

Physics Workshops

in Elementary School Classrooms

Pricing, scheduling, format

\$4/student for 1-1½ hr lesson (including materials) through 2017, then \$5
 Workshops can be run before recess and/or after recess and/or afternoon
 All workshops can be adapted for any K-7 grade level
 No more than two different workshop topics can be run in one day
 The teacher must be present in the classroom during the workshop



Physics Workshops

Topic	Activity details
Motion and Forces	Play a desktop coin game to observe forces and how they are transferred. Build a catapult to show a chain of several types of forces and transfer of energy. Optional: focus on specific forces e.g. friction, magnetic force, air resistance
Sound	Build a noise maker to understand how sound is made, then explore pitch and tone. Optional: hear sound through different materials and learn how animals hear.
Heat	Understand heat conduction and convection through hands-on activities.
Transformation and conservation of energy	Design and build foam roller coasters for marbles. Understand the energy transformations occurring along the track.
Simple machines	Experiment with everyday household levers and wheel gadgets to understand the trade of force over distance. Find simple machines on students' bicycles.
Forces and Newton's Laws	Make and refine paper airplanes to figure out the balance of forces in flight. Set off balloon or film canister rockets to further explore Newton's Third Law.
Electricity	Freely experiment with wires, lights and batteries to discover some principles of electric current. Optional: make an electromagnet.
Other Physics topics can be developed into workshops. Please contact / see www.ingridscience.ca for ideas.	

Instructor



Ingrid Sulston, PhD, has 23 years of experience teaching hands-on science in schools, science centres and botanical gardens in Vancouver, New York City and San Francisco. The past eight years Ingrid has primarily worked in Elementary school classrooms in Vancouver, as a consultant and as a Scientist in the Vancouver School Board's Scientist in Residence Program.

