

# Teacher Earth Science Education Programme



## Professional Development Workshop Series in Earth and Environmental Sciences

### TESEP PRESENTS: Professional Development WORKSHOP 8

## PD 8 Powerful Stuff – The Energy Debate

Date: Sunday 29th October 2017

Time: 1.30pm – 4.30pm

Venue: St Margaret Mary's College, Crowle Street, Hyde Park, Townsville

**Presenter: Philip Sansom** – *Tasmanian TESEP Coordinator, a former secondary science teacher with extensive educational experience. Philip was also a former geologist working in the coal and petroleum exploration industry. He maintains an active interest in all areas of earth science and also undertakes research in paleontology at the University of Tasmania.*

#### Programme:

*This workshop examines the geology and physics of uranium and how this fuel works in modern reactors and places the common fears associated with this technology in context. The workshop also compares all sources of electrical energy: renewables and non-renewables and discusses them within the context of the Australian situation.*

*At the completion of this workshop teachers will be equipped with the background information and resources, including some practical activities, to assist them with teaching the requirements of the Australian Curriculum: Science.*

#### Links to the Australian Curriculum:

*There are many links, some of which are listed below*

#### Science Curriculum, Science Understanding:

##### Years 7 -10 Earth and space science

*7 – Some of Earth's resources are renewable ... but others are non-renewable.*

*8 – Sedimentary, igneous and metamorphic rocks contain minerals and are formed by processes that occur within Earth over a variety of timescales*

*10 – Global systems, including the carbon cycle, rely on interactions involving the biosphere, lithosphere, hydrosphere and atmosphere*

##### Senior Secondary Earth and Environmental Science

*Unit 3 – Living on Earth*

*Unit 4 – The Changing Earth*

**Registration Fee:** \$33 per half day workshop, or \$55 if attending the full day. Those teachers also attending the 3D Visualisation Workshop will receive a lunch voucher.

*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 night 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

#### See [tesep.org.au](http://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*

#### A non-refundable\* registration fee applies: \$33 (half day) or \$55 (full day).

*\*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](mailto:registration@tesep.org.au) or for further details contact Philip Sansom [TAS\\_coord@tesep.org.au](mailto:TAS_coord@tesep.org.au)

[tesep.org.au](http://tesep.org.au)  
[asta.edu.au](http://asta.edu.au)  
[pesa.com.au](http://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!