



# FORESTS OF CHANGE (Part I)

**GRADE** Grade 6

**PART** 1 of 3

**TOPICS** Wildfire, attitudes, disturbance, ecology, balance

## CURRICULAR CONNECTIONS

Grade 6 Science

Topic E – Trees and Forests

1. Identify reasons why trees and forests are valued. Students meeting this expectation should be aware that forests serve as habitat for a variety of living things and are important to human needs for recreation, for raw materials and for a life-supporting environment
3. Describe the role of trees in nutrient cycles and in the production of oxygen.
8. Identify human uses of forests, and compare modern and historical patterns of use
9. Identify human actions that enhance or threaten the existence of forests
10. Identify an issue regarding forest use, identify different perspectives on that issue, and identify actions that might be taken

## OVERVIEW

Students will be introduced to the topic of wildfire and gain an appreciation for the role that it plays in overall forest health. They will look at a few key species that have adapted to rely on fire for their survival and the delicate balance that exists in nature. They will then look at the diverse attitudes that different cultural groups in North America/Turtle Island have had with wildfire and how these attitudes have evolved over time.

## OBJECTIVES

- Students will understand that wildfire is a natural process that has both positive and negative effects on forests
- Students will understand the complex historical and present day relationships that various cultural groups have with wildfire

## KEY TERMS

- **Controlled burn** – a fire set intentionally for forest management, farming, or ecological restoration. Also called a prescribed burn
- **Disturbance** – a temporary change in environmental conditions (e.g., wildfire, flooding, insect outbreak) that causes a significant change in an ecosystem
- **Fire suppression** – the practice of putting out wildfire
- **Serotinous cone** – a seed cone that remains on the tree until exposure to certain events such as wildfire opens them
- **Wildfire** – a fire originating and occurring away from people or structures

## GUIDING QUESTIONS

- How do different species benefit from wildfire?
- In addition to benefiting different species directly, how does wildfire contribute to overall forest health?
- How have evolving human attitudes towards fires contributed to forest composition today?

## BACKGROUND ESSAY

**Wildfire** is a naturally occurring phenomenon that plays a crucial role in the long-term health of forests, as well as shrublands and grasslands. It is a type of **disturbance** that is part of the natural life cycle of the forest. Despite their devastating potential, natural wildfires does not destroy forests but rather help to rejuvenate them. Fire helps clear needles, logs and leaves from the forest floor. In turn nutrients are recycled back into the soil much more rapidly than through natural decomposition. Fire also creates gaps in the forest canopy that allow sunlight to penetrate to the forest floor, reaching seeds and young seedlings that would otherwise not survive. Finally, fire creates habitat that supports many species of insects, mammals and birds.



Some species – such as the lodgepole pine – depend on wildfire to reproduce.<sup>1</sup> The cones of lodgepole pines are tightly sealed by a layer of sticky resin and woody tissue that cements the cones' scales together. The seeds are locked in tight, and the cones aren't able to open unless they're exposed to very high temperatures in excess of 45°C, such as those generated by wildfire. These types of cones are called **serotinous cones**. Lodgepole pines are well adapted to recolonize forests after fire passes through their territory. What other species benefit from wildfire?

**DURATION** 10-15 minutes

### **MATERIALS**

- Nutcracker
- Hammer
- Vice
- Oven
- Bunsen Burner
- Microwave

### **ACTIVITY – LODGEPOLE PINE CONE BREAK TEST**

To illustrate the resilience of lodgepole pine cones, students (or instructors) will apply different stresses to a serotinous cone to better understand what is required to open the scales.

1. Using a variety of mechanical implements (e.g. nutcracker, hammer) try to break open a lodgepole pine cone.
2. Expose the cone to a heat source (e.g. oven, Bunsen burner, or microwave). Was the heat sufficient to open the cone? How hot did the source need to be to open the cone? What did you find inside when you opened the cone?
3. *Extension: Have students research other plant and animal species that benefit from wildfire. How do they benefit? Some species to consider are woodpeckers, aspen poplars, fireweed, elk and the Canadian lynx.*

**Safety Note:** Some of the implements suggested in this activity have inherent risks associated with them. Ensure that the proper safety precautions are taking, including performing these experiments in an appropriate location.

If teachers or students have outstanding concerns about performing this experiment, or your school does not have access to these materials, YouTube is a great source of videos of lodgepole pine cones being exposed to heat sources.



### **KEEP WATCHING**

*"Imagine the Fire"* (Run Time – 14:21) explores ways in which aboriginal practices of controlling fires could be good for land and wildlife. The video is available for viewing at [www.cbc.ca/player/play/2392539513](http://www.cbc.ca/player/play/2392539513).

### **BACKGROUND ESSAY**

Since time immemorial, Indigenous Peoples have used **controlled burns** to manage forests. The time and location of the burns were based on traditional knowledge and represented an important element of stewardship of the land. The reasons for burning were numerous and included maintaining grazing lands for game animals and stimulating the productivity of food and medicinal plants. These burns were carefully monitored and took place during low risk conditions such as early spring or late fall.

<sup>1</sup> Rocky Mountain lodgepole pine reproduces from seeds that may be contained within serotinous or non-serotinous cones. This variety of lodgepole is *more likely* to have serotinous cones than other varieties of lodgepole pine.



As European settlers arrived and Indigenous people were removed from their traditional territories, this practice of controlled burns became less common. European settlers brought with them a very different attitude towards fire than the Indigenous worldview. Fire was seen by many settlers as a destructive force that posed a threat to property and settlements. This attitude meant that putting out wildfires – also known as **fire suppression** – became the norm.

Removing fire from ecosystems is like removing the wind or the rain. All are essential for the ecosystem to function well. The effects of fire suppression on modern day forests and forest fires are important to understand. Many forests across North America are much older and closed-in than they would be under natural conditions. This means that there is less open habitat – the type that is favoured by many wildlife species.

One of the most significant consequences of decades of fire suppression is a build-up of dead wood – fuel – in the forest. When this increased fuel meets the predicted impacts of climate change, the effects can be immense. Today there is growing interest in learning about how traditional Indigenous knowledge can be used to combat wildfires around the globe.

**DURATION** 10-15 minutes

**MATERIALS**

- Forest images
- Computer with Internet connection

**ACTIVITY – CONTRASTING FORESTS**

Students explore their own ideas of what a healthy forest look like in this compare-and-contrast activity.

1. Present students with images of two contrasting forests (e.g. old versus new growth, old versus new burn, deciduous versus coniferous). Ask students to describe the images of the two contrasted forests. How are they different? How are they similar?
2. Based on the descriptions that the students have generated, ask them to brainstorm whether they think the forest is healthy or not. What makes a healthy forest ecosystem?
3. *Extension: Have students investigate how forests in their area have changed over time. The Mountain Legacy Project Explorer ([explore.mountainlegacy.ca/](http://explore.mountainlegacy.ca/)) contrasts historical photos against modern day photos. Compare photos from protected areas to photos in areas that are not protected. Are there more or less trees? Why or why not?*

**DURATION** 15-20 minutes

**MATERIALS**

- Ball x2

**ACTIVITY – THINNING THE FOREST**

In this relay-style race, students will experience the relative ease with which fire is able to travel between trees in a forest with a history of wildfire suppression versus one without. Variations can be introduced to emphasize certain concepts such as FireSmart practices or natural forest composition.



1. Split the class into two forests (teams). Have them form two lines, approximately 1.5 metres apart. Have the two teams stand shoulder to shoulder with their feet shoulder width apart, facing the other team.
2. For the activity the students are not allowed to move their feet. Their bodies represent their trunks, which they are only allowed to move side to side (no twisting). Their arms, head and neck represent their branches, which they are allowed to move.
3. Tell the students that they represent a forest that has been subject to decades of fire suppression. Show the students the ball, which represents fire. Their job will be to pass the ball from one end of the forest to the other. They must **pass** (no throwing) the ball from their branches to their neighbours' branches.
4. Lead a discussion about whether the task was easy or difficult.
5. Now thin the forest by removing every other tree and adding them to the end of the line with the same spacing as the other trees. Send the fire through the forest again. Once the fire reaches the end, ask the students if that was easier or more difficult than the first round.
6. Reset one team to have un-thinned trees. See which team is able to pass the fire to the end of the line the quickest. Switch the thinned and un-thinned teams.

#### Variations:

7. *To make the challenge more difficult, spread the trees out so that they can barely get the ball from one to another.*
8. *A firebreak is a way that communities can protect themselves against fire by removing fuel between a potential wildfire and a community. Represent a fire break by removing a group of trees from the middle of the line. The trees can throw the fire but the trees on the other side have to catch it without moving their legs.*
9. *Create a more realistic forest by varying the spaces between the trees. Explain to the students that forests under natural fire regimes will have a diversity of species present as well as gaps that allow sunlight to reach through to the forest floor.*

This activity has been adapted from "Forests and Fire: A Community FireSmart Game" from FireSmart BC. View the original lesson plan and additional activities for students of all ages related to FireSmart at <https://firesmartbc.ca/resource-types/education-materials/>.





# FORESTS OF CHANGE (Part II)

**GRADE** Grade 6

**PART** 2 of 3

**TOPICS** Wildfire, climate change, greenhouse effect

## CURRICULAR CONNECTIONS

Grade 6 Science

Topic E – Trees and Forests

1. Identify reasons why trees and forests are valued. Students meeting this expectation should be aware that forests serve as habitat for a variety of living things and are important to human needs for recreation, for raw materials and for a life-supporting environment
3. Describe the role of trees in nutrient cycles and in the production of oxygen.
8. Identify human uses of forests, and compare modern and historical patterns of use
9. Identify human actions that enhance or threaten the existence of forests
10. Identify an issue regarding forest use, identify different perspectives on that issue, and identify actions that might be taken

## OVERVIEW

Students begin this lesson by learning about the greenhouse effect and the greenhouse gases that make life on Earth possible. They will gain an appreciation for the natural balance that exists within the carbon cycle and how this cycle is being disrupted by human activities. Next students will continue their investigation of wildfire by turning their attention to the way that climate change is predicted to affect wildfires in the future.

## OBJECTIVES

- Students will understand the importance of the greenhouse effect for life on Earth
- Students will understand that human activities are contributing to the greenhouse effect through the burning of fossil fuels
- Students will investigate the relationships between wildfire and weather
- Students will understand the components that are necessary for wildfire and how climate change is intensifying wildfires

## KEY TERMS

- **Carbon cycle** – a process where carbon dioxide travels from the atmosphere into living organisms and the Earth, then back into the atmosphere
- **Climate change** – a change in the average conditions – such as temperature or rainfall – in a region over a long period of time
- **Fossil fuel** – a fuel formed in the earth from fossilized plant or animal remains (e.g. coal, oil, or natural gas)
- **Greenhouse effect** – a process that occurs when gases in the Earth’s atmosphere trap the Sun’s heat
- **Greenhouse gas** – gases in the atmosphere that trap energy from the sun. These include water vapour, carbon dioxide and methane

## GUIDING QUESTIONS

- How do greenhouse gases contribute to the diversity of life on Earth?
- How does the burning of fossil fuels contribute to the greenhouse effect?
- What are the ingredients for destructive wildfires?
- How is the climate expected to change in the Canadian Rockies in the future?
- How could climate change affect forest fires in the future?

## BACKGROUND ESSAY

We live on an amazing planet with an incredible diversity of plants, animals, fungi and bacteria. All of these species are able to exist because of something called the **greenhouse effect**. Just like in a greenhouse, energy from the sun shines through the atmosphere. Through the day the Earth’s surface warms up. At night the Earth’s



surface cools and heat is released back into the air. Some of that heat is trapped by naturally occurring **greenhouse gases** like carbon dioxide. This process makes the Earth warmer than it would be without an atmosphere and makes life on Earth possible. Without the greenhouse effect, the Earth would not be habitable.

Like all things in nature, the greenhouse effect depends on a balance called the **carbon cycle** in order to maintain life on Earth. Forests and other plants help to balance the greenhouse effect by taking in carbon dioxide and releasing oxygen. If the amount of greenhouse gases in our atmosphere – such as carbon dioxide – increases faster than trees and other plants can remove them, the Earth’s atmosphere will trap more and more heat

Human activities are contributing to the greenhouse effect. For example, burning **fossil fuels** to produce the electricity needed to power our phones produces carbon dioxide. The increase of carbon dioxide and other greenhouse gases in the atmosphere means that the Earth’s atmosphere is trapping more heat than it has in the past. This leads to rising average temperatures as well as long term changes in rainfall patterns. These long term changes in conditions are called **climate change**.

How could climate change affect wildfires in the future? In order to understand this we must answer two questions: ***What are the ingredients for destructive wildfires*** and ***how is the climate expected to change in the Canadian Rockies in the future?***

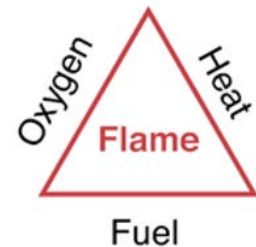
**DURATION** 10-15 minutes

**MATERIALS**

- Candle
- Candle holder
- Jar
- Scissors
- Matches/lighter

**ACTIVITY – FIRE TRIANGLE**

Students will start thinking about the things that fire needs to ignite and to continue burning by looking at a candle. Students will then compare the needs of the fire at a small (candle) scale to the needs of a fire at a large (forest) scale.



1. Ask students to brainstorm what things are needed for fire. Organize these ideas into the fire triangle.
2. Position students in such a way that they can all view a burning candle safely. Use the candle to demonstrate that if any side of the triangle is missing, there will be no fire.
3. Start by having students look at the candle and figure out what is missing. Why is it not burning? (heat, source of ignition) What are sources of ignition in forest fires?





4. Light the candle. Cover it with the jar and wait until the flame goes out. What is missing from the triangle? (oxygen) What factors would impact the availability of oxygen to a forest fire?
5. Light the candle again. Use scissors to cut the wick or burn the candle to the end. What is missing from the triangle? (fuel)
6. Ask students to scale up the demonstration to the wildfire scale at each step of the demonstration. How could changes in weather affect forests (fuel)? How might weather affect wildfires?

## BACKGROUND ESSAY

### What are the ingredients for destructive wildfires?

A wildfire requires the same three things as our candle in the 'Fire Triangle' activity: fuel, heat, and oxygen.

1. **Fuel** – Wildfire spreads based on the types and amount of fuel. Fuel includes trees, underbrush, grass and human structures. Think back to the discussion in Part I about human attitudes towards wildfire and fire suppression over the past century. What impact has this had on the types and amounts of fuel available for wildfire?
2. **Heat** – For a wildfire to start, the fuel need to come into contact with a heat source that allows it to burn. This process is called ignition and can be either naturally-caused or human-triggered. Most natural wildfires are caused by lightning strikes. The rest are caused by human activities, for example, unattended campfires, dropping burning substances such as cigarette butts or errant sparks from vehicle engines.
3. **Oxygen** – Oxygen makes up about 21% of the atmosphere. It is in the air around us and is a necessary ingredient for wildfire to burn. Wind can supply wildfires with additional oxygen.

### How is climate expected to change in the Canadian Rockies in the future? How could these changes affect wildfires in the future?

Scientists use historical data, the best available information and computer modeling to predict how the climate in the Canadian Rockies and beyond is likely to change in the coming decades. Climate is predicted to change in the following ways, which will affect wildfires in the future:

1. **Temperature** – Canada has been experiencing a trend of warmer average temperatures, with the largest increases in the winter. Warmer weather quickly dries out grass, brush and trees, as well as soil. This creates more combustible fuel that is more likely to catch fire and to stay burning. In addition to





higher average temperatures, Canada has been experiencing more extreme hot days when compared to the past 30 years, which increases fire potential.

2. **Precipitation** – More precipitation is expected to fall as rain rather than snow in the winter. When less precipitation falls as snow on the mountains in the winter, there is less water to be released during drier summer months. Furthermore, Alberta is expected to experience a decrease in precipitation during the summer months. An overall drier climate increases the risk of wildfire.
3. **Extreme weather events** – Rising temperatures promote the development of more storms capable of producing lightning. Lightning is the source of ignition in more than half of all wildfires. Extreme weather events are also associated with higher winds, which fan the flames of wildfires and make them more challenging to extinguish.

When we put all of these factors together, climate change can be linked to the risk of wildfire, the potential for wildfire to spread, and the length of the wildfire season. While natural wildfire is crucial for the long-term health of forests, species that have adapted to fires may not be able to tolerate the more **severe** wildfires that we will continue to experience due to climate change. If we add the predicted impacts of climate change to higher fuel loads and decreased lack of forest diversity owing to decades of fire suppression we are left with a recipe for more frequent and intense forest fires.

These wildfires can significantly disrupt ecosystems, damage property, put people and communities at risk, and create air pollution problems even far away from the source.

**DURATION** 20-30 minutes

#### **MATERIALS**

- Matches (2 different coloured heads, e.g. waterproof and non-waterproof)
- Clay
- Cookie sheet x2 (or more)
- Matches/lighter
- Desk fan, spray bottle (optional)

#### **ACTIVITY – MATCHSTICK FOREST**

In this wildfire simulation, students will make predictions and observations about how different variables related to fire suppression, topography, wind and climate change will affect the rate and amount of 'forest' that burns.

1. Draw an 8" x 8" box on a cookie sheet using a sharpie or masking tape. Spread a layer of clay or playdough over the 8 x 8 area. The clay should be thick enough that you can stick a match into it upright.
2. Recreate historic and modern-day lodgepole pine forests by placing matches upright in the clay. For the historic forest place about 20 matches total in well-spaced clumps of ~5 matches. For the modern-day forest cover the entire 8 x 8 area with matches, approximately ½" from each other.



3. Further distinction can be made between the two types of forest by using two different coloured matches (e.g. waterproof and non-waterproof).
4. Ask the students to make predictions about how the different matchstick forests will burn. Students can record both quantitative and qualitative measurements from the experiment (% trees burned, # trees burned, and speed of burn).
5. Repeat the experiment as many times as desired to explore different variables. Ask students to think about how these variables fit into the three parts of the fire triangle and the three key ingredients for destructive wildfires. Ask students to predict how they might worsen with the effects of climate change.
6. *Extension: Demonstrate how different variables (e.g. slope, wind, moisture, density) affect the way the matches catch fire. Add different slope angles by elevating one side of the baking sheet. Use a desk fan to create wind from different directions. Lightly mist the matches using a spray bottle to represent humidity or precipitation. Ask the students to make predictions about how these variables will affect the wildfire and relate them back to the ways that climate change is predicted to affect wildfires in the future.*

This activity has been adapted from “Matchstick Forest Lesson Plan” from the Arizona College of Education. View the original lesson plan, detailed setup, and videos of the historic and modern-day matchstick forests burning with different slope angles at [www.coe.arizona.edu/trlessons](http://www.coe.arizona.edu/trlessons).

## REFERENCES

Bush, E. & Lemmen, D.S. (2019). *Canada’s Changing Climate Report*. Government of Canada, Ottawa, ON. 444 p.



# FORESTS OF CHANGE (Part III)

**GRADE** Grade 6

**PART** 3 of 3

**TOPICS** Wildfire, climate change, greenhouse effect, FireSmart, carbon footprint

## CURRICULAR CONNECTIONS

Grade 6 Science

Topic E – Trees and Forests

1. Identify reasons why trees and forests are valued. Students meeting this expectation should be aware that forests serve as habitat for a variety of living things and are important to human needs for recreation, for raw materials and for a life-supporting environment
3. Describe the role of trees in nutrient cycles and in the production of oxygen.
8. Identify human uses of forests, and compare modern and historical patterns of use
9. Identify human actions that enhance or threaten the existence of forests
10. Identify an issue regarding forest use, identify different perspectives on that issue, and identify actions that might be taken

## OVERVIEW

In this final lesson of Forests of Change, students are introduced to the concept of root cause versus symptoms of a problem. With these concepts in mind, they will explore ways that people can manage both the root causes and the symptoms of wildfires. Students will also explore ways in which they can make lifestyle changes to minimize their personal contribution to climate change by using a footprint calculator tool.

## OBJECTIVES

- Students will understand the difference between the root causes and the symptoms of a problem and learn ways of addressing both
- Students will understand that all activities contribute to their carbon footprint
- Students will explore strategies to reduce their personal carbon footprint

## KEY TERMS

- **Carbon footprint** – the amount of greenhouse gases (especially carbon dioxide) given off by a person’s activities during a given period
- **FireSmart** – resources and programs designed to increase community resilience to wildfire
- **Mitigate** – make less serious, as in a problem
- **Resilient** – able to withstand or recover quickly from difficult conditions
- **Root cause** – the main underlying reason for a problem
- **Symptom** – the reaction to a problem

## GUIDING QUESTIONS

- How can people understand the impact that their activities are having on the Earth? What can they do to minimize or **mitigate** these impacts?
- What are some ways that we can make our communities more **resilient** to wildfires?

## BACKGROUND ESSAY

Throughout this lesson, we have learned about two factors that contribute to larger, more intense and more frequent wildfires in Alberta and around the world: a long history of wildfire suppression and climate change. While there may be limited opportunities for students to directly impact forest management practices or to fight wildfires, they are in a position to learn, teach about, and act on climate change.

Climate change is what is called a **root cause**, while wildfires are the **symptom**. Root causes are the main underlying reasons for a problem, while symptoms are the reaction to that problem. If we imagine a tree,



the trunk, branches and leaves – the part that we see – are the symptoms. The root causes are the roots of the tree, which are often hidden from sight until we dig deeper.

One way of thinking about how we can reduce our personal contribution to climate change is to think about our **carbon footprint**. Our carbon footprint is the amount of greenhouse gases (especially carbon dioxide) given off by a person’s activities during a given period. Everything that we do requires energy and a lot of this energy comes from burning fossil fuels. Most of the food that we eat requires fossil fuels to grow and transport. The clothes that we wear are made from materials that come from oil. Electricity that we need in order to power the lights may come from burning coal and many of us heat our homes with natural gas. As we learned in Part II, burning fossil fuels is contributing to climate change.

For some activities it is more obvious to us how we are contributing to climate change, such as driving a car or throwing away trash. Others, like eating meat, are not always as clear. By gaining a better understanding of which of our activities contribute the most greenhouse gases, we can focus our personal efforts on reducing our impact on the Earth where they matter most and treading more lightly.

**DURATION** 20+ minutes

**MATERIALS**

- Computer (with Internet access)

**ACTIVITY – CARBON FOOTPRINT CALCULATOR**

Students use an online tool to calculate their carbon footprint. After learning which activities produce more greenhouse gases, they will brainstorm ways to reduce their personal carbon footprints and therefore mitigate climate change impacts.

There are many different online carbon footprint calculators. Some provide a score while more complicated ones provide an estimate of the amount of carbon dioxide produced per year. Below are just a few examples.

**Zerofootprint**

Zerofootprint Youth Calculator is a free online carbon footprint calculator that is specifically designed for youth. Topics include transport, food, home, energy use and waste. Once students have completed the questionnaire, they can compare their results to other students in other schools and countries. The calculator also allows students to see how many earths would be required if everyone in the world produced the same amount of carbon as their lifestyle.

Available at <https://calc.zerofootprint.net/>

**World Wildlife Federation Footprint Calculator**

The World Wildlife Federation Footprint Calculator is an in-depth calculator based on the United Kingdom, but is transferable to anywhere. Students might not know the answers to some of the



questions so it may be a good activity to complete as a class or assign for homework to complete with families.

The results that are generated compare your carbon footprint with the world average. They also break down your results by topic (food, home, travel and stuff) so that you can see where you can make the most significant reductions. For each topic they offer tips for reducing your carbon footprint and information about how the different topics contribute to your carbon footprint.

Available at <https://footprint.wwf.org.uk/>

### Energy Star Carbon Footprint Survey

This highly visual activity gets students to colour rings around a footprint based on their lifestyles to represent the size of their carbon footprint. It is downloadable in PDF format, so can be completed without a computer. It also provides many useful tips and actionable items for students to reduce the size of their carbon footprint.

In addition to the Carbon Footprint Survey, this guide features a number of additional activities to get students thinking about their carbon footprint and their family's energy efficiency practices.

Available at <https://bit.ly/2UkEMz5> or by searching "GoGreen\_Activities 508\_compliant\_small.pdf"

**DURATION** 60+ minutes

#### **MATERIALS**

- FireSmart BC Education Package (FireSmart Ambassador or FireSmart Leader)

### **BACKGROUND ESSAY and ACTIVITIES**

The past decade has been the warmest on record across North America. These warmer temperatures have led to more intense wildfire seasons, which pose a risk to human communities. **FireSmart** Canada leads the development of resources and programs designed to empower the public and increase community resilience to wildfire across Canada.

In the Bow Valley, communities have been taking proactive measures to manage the threat from wildfires. In Canmore, FireSmart thinning has taken place around the town over the past few years. This involves selectively clearing trees from forests, therefore reducing the amount of fuel that is available (think back to the fire triangle from Part II). Canmore Fire-Rescue and the Banff Fire Department offer free home/property visits to residents in order to help them recognize the simple steps they can take to reduce the impact of wildfires before they occur.

Another strategy that is employed is to remove flammable tree species and replace them with less flammable species. An example of this is replacing conifers with deciduous species. Which type of tree is more common around your home? Which type of tree is more common in the Bow Valley?



FireSmart BC has a range of educational materials available for students from Grades K-12. Teachers can access these activities in their entirety by visiting [www.firesmartbc.ca/resource-types/education-materials/](http://www.firesmartbc.ca/resource-types/education-materials/).