

FireSmart™ BC Education Program



Lesson Two

In this lesson, students use the criteria for a FireSmart landscape to assess and revise FireSmart landscaping for a building or area in a community that could be affected by wildfires.



Lesson Question:

How can FireSmart landscaping be used to mitigate wildfires in your community?

Lesson Challenge:

Identify five changes or revisions that can help make a landscaped area more FireSmart.

Big Ideas

- Human practices affect the [sustainability of ecosystems](#). (Grade 11 Environmental Science)
- Humans can play a role in [stewardship and restoration](#) of ecosystems. (Grade 11 Environmental Science)

Suggested Materials

- **Activity Sheet A:** Assessing the Landscaping Plan
- **Activity Sheet B:** Creating a FireSmart Landscaping Plan
- [FireSmart BC Landscaping Guide](#)



Start the Thinking



1. Begin the lesson by organizing students into groups and provide each group with a copy of Activity Sheet A: Assessing the Landscaping Plan. Briefly explain that their task is to decide the degree to which the landscaping around the residence is designed to resist or be resilient against wildfires. Prompt groups to use the rating scale to make their decision. Remind students that landscaping refers to all natural and human-made structures and items.
2. Invite groups to share their decision and thinking with the class. As they share, briefly explain that FireSmart landscaping is intentionally planning the plant species, property layout, and care for plants to reduce the risk of harm from wildfires.
3. Guide students' attention back to Activity Sheet A and invite groups to suggest at least three changes that could make the landscaping more resilient against wildfires, or more FireSmart.
4. Introduce the lesson question to students and explain that their challenge is to design a FireSmart landscaping plan for an area in their community that could be affected by wildfires.
5. Provide each student with a copy of Activity Sheet B: Creating a FireSmart Landscaping Plan. Ask each student to think of a specific building or area in their community that could be affected by wildfires and to create an initial sketch of the landscaping of their selected property. Suggest that there are many ways to create a landscaping sketch (top view, side view), but that it is important to include all the living and non-living elements that are part of the selected property, including
 - outlines of buildings and structures
 - plants, trees, and grass (including dead plant matter). If possible, have students label the types of plants and trees.
 - rocks and other landscape features
 - elevation—sketches should clearly show areas that are higher or lower
6. After they create their initial sketches, ask students to use the scale on the activity sheet to rate the degree to which the landscaping of their selected property is FireSmart. Invite students to share their decisions and describe their thinking in small groups.

Grow the Thinking



1. Guide students' attention back to Activity Sheet A and their ratings of the landscape. Ask groups to share the reasons for their ratings with the class. As they share, use their ideas to co-create or develop the criteria for FireSmart landscaping. The criteria for FireSmart landscaping could include the following:

- **Plant proximity:** Landscaping plants and mulches do not touch buildings or each other, or create fuel ladders that allow fire to climb buildings or the landscape.
- **Plant selection:** Plants are appropriate for priority zones and are fire resistant.
- **Plant maintenance:** Plants can be easily kept healthy and dead plant material is removed.

Display the criteria for use later in this lesson.

2. Introduce the concept of a FireSmart concern as an aspect of a landscaping plan that does not meet the criteria for FireSmart landscaping.
3. Ask groups to use Activity Sheet A to note at least four FireSmart concerns in the landscaping plan. To guide students' thinking, consider posing questions such as the following:
 - Where might plants be too close together or too close to buildings?
 - Where might there be opportunities for fuel ladders?
 - Are there any inappropriate plants in the priority zones surrounding the main buildings?
 - Where might dead plants be removed?
4. Encourage each student to turn their attention to their individually selected property on Activity Sheet B. Remind them to use the criteria for FireSmart landscaping to identify up to five FireSmart concerns in their landscaping plan and provide their reasoning.
5. Invite each student to share their landscaping plan and areas of concern with their group members. Encourage students to help identify additional areas of concern and provide feedback on each other's plans.
6. Guide students back to their groups and provide each group with access to the [FireSmart BC Landscaping Guide](#). Ask groups to review pages 12–19 of the guide and to find at least three changes that could be made to address the FireSmart concerns they identified in the landscaping plan from Activity Sheet A.

Grow the Thinking



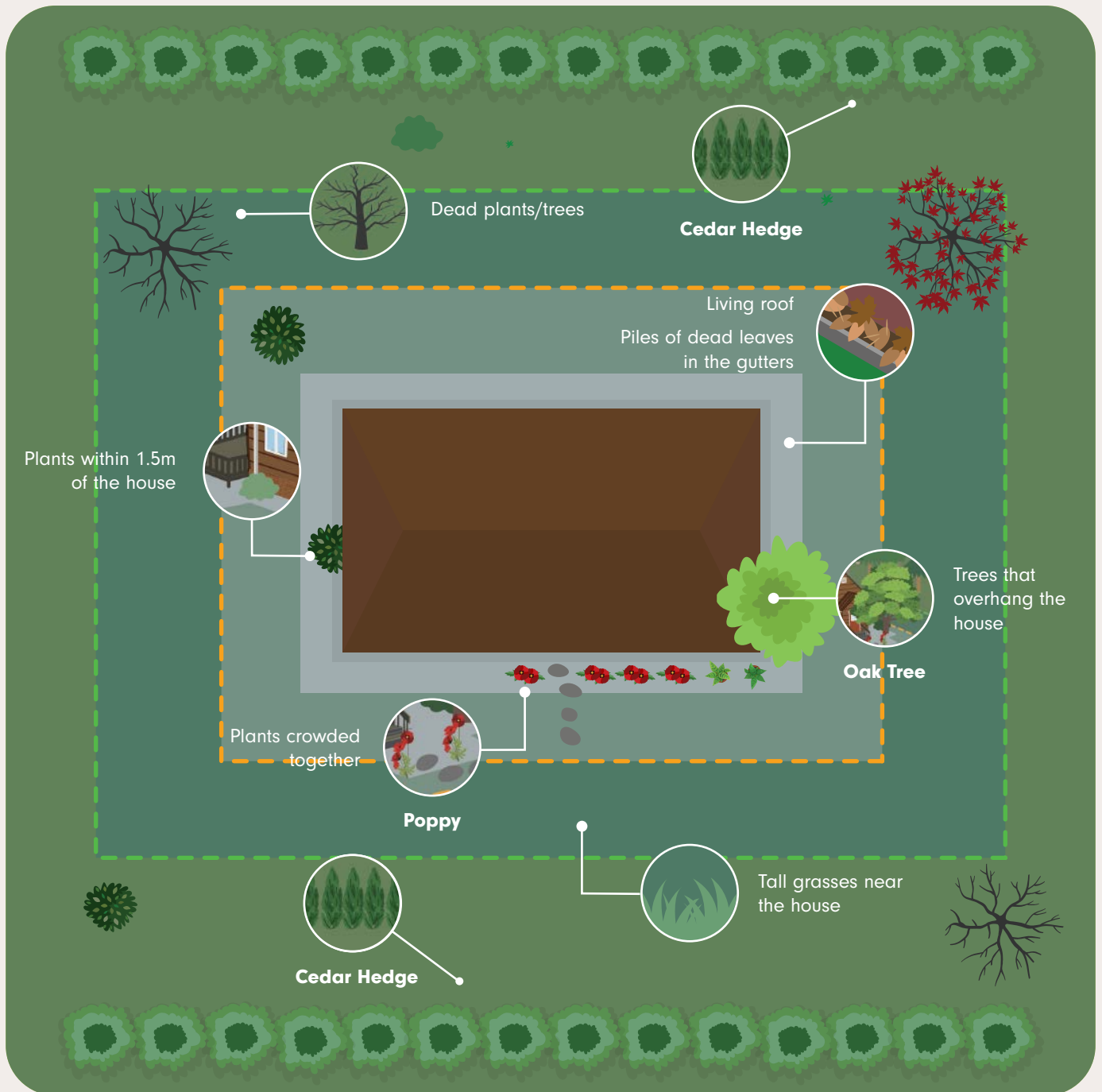
7. Invite groups to share their suggestions with the class. As groups share, remind them to use the criteria to ensure that they are addressing all aspects of the landscaping plan.
8. Ask students to work on their own to revise the draft sketches of the landscaping plan on Activity Sheet B. Prompt students to note at least five changes or improvements that could be made to the landscaping plan so that it better meets the criteria for FireSmart landscaping. Remind students that they may find other helpful information in the [FireSmart BC Landscaping Guide](#) as they think of ways of improving the fire resistance of their selected property.

Reflect on the Thinking

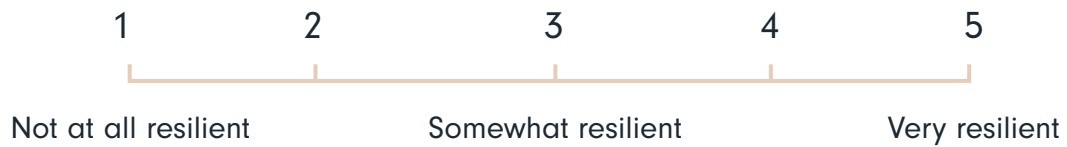


1. Conclude the lesson by redirecting students' attention back to their initial decision about the degree to which the landscaping plan was FireSmart. Ask students to suggest at least one important learning about making properties FireSmart that they have learned in this lesson.
2. This lesson could be extended with the following activities:
 - Invite local community planners to attend the class and have students present their landscaping plans.
 - Invite FireSmart representatives to the class to offer feedback on students' landscaping plans.
 - Prompt students to think about the potential for wildfires in their own community. Lead a discussion to help students identify landscaped areas in their own community that might be susceptible to wildfire. For example, urban areas in British Columbia that initially may not seem to be at risk from wildfires may be located near wooded parks or forested areas from which ash, embers, or debris might travel. Invite students to create landscaping plans for these areas that could be submitted to community planners.

Activity Sheet A: Assessing the Landscaping Plan



Make a decision: How resilient to wildfires is this landscaping plan?



What three changes could be made to the landscaping plan to make it more FireSmart?



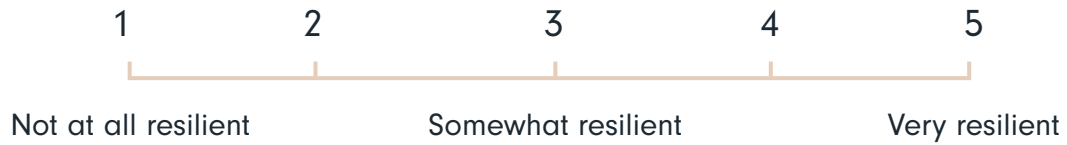
Activity Sheet B: Creating a FireSmart Landscaping Plan

- Select a building or area in your community that has the potential to be affected by wildfires.
- Sketch the buildings, living elements (plants, trees, grass), and rock features on the property.
- Clearly identify all plant types and buildings with labels or a legend.



Selected location

Make a decision: How FireSmart is the current landscaping plan?



A FireSmart concern is an aspect of the property that does not meet the criteria for FireSmart landscaping. What FireSmart concerns do you notice in the landscaping of your selected location?

FireSmart Concern

What changes or revisions to the landscaping plan would address the FireSmart concern?

FireSmart Concern	What changes or revisions to the landscaping plan would address the FireSmart concern?

Design a revised landscaping plan for your selected location that addresses the FireSmart concerns and better meets the criteria for FireSmart landscaping.

