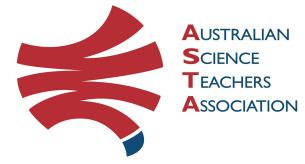




# Teacher Earth Science Education Programme



## Professional Development Workshop Series in Earth and Environmental Science at Geoscience Australia's Education Centre, Canberra

**Monday 04/12/23 – Plate tectonics and the rock cycle** discusses how plate tectonics controls the rock cycle, including how and where rocks form. The workshop will describe how plate tectonics works, examine associated hazards, and investigate the development of the theory – including the role of Marie Tharp. The workshop will integrate hands-on activities to describe rocks, rock cycle examples, and explore how the properties of rocks provide resources, including for First Nations Australians.

- *This workshop includes a ~2-hour afternoon self-drive field trip to Red Hill – an opportunity to learn some basic geological mapping skills including rock descriptions and measurements, discuss local ACT geology, and examine how the underlying geology influences soil, water and vegetation. The field trip will be self-drive from Geoscience Australia to Red Hill and will finish at Red Hill at 3.30pm. An optional stop to examine the Deakin Anticline with a 4pm finish is also available.*
- *The field trip will include ~3km of walking on uneven, gravel paths with short but steep inclines and declines. Attendees will need to wear enclosed shoes, wear appropriate clothing for the weather and bring sun protection including a hat plus water. In the case of extreme weather conditions, replacement activities will be used in this session.*

**Tuesday 05/12/23 – Critical minerals in the energy transition** will discuss the drivers of the transition from non-renewable to renewable, and the pros and cons of different energy types and storage. As certain minerals are critical to the energy transition, the workshop will explain which minerals are considered critical and why, examine their properties, how they form and can be recycled, and their supply and demand.

- *This workshop will include hands-on activities to look at mineral properties, presentations by Geoscience Australia (GA) geoscientists on Australia's critical minerals, and will include access to mineral and rock samples from the GA's National Mineral and Fossil Collection.*

The PD workshops will include **hands-on classroom exercises**, an **overview of the integrated TESEP rock kit**, **plate tectonic poster** and **online resources**, and an opportunity to learn more about the **role of GA and Education Centre**.

The topics are focused on teachers of years 7-10 secondary science students and will be of interest to upper primary science years 4-6. Registration includes a \$15 lunch voucher for the Blackstone Café at GA. Morning and afternoon tea will be provided. Teachers and laboratory technicians are welcome to attend. An ASTA Certificate of PD Attendance will be issued.

Presenter: Phil Gilmore is a TESEP regional coordinator, and a geoscientist with over 25 years of experience and expertise in geological mapping and geodynamics, mineral systems and exploration, outreach and geotourism

### Workshop: **Plate tectonics and the rock cycle**

Date: Monday 4 December 2023

Time: 9am to 3.30/4 pm Cost: \$70

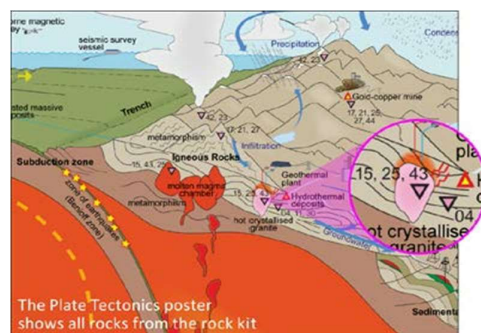
Venue: Starts at the Geoscience Australia's Education Centre (101 Jerrabomberra Avenue, Symonston, ACT), finishes at Red Hill at 3.30pm or Deakin shops at 4pm.

### Workshop: **Critical minerals in the energy transition**

Date: Tuesday 5 December 2023

Time: 9am to 3 pm Cost: \$70

Venue: Geoscience Australia's Education Centre (101 Jerrabomberra Avenue, Symonston, ACT)



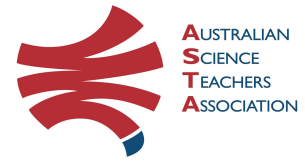
## TEACHER EARTH SCIENCE EDUCATION PROGRAMME

\* Professional Development \* Unique teaching materials \* Curriculum resources portal \*

See [www.tesep.org.au](http://www.tesep.org.au) for more information.



# Teacher Earth Science Education Programme



To register for a workshop:

1. Please complete the following form and email to both [registration@tesep.org.au](mailto:registration@tesep.org.au) and [officemanager@asta.edu.au](mailto:officemanager@asta.edu.au)
2. You will be issued with an invoice by ASTA for payment by direct bank transfer or credit card.

WORKSHOP DETAILS		
Please select one of the three options below:		
<input type="checkbox"/> <b>Plate tectonics and the rock cycle PD, including field trip.</b> Monday 04/12/23 Geoscience Australia and Red Hill \$70	<input type="checkbox"/> <b>Critical minerals in the energy transition PD</b> Tuesday 05/12/23 Geoscience Australia \$70	<input type="checkbox"/> <b>Both PDs including the field trip</b> Monday 04/12/23 and Tuesday 05/12/23 Geoscience Australia and Red Hill \$140
YOUR DETAILS		
Name:	School:	
Teaching area:	Phone (school): Phone (mobile):	
Email:		
Postal address (for certificate):		
Dietary or other requirements:		
PAYMENT DETAILS		
The registration fee is \$70 per registrant per workshop or \$140 per registrant for both workshops (incl. GST).  The registration fee is non-refundable – though the fee is transferable to another PD workshop or for another teacher to substitute.  An invoice will be emailed to you by the ASTA (Australian Science Teachers Association, ABN 87 902 882 824). The invoice can be paid by direct bank transfer or by credit card. Contact Michelle Lollback (ASTA Office Manager) <a href="mailto:officemanager@asta.edu.au">officemanager@asta.edu.au</a> if any queries.		
CERTIFICATE OF PARTICIPATION		
A certificate will be issued by ASTA which states the number of PD attendance hours.  For ACT Teachers: This workshop can be counted towards Teacher Identified hours for TQI accreditation.  Please note that issuing of a certificate is conditional on workshop payment.		

Please contact us if any queries or for more information!



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