



VCE Physics Conference

Outreach workshops contextualise student learning

Dr Jessica Kvansakul and Emma Gill

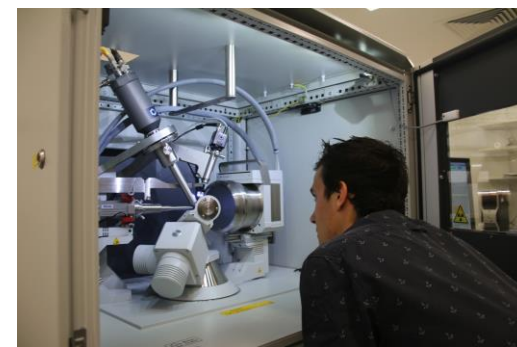
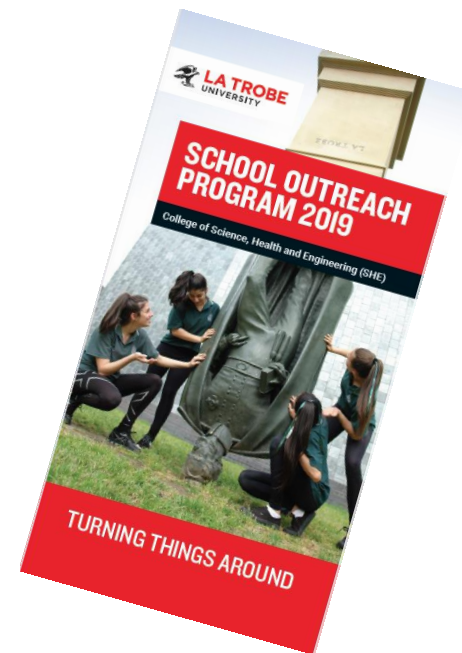


SCHOOL OUTREACH PROGRAM
TURNING THINGS AROUND

latrobe.edu.au/outreach

Science Outreach at La Trobe

- ❖ Workshops for high school students
- ❖ STEM activities not available at school
- ❖ Specialised equipment and expert knowledge
- ❖ Chance to see university life
- ❖ Teacher Professional Learning and regional programs also available



Outreach workshops contextualise learning

- ❖ Connect learning with contemporary research
- ❖ Deepen understanding of scientific method
- ❖ Consolidate key science skills:
 - Determine aims, hypothesis, predictions
 - Identify types of variables
 - Collect and record data
 - Analyse and evaluate results



Workshops aligned with VCE Physics curriculum

Unit 1 Area of Study 3
Radioactivity

Unit 3 Area of Study 2
Transmission of Electrical Power

Unit 4 Area of Study 2
Photoelectric Effect



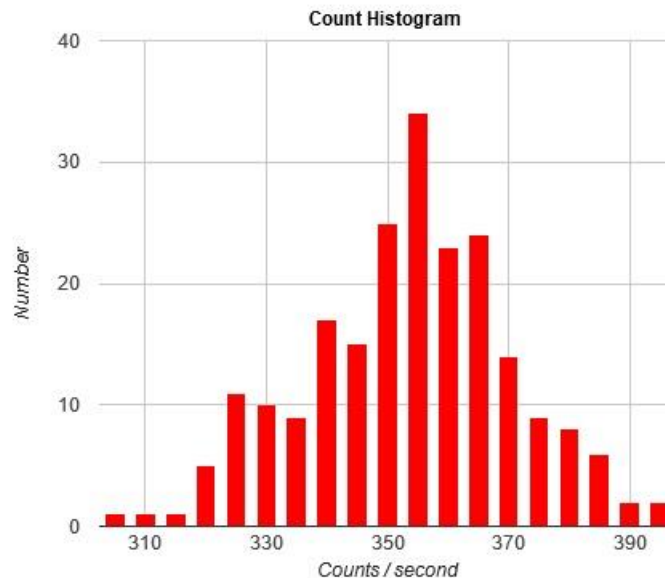
Radioactivity

Students use a Geiger tube to investigate the strength and randomness of emission from alpha, beta and gamma nuclear radiation sources.

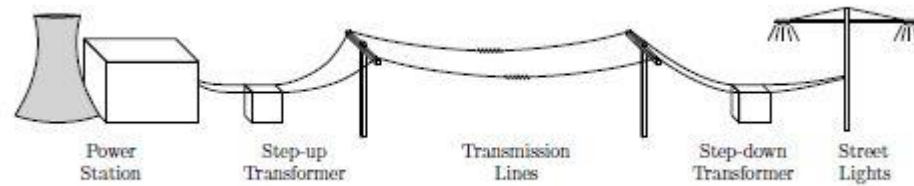
Expt 1: Random nature of radioactive decay

Expt 2: Penetrating power of β and γ rays

Expt 3: Inverse-square law

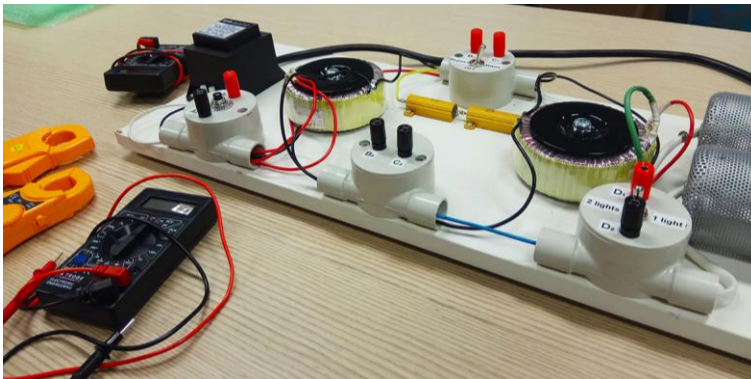
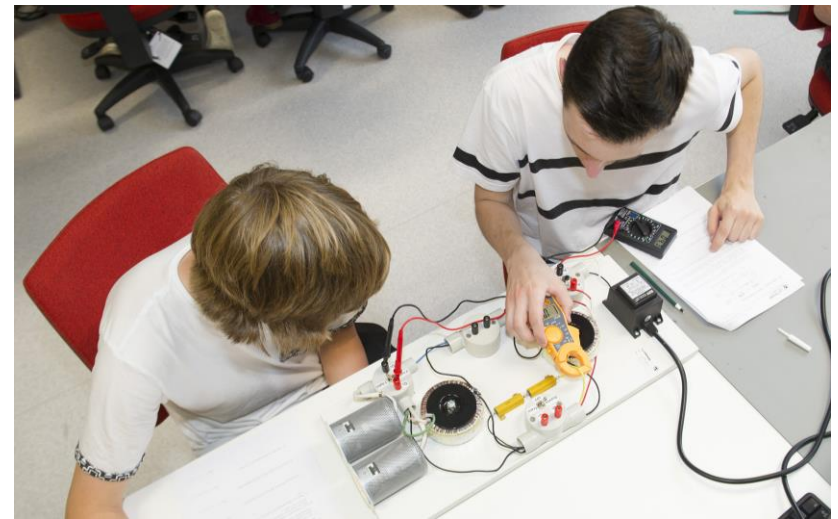


Transmission of Electrical Power



Students safely investigate the transmission of electrical power through resistive transmission lines.

Students use a special board that allows measurements of voltage and current at different parts of a transmission line.

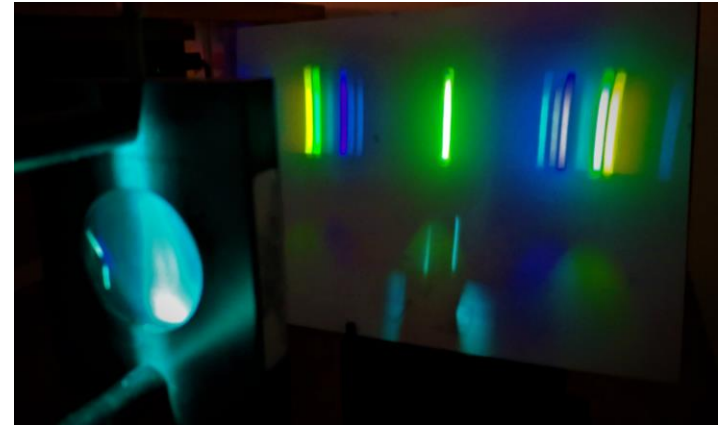


Photoelectric Effect

Students use a mercury discharge lamp and a diffraction grating to calculate Planck's constant and investigate the photoelectric effect.

Expt 1: Planck's constant

Expt 2: The dependence of the stopping potential on the intensity of light



HOW TO BOOK

Outreach General Enquiries

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THANK YOU

