



GEERING UP
UBC ENGINEERING & SCIENCE FOR KIDS

HIGHSCHOOL STEM WORKSHOPS

Geering Up offers high school science and engineering workshops consisting of exciting demonstrations, interactive experiments, and hands-on activities from January to April. Workshops include two Geering Up instructors equipped with all supplies, enthusiasm and excitement for an hour to an hour and a half session.

Dates: January 22nd - April 27th

Length: 1-1.5 hours up to 3 workshops/day

Pricing: \$130 for 1, \$120 for 3, \$110 for 6+

To help offset the cost of vehicle rental and travel time, travel fees apply to all schools outside of Vancouver. Please visit www.geeringup.ca/workshops or email us at workshops@geeringup.ca for more information.

SAMPLE SCHEDULE

Each of our teams can teach up to three workshops a day, according to the following schedule. We are happy to accommodate the nuances of your schools' bell schedule.

9:00 am - 10:00 am Workshop 1

10:30 am - 11:30 am Workshop 2

1:00 pm - 2:00 pm Workshop 3

Please see the back for our workshop topics!

CONTACT US

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Address:

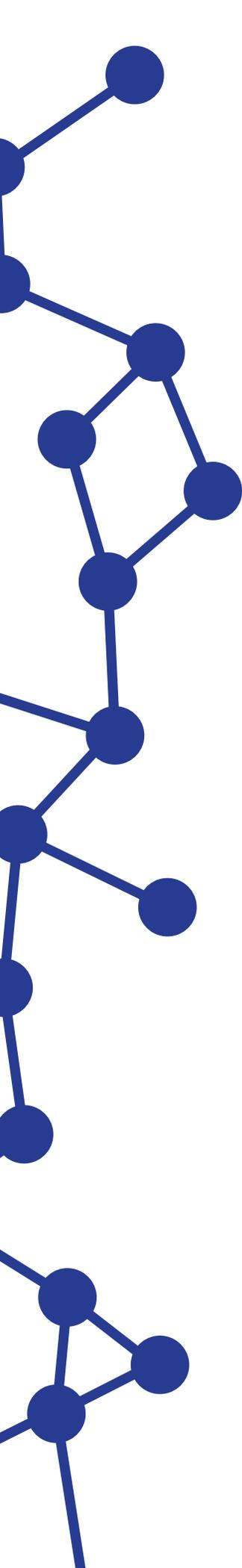
5000-2332 Main Mall

Vancouver, BC, V6T 1Z4

ACTUA

Geering Up is a proud network member of Actua. Actua provides training, resources and support to its national network of members located at universities and colleges across Canada in the delivery of science, technology, engineering and mathematics (STEM) education outreach programming. Each year these members engage over 225,000 youth in 500 communities nationwide. Please visit Actua at www.actua.ca.





WORKSHOP TOPICS

Grades 8 to 12 - Mastering Medicine

Learn how biology concepts play into the medical field! Students get the chance to be an epidemiologist and biomedical engineer for a day!

BC Science Curriculum Links - Grade 8: Life processes are performed at the cellular level, Biology 11: Cell Biology, Biology 12: Human Biology

Grades 8 and 11 - Fantastic Mr. Flux

Come learn about light! We will break down some exciting phenomena, and explore light as both a wave and a particle! Step into your lab coats and grab your lasers, as we explore the world of optics.

BC Science Curriculum links - Grade 8: Light Can Behave as a Wave or a Particle, Physics 11: Light Can be Modelled as a Wave or a Particle

Grades 10 to 12 - Dynamics and Design

Forces are everywhere in our day to day lives, and they are also a major consideration for engineering projects. Step into the shoes of an engineer and design your own project to deal with the forces around us!

BC Science Curriculum links - Grade 10: Energy, Physics 11: Newton's Laws, Forces, Energy, Physics 12: Dynamics, Work, Energy

Grades 8 to 12 - Electrifying Design

Students will use their existing knowledge of circuits and electricity, as well as learn a new skill: breadboarding! Join Geering Up in exploring how electronics work and what amazing things it can do.

BC Science Curriculum links - Grade 9: Circuits: Voltage, Current and Resistance, Physics 12: Electric circuits

Computer Science Workshops

Grades 7 to 9 - Digital Zoo

Students will apply their knowledge of the real world to programming, specifically object-oriented design. Start with a blank page and finish with a simple animation of a zoo containing the animals programmed by students themselves!

BC Science Curriculum links - Applied Design, Skills and Technologies 8 & 9, Science 9: Computational thinking

Grades 8 to 12 - Professor Python

Dip your toes into the exciting world of programming! Exercise computational thinking skills through game design, programming and exciting simulations of scientific phenomena!

BC Science Curriculum links - Applied Design, Skills and Technologies 8 & 9, Science 9 - 12: Computational Thinking

Grades 10 to 12 - Stimulating Simulations

Step into the life of a computational scientist and explore all of the possible outcomes of everyday phenomena! Model physical systems, change the parameters, make predictions, and observe what happens!

BC Science Curriculum links - Science 10 - 12: Computational Thinking, Physics 12: Dynamics, Energy, Kinematics, Calculus 12: Illustration of Mathematical Concepts

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