

# The Des Crossley Demonstration Forest Field Program Teacher Handbook

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# Welcome to the **Des Crossley Demonstration Forest** Education Program!

Inside Education is excited to offer forest field programs at the Des Crossley Demonstration Forest, an important historical area in Treaty 6 Territory and part of Metis Nation Region 4. The Alberta section of Treaty 6 encompasses the ancestral and traditional territory of 16 distinct First Nations, including the Cree, Dene (den-neh), Anishinaabe (ah-nish-in-AH-beh) (also known as Ojibwe oh-jib-weh) and the Stoney Nakota. This area in particular was a major trade route for the Kooteney people over the mountains to trade with settlers at the Fort.

The Demonstration Forest is one of a network of Demonstration Forests around the province, each one steeped in cultural and scientific history. The 160 acre (65 hectare) site was established in 1951 by forestry researcher Desmond Crossley. The intent was to develop a research site to study how to manage lodgepole pine, a common stand in the eastern slopes of the Rocky Mountains. For the 20 years, this site has hosted groundbreaking research in the ecology and silviculture of lodgepole pine and white spruce. Since 1997, the site has hosted thousands of students as part of Inside Education's forest field programs.

Our program takes students into this unique, historic research site to study, learn, and connect with this beautiful landscape!

## **What you need to know:**

1. **We run rain, snow, or shine!** All of our programs immerse your students completely in the outdoors, with limited access to shelter. Make sure your students are prepared for the weather.
2. **We have booklets!** Most of our programs will provide booklets to guide student learning throughout the day, each one tailored to grade level. These booklets also include reflection questions for back in the classroom to help extend your lessons!
3. **We adapt and accommodate!** Our educators are well prepared to adapt a program for weather, adjust the day's timing due to bell schedules, and accommodate learning styles and individualized program plans.
4. **We have two educators!** We can have two classes (up to 80 students) on site for a field day. Each class will be lead by one educator for the entire day, and students will either be in pairs or small groups for activities. In the morning, each class will hike through the Des Crossley forest with their educator, meeting back together for lunch before continuing the afternoon program.

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This program is offered through partnerships between **Alberta Conservation Association, Alberta Environment and Parks, Forestry Futures Alliance, Forest Resource Improvement Association of Alberta, the Sustainable Forestry Initiative, West Fraser Mills Ltd and Inside Education.**

## 1.0 Program Description

The forest education programs offered at Des Crossley focus on understanding the forest ecosystem and natural resource development in Alberta. During the field trip, students will become familiar with local tree and shrub species, perform tree measurements, search for animal evidence, and be introduced to topics pertaining to the use and development of Alberta's forests. We discuss the values of the forest, the ecological goods and services it provides, and how our landscape may change over the next few decades. At Des Crossley Demonstration Forest, we offer five different field programs in September-October, and May-June each school year.

### 1.1 Programs Offered

#### Grade 4

Explore the living cycle of the forest by studying plants, how they grow and the role of decomposition. Students will consider the forest as a natural resource and discover how people connect with local forests. Activities include native plant identification with a basic dichotomous key; learning about different ways plants reproduce; and discovering decomposers.

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#### Grade 6

Connect with the forest by examining the natural and human factors that shape the forest landscape. Students will identify our forest plant species, and use real forestry tools to explore careers. Activities include investigating the living and non-living components of a forest; identifying native plants with a dichotomous key; using forestry tools to study and evaluate the health and age of the forest; and considering the impacts of multiple users such as forestry, oil and gas, agriculture, and recreation.

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#### Grade 7 High Science

Uncover the interactions in our forest ecosystems by exploring its symbiotic relationships, succession system, and soils along with traditional and modern human uses of our plants and natural resources. Activities include investigating the biotic and abiotic components of a forest; identifying native plants and discussing how humans use these species; performing a soil core and evaluating soil type and texture; and considering the impacts of multiple users such as forestry, oil and gas, agriculture, and recreation.

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#### NEW! Junior High Wildlife Program

This new program will utilize our on-site wildlife cameras to consider how species move and interact in the forest with an emphasis on species at risk and natural development.

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## Senior High

Compare old growth and new growth forests through a comprehensive plot study and explore the opportunities and challenges of a multi-use forest area. Each student team evaluates their own plot to investigate the biotic and abiotic components of their forest section. Activities include identifying plant and wildlife species; using forestry tools to study tree volume, age, health, and canopy cover; performing a soil core and evaluating soil type and texture; and considering the impacts of multiple users such as forestry, oil and gas, agriculture, and recreation.

West Fraser's Laminated Veneer Lumber (LVL) mill is located just 4km southwest of the Des Crossley site and offers free tours to student groups over 14 years old. Inside Education will provide a half day program at the Des Crossley Demonstration Forest and organize a half day tour of the LVL mill for interested schools.

### 1.2 On-site Schedule

Our programs are typically offered between 10:00 am - 2:00 pm, but we are open to shifting our days in order to accommodate bell times and long distances.

#### A Typical Day of Programming

<b>9:45 am Arrival &amp; Welcome</b>
<b>10:00 am – 12:00 pm Morning Program</b>
<b>12:00 pm – 12:30 pm Lunch</b>
<b>12:30 pm – 1:45 pm Afternoon Program</b>
<b>1:45 pm – 2:00 pm Wrap-Up and Departure</b>

## 2.0 Site Description and Directions

### 2.1 Site Description

The Des Crossley Demonstration Forest is located ~25km southwest of Rocky Mountain House in the lower foothills region. The site is a quarter section of forested land with a 2.5km maintained trail system. Amenities available include a graveled parking area, outhouse, and picnic area, as well as a bunk cabin. The cabin is not large enough to accommodate indoor activities. NOTE: There is no running water on site.

This field program takes students through the research blocks, including a cutblock and old growth control section. The forest supports a variety of plant species and wildlife, including woodchucks, elk, deer, moose, wolves, coyotes, cougars, and black bears. Our site also hosts northern flying squirrels, great horned owls, and a pair of friendly gray jays!

## ☆ **Meeting Point**

Staff will meet you in the Des Crossley parking lot by the cabin. It will be hard to miss us once you are in the parking lot, but the parking lot itself is easy to miss. Please review the following directions carefully.

## **2.2 Directions**

The Des Crossley Demonstration Forest does not show up in a Google map search, although the municipality of Strachan does show up. Use the following link for Google Maps. Turn on Satellite View to see the parking lot. We suggest you open this link and then share it to your cell phone.

<https://www.google.ca/maps/dir/52.2567249,-115.1333962/@52.2571888,-115.1356925,16z/data=!4m2!4m1!3e0>

From Rocky Mountain House:

There are two ways to head south from Rocky Mountain House. These directions assume you are taking Highway 22 south.

1. Head south on Highway 22/David Thompson Highway.
2. Turn west onto Township Road 392.
3. At the end of the T-intersection, turn south onto Secondary Highway 752. This highway turns west as it slowly makes its way south and east. Be sure not to accidentally take RR 72! You will pass Cow Lake Natural area and Grandview Stage.
4. Approximately 20 km from the T-intersection, turn south onto Range Road 85A. NOTE: This road is not well marked and seems to sneak up on people. There is sign for Des Crossley Demonstration Forest on the left side of the road, but it is not nearly large enough to be noticeable.
5. The Des Crossley Demonstration Forest is almost immediately on the west side of the road. You will likely see the flag poles before you see the entrance to the parking lot.

From Sundre

1. Take Highway 22 north. At the t-intersection, head east, continuing on Highway 22 past Caroline.
2. Cross the Clearwater river, and you will see Clearwater Trading Post. Follow Highway 22 as it turns north.
3. In approximate 15 km, turn west on Township Road 380.
4. Township Road 380 eventually curves north and becomes Range Road 85A.
5. In approximately 2.5 km on RR 85A, you will see the entrance to the Des Crossley Demonstration Forest parking lot on the west side of the row. Keep your eyes out for the flag poles!! If you get to the t-intersection for Hwy 752, you have just missed it!

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## 3.0 Program Planning & Procedures

### 3.1 Cost and Deposit

Through the generosity of West Fraser Mills Ltd, the Government of Alberta, the Sustainable Forestry Initiative, the Forestry Futures Alliance, and the Forest Resource Improvement Association of Alberta, **these programs are offered at no cost!**

In addition, each school is eligible for a \$100/school/day **transportation subsidy** to offset the cost of bussing. Please see ' "( HfUbgdcffUjcb for more details.

### 3.2 Cancellations

Inside Education field programs run rain, snow or shine, with the exception of inclement weather resulting in hazardous conditions, or risks that threaten the safety of participants. Cancellation, rescheduling, or program modifications will be discussed between Inside Education and the school and efforts will be made to reschedule the program to another mutually agreeable date.

Our Site Coordinator will be in touch with you a few days before your field trip with last minute reminders and information about site conditions.

Field trips may be cancelled or rescheduled where possible with a minimum of **14 days notice**. Cancellations with less than 14 prior to the scheduled field trip date will be charged a **\$150 cancellation fee** which will be invoiced to the school and payable within one month of the cancellation date. This cancellation fee reflects partial cost recovery for staff, time, and resources that cannot be recuperated. Field programs cancelled due to hazardous conditions will not be charged a cancellation fee.

Our programs are often fully subscribed, and it can be difficult to find a spot for rescheduling. If we are ultimately unable to reschedule this season, your school will be given priority next year. Pending staff availability, we may be able to provide an in-school presentation to your class in lieu of a field program.

### 3.3 First Aid and Safety

Inside Education strives to provide the highest quality learning experience in a safe environment. The Des Crossley Demonstration Forest is not a provincial or national park, rather it is a multiple-use area meaning a variety of activities may be occurring on-site at any given time. As with any outdoor field trip, there are risks associated with weather, wildlife, and other unforeseen circumstances. Listed below are some of the *YI hfUcfxjUfricf'i bi gj Us \UuUXg* that participants may encounter on site:

1. Blow-down of standing dead trees (snags)
2. Encounters with wildlife
3. Wildfire
4. The Keyera (Strachan) gas plant has sour gas operations in the area (risk of leaks)

Safety of all program participants is of **primary** concern to Inside Education. As such, the following risk management measures are in place:

- Inside Education staff have current standard first aid and carry first aid kits including a list of local emergency contact numbers
- Staff carry cell phones to ensure a link to EMS in the event of an emergency
- Inside Education staff perform daily risk assessment and site checks
- Inside Education staff use walkie-talkies to stay in communication with each other throughout the day
- A safety briefing is performed with teachers and adult volunteers upon arrival on site
- All program participants wear high-visibility vests
- Students are never to leave supervision of an adult, and must always travel in pairs or groups
- Trees with high susceptibility to blow-down are marked or are removed prior to field season
- Inside Education works with safety coordinators at the Keyera gas plant; the Des Crossley site is part of the plant's emergency response plan
- Inside Education staff are trained in emergency procedures, and conduct annual emergency training drills; each field site has an emergency action plan
- Inside Education reserves the right to modify or cancel a program without notice if, for any reason, site conditions threaten the safety of participants



In most instances, programs are modified or cut short because students are unprepared for the changing weather conditions. Please ensure they are prepared for rain and cold weather!



### 3.4 Transportation

#### Bus Booking

Schools are required to book their own transportation. Please note: The bus is required to stay on site for the duration of the program. Des Crossley is a rural location and if there is an emergency or inclement weather or a wildfire requires an unexpected end to the program, Inside Education is unable to transport students to safety.

#### Busing Subsidy

You may apply for a \$100/school/day busing subsidy, Payment for the subsidy will be made by Inside Education upon receiving an invoice from the school or school district only, within 90 days of the program completion. Due to the nature of charitable program operations and reporting requirements, subsidies are NOT available after the deadline -- no exceptions.

You can claim your subsidy after your program date(s) by sending an invoice which includes your school name, field trip dates, and a copy of your busing receipt to our Finance Administrator Mitali Robb at [mrobb@insideeducation.ca](mailto:mrobb@insideeducation.ca) or mail to:

Inside Education  
 ATTN: Mitali Robb  
 11428 100 Ave. NW  
 Edmonton, AB T5K 0J4

If you have any questions, please contact Mitali Robb directly at 780-421-1497 or via her email.

### **Follow Vehicle**

All schools are also encouraged to supply an extra follow vehicle (personal car) in case of emergency. This vehicle should stay on site for the duration of the program. Please ensure the owner of the vehicle is willing and able to transport a student to the hospital if necessary.

### **3.5 Field Study Groups & Student Checklist**

Depending on the grade level, class size, and weather, we will be dividing the group into smaller groups or pairs. In order for our program to begin on time, we ask for you to have them delegated in advance so we can organize ourselves quickly at the start of the day.

We ask that each class (~25-30 students) be subdivided into **five or six** smaller field study groups (**5-6 students per group**). For elementary programs, assigning an adult to each group works best, although this is not required.

To prepare your students for the day, please review the attached **Student Checklist** and distribute prior to the field trip (**see Appendix**)

### **3.6 Adult Volunteers**

Experience has shown that adult volunteers help our programs run more smoothly and efficiently. Inside Education would like to emphasize the importance of parent volunteers for safety and supervision. Please provide copies of the **Adult Volunteer Information Sheet** to all volunteers (**see Appendix**).

Elementary and Junior High Programs: We suggest **4-6 adult volunteers per class of 30**.

Senior High Programs: We suggest 2-3 adult volunteers per class of 30.

## **4.0 Program Resources & Contacts**

In addition to field studies, Inside Education offers a variety of classroom resources to extend your learning. Below are a choice selection of what we have to offer, but please visit <http://www.insideeducation.ca/learning-resources/> to see everything we have to offer!

We also offer all-expenses paid teacher professional development on a variety of topics throughout the school year. Visit our website to see our upcoming programs and to apply! See <http://www.insideeducation.ca/teacher-professional-development/>

### **4.1 It's Our Forest Video Series**

This video series is designed to initiate discussion with your students on Alberta's forest-related issues. This resource examines forest ecology, the human values of the forest, land-use planning and the people and products of the forestry industry. The accompanying teacher's guide offers interactive activities to get your class engaged in critical thinking,

considerate action and reflective practice needed to help them understand the value of the forest from multiple perspectives. *CZYfYX Jb ZYbW's*

#### **4.2 Tools of the Trade Forest Education Kit**

This kit contains 20 forest tools and 1-page quick reference sheet explaining what it is, who uses it, why the tool is important in the forest industry and an activity to put the tool to use. Suitable for any unit that explores forestry, careers and technology this resource kit was developed to support teachers in bringing forest careers to life in the classroom. Take the kit outside and discover the hands-on, outdoor work that is part of everyday life in the forest industry! Schools can request to borrow the kit for a maximum of 2 weeks at no-cost (including shipping)

#### **4.3 Guide to the Common Native Trees & Shrubs of Alberta**

Access the same guide our educators use in our field programs! Offered both in online format or a printed, waterproof hard copy, the guide contains 30 pages featuring the most common native plants with colour photographs, common and scientific names and key facts about each species. Easy identification is ensured with the dichotomous key and glossary. Hard copies are available for only \$6.25 (that includes shipping!)

If you have any questions, or would like to find out more about Inside Education, teacher professional development opportunities, or print resources, please contact:

Catherine Ohler – Des Crossley Field Coordinator  
Email: [cohler@insideeducation.ca](mailto:cohler@insideeducation.ca)

Please see the following pages for the Teacher Checklist, Student Checklist, Adult Volunteer Information Sheet, and a printable map!



## 5.0 Appendix

### Teacher Checklist

By reading through this planning guide and completing the checklist below, you and your students will be prepared to have an exciting and educational day on site!

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- Complete online booking confirmation form - Ub`YXi VUrcf`k J`gYbX`nci`h`Y`j`b\_s**
- Inform school administration and complete internal forms
- Arrange Emergency Contact Number (cell phone)
- List of student emergency contacts and phone numbers
- Review student medical conditions and ensure students bring necessary medications
- Provide insight to Inside Education staff to help ensure your all your students have a successful day (mobility concerns, individual program plans, etc.)

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- Book busing, confirm arrival and departure times (bus must stay on-site for day)
- Provide bus driver with a copy of map & directions (see Appendix)
- Obtain telephone number of bus driver in case of emergency
- Arrange follow vehicle to stay on-site for the day

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- Arrange for volunteers (**1 adult for 5-6 students**); ensure they each have a map & directions to the site
- Distribute volunteer information sheet (**see Appendix**)
- Assign volunteers to field study groups

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- Distribute and review **student checklist (see Appendix)**
- Review field trip expectations with your students

### **WHAT TO BRING ON THE DAY OF THE PROGRAM:**

1. Map to the site
2. Class list and list of adult volunteers
3. Emergency cell phone
4. Extra pencils and sharpener
5. Student medical forms and necessary medication
6. Inside Education contact information: 403-263-7720

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- Provide invoice to Inside Education to access busing subsidy
- Complete post-field program survey (and get your school's name in the hat to win a guaranteed spot next field season!)
- Congratulation yourself on a field trip well done!

# The Des Crossley Demonstration Forest Field Program

## Student Checklist

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Our class is visiting Des Crossley on:

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(Date)s

This field study program is completely outdoors, with no access to heated shelter. Inside Education run our programs rain, snow, or shine, and we will often leave the trails and walk through the forested areas or open cutblocks. The lodgepole pine forest can be wet and chilly, even when it is 20°C. The weather at Des Crossley Demonstration Forest changes quickly. Please check the weather forecast and come prepared for anything!

### What I should bring with me:

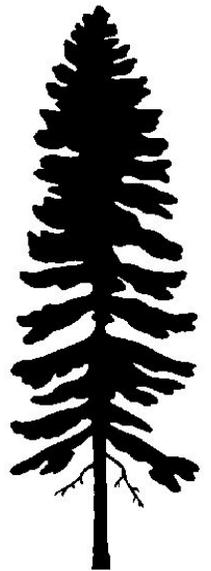
- Pencil**
- Small backpack or daypack *fZY' ZFY'hc''YUj Y\YUj mVcc\_g'UbX V]bXYfg'UhgWcc`'ts*
- Hearty lunch and snack
- Full water bottle** (*h'YfY'jg'bc'fi'bb]b[ 'k UHYf'cb'g]H)*
- Ana-kits, inhalers or other medications *fUg'fYei ]fYXŁ*
- Sturdy footwear (*bc ][ \hZUVf]Mg\cYg'cf'gUbXUgŁ*
- Extra** socks
- Sweater / Jacket** *f]h]g'g\UXm]b'h'Y'ZcfYghUbX'cZYb'ei ]Y'VŁc'Łs*

### Cool/Cold Days

- Rain Gear *f]k UHYfdfccZ'UMVYh#dUbhg'cf'U'[ UVVU[ Y'VU[ 'k cf\_g'ġ'ghZ]bYŁ*
- Extra** sweater / jacket
- Toque / Mitts *f]bYj Yf'UVUX ]XYU' 'ga U'UbX'YUgrhc'dUMVŁ*
- Rubber boots or waterproof insulated snow boots

### Warm/Hot Days

- Hat
- Sunscreen
- Insect repellent
- Extra water



# The Des Crossley Demonstration Forest Field Program

## Adult Volunteer Information Sheet

Thanks so much for volunteering for this field trip! Inside Education staff appreciate your help in ensuring a successful field trip to Des Crossley Demonstration Forest. In fact, we could not do this without you!

This field study program is completely outdoors, with no access to heated shelter. We run our programs rain, snow, or shine, and we will often leave the trails and walk through the forested areas or open cutblocks. The lodgepole pine forest can be wet and chilly, even when it is 20°C. The weather at Des Crossley Demonstration Forest changes quickly. Please check the weather forecast and come prepared for anything!

What to Bring:

- Weather appropriate clothing and study footwear
- Water bottle (there is no running water on site)
- Ana-kits, inhalers, or other medication as required
- A backpack
- A hearty snack and lunch

Example program outline:

<b>9:45 am – 10:00 am Arrival to Site</b>
<b>10:00 am - 12:00 pm Morning Program</b>
<b>12:00 pm - 12:30 pm Lunch Break</b>
<b>12:30 pm – 1:45 pm Afternoon Program</b>
<b>1:45 – 2:00 Wrap-Up and Departure</b>

An experienced educator leads the program; however, we value your help in directing and focusing the students' attention through the various activities.

Tips to keep in mind:

- ▶ **Interact with all of the students in your group.** Ensure that all students have an opportunity to participate in activities.
- ▶ **You are a role model: lead by example during the program.** Demonstrate care for the natural environment by picking up garbage and staying on trails.
- ▶ **Be involved.** Listen to directions, ask questions, and please take part in activities!
- ▶ **Don't do the work for the students.** Let students think through a problem on their own before giving them hints or tips.

