

**ESfs 2019 Exhibitor Profiles**

**AirTerra Inc. .... D2**

- AirTerra will demonstrate a biochar soil amendment product that is made from waste forest industry wood (saw mill wastes).
- This interactive exhibit will enable students to see and touch biochar and mix soils.

**Alberta Geological Survey of the Alberta Energy Regulator ..... C2**

- The focus of the exhibit will be on using 3D prints to highlight Alberta’s geology and geography.
- Attendees will solve 3D-printed geological puzzles (e.g. geological layers of Alberta) with a focus on the shape of the Alberta basin, the main geological units, and the processes of erosion that expose the geology beneath our feet.

**Alberta Palaeontological Society (Sunday only)..... A3**

- This booth will have a game for the kids to play and one or two additional rock and fossil displays.

**Beakerhead ..... D7**

- Beakerhead will be bringing a hands-on and delightful experience for attendees that will focus on what the future will look like in 3019!

**Burgess Shale Geoscience Foundation ..... C8**

- Burgess Shale Geoscience Foundation will have a fossil display for students to observe and geoscientists will answer questions and provide additional information on the Burgess Shale fossils.

**Calgary Rock and Lapidary Club ..... C6**

- Calgary Rock and Lapidary Club will have a display of interesting rocks, fossils, minerals, and crystals.
- Volunteers will discuss and explain all samples on display and educate attendees about rocks and the club.

**Canadian Association of Geophysical Contractors (CAGC)..... B6**

- This booth will be equipped with a TV and video as well as samples of what is used by contractors for resources, dummy explosives, survey equipment, maps, etc.

**Canadian Natural..... A5**

- Canadian Natural’s exhibit will showcase some of the principles of the type of reservoirs oil and gas where found.
- A presentation will show how they explore for hydrocarbons, a reservoir porosity experiment, and a simple quiz of where one would expect to find them.
- The demonstration will likely include both conventional oil reservoirs and oil sands reservoirs, as well as having actual core samples or photographs so that the students can see what they look like.

**Canadian Nuclear Society ..... B5**

- The Canadian Nuclear Society will be presenting a collection of common household radioactive materials with a geiger counter and display along with information about Canada’s nuclear power.

**Canadian Rockies Earth Science Resource Centre ..... C3**

- This booth will be the “Petroleum Exploration Cycle” that will discuss activities one does in the exploration for oil and gas, including studying regional geology, drilling wells, producing the products, etc.
- They will have hands-on activities such as fossils and maps.

**Canadian Society of Exploration Geophysicists..... D6**

- This booth will demonstrate how remote sensing and indirect measurements are used to understand the Earth.
- Hands on activities will include a seismograph, slinky and cutaway geophones.

**CanGEA ..... B1**

- CanGEA’s exhibit will present the basics of geothermal energy resources, how they are utilized, and how they relate to Canada’s energy future. Essentially, it will be a “Geothermal 101” booth.
- They are planning an activity that will demonstrate geothermal energy to students, such as a small-scale heat transfer demonstration, or something similar.

- Canmore Museum & Geoscience Centre ..... C4**
- This exhibit will be a matching activity that challenges visitors to link different Bow Valley rocks to the many different ways they've influenced the landscape, jobs, and communities that have been created in the Bow Valley.
- CREWES, University of Calgary ..... A6**
- Exhibit will have a seismic field truck loaded with a GPR cart, and a 60-channel seismic recording system with a live display.
  - There will also be an earthquake seismometer with a live display, cut-away 1C and 3C geophones, and a PowerPoint slide show.
- CSPG Foundation ..... B8**
- They will have rock kits containing sedimentary rocks. Sedimentary rocks contain many features and minerals that give geoscientists insight as to how those rocks were deposited and where they came from.
- Department of Geoscience, University of Calgary ..... C1**
- This interactive exhibit will display the use of minerals in everyday life, a groundwater flow model, illustration of the porosity and permeability of rocks, and attendees will get to make fossil casts!
- Energy Production & Transmission Canadian Geographic Giant Floor Map ..... D9**
- Energy is produced in many different places and in many different ways all across Canada.
  - Dive into the complex transmission lines that crisscross across our country and explore Canada's power generation, oil refineries, wind farms and more!
- ESfS Fossil Station ..... B9**
- 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.
- ESfS Geoscience Activity Tables ..... E8**
- Geoscience colouring and activity pages for youth.

**Evict Radon ..... D10**

- Evict Radon is a campaign out of the Charbonneau Cancer Institute from the University of Calgary. Their team combines grassroots science engagement and citizen science-based research in a way perhaps never seen before in Canada for preventing cancers.
- They will host a booth to help educate students and teachers about the science behind radon and the harmful effects of the gas. They'll showcase how radon damages our DNA and how it gets into our homes.

**Explor Geophysical ..... C9**

- Explor will be bringing a seismic interpretation centre showing layering within the earth on a large screen TV.
- They will also have an interactive display that demonstrates different seismic wave forms.

**Frank Slide Interpretive Centre ..... C7**

- Using a combination of pictures, objects, artefacts, and storytelling, the Frank Slide Interpretive Centre will show the geological cause of the Frank Slide and reveal what Turtle Mountain has in store for the future. Our exhibit will include the following:
- Pictures and diagrams of Turtle Mountain and the Turtle Mountain Monitoring Project.
- Sample of the different types of rock found in Turtle Mountain, along with a matching game where children try to match the rock to the material it is made of.
- A selection of coal mining artefacts, including a Davy Safety Lamp and a Canary Cage.

**Inside Education (Monday and Tuesday only) ..... A3**

- This booth will focus on stewardship and sustainable use of renewable and non-renewable resources.
- They will have lots of hands-on items including oil sand samples, rock samples, a model of wind turbines, solar panels and tools of the trade!
- This booth will also feature a mining kit and so much more!
- There will be a hands-on activity featuring energy efficiency and conservation.

**Journey 2050 ..... D4**

- This booth will feature educational tools and games from their program for teachers and students to interact with.
- The Journey 2050 program highlights sustainability in agriculture to show students where their food comes from and help develop an understanding of economic, environmental, and social factors involved in food production.

**Let’s Talk Science..... B2**

- This booth will focus on wind as a renewable resource.
- There will be a demo using a functioning wind turbine that will be connected to a volt meter and LED in order to demonstrate how the mechanical energy from wind can be converted into clean energy.

**Mining Matters ..... A2**

- This exhibit will have tabletop microscopes set up to allow the participants to look at thin sections of rock and even be able to take pictures of the rocks with their phones.
- There will be pictures of how different types of rocks are used, and the participants will be able to match the rock with its different uses.

**Natural Resources Canada – Geological Survey of Canada ..... B3**

- This booth will feature a variety of rocks and fossil materials for participants to look at and handle. Geoscience experts will be onsite to discuss the provenance and explain their significance
- There will also be demonstrations at the macroscopic and microscopic level!

**Ocean Networks Canada..... C5**

- The exhibit will highlight the ocean, Canadian technology used in exploration, and the usability and accessibility of big data. They will present materials/data based on and collected by Ocean Networks Canada’s underwater networks and equipment.
- Participants will be able to view deep sea video collected from their network of cameras, listen to audio (such as marine mammal vocalizations) collected via hydrophone, and identify how continual ocean monitoring enhances our understanding of complex ocean processes and events.
- Participants will also explore how Ocean Networks Canada technology operates, and how this contributes to science, engineering, technology and scientific understanding.

**Petro LMI ..... B4**

- The PetroLMI exhibit will offer a chance for students to take a virtual step onto a rig, experiencing what it feels like to work on both a conventional and an automated rig. Students will see the technology at work and the people required at various locations on the rig.
- They will also have career resources, including a self-assessment tool for students to see what kind of career in oil and gas might suit them best.
- As well, there will be information on the safety standards for the Canadian energy industry.

**Roots 2 STEM ..... D3**

- This booth will demonstrate some of their experiential learning activities for students with a challenging hands-on activity!
- This year's focus will be on Space and Canada's first satellite.

**Rothney Astrophysical Observatory ..... D1**

- The RAO will have the students and visitors complete an activity that investigates electromagnetism and will demonstrate that bar magnets have two poles and that the similar poles have different directions. Magnetic fields are invisible but can be measured and the earth is not the only body in our solar system with a magnetic field.

**Royal Astronomical Society of Canada ..... D5**

- This exhibit will focus on energy conservation and environmental stewardship through light pollution reduction. An additional focus will be on the Earth as a planet.
- They will also have telescopes on display.

**Society of Petroleum Engineers – Calgary Section ..... B7**

- They will be talking about the oil and gas industry in Western Canada. Volunteers at the booth will be professional engineers, geologists, geophysicists as well as university students. They will be discussing resource extraction, transportation and process of petroleum products such as plastics, fleece and fuel.

**Women in Science and Engineering (WISE) ..... A4**

- This booth will feature non-Newtonian fluids!
- Attendees can explore the properties of the fluid and learn about how it affects our lives.

**Yukon Dan..... A1**

- Visitors will be panning for gold!