



## Workshop 1

### Interactions: Making sense of Newton's laws of motion



Newton's Laws of Motion epitomise the essence of physics: three simple statements that together account for all the mechanical interactions in our experiential world, and yield elegant mathematical predictions. Yet for many people they also represent everything that is most impenetrable and abstract in physics. In this workshop we will look for the meaning behind the archaic expressions of these laws, and explore their ramifications for understanding everyday experiences such as skateboard riding and trampoline jumps.

#### **What previous participants have said:**

- Very Beneficial.
- Christina was very thoughtful in what she chose to include in her presentation.
- Great ideas and good presentation to help me understand concepts and how to help explain them to students in a clear and easy manner. Thank you.
- Well paced, informative. Enough time for interaction.
- Excellent session, very helpful. Christina is highly knowledgeable, awesome. I will be more confident and will enjoy teaching this topic.



#### **This workshop will be offered early in 2018**

Time: 9.30am – 4.00pm

Venue: STAV House, 5 Munro Street, Coburg

Presenter: Christina Hart

**To register fill in this form or go to:** [www.sciencevictoria.com.au/otherPD.html](http://www.sciencevictoria.com.au/otherPD.html)

## Workshop 2

### Modelling electricity: from batteries to power stations



Students enjoy setting up electric circuits, but even simple circuits can raise curly conceptual questions. If teachers are apprehensive about such questions, they may resort to teaching equations that obscure the fascination and relevance of electricity in students' lives. In this workshop we will explore some models that allow us to interpret what is happening and make simple predictions without using equations. The journey takes us from batteries to the state power-supply system.

#### **What previous participants have said:**

- It was really practical and encouraged me to challenge my own and my students thinking. I have never had such a practically based PD.
- It was certainly worth the effort to come down for the session. I have a much better understanding of electrical current and how to implement it at school.
- Very practical applications of how to teach electricity. Christina made it very easy to understand all aspects of electricity and will help me teach my students.
- Christina was extremely knowledgeable and helpful. The demos were great.

#### **This workshop will be offered Friday 1 November 2017**

Time: 9.30am – 4.00pm

Venue: STAV House, 5 Munro Street, Coburg

Presenter: Christina Hart



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