

Geoscience Pathways Project Newsletter

(June - #37)

We are a 'not-for-profit' incorporated body of like-minded teachers, academics and geoscientists. We work together to support the teaching and learning of Earth in Space (R-10) under the Australian Science Curriculum and senior secondary (SACE) Earth and Environmental Science (EES). Thanks to the generosity of our sponsors we continue to offer unique and timely support as described on these pages.

11-12 teachers of SACE Earth & Environmental Science: Our Geoscience Pathways Project is currently focused on supporting the uptake of SACE EES in SA schools. Our resources are available here:

<http://geoscience.msc.sa.edu.au/Content.aspx?p=1069>

We also offer the free support of our Geoscience Outreach Officer (Kelly), who can provide expert advice and directly assist teachers (and schools) to introduce this exciting and timely new SACE subject into their senior secondary curriculum offerings. Kelly Sharrad: ksharrad@gmail.com

For information contact the Geoscience Pathways Project:

Outreach Officer - Kelly Sharrad: ksharrad@gmail.com

Webmaster - Amanda Vernik: geoscience.pathways@gmail.com

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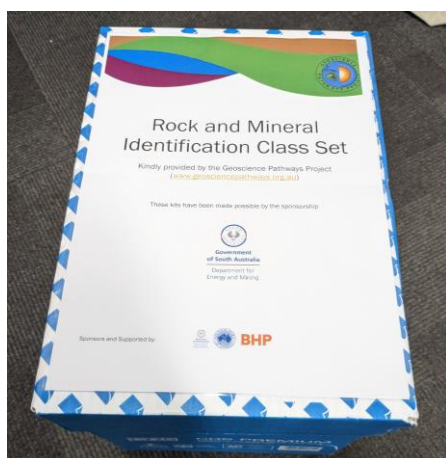


Update from our Geoscience Outreach Officer

Our Geoscience Outreach Officer, Kelly Sharrad, has been working hard to engage South Australian Schools in offering the Stage 1 and 2 SACE Earth and Environmental Science subject. This year, 4 new schools taught the semester 1 Stage 1 EES course with two of these schools confirming they will offer the Stage 2 EES course in 2024. Furthermore, Kelly has engaged 8 schools across South Australia that are offering the Stage 1 EES course in 2024. Moving further beyond next year, 4 schools are keen to offer Stage 1 EES in 2025 with 1 school for 2026. This success is mainly due to offering all resources required to teach the subject is provided to schools for free. This removes a significant workload burden for the average teacher, which is even more important with the current teacher shortage we are experiencing due to workload issues.

CONASTA – Adelaide 70 – GPP represented!

This year Adelaide had the pleasure of hosting CONASTA, the national science conference, that travels around the Nation. With the first keynote speaker focusing on the unique Ediacara Biota of South Australia, there was a direct focus on the Earth sciences. Education Outreach Officer, Kelly Sharrad, attended the three day conference which included a booth and presentation. Kelly had 23 meaningful conversations with teachers from both South Australia and other states throughout the three days. She also presented the Stage 1 EES course as a workshop where 12 teachers attended to hear what Geoscience Pathways Project was offering schools. Kelly also had the opportunity to network with other geoscience focused outreach including Geoscience Australia, CoRE and AusEarthEd which included discussion of opportunities where we could all work together to further the education of Geoscience in schools.



Free Rock and Mineral Identification Class Sets

As part of the Geoscience Pathways project we offer free class sets. Thank you to Luke for spending his time organising the next batches of class sets

Each set weighs up to 5kg and contains 10 samples of each of the following... rock types

- Igneous (Intrusive)
- Igneous (Extrusive)
- Metamorphic
- Sedimentary
- Ore



Additionally at least 5 minerals containing 10 samples each, fossils and opal. Contact geoscience.pathways@gmail.com



PALMS offers Free Incursion Visits in SA

After great success last year [PALMS](#) will be offering some incursions again in Whyalla during the last week of Term 3. If you would like to know more get in touch via their [online booking request form](#) or [email](#) if you have any queries.

The Origin of Animal Life – SA Museum Educational Sessions

Below is the information about Dr Felicity Coutts educational sessions at the SA Museum, after running a few of her first sessions she received this feedback:

It was really good, when we went to go see the different fossils I enjoyed it a lot, because we got to see fossils from over +555 million years ago and it was so cool because we could also touch the fossils and bones. I also enjoyed it when we found an ice wall where we could put our hand in it. And lastly I liked it when we learned about the big extinct animal like the big wombat. Overall it was really fun and I learnt a lot from Felicity. - Atong (Student)

In term 2 week 8 The year 5's got to go on an excursion to The South Australian Museum and Chinatown. We went to the museum first and a lovely lady named Felicity showed us around and taught us some amazing facts about sea creatures and animals from 50,000 years ago-555 million years ago.

Felicity was such a kind and warm hearted person it was so easy to have fun and learn what she was teaching. I had no things that I thought was bad about her. This was such a great experience and I would personally love to do this again. Thank you so much felicity for showing, teaching, having a laugh with us and having fun with us.

- Paige (Student)

I found the trip to the museum very enjoyable. I liked learning about all the ancient animals and Megafauna. The booklet Felicity made was good quality and the Diprotodon bag tags she gave us were cool. I liked using the silly putty to make moulds of creatures. It's obvious she put a lot of time and effort into making this enjoyable. Thank you Felicity for this experience.

- Jasper (Student)

Year 5 had been studying a unit focussed on animal adaptations. We came across a leaflet advertising Felicity's sessions and booked in for Term 2. Felicity delivered 3 sessions across consecutive days and accommodated 75 students. It was extremely easy to organise and Felicity was flexible and able to work around the school's requirements.

Felicity's knowledge and delivery were exceptional and all students were highly engaged throughout the sessions. The information was well-pitched and the students were provided with interactive tasks to maintain their interest. Having Felicity guide the students through the museum meant the information could be tailored specifically to the needs of the Year 5 students and be presented in a child-friendly manner.

Felicity is to be highly commended for her manner with the students. They were keen to listen to her and found her easy to approach with their questions. I would highly recommend Felicity and her Origin of Animal Life educational sessions. We will most definitely be booking this session next year.

- Laura (Teacher)

The Origin of Animal Life

Learn about South Australia's amazing Natural History

Come on a fun and educational tour at the South Australian Museum and learn about the ancient life that once **swam** in our oceans and **walked** our lands.

Dr Felicity Coutts will take your class back in time on a guided session through the Palaeontology level of the South Australian Museum. Hear how our ancient animal ancestors – the Ediacara biota – went extinct and gave rise to the Cambrian ‘explosion’ of animal life as we know it today!

Learn about South Australia’s marine reptiles during the age of the dinosaurs, and how they became opalised, and discover the extinct giant marsupials that once roamed Australia.

Educational sessions begin on the lawns outside the South Australian Museum at 9.45am and finish by 11.45am. Transport to and from the South Australian Museum to be arranged by the school.

Sessions will address the following year levels and key curriculum content

Year 4: Earth & Space Sciences

Earth’s surface changes over time as a result of natural processes and human activity (ACSSU075).

Elaboration: Collecting evidence of change from local landforms, rocks or fossils.

Activity workbook: Observing and evaluating fossils and rocks.

Year 5: Biological Sciences

Living things have structural features and adaptations that help them to survive in their environment (ACSSU043).

Activity workbook: Observing and evaluating the different fossilised animals, their different body types and how these body types are adapted to the surrounding environments.

Year 6: Biological Sciences

The growth and survival of living things are affected by physical conditions of their environment (ACSSU094).

Activity workbook: Observing the past environments where animal life lived. Evaluating how physical changes in these environments led to changes in the animal communities and influenced their survival.

Year 10: Biological Sciences

The theory of evolution by natural selection explains the diversity of living things and is supported by a range of scientific evidence (ACSSU185).

Elaboration: Evaluating and interpreting evidence for evolution, including the fossil record, chemical and anatomical similarities, and geographical distribution of species.

Activity workbook: Observation of past animal communities and specific fossils shows how animal life has changed dramatically over time through natural selection. Reference to scientific articles to show how scientific discoveries are made.

Students will be supplied with an engaging worksheet (aligned with the curriculum) on arrival. Felicity will engage with the students and use the activity sheet to help facilitate student learning throughout the session.



Location: South Australian Museum, Level Three

Duration: 2 hours

Cost: \$25 per student

Groups of max. 30 students or 60 students preferable (due to room availability).

To book or get in touch, contact Felicity at felicitycouthts@gmail.com or 0418 831 944

To provide enough notice, please book at least one month in advance of the session

Please note: The topics of the educational session will depend on the year level of the class

Altered start and finish times of the sessions can be arranged

See you at the South Australian Museum! 😊



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Resources for teachers

R-10 science teachers:

Our Geoscience Pathways website provides a range of resources suitable for teaching topics in the Earth & Space strand of the Australian Curriculum: Science (V 8.4). In addition, it is strongly recommended that teachers of R-10 Science refer to the excellent resources offered by Australian Earth Science Education. These are available for free download from <https://ausearthed.com.au/#>

11-12 teachers of SACE Earth & Environmental Science:

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Thank you to our sponsors

Thank you to all of the organisations and government departments that support the GPP work. We are a not for profit organisation that offer free training and support in the uptake of Earth and Environmental Sciences in schools. Without these sponsors we would not be able to support the EES teachers of SA.



However to continue our work we still need sponsors...For information contact: lenaltman9@gmail.com

PLEASE SUPPORT US

Gold sponsorship \$10 000 pa

Silver sponsorship \$5000 pa

Bronze sponsorship \$2500

2022/2023 Committee Members

The following are the members of our current Geoscience Pathways Management Committee who were elected at our AGM in March 2022 – we will soon organise our next AGM, anyone is welcome to join:

Len Altman (Chairperson)
Kelly Sharrad (GOO, Open Access College)
Luke McKay (GPP Coordinator)
Amanda Vernik (GPP Webmaster, GPP Secretary)
Graziela Miot da Silva (Flinders University - Earth Scientist)
Nick Wilkins (Flinders University)
Bronte Nicholls (Adelaide Botanic High - Teaching EES)
Tamara Cave (Tate Museum)

Lewis Subelli (Uni of Adelaide - Pre service teacher)
Alan Collins (University of Adelaide - Professor)
Carol Aldous (Flinders University - Earth Science Teacher Education)
Sarah Chinnner (BHP)
Zoe Hewett (Department for Energy and Mining)
Alan Brenchley (TafeSA)
Adam Davey (TafeSA)

Thank you to our members for their dedication and support to the Geoscience Pathways Project.

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Next Meeting

Our next Committee meeting will be a 'virtual' meeting using Google Meet:

Term 3 Week 5 - 2023 - 22nd August at 4:30pm

Please email geoscience.pathways@gmail.com if you wish to join,

All are welcome.

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