

### 5. Encouraging First Nations Learners' Engagement in Science

It is important to remember that there is as much diversity between First Nations learners as there is among all learners in BC. What works for one learner may not work for all learners. However, there are some general strategies that can encourage more First Nations learners' interest and participation in the sciences.

- Emphasize experiential hands-on learning opportunities outside the classroom.
- Make room for students to explore aspects of science that they are interested in, and that are based in the learner's own curiosity.
- Provide opportunities for students to work with, and learn from, Indigenous role models who work in the sciences, or Indigenous post-secondary students in the sciences.
- Ensure that the learning in the classroom can be connected to the learner's knowledge outside the classroom.
- Honour that there is valuable knowledge in the sciences that is held by First Peoples (i.e. Indigenous Knowledge).
- When in the classroom, ensure rich lab-work opportunities.
- Focus on the application of knowledge.
- Ensure visible presence of Indigenous peoples/cultures in the classroom.
- Incorporate project-based learning that is connected to traditional First Nations seasonal practices (i.e. food-gathering or harvesting, hunting).
- Honour cultural knowledge of the students, and help them make "bridges" between different types of knowing.
- Model respect for Indigenous peoples and cultures.
- Create opportunities for students to engage in science clubs outside of the classroom. Hooking learners into the application of science may lead them to develop more interest in the theory.

In "Metaphorical Images of Sciences: The Perceptions and Experiences of Indigenous Students who are Successful in Senior Secondary Science," Anne Tenning interviewed Indigenous students who were high achievers in their secondary science classes. The following excerpts illustrate their perspectives about what encouraged them to pursue a science path.

- "I like how there's so many experiments you can do and it's challenging, but in the end, you feel like you gave your best and you feel happy that you found the answer to what you were doing. It gives you a sense of pride or something."
- "Inclusion of Indigenous Knowledge in science education would give all students a wider perspective about science."
- Indigenous Knowledge in science "would be a good way to learn things, especially for Aboriginal students – they'd get more into it, instead of thinking, 'oh, this is boring' and they'd maybe want to explore more sciences if they were learning about their own people." [A student] explained that Western Science is "contradictory to what you're