusiastic primary teachers wrote and trialled the initial Science Postcards. They proved to be so successful that the NZASE provided funding that allowed eight cards, support materials and the website to be developed. Since their inception, the editors have provided workshops for primary teachers based around the Science Postcards in Christchurch and Wellington and, in 2009, will provide workshops at each of the four venues for the 2009 NZASE Primary Science Conference '*Active Learning: Science talk from the classroom to the dinner table.'*

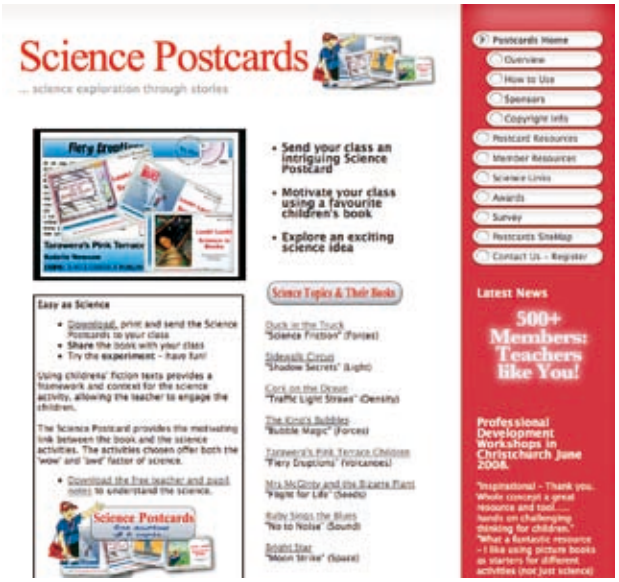
Using science postcards

The resource consists of:

Science Postcard that features a storybook and has a discussion starter message for the class/child

Teacher notes detailing the science concept, nature of science, links to 2007 NZ Curriculum and supporting NZ Ministry assessment material and publications (e.g. Building Science Concept books, Making Better Sense series, TKI Digistore, Connected series, Journals, Assessment resource bank activities). They also offer clear teacher support in delivering the 'Nature of Science' strand through the section *'Science in the Real World'*.

Pupil notes that clearly outline the science activity and includes questions to develop scientific thinking skills



Supporting website where teachers can download, for free, all the Science Postcards, pupil and teacher notes. It has links to *'Science in the Real World'* and other websites we have found useful.

Science Postcards are designed to be used in conjunction with a storybook. The action of capturing a child's imagination through a beautifully told story, to providing opportunities for the child to explore some of the science within the story is an incredible motivator for both the children and the teacher. The science ideas or concepts that have been identified within the stories can be developed and used as starter for a science topic or unit of work.

The Science Postcards can also be used as one-off activities with the focus on developing the children's understanding of 'what is science?' through the Nature of Science strand of the curriculum. The activities were carefully chosen to provide opportunities for teachers to challenge the scientific ideas and beliefs of the children. We firmly believe that this constructivist approach to learning is very important, and that children should be allowed to share and develop their ideas and that these ideas should be challenged and built upon. The activities also support particular science skills (e.g. creating and using data tables or making observations) and they allow teachers and children to explore scientific ideas in everyday situations – a 'Science in the Real World' approach.

At the moment there are eight cards in the series and the editors are currently writing the next set. A collaborative project between four NZ universities is exploring the effectiveness of the Science Postcards in developing teacher's understanding of the Nature of Science.
The website has over 600 members worldwide and is receiving 20,000 hits a month. So login, register for free and download this superb resource. Use it in your class and let us know how it went. If you have an idea for a storybook we could use, or an activity you would like us to develop, then share your ideas. Don't forget, the editors of Science Postcards will be offering workshops at each of the four 2009 NZASE Primary Science Conference venues.

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