

ESfs 2025 Exhibitor Profiles

Alberta Geological Survey of the Alberta Energy Regulator C4

- Our exhibit focuses on earthquakes as an expression of plate tectonics and our dynamic Earth. We will discuss the concept of plate tectonics and show where earthquakes commonly occur in the world, including earthquakes of historical significance in Canada. We will discuss how earthquakes happen and demonstrate how they are measured by having participants jump and showing the response on a seismometer. We will have slinkies the participants can use to visualize the different types of waves created by earthquakes (P-waves and S-waves). Other topics for discussion will be earthquake safety and induced seismicity.

Blueshift ImmersiveD1

- Blueshift Immersive would like the opportunity to share the wonders of our planet through virtual reality technology. Elevator to the Centre of the Earth is an interactive virtual reality adventure that brings the furthest depths of our planet to life. Designed to support educators across schools, post-secondary institutions and museums to deliver rich, immersive earth science content, Elevator to the Centre of the Earth is sure to get kids and adults alike excited about the secret world beneath their feet-and how it affects their lives on the surface. Stepping inside a state-of-the-art, ultra-high-speed elevator, players are greeted by their friendly and knowledgeable companion, Mr. Magma, who will guide them on their journey. Once inside, players choose where to visit and how fast to travel. As they descend deeper into the planet, players can track their depth, temperature and pressure as they pass through the different layers of the Earth in their secure and climate-controlled cabin. Through the crystal-clear windows, players are treated to a 360-degree view of the different rocks and minerals that are found throughout our planet before stopping at various levels to complete engaging mini-games and fill their earth scientist’s toolkit on their journey to becoming a geologist. Our exhibit will include opportunities to don the headset and become a pioneering geologist, as well as the chance to talk to the creator—earth scientist and VR developer, Dr Louise Edwards, founder of Blueshift Immersive.

Calgary Rock and Lapidary Club C5

- We will have displays of interesting rocks, fossils, minerals, crystals. Charts and display of our club activities, studio.
- Volunteers will discuss, explain our display, and educate attendees about interests in rocks and our club. Rocks – how to collect; what can be collected; studied; worked on through lapidary techniques; identification.

Canadian Association of Geophysical Contractors A3

- We have a booth backdrop that was used previously, we will bring seismic equipment, sensors and a TV to explain technologies.
- We explain how we fit into the energy supply chain and the importance of energy to the wellbeing of the world’s population. We explain how we explore the subsurface for resources and the various technologies being used by contractors.

Canadian Natural Resources A1

- We focus on responsible exploration and extraction of natural resources. We have hands-on exhibits of geology and geophysics used in the search for hydrocarbons.

Canadian Nuclear Society B3

- We show a selection of common radioactive materials and an overview of the nuclear industry and recent developments.
- We describe Canada’s unique position in the nuclear field; our status as both major uranium producers and holders of the world’s most respected nuclear intellectual properties.

Canadian Rockies Earth Science Resource Centre C2

- We have a booth called the “Petroleum Exploration Cycle” that discusses the activities one does in the exploration for oil and gas - study regional geology to understand the area of interest, use seismic data to define drilling locations, drill wells to find reserves and produce product to the market. Lots of hands-on fossils and maps, etc, are available.

Canadian Society of Exploration Geophysicists (CSEG)..... C1

- We demonstrate how remote sensing and indirect measurements are used to understand the Earth. We display a Seismogram, slinky, and cutaway geophones.
- We describe how we help to find natural resources, water, hydrocarbons, metals and minerals, and identify and monitor natural hazards.

CREWES, University of Calgary B5

- The exhibit will consist of a wooden beam with geophones connected to a Geode recording system with a live display, an earthquake seismometer with a live display, and a ground penetrating radar cart which will show what the room looks like below the floor.

CSPG Foundation..... B2

- We have cores and rocks/fossils to handle, observe, and discuss.
- Our booth typically focuses on different types of rocks and what they mean in geologic context. We try to demonstrate how the earth has changed over time via interactive maps.

Earth@UCalgary..... C3

- We use an augmented reality sandbox, and Fossil casting.
- We will talk about what fossils are and how they are formed. We will allow students to create landforms in the sandbox and observe how water moves over landscapes.

Energi Simulation Centre D4

- We show a video presentation of the activities of the Energi Simulation Centre for Geothermal system research and the Energi simulation industrial research chair in energy transition.

ESfS Trilobite Fossil Station..... C6

- This booth focuses on the study of palaeontology, focusing specifically on trilobites! We have many hand samples as well as posters to show the various parts of the fossil and how to identify them as well as their significance.

Geoscience Activity Tables (Sunday afternoon and Monday evening)..... FOYER

- Geoscience colouring and activity pages for youth.

Journey 2050..... D5

- This exhibit will explore the topic of sustainably feeding our world in the year 2050. Discover a series of interactive activities focused on soil and its importance in our daily lives and food production. Participants of all ages will learn about sustainability in a fun and engaging way!

Let’s Talk Science at the University of Calgary D3

- Our exhibit, titled “Food Web Jenga”, aims to provide an engaging, hands-on learning experience for students, illustrating the complexity of food webs and the interconnectedness of ecosystems. Using a modified Jenga game, students will explore the impact of environmental factors on various levels of the food chain. Each block in the Jenga tower represents a different organism or element in the food web, such as primary producers, herbivores, carnivores, decomposers, and abiotic factors like sunlight or water. As students remove blocks, they will witness firsthand how removing or altering one element can destabilize the entire food web, simulating real-life ecological impacts.

Mining Matters A2

- Our exhibit will have minerals and rocks, including critical minerals, hands-on learning activities such as product matching, regional maps, Earth science and the United Nations Sustainable Development Goals, and Mining Matters materials.

Natural Resources Canada – Geological Survey of Canada (Calgary) B4

- We will have a variety of hands-on rock and mineral samples for participants to look at and handle. Geoscience experts who will be available to discuss their provenance and explain their significance. Demonstrations will be aimed at the macroscopic level.

Ocean Networks Canada..... D6

- Ocean Networks Canada will present several different activities that demonstrate how oceanographic data can be collected, used and depicted. Demonstrations will include a hydrophone, deep sea cameras, and marine life samples. Participants will explore how Ocean Networks Canada deploys equipment, how data helps lead to informed decisions and how data can be accessed and used by anyone around the world.

RASC Calgary B6

- Our display will highlight light pollution and energy efficiency. We will have a telescope for display and meteorite materials to examine.

Rothney Astrophysical Observatory D2

- Our theme is asteroids, what they are, orbits, how astronomers observe them and what we can learn from asteroids and the solar system. We will have three demonstrations that help visitors answer asteroid related questions. Team Astro undergrad volunteers will be at the tables and helping with hands on demonstrations.

Ten Peaks Innovation B1

- We will have pull-up banners behind the tables. We have interactive and hand-on energy conversion kits emulating the energy sources Alberta has: wind, solar and natural gas turbines. Students can make the solar panel activate, while wind and turbines spin to generate electricity. That creates noise, makes lights blink and fans turn. Students must connect the end piece with the energy source using wires. When students engage with the kits, we discuss all forms of energy used to produce electricity: natural gas, geothermal, wind and solar.
- Ten Peaks are huge fans of carbon capture and technological advancements in geothermal to generate low carbon, low emission energy. We also showcase our mud watt kits – microbial fuel cell kits used in our case competition. We describe how microbes in the mud (in the active kits) are creating electricity, enough to power digital clocks and blinking lights. These kits are available to teachers for class science.

Women in Science and Engineering UCalgary..... A5

- Our exhibit has been a popular station for several years. We set up a small inflatable pool filled with cornstarch and water to demonstrate the fascinating properties of non-Newtonian fluids. As kids play with the ‘oobleck’, our volunteers engage them in discussions about what non-Newtonian fluids are, and we explore the concepts of high vs low viscosity. We also encourage the kids to think about non-Newtonian fluids they encounter in their daily lives, such as ketchup.

Yukon Dan Gold Panning A4

- Visitors will be panning for gold!