

# The Geoscience Pathways Project Newsletter

(2/2/15 - Version 7)

Proudly supported by:



*Since our last newsletter we have continued to make significant progress in our ongoing sponsorship campaign. We are also waiting on the decisions of several major mining and energy companies. We need this additional funding to actively promote and support the uptake of senior secondary Earth and Environmental Science (EES) in SA in 2017.*

## Sponsorship:

Following presentations to the committees of the AusIMM and the GSA, both professional bodies have agreed to become sponsors of our project. We have also been sponsored by profits from the annual SA Explorers Conference. We have had some hopeful communication with ASEG and several major mining and energy companies, including Beach Energy, and expect decisions soon. Without more funding we will not be able to fully implement the plans that have been developed by our Committee.

## 'Water' for Year 6/7 students

The study of water is an important part of the Australian Science Curriculum for Year 7. Students from partner schools are invited to visit Marden Senior College for a range of hands-on inquiry based activities in a well-equipped geology laboratory. A choice of several metropolitan site visits is also offered. These laboratory activities and field visits can be supported by an experienced geology/ biology teacher and can be funded under our current sponsorships. Subsidies for student bus transport are available on request. Class groups can also be invited to visit and work in the groundwater laboratory at Flinders University and be addressed by PhD students. (*Science as a human endeavour.*)

## Plate Tectonics for Year 9's

Following initial trials Cynthia Pyle has produced a final draft of our unit on Plate Tectonics. This unit includes a teacher's booklet and student workbook and meets all of the requirements of the Australian Science Curriculum. It features a range of hands-on practical activities, using various equipment and websites. An updated DVD of student and teacher resources can be provided to members on request.

## New member schools

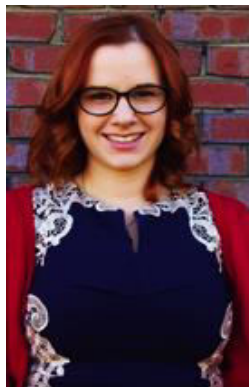
Following our presentation at CONASTA 63 we attracted new interest, including from schools in the NT. New schools who have recently joined include:

**Grant High School** (Mount Gambier)  
**Aberfoyle Hub R – 7 school**, and  
**Pedare Christian College**

Welcome to our new school partners

## Rocks and Minerals for Year 8's

Class groups of year 8 students are invited to participate in a range of practical activities designed to enhance learning about the Rock Cycle. These fully funded activities can be facilitated by an enthusiastic young geologist and teacher, Kelly Sharrad.



This term, Kelly will be working with Cynthia Pyle to develop new resources for student field investigations in the SE, including in **Mount Gambier** and **Naracoorte**. These resources will be designed to meet the requirements of the Australian Science Curriculum, particularly Year 8 'rocks and minerals'. They will also be useful for **SACE Geology**.

The development of these resources and the provision of an associated teacher training workshops will be fully funded by the Teacher Earth Science Education Program (TESEP)

## Our Place in Space for Year 10's

Mike Roach is preparing an 'Earth and Space' unit to meet all of the requirements of the Year 10 Australian Science Curriculum. Schools interested in trialing of this new unit, and/or attending a workshop should contact our GPP committee as soon as possible

## Free Reference Books for Teachers

We have recently received the kind donation of 21 cartons of geology and geoscience reference books and publications from retiring geologist Ric Horn, (Hornet Resources). He has also provided a detailed catalogue. Teachers interested in acquiring some valuable reference books for their school (or personal) libraries should request an electronic copy of the catalogue by email: [altman@msc.sa.edu.au](mailto:altman@msc.sa.edu.au)

We sincerely thank Ric Horn for this donation Science/geology teachers and senior secondary geology students are invited to participate in an interesting excursion on Sunday 22<sup>nd</sup> February

We *could* also develop a plan/ itinerary for a **Year 8 camp**, if there is sufficient interest. Perhaps the GPP could subsidise the costs of such a camp, if costs are a prohibitive factor.  
**PLEASE LET US KNOW IF YOU ARE INTERESTED**

Kelly can also participate as a teacher/mentorin local (near Adelaide) student field investigations, such as to **Hallett Cove** or **Sleeps Hill**. She is available to work with any primary or secondary year level. **Bus subsidies** are also available.

## New Teaching Resources:

**The Woodside Australian Science Project (WASP):**

<http://www.youtube.com/watch?v=8YHsxXEVB1M>

Their website is well worth a visit, particularly for resources to support the teaching of Year 7 and Year 8 of the Australian Science Curriculum:

<http://www.wasp.edu.au/mod/page/view.php?id=85>

## SASTA Middle Years Conference 2014

This year, we once again presented some highlights of our project at this popular annual conference which was held at the Norwood Morialta High School last November. There was considerable interest from new schools joining our project, to borrow equipment, apply for bus subsidies etc. They have been added to our mailing list are we are hopeful that some will remember to join our website in coming weeks.

## Free school Presentations

The *SA Chamber of Mines and Energy* (SACOME) can provide teachers and students with multimedia interactive presentations delivered free to schools. A list of presentations available to suit a wide range of primary and secondary year levels, can be seen at [www.sacome.org.au](http://www.sacome.org.au).

If you are interested in making a booking email SACOME or phone 8202 9999.

## NORTH TERRACE BUILDING STONE EXCURSION



Come and see North Terrace from a difference perspective – its geology and heritage  
Leader: Barry Cooper

**Free event – Please RSVP for planning purposes**

Leave your partner in Rundle Mall (or better still - bring them along) and meet us at 2.30pm at the granite block benches on King William Road (Bus Stop Z1) next to Parliament House. We will spend approximately 90 minutes strolling the north side North Terrace from Parliament House to the Mawson Monument, opposite Pulteney Street. A surprising variety of South Australian building stones and their diverse use will be revealed, after which we will adjourn to a good local watering hole (The Richmond Hotel, Rundle Mall) for further reflection and a drink sponsored by the GSA SA Division.

This excursion will follow the GSA's Field Guide Brochure to North Terrace Building Stones that is available on the internet at [www.sa.gsa.org.au/Brochures/North\\_Terrace\\_final1.pdf](http://www.sa.gsa.org.au/Brochures/North_Terrace_final1.pdf). Copies will also be available on the day.

- See a wide selection of rock types from around the State plus a few from elsewhere.
- Realise that North Terrace is an educational resource for geology as well as a convenient field trip.
- And appreciate the company of professional colleagues on a relaxed Sunday afternoon, before the Adelaide Festival yet during the Adelaide Fringe.

**This is a free event subsidized by the GSA SA Division. For planning purposes, please RSVP to [info@sa.gsa.org.au](mailto:info@sa.gsa.org.au) by Friday, 20<sup>th</sup> February, 2015.**

**Sunday, 22<sup>nd</sup> February 2015**

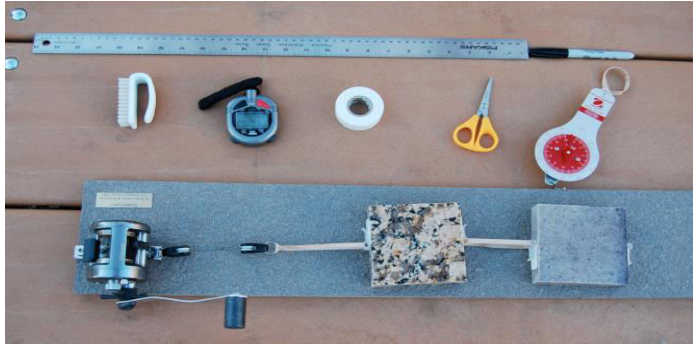
Proudly brought to you by the Geological Society of Australia SA Division

Images courtesy of the 'North Terrace, Adelaide Geological Trail' Brochure



**Proudly supported by:**





## Equipment for loan to member schools

Our project can now offer a range of useful equipment to member schools, on a short-term loan basis. This equipment includes a class set of **Garmin 60 GPS Units**, some **SUNTO Sighting Compasses** (which include clinometers), a **metal detector**, a set of **gold pans** and our recently purchased **QuakeCaster**. The QuakeCaster, which has been adapted from a design by the USGS, is ideal to enhance inquiry-based learning about earthquakes. It has proven to be ideal to facilitate a 'design-prac' in SACE Geology, and for an engaging plate tectonics activity for Year 9's.

(see photo opposite)

## Our workshop at the SASTA Annual Conference & Exhibition

Our project is once again providing a workshop for teachers at the annual SASTA conference, which will be at *Brighton High School on 13<sup>th</sup>-14<sup>th</sup> April*.

Our 2-hour workshop will showcase our recent work to support the implementation of *Earth and Space* topics for the Australian Science Curriculum.

Our GPP teachers are invited to join in this presentation, to share their work with other delegates and to promote our cause at this valuable conference.

*Earlybird cut-off for registration is 15<sup>th</sup> March.*

## TESEP workshops

Fully funded TESEP teacher PD workshops are proposed for Term 2 and 3 this year. These half-day workshops will be on **Plate Tectonics** and **Climate Change** and may include a visit to **Hallett Cove** to demonstrate an inquiry-based field investigation. Travel and accommodation costs may be reimbursed.

For eligible country teacher participants.

To register interest in these opportunities email:

[sa\\_coord@tesep.org.au](mailto:sa_coord@tesep.org.au)

## Remember our Aim

We aim to increase student engagement in Science during the middle years, through our special focus on developing engaging teaching and learning activities across the range of *Earth and Space* sub-strand topics of the Australian Science Curriculum (F-10).

We aim to increase student uptake of senior secondary science, particularly the *Earth and Environment Science* (EES) course when it's launched in 2017. Through our collaborative efforts we will provide teachers with the background and confidence to successfully teach EES and thereby foster its uptake in many more schools across the state.

## SOME SUGGESTED ACTIVITIES

As an active participant in our project you might consider:

- using funding support to subsidise buses for field trips,
- arranging visits to universities, for student activities,,
- visits by mentor teachers to team-teach in your school,
- borrowing our equipment (as above) and rocks and minerals
- utilising the support of our many community partners, or
- making a visit for activities at Marden Senior College



## Education Centre Updates

*Geoscience Australia's* newsletter for teachers is designed to keep us informed of recent developments in geoscience, teacher resources, upcoming events, and competitions for students.

To subscribe visit:

<http://www.ga.gov.au/education.html>

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## Management Committee meeting:

**Thursday 5<sup>th</sup> March from 4:30 pm,**  
in the Geology lab. at Marden Senior College

**please RSVP:**

Len Altman: [altman@msc.sa.edu.au](mailto:altman@msc.sa.edu.au)

## Our Management Committee:

- o Chair: Len Altman (Marden Senior College/ GSA)
- o Secretary/webmaster: Amanda Vernik (MSC/ IT)
- Treasurer – Kelly Sharrad (teacher/ geologist)
- Margaret Baxter (Open Access College)
- Alan Collins (University of Adelaide/ GSA)
- Mike Roach (Hamilton Secondary College)
- Katrina Holmes (Blackwood High School)
- Di Whittington (Open Access College)
- Cynthia Pyle (former SACE Board)
- Peta Abbot (DSD teacher/ geologist)
- Gerry Carne (SANTOS/ Beach Energy)
- Theresa Salvemini(SACOME)
- Emma Chesterman
- Bronwyn Mart (Magill Primary School)
- Christine Thomson (DECD)
- Peter Turnbull (former DECD advisor)

**ALL MEMBERS ARE WELCOME TO ATTEND  
OUR COMMITTEE MEETINGS**

## Enhance TV.com

This new website, gives immediate access to a wide range of science-based, educational television, streamed direct via the web. You can browse over 11,000 programs across a diverse selection of learning areas and watch programs anywhere – at home or in class. You can create clips, lesson plans or link to study guides, then stream direct to the classroom there's no hardware or storage needed. Highlights include the BBC series '*HOW TO GROW A PLANET*'.

Find out more at: [enhancetv.com.au/direct](http://enhancetv.com.au/direct)

## Schools please join our project

**Joining is free.** All you need to do is email a Word.doc description and photo of your school to our webmaster Amanda Vernik at:

[geoscience.pathways@gmail.com](mailto:geoscience.pathways@gmail.com)

You could get some ideas by visiting:

[www.geosciencepathways.org.au](http://www.geosciencepathways.org.au)

Funding of our webmaster position (0.1) is provided by the Petroleum Exploration Society of Australia (**PESA**) and the Australian Society of Exploration Geophysicists (**ASEG**) through their sponsorship of **TESEP**.

We thank these professional associations, **TESEP** and our other valued sponsors for their ongoing support.

**Proudly supported by:**

