

2017 Forest Education Institute

26 Teachers from 14 Alberta communities traveled 1000+ kilometres over 5 days through **3 Treaty Territories** and 4 natural regions stopping at **4** Demonstration Forests to learn from 28 expert guests and participate in 7 tours making 100's of connections to curriculum and 1000+ memories impacting 2000+ students

July 4 - 8, 2017

Edmonton - Whitecourt - Edson - Hinton - Rocky Mountain House -Kananaskis

Advancing Forest Education in Alberta

Inside Education's forest education program took to the woods to examine how Alberta's forests are crucial to our environment, economy and society. The 26 participating teachers from across Alberta learned how to bring forests ecosystems and Alberta's forest sector into the classroom using multiple perspectives, current science and critical thinking. The goal of the Forest Education Institute is to connect teachers with local experts, on-the-ground operations, and a network of education professionals to empower them to take their experiences back into their classrooms. For many of our participants this was a once-in-a-lifetime chance to ask questions, hear about current leading edge research, and better understand the forest industry, as well as the forest itself.

The participants will be bringing information, photos, and excitement back to an estimated **2000 students** across the province. Several grades have units dedicated to plants and forests, yet not all teachers have access to up-to-date, current information about the forestry industry. All of our teachers committed to using the information to enhance their existing lesson plans, and hope to expand on their projects to incorporate more hands-on activities and the experiences from the program.

"Inside Education is truly a gift to educators and students across Alberta! Fostering critical thinkers involving multiple perspectives through the work you do is inspiring. Thank you! Thank you! Thank you!" - Kerri-Ann Dalstra, Gateway Christian School, Red Deer

The Program

Tuesday July 4 Forest Ecosystems & Forest Science

- •Forests 101 Alex Drummond, Canadian Institute of Forestry & University of Alberta
- Future Forests Workshop & Tour Natural Resources Canada Northern Forestry Centre
- Keynote Dinner with Minister of Agriculture & Forestry Oneil Carlier

Wednesday July 5 Forest Management & Harvesting Huestis Demonstration Forest

Forest Management Field Tour, including timber cruising and tree planting activities - Millar Western Forest Products Ltd.
Forest Harvesting Field Tour - Weyerhaeuser Canada, Edson

Thursday July 6 **Wildlife Research** Des Crossley Demonstration Forest

- Research Projects & Field Tour, including woodland caribou, grizzly bear, stream crossing and mountain pine beetle projects - fRi Research
- Scenic Bus Tour through the foothills
- A stakeholder perspective: trapping in Alberta Ross Hinter Alberta Trappers Association

Friday July 7 **Wildlife Research** Jumpingpound Demonstration Forest

- Working Together: Integrated Resource Management Tom Daniels, Sundre Forest Products
- Forest Products Mill Tour West Fraser LVL Mill
- Forested Watersheds Field Tour Micheal Wagner, Forest Hydrologist Alberta Agriculture and Forestry

Saturday July 8 Classroom Connections

 Bringing it all together: Forest Education Workshop - Inside Education, The Biogeoscience Institutute, Work Wild

*full program itinerary in appendix A

Meet the teachers

A visit with Minister of Agriculture and Forestry Oneil Carlier!



Ghazala Azam Tammy Bryan Herbert Chinake Sonia Chopra Mark Luigi Coletta **Diane Cote Kerrie-Ann Dalstra Dominique Davidson-Befus Jay Doolittle Jaycee Doolittle** Alexander Drummond Jason Ferster **Amber Gratton** Joanna Hardv **Bruce McGilvery Jeffrey Mikulin Ann Normand** Laurie Phillips Tasha Roa-Yaremkowycz Lorna Rve **Nadine Trenchard** Trudy van de Werfhorst **Chantalle Wakelin Corinne Webb** Natasha Wenslev Katrina Yaworski

Grace Martin School, Edmonton Dr. Ken Sauer School, Medicine Hat Chiniki Community College, Morley Calgary Board of Education, Calgary High Park School, Stony Plain St. Francis of Assisi Middle School. Red Deer Gateway Christian School, Red Deer St. Matthew School, Calgary St. Mary's School, Taber Magrath Elementary School, Magrath University of Alberta, Edmonton Linsford Park School, Leduc **Georges Primeau School, Morinville Centennial High School, Calgary Onchaminahos, Saddle Lake Ross Sheppard High School, Edmonton** Work Wild, Edmonton Terrace Ridge School, Lacombe **University School, Calgary** Chiniki Community College, Morley J.J.Nearing School, St. Albert St. Joseph Elementary, Calgary Summit Kids, Chestermere Simons Valley School, Calgary Horse Hill, Calgary St. John Paul II Catholic, Stony Plain



100% of survey respondents found the program to be:

- worthwhile
- inspiring
- a good networking opportunity
- relevant to their teaching
- an overall high quality professional development experience
- and would recommend to their colleagues

Program Impact & Feedback

Inside Education is excited to share the outstanding feedback received from teachers participants. The results below affirm Inside Education's approach to experiential professional development programs as an effective way to increase understanding of natural resource development in Alberta and support teachers in bringing multiple perspectives to the classroom.

The program aimed to increase understanding about the forest sector in Alberta. We asked the participants to rate their level of understanding of forest related topics before and after the program; the results show that we enabled teachers to go beyond the basics in all topic areas bringing new information, context and perspectives (table 1). Through a greater understanding of forest topics comes increased confidence (chart 1) to bring these important topics to their classroom. Inside Education believes that through developing understanding and increasing confidence, Alberta teachers are better equipped to develop meaningful Alberta-relevant forest curriculum for their students. Below is are examples of the ways in which participants told us they are going to directly apply the information and resources from the program in their classrooms.

My Trees and Forests bulletin board this year is going to rock! I have more information, ideas, different perspectives, facts and quotes. I feel much more prepared to give informed and engaging lessons on trees and forests to my grade 6 students in the upcoming year!" Diane Cote, St. Francis of Assisi Middle School. Red Deer

"Being able to bring forestry into my Southern Alberta classroom has been a challenge. We don't have trees. After seeing the industry and networking with stakeholders, I can bring real world examples to the classroom." Jaycee Doolittle, Magrath School, Magrath

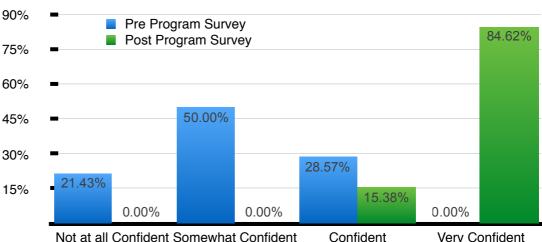


Chart 1: How confident are you in bringing forest related topics to your classroom?

Not at all Confident Somewhat Confident

Very Confident

Table 1: Level ofunderstanding about foresttopics - pre and postprogram (% of survey respondents)	Never considered this before/I need to learn more		I understand the basics		l have a comprehensive understanding	
	Pre	Post	Pre	Post	Pre	Post
Forest Ecosystems	50%	-	43%	38%	7%	62%
Forest Management	71%	-	29%	23%	-	77%
Forest Operations	64%	-	36%	38%	-	62%
Forest Stakeholders	57%	-	43%	31%	-	69%
Forests & Climate Change	57%	-	29%	46%	14%	54%
Forests & Wildlife	21%	-	72%	23%	7%	77%
Forests & Watersheds	64%	-	15%	46%	21%	54%
Forest technology and innovations	79%	-	21%	54%	-	46%

"I plan to use the knowledge I have gained to remove the negative perceptions and biases, and instead, give students a comprehensive understanding of our forests, including all the stakeholders involved and the balance needed." - Jason Ferster, Linsford Park School, Leduc

"I feel much more confident and positive about discussing the different stakeholders in forestry from their perspectives and being able to answer students' questions about forestry." Diane Cote, St. Francis of Assisi Middle School, Red Deer

"I applied to the Forestry PD with hopes of being in the bush and to learn things to bring back to my classroom. My hopes were reached above and beyond! I have a toolkit of stories, lessons, and people!" - Natasha Wensley, Horse Hill School, Calgary

Thank you to the Program Partners:

Education opportunities like this would not be possible without collaboration and the generous support of program partners. This program was delivered in cooperation with WorkWild and CAREERS: The Next Generation as an important component of the Forestry Futures Alliance. We would like to extend our gratitude to Forest Resource Improvement Association of Alberta and Millar Western Forest Products for their commitment to high quality, meaningful teacher professional development. Inside Education also appreciates the in-kind support provided by all of the expert guests, speakers and tour hosts who dedicated their time and enthusiasm to the program. Thank you!



Next Steps

For the past 30 years Inside Education has been a leader in forest education and we are continually building upon that legacy to support classroom teachers. Forests are a cross-curricular foundation for which teachers can bring a myriad of topics into their classroom and teachers are continually searching for insight and information into how to bring the topic to life for their students. We have seen an increase in demand for teacher professional development on forest related topics, especially in relation to key topics such as species at risk, climate change and water related programs. Inside Education will continue to support teachers through existing learning resources, classroom presentations, and field site programs. We are also hoping to facilitate the implementation of a provincial scale forest education summit to complement our Navigate & Generate Student Leadership Programs. Inside Education recognizes the important role of forest education in creating a generation of informed stewards and decision makers.





Inside Education Society of Alberta

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Forest Education Professional Development Program

July 4-8, 2017

A traveling forest tour through Alberta's Foothills

(Edmonton - Whitecourt - Edson - Hinton - Rocky Mountain House - Kananaskis)

Tuesday July 4, 2017

7:15 am - Southern Alberta Participants Meet at Cross Iron Mills Parking Lot for departure to Edmonton

Program Registration: 11:00am / **Program Start:** 11:15 am **Location**: Northern Forestry Centre, Edmonton

Welcome & Introduction to Alberta's Forests

Program Welcome & Introduction

Facilitator - Inside Education

This opening discussion will be an opportunity to set the stage for an exciting week ahead. This is a chance to get to know your Inside Education hosts, the teacher participants and the program itself.

Lunch

Forest 101

Presenter - Alex Drummond, Canadian Institute of Forestry & University of Alberta

This introductory session will tackle some of the basic science around Alberta's forest ecosystems and will prepare us for the wealth of information to come. Alex, a veteran forest educator, will examine forest ecology, forest succession, plant identification, and highlight the current topics shaping Alberta's Forestry Sector.

Forest Science, Research & Innovation

Future Forests - Presentation and Tour

Host: Northern Forestry Centre, Natural Resources Canada

We are going to check out 1 of 5 national forest research centres operated by the Canadian Forest Service/Natural Resources Canada. We will have the opportunity to see leading edge research facilities, meet with forest scientists and gain insight to how forest science is shaping what we know about these integral ecosystems and the future of our forests.

Travel to Whitecourt

Special Dinner with the Honourable Oneil Carlier Minister of Agriculture and Forestry

Overnight at the Kanata Inn Whitecourt

Wednesday July 5, 2017

Forest Management/Planning

A morning with Millar

It's time to get out in the field. The woodlands team from Millar Western will join us out at the Huestis Demonstration Forest to highlight how they develop forest management plans, select harvest sites, walk us through tree measurements and more! We will also have a look at a recent harvest block and have the chance to try our hand at tree planting.

Host – Millar Western Forest Products Ltd. Location - Huestis Demonstration Forest

Lunch & Travel to Edson

Forest Harvesting

Forest Harvesting

Lace up your boots, put on a safety vest and get out your cameras because we are going to watch a feller buncher in action and see an active logging operation. We will have the opportunity to chat with the operators and see forest harvesting first hand on this behind the bush tour.

Host - Weyerhaeuser Edson

Location - 30 Km outside of Edson

Dinner Overnight at the Ramada Inn Edson

Thursday July 6, 2017

Forests and Wildlife

Travel to Hinton

Research in Action!

We will spend the morning seeing, experiencing and learning as we are taken on a unique regional tour of significant forest research projects in Alberta's Foothills. This world class research team has programs that study important forest issues such as species at risk including Woodland Caribou & Grizzly Bears, forest pests like the infamous Mountain Pine Beetle and their recent Emerald award winning Riparian Management Program.

Host – **fRI Research - Researchers** Location - **Hinton Area**

Lunch on the Bus

A scenic drive through the foothills

We're on the road again - sit back and relax as we travel through the foothills on the scenic Sunchild Road. Keen observers can capture a look at various stages of forest succession, multiple land use, the Brazeau Reservoir, O'Chiese Sunchild First Nation and key forest communities such as Lodgepole, AB named after our provincial tree the lodgepole pine.

Check into Walking Eagle Hotel, Rocky Mountain House, Dinner

Forest Stakeholders - Indigenous peoples, trapping, recreation

We are excited to welcome Ross Hinter from the Alberta Trappers Association for an evening outdoors. We will learn the different fur bearers of Alberta and the role local trappers play in our forest ecosystems. If you feel like stretching your legs we will also have the opportunity to take a short walk to explore the Des Crossley Demonstration Forest which is used by Inside Education for our forest education programs.

Host – Ross Hinter, Alberta Trappers Association

Location - Des Crossley Demonstration Forest

Overnight at the Walking Eagle in Rocky Mountain House

Friday July 7, 2017

Integrated Landscape Management & Forest Products

Working together - Access Management and Forest Stewardship

This presentation and tour will show us how forest stakeholders are working together to minimize impacts of our forest footprint...and what can happen we when don't respect our shared space. Learn how everything from roads to random camping must be carefully managed to protect our forest ecosystems.

Tour Laminated Veneer Lumber (LVL) Mill

We're going inside the mill to watch how West Fraser is creating an engineered wood product that is strong enough to replace steel in some building applications. You will see the inner workings of this highly calculated process that maximizes each wood fibre.

Host – West Fraser/Sundre Forest Products Location - Rocky Mountain House

Bag Lunch on the bus Travel to Kananaskis

Forest & Water

Forest Hydrology - a landscape level look at how forests influence the health of our rivers and streams. Michael will show us how to measure/monitor/assess the connectivity between forests and water to ensure they are working together to provide aquatic habitat, drinking water and more.

Host – Michael Wagner, Government of Alberta, Agriculture and Forestry Location - Jumpingpound Demonstration Forest

Dinner

Overnight at Biogeoscience Institute

Saturday July 8, 2017

Forest Education Workshop

Classroom connections! This interactive session will help us develop action items for bringing current, balanced and meaningful natural resource and environmental education into your classroom. We will feature some of Alberta's and Canada's leading educational resources, programs and services, all aimed at providing you with the tools and experience to bring this important topic back to your students, your school and your community.

- Sue Arlidge, Biogeoscience Institute
- Jaclyn Angotti, CPAWS Southern Alberta
- Ann Normand, Workwild