

Education Box

Resource Manual



BRITISH COLUMBIA
FireSmart

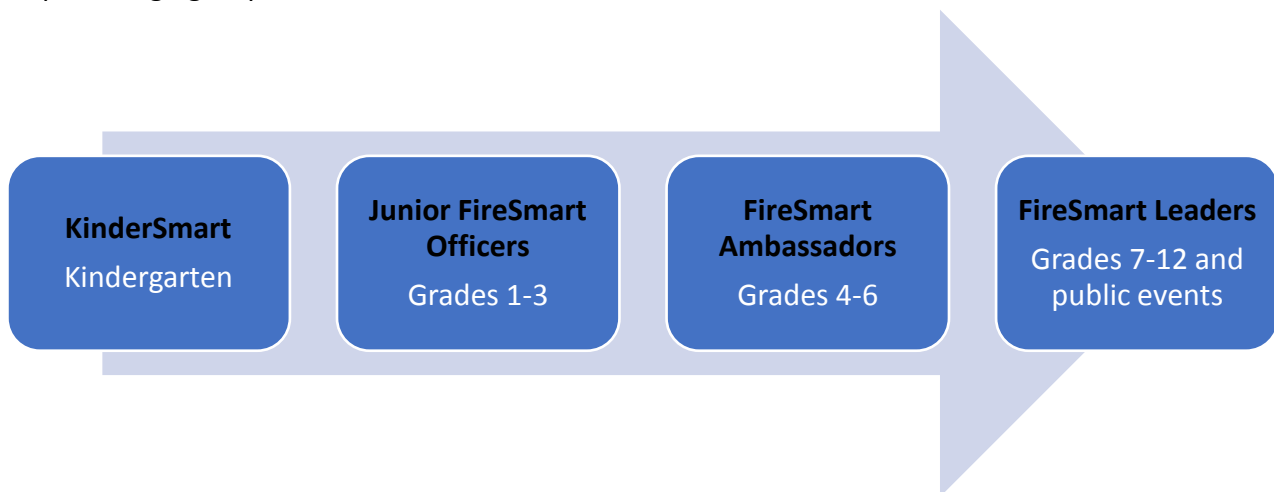
FireSmart™ BC Education package

Introduction

The FireSmart BC Education package is designed to be an all-in-one teaching resource for Grades K-12 and for use at public events. This document outlines what is provided in the education kit (“hard copy” pieces in a tote and “soft copy” pieces on a USB drive) and suggests how to effectively use those items.

The goal of the FireSmart BC Education package is to give BC Wildfire Service staff, educators and other members of the FireSmart community the tools they need to present a unified FireSmart message throughout British Columbia. By reaching out to school-aged children and their parents, we can help them become familiar with FireSmart concepts and (more broadly) help the public understand the seven FireSmart disciplines.

The FireSmart BC Educational package is broken into four components, with each one aimed at a specific age group:



The materials for each age group includes an easily followed lesson plan and detailed instructions for carrying out the learning activities. (Activity details are listed on the next page.)

Thank you for supporting the FireSmart program. Together, we can build a FireSmart BC.

Looking for more information? Visit www.FireSmartBC.ca

Contents of the FireSmart BC Education package:

Kindergarten: *KinderSmart*

1. **Firefighter Duckies:** Book to settle young children and create an atmosphere of learning.
2. **FireSmart Magnetic Board and Magnets:** Magnetic board to introduce FireSmart concepts and campfire safety.
3. **FireSmart House Relay:** Kids can take turns “FireSmarting” a wooden playhouse.
4. **FireSmart Memory Game:** A matching game, using FireSmart-themed cards.

Grades 1-3: *Junior FireSmart Officers*

1. **FireSmart Materials:** Children learn about different building materials and how fire-resistant they are.
2. **Forest Builder:** On 11”x17” mats showing untreated and treated forests, students use dominoes to explore how thinning out trees can affect a wildfire’s spread.
3. **FireSmart House Builder:** Students can “build” a FireSmart house and create a FireSmart property, using the magnetic FireSmart board.
4. **FireSmart Home Assessment:** Using FireSmart principles, students assess two different houses to determine which is more FireSmart and then learn about FireSmart activities that are easy to do.
5. **Campfire Safety:** Kids explore FireSmart campfire safety using the interactive magnetic board.

Grades 4-6: *FireSmart Ambassadors*

1. **FireSmart Introduction Video:** This video introduces students to FireSmart priority zones and FireSmart principles.
2. **Thinning the Forest Game:** This interactive game illustrates how people can reduce wildfire risks by thinning out trees.
3. **FireSmart Magnetic Board and Magnets:** This magnetic board introduces FireSmart concepts and campfire safety.
4. **FireSmart Property Game:** Students will play an interactive game using pictures of houses to reinforce how basic FireSmart activities can affect wildfire resiliency.
5. **Campfire Safety:** Kids can explore FireSmart campfire safety using the interactive magnetic board.

Grades 7-12: *FireSmart Leaders*

1. **FireSmart Introduction Video:** This video introduces students to FireSmart priority zones and FireSmart principles.
2. **Fire Triangle:** Students will learn about the three things that a fire needs to start and keep burning.
3. **FireSmart Magnetic Board and Magnets:** This magnetic board introduces FireSmart concepts and campfire safety.
4. **Forest Fire Model:** Students will use FireSmart principles to “FireSmart” a community, using matchsticks that represent trees. After deciding on their FireSmart strategy, students will light the matches to observe the outcome.
5. **Campfire Safety:** Kids can explore FireSmart campfire safety using the interactive magnetic board.

FireSmart BC Education package: activities list

KINDERGARTEN (KinderSmart):

1. FIRESMART INTERACTIVE MAGNETIC BOARD

- Go through the magnetic board materials. Let students come up and move the magnets as they fix things around the house (cleaning leaves from eavestroughs, mowing the lawn, moving firewood away from the house, etc.).

2. FIRESMART HOUSE RELAY

- In this relay activity, students will practise “FireSmarting” a house. Split the class into groups, which will race to make the house more FireSmart. One person from each team will run and remove one item from the house to make it safer (e.g. remove leaves from the house’s gutters and place them in a matching bucket).

3. FIRESMART MEMORY GAME

- This memory game using FireSmart-themed cards. Students can play in pairs or groups of four, depending on class size and the amount of time available.

GRADES 1-3 (Junior FireSmart Officers):

1. TAKING A LOOK AT “FIRESMART” MATERIALS

- Students learn about different building materials and how fire-resistant they are. This activity will give students a better understanding of how these materials react to fire and reinforce FireSmart concepts.

2. FOREST BUILDER

- Forest Builder explores how a wildfire spreads through a forest. The goal is for students to understand that wildfire spreads faster in forests where more fuel is available.

3. FIRESMART HOME BUILDER

- Students will build a FireSmart home using the magnetic board.

4. FIRESMART HOME ASSESSMENT

- Students will explore how the completion of simple yard maintenance tasks can make a home safer in the event of a wildfire. Students will complete home and property assessments of two houses (House A and House B) using the Junior FireSmart Officer assessment sheet.

5. CAMPFIRE SAFETY

- Review the FireSmart Campfire Safety interactive magnetic board with the students. Then let them come up and move the magnets to fix things (place a water bucket nearby, move the tent away from the campfire, don’t start the campfire in windy conditions, etc.).

GRADES 4-6 (FireSmart Ambassadors)

1. SHOW STUDENTS THE FIRESMART VIDEO

- *“FireSmart means keeping our homes and our communities safe from wildfire. People often live in or near forests, and wildfires are natural and common occurrences there. Wildfires are important for the health of our forests. For example, the heat of a fire helps pine cones open, releasing the seeds within them to grow new pine trees. But since people often live in or near forests, we need to take steps to protect our homes from wildfire.”* <https://www.youtube.com/watch?v=k0ClodnHp2c>
- After showing the video, play a game that illustrates the importance of pruning, thinning or removing trees to help stop wildfires spreading to houses.

2. PLAY “THINNING THE FOREST” GAME

- Students will learn the importance of thinning trees as a FireSmart activity. Students are divided into teams and each team works on one section of forest.

3. FIRESMART INTERACTIVE MAGNETIC BOARD

- Students will be asked questions about the images they see on the interactive magnetic board. They can then talk about ways to make the house more FireSmart.

4. PLAY “HOME/PROPERTY ASSESSMENT” GAME

- This fun and interactive game reinforces basic FireSmart activities related to home and property management, as students complete a Home and Property FireSmart Assessment. Students form a line, with each of them holding an image of a house. The instructor will then ask questions such as: “Is your house made of wood?” Students will answer by either taking a step back or taking a step forward (i.e. either walking away from the risk or closer to it).

5. CAMPFIRE SAFETY – INTERACTIVE MAGNETIC BOARD

- Review the FireSmart Campfire Safety board and ask students whether they think the campfire shown on the board is safe. Students then make changes on the magnetic board to make the campfire safer.

GRADES 7-12 (FireSmart Leaders)

1. SHOW STUDENTS THE FIRESMART VIDEO

- *“FireSmart means keeping our homes and our communities safe from wildfire. People often live in or near forests, and wildfires are natural and common occurrences there. Wildfires are important for the health of our forests. For example, the heat of a fire helps pine cones open, releasing the seeds within them to grow new pine trees. But since people often live in or near forests, we need to take steps to protect our homes from wildfire.”* <https://www.youtube.com/watch?v=k0ClodnHp2c>

2. FIRE TRIANGLE

- Students will learn that a fire needs three things to start and keep burning (fuel, oxygen and a source of heat). “We call this the fire triangle. If you don’t have all three things, a fire will not start.”
- Then ask the students: “Can we control the amount of oxygen in the air?”

“We can’t control how much oxygen is in the air, so when we talk about FireSmart, we mainly focus on ignition sources and flammable materials near our homes and communities.”

- Ask students to provide examples of fuels and ignition sources.
- 3. FIRESMART INTERACTIVE MAGNETIC BOARD**
- Divide the class into groups of four or five students and give each group a whiteboard.
 - Using the interactive magnetic board as a starting point, ask students to come up with ways to make the house more FireSmart and list them on their whiteboards.
- 4. FOREST FIRE MODEL DEMONSTRATION AND BUILDING OF FOREST FIRE MODELS**
- After watching a Forest Fire Model Demonstration, students will make their own two-sided models.
 - Using the concepts they’ve already learned to make homes and properties more FireSmart, one side of the model will show an untreated forest and the other side will show a treated forest.
- 5. CAMPFIRE SAFETY MAGNETIC BOARD**
- Activities and discussions based on the campfire safety magnetic board will vary (depending on the grade), but students can make changes on the board to make the campfire safer.

PUBLIC EVENTS:

1. FireSmart house interactive magnetic board
2. Campfire safety magnetic board
3. Taking a look at FireSmart materials
4. FireSmart Home Assessment
5. Forest Builder
6. Fire Triangle
7. FireSmart video

KinderSmart

(Kindergarten)



KinderSmart (Kindergarten)

Lesson Plan

Pre-Classroom Preparation:

- This presentation requires three to five staff members (four is optimal).
- Make sure that you review the lesson plan before you arrive at the school. You might want to print off a few copies to share with the other instructors, to ensure that the messaging is consistent.
- Review the House Relay Set-up picture on the USB.

Materials:

- *Firefighter Duckies* book by Frank W. Dormer
- FireSmart interactive magnetic board and magnets
- FireSmart house relay board and pieces (leaves, wood, grass)
- buckets for FireSmart house relay
- pylons
- FireSmart memory game (two sets)
- KinderSmart badges (one for each student)

Set-up:

- **NOTE: The set-up should be completed before students arrive for the presentation.**
- Have one or two presenters set up the FireSmart magnetic board with unsafe scenarios such as:
 - a wood (or vinyl-covered) house, with a wood roof
 - a woodpile close to the house
 - leaves in eavestroughs
 - no lawnmower
 - trees near the fire pit
 - leaves under the deck
- Set up the FireSmart house relay (see Page 3 for set-up diagram)
 - one house
 - leaves in eavestroughs
 - grass pieces on the lawn
 - pieces of wood by the house
 - wood pile and yard waste bins/markers for each house
 - starting pylons for each house

Timeline for program (total time: 50 minutes)

- A. Introduction (5 minutes)
- B. *Firefighter Duckies* book (5 minutes)
- C. FireSmart interactive magnetic board (10 minutes)
- D. FireSmart house relay (15 minutes)
- E. FireSmart memory game (15 minutes)

A. Introduction:

“Today we are going to talk about FireSmart. Have any of you ever heard of FireSmart before? Do you have any idea what the word ‘FireSmart’ might mean?”

“FireSmart is a program that helps us be smarter about how we build homes and communities in places where wildfires could happen.”

“What is a wildfire?”

“A wildfire is a fire that happens out in the forest or in a field. A wildfire can spread very fast and may be hard for firefighters to control.”

B. *Firefighter Duckies* book

- Read the book *Firefighter Duckies* by Frank W. Dormer.

C. FireSmart interactive magnetic board

- *“There are things we can do around our homes to make them more FireSmart. Here we have a house that needs **YOUR** help to become more FireSmart. Can you spot anything that we could move or change to make it safer if a wildfire happens? Do you see anything that might catch fire easily?”*
- Go through the FireSmart magnetic board. **(Ask students to raise their hands if they want to answer questions.)** Let students come up to the board and move the magnets as they fix things about the house.
- Emphasizing the following things will be helpful for the activities that follow:
 - cleaning leaves from eavestroughs
 - mowing the lawn
 - moving firewood away from the house
 - wood and vinyl materials burn easily and are not FireSmart
 - cement board and metal materials do not burn easily and are FireSmart

D. FireSmart house relay

“Now that we’ve learned how to make our homes FireSmart, we’re going to practise making our homes more FireSmart! Here we have one house that could use some help. We’re going to split the class into two groups and each group will race to make the house more FireSmart.”

- **It’s best to explain the exercise before students start the relay.**

“Line up behind the pylon for your group. One person at a time will leave the pylon, run up to the house and move one item.”

“The goal is to make the house more FireSmart, so we want to remove any leaves from the eavestroughs and move grass from the lawn into the yard waste bin. You can also move pieces of wood to the woodpile that’s not near the house.”

“Once you’ve moved one item to where it belongs, you’ll run back and tag the next person in line so they can go next. Then move to the back of the line and wait for your next turn.”

- Look at the House Relay Set-up picture on the USB for details on relay set-up.
- After the game is finished, you can reinforce the FireSmart messaging by asking the students to name three things that people can do to make their homes more FireSmart:
 1. Mow the grass.
 2. Move wood away from the house.
 3. Remove leaves from eavestroughs.
- You can also ask students about other ways to make a house more FireSmart. For example, people can move shrubs further away from the house or reduce the amount of “ladder fuels” on the property by pruning tree branches up to six feet above the ground).

E. FireSmart memory game

- Split the class into two groups.

“Has anyone ever played a memory game before?”

“We are going to play a FireSmart memory game. Each person will take turns flipping over two cards on the game board. If the cards match, you get to remove them from the board. If they don’t match, flip them back over and let the next person try. Keep playing until all the cards have been matched.”

- Give each group a set of memory cards so they can lay them out (facedown) on the floor, a table or a desk.

F. Conclusion

“Thank you for being such great listeners. You did really well at your FireSmart training today!”

“To show that you learned a lot about FireSmart today, each of you is going to get a badge that you can write your name on and stick on your shirt.”

“Everyone can now line up at the door and we will hand out your badges.”

- Give each student a KinderSmart badge. (If you have enough time, write their names on the badges for them.)
- Taking a class picture of the students with their badges and the FireSmart presenters is always a hit and a great way to finish off this program with the kids.

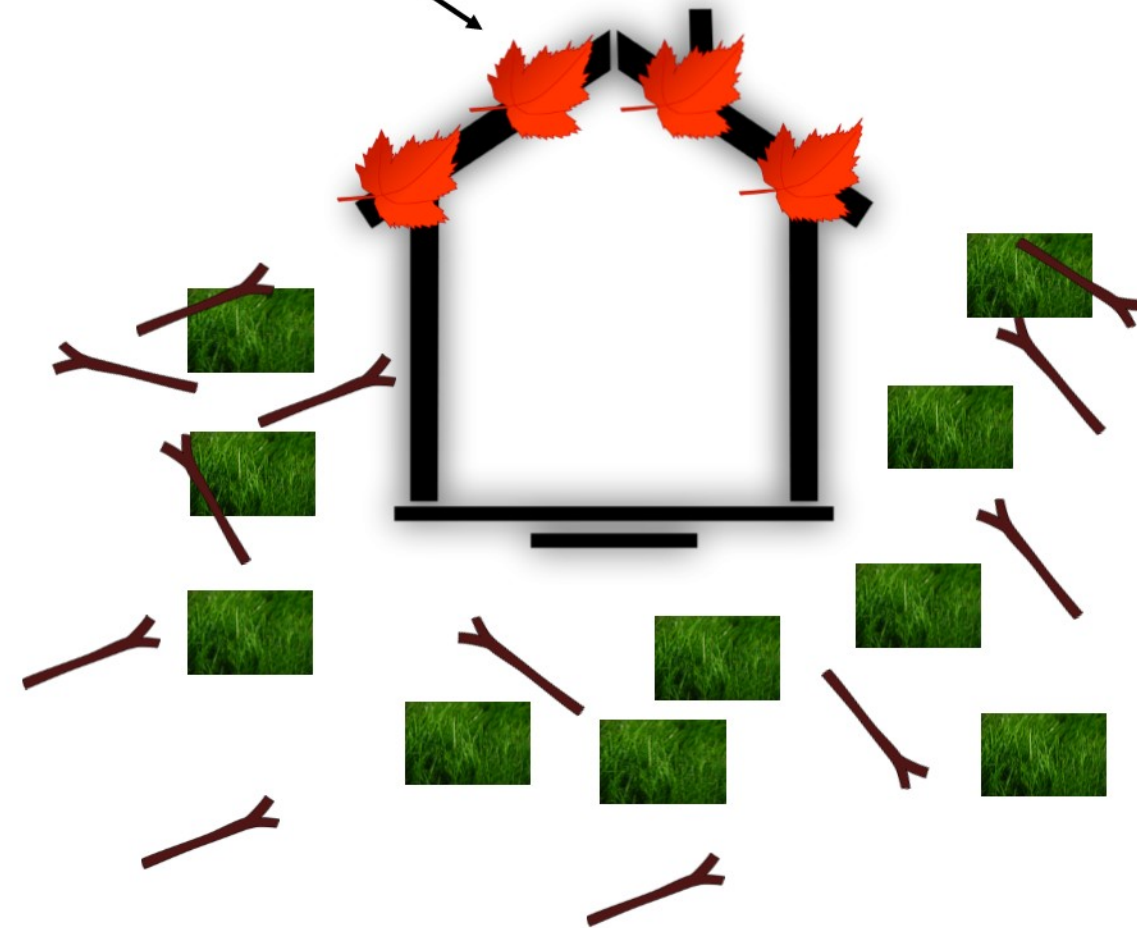
FireSmart House Relay Set-up



Students line-up behind the pylon. Once they complete the task, they go to the end of the line.



Place leaves on the Velcro strip on the wooden house. This represents leaves in eavestroughs.



Bucket for leaf and grass pieces



Pile wood debris





KinderSmart Certificate



This certifies that

is now KinderSmart!

The BC FireSmart Committee and the BC Wildfire Service would like to extend their thanks to the Lesser Slave Forest Education Society and the Lesser Slave Lake Bird Observatory for their dedication and hard work in creating the original education materials that the BC FireSmart Education Package is based on. Together we can build a Canada that is FireSmart! For more information on their products and initiatives please visit below websites.



<http://lsfes.org/>



<http://www.lslbo.org/>



<https://www.firesmartcanada.ca/>