

2010 OTF summer program



Subject-Based Workshops

THE PHYSICS CLASSROOM: RESEARCH INTO PRACTICE

August 11-13, Ottawa

[Accommodation and Venue Information](#)

Presented by:

Ontario Association of Physics Teachers (OAPT)

Brief Description

Explore ideas on how to weave differentiated instruction, inquiry-based learning, role playing, and dollar-store equipment into rich learning experiences guaranteed to increase student understanding and Physics enrolment.

Full Description

This September, Ontario rolled out a high school constructivist science curriculum promoting active learning and inquiry design. Dave and Roberta will share their extensive - and fun - repertoire of classic and modern physics resources that will help you meet this challenge.

Participants in this workshop will:

- Experience how role-playing, whiteboards, concept questions and interactive-lecture demonstrations can get students to confront their misconceptions and build robust mental models;
- Participants will learn how to develop literacy-rich guided-inquiry worksheets to maximize learning and communication;
- Participants will leave with lots of inexpensive tools to make all the physics strands come alive – from projectile motion to relativity.

Key items/issues to be covered as part of the workshop:

- Using whiteboards and concept questions to assess understanding and encourage the building of new mental models by students;
- Using interactive lecture tutorials to confront standard physics misconceptions;
- Inexpensive tools to make topics in modern physics more concrete and accessible;
- Developing literacy-rich guided-inquiry worksheets to maximize learning and communication;
- Instructional intelligence strategies as integral to a differentiated classroom;
- How to seamlessly weave assessment and evaluation into the physics program;
- Changes to the new physics curriculum and how to meet these challenges.