

Professional Development Workshop Series in Earth and Environmental Sciences

TESEP PRESENTS: FIELDTRIP

Otway Fieldtrip

Date: Wednesday 5th July 2017

Time: 9.30am to 4.00pm

Venue: Meet at Kardinia International College, 29-31 Kardinia Drive,
Bell Post Hill, VIC 3215

Presenter: Greg McNamara – Greg McNamara is an experienced geologist and science teacher and also TESEP Executive Officer, editor of the Australian Geoscience Council's GeoEdLink e-newsletter, and Education and Outreach Consultant to the Geological Society of Australia.

Travel costs
to and from
Geelong
covered*

*maximum of \$100
per person or vehicle



Programme:

The Otway Basin is a large, northwest trending basin along the southern Australian coast. It extends from east of Geelong in Victoria to Robe in South Australia. It consists of a series of superimposed sedimentary sequences, each deposited during different phases of the separation of Antarctica from Australia's southern margin.

On this field trip, teachers will learn about why the location is geologically significant. The cliffs at the locations to be visited display distinct igneous and sedimentary rock sequences formed under a different set of conditions approximately 40 and 20 million years ago

Stop 1: Soapy Rock

Anglesea Sand, Angahook Formation

Stop 2: Airey's Inlet

Angahook Formation, Volcanics, Point Addis Limestone

Stop 3: Point Addis, East Side

Anglesea Sand, Angahook Formation, Point Addis Limestone

Stop 4: Point Addis, West Side

Point Addis Limestone, Puebla Clay

Stop 5: Bird Rock

Jan Juc Marl, Puebla Clay, Cellepora Beds

There will be a stop in Anglesea for lunch.

Teacher Earth Science Education Programme



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Key concepts to be discussed will be:

- Processes that form sedimentary rocks
- Timescales involved in the formation of the sequence
- Observed physical and chemical properties of some common rock types
- The role of forces and energy in the formation of igneous and sedimentary rocks
- Recognising that some rocks provide valuable resources

Links to the Victorian Curriculum:

- Sedimentary, igneous and metamorphic rocks contain minerals and are formed by processes that occur within Earth over a variety of timescales (VCSSU102)
- Some of Earth's resources are renewable, including water that cycles through the environment, but others are non-renewable (VCSSU100)
- Solutions to contemporary issues that are found using science and technology, may impact on other areas of society and may involve ethical considerations (VCSSU090)
- The theory of plate tectonics explains global patterns of geological activity and continental movement (VCSSU127)
- Geomorphic processes that produce landforms (VCGGK117)
- Scientific understanding, including models and theories, is contestable and is refined over time through a process of review by the scientific community (VCSSU114)
- Advances in scientific understanding often rely on developments in technology and technological advances are often linked to scientific discoveries (VCSSU115)
- Scientific knowledge has changed peoples' understanding of the world and is refined as new evidence becomes available (VCSSU089)
- Communicate ideas, findings and solutions to problems including identifying impacts and limitations of conclusions and using appropriate scientific language and representations (VCSIS113)

This professional development session is one part of 3. The others include:

PD 1: Round and Round with Rocks, 3rd July at Kardinia International College, Geelong

PD 9: Plate Tectonics, 4th July at Kardinia International College, Geelong

Participants must have attended a TESEP PD in the past or attend one or all sessions at Kardinia College to be eligible to attend the field trip.

Teachers will receive all posters, CDs, DVDs etc. free of charge [after paying the \$55 registration fee] BUT only if they attend the PDs. They also receive an ASTA Certificate of Attendance that they can use for proof of PD if needed.

What TESEP offers teachers and laboratory technicians

- Limited CRT is available on request (contact the TESEP coordinator)
- PD hours will be noted on a certificate of attendance issued by ASTA
- run-through the topic, with experiments, demonstrations and activities
- lunch, morning and afternoon tea
- DVD, posters and class exercise material from the PD
- talks with industry geologists and half-day field trips
- two nights accommodation for a three-day combined PD workshops (conditions apply)
- one nights accommodation for a two-day individual PD workshop (conditions apply)
- travel supported by \$100 petrol allowance (conditions apply)
- access to trained presenters and geology professionals
- introduction to and guidance in Earth and Environmental Sciences

A non-refundable* \$55 registration fee applies.

*The fee is transferable to another PD workshop or for another teacher to substitute.

Approval by your school principal, prior to registration is recommended.

Register through registration@tesep.org.au

Please CC VIC_coord@tesep.org.au for confirmation.

For further details or a copy of the registration form contact TESEP's Victorian coordinator Emily Rochette at VIC_coord@tesep.org.au or 0420 598 272.

See tesep.org.au for topics in this series:

*Riding the Climate
Roller Coaster*

*Round and Round with
Rocks*

Our Place in Space

Fossil Sunlight

Powerful Stuff

Greening Coal

Wet Rocks

Hot Rocks

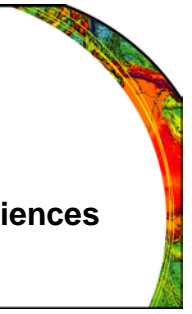
Plate Tectonics

tesep.org.au

asta.edu.au

pesa.com.au

Workshops are cancelled 5 working days prior if insufficient registrations are received.
Late registrations may be accepted if the workshop is running. Always contact us and ask!



Teacher Earth Science Education Programme

Professional Development Workshop Series in Earth and Environmental Sciences
 PD workshop registration form

Workshops run from 9am to 4pm (unless otherwise indicated).

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Late registrations may be accepted if the workshop is running. Always contact us and ask!

PLEASE PRINT CLEARLY

Workshop name:	Date:
Venue:	State:

Name:		
School:		
Teaching area:		
Phone (school):	(home):	(mobile):
Email:	Fax:	
Home postal address:		
Special dietary and other requirements:		

Registration Fee: \$55 per day applies for all registrants, except for Casual/Temporary Relief Teachers, Student Teachers, unemployed and under-employed teachers, where a maximum of \$55 for one or two day workshop and associated field day will apply. To claim the discount please tick the box and state your reason for the claim:

Yes I would like to claim the discount because I am

Email or fax form to ASTA (office manager – Michelle Lollback). Send the non-refundable* registration fee (includes GST) to Australian Science Teachers Association (ABN 87 902 882 824)

Payment can be made by direct bank transfer or cheque/money order

Include your name and workshop details with payment (e.g. TESEP PD9 WA July 16 J. Citizen)

*The fee is transferable to another PD workshop or for another teacher to substitute

Fax: 02 6282 9477

Email: officemanager@asta.edu.au

Address: TESEP
 c/o ASTA
 PO Box 334
 Deakin West ACT 2600

Account details: Australian Science Teachers Association (ASTA)
 BSB: 082 902
 Account No: 556 705 700

Please tick if you require an invoice and provide the correct address for invoicing if different to your home address:

Please also email a copy of your completed form to TESEP registration: registration@tesep.org.au

A certificate will be issued by ASTA which states the number of PD attendance hours.

For registration inquiries contact registration@tesep.org.au

www.astesep.org.au www.astesa.edu.au

Please Note: Payment of subsidies and issuing of a certificate are conditional on workshop payment.