



## Vicphysics Teachers' Network Beginning Physics Teachers' In-Service

**Monday 8th April, 2019**  
**Kew High School, High St., Kew.**  
**Melway map 45, K3.**



Car: Park in staff car park off High St, entry is adjacent to parkland.

Tram: Nos 24, 48 at stop 43

Once inside the grounds, walk along the north side of the East - West building, past the library towards the VCE Centre.

### **Program**

8:30 Registration

9:00 Opening - Structure of the day, amenities etc: Jane Coyle, St Columba's College

9:15 Pracs in an activity based classroom: A hands on session to try out a diverse range of practical activities and EPI topics. The equipment will also be available throughout the day.

10:15 Tools for probing and enhancing conceptual understanding with Dr Barbara McKinnon, Kew High School

11:15 Morning Tea

11:45 Panel Discussion on first teaching Physics with some participants from last year's In-Service: Paul Walters, Swinburne Senior Secondary College, Ashleigh Holland, The Knox School plus one other

12:30 Lunch

1:15 Preparing Students for VCE Physics Exams:  
Andrew Hansen, Ringwood Secondary College, Chief Assessor

2:15 Designing assessments (other than Prac Investigations): Jane Coyle, St Columba's College

3:15 Afternoon tea

3:30 Panel Discussion by experienced teachers on one or more of the following:

- Managing Practical Investigations: How to get kids to generate topics?, How do you monitor log books, How do the students use IT? How do you assess the work? How do you manage the poster?
- Assessment tasks: What tasks do you do and why?
- Explaining tricky concepts, e.g. voltage and current (see below): How do you do it?
- Doing multiple Unit 2 options

4:00 Finish

### Suggestions of concepts that some students struggle with:

Unit 1 Thermodynamics Zeroth Law, Internal energy, 1st Law

What is Matter? Big Bang, Inflation, Binding energy

Unit 2 Motion Acceleration and velocity; Weight and mass; Newton's 3<sup>rd</sup> Law

Unit 3 Motion Projectile Motion (components and energy); Centripetal acceleration

Fields Comparing fields

Electrical Energy Change in magnetic flux and EMI; Transmission lines

Unit 4 Light and Matter Heisenberg Uncertainty Principle