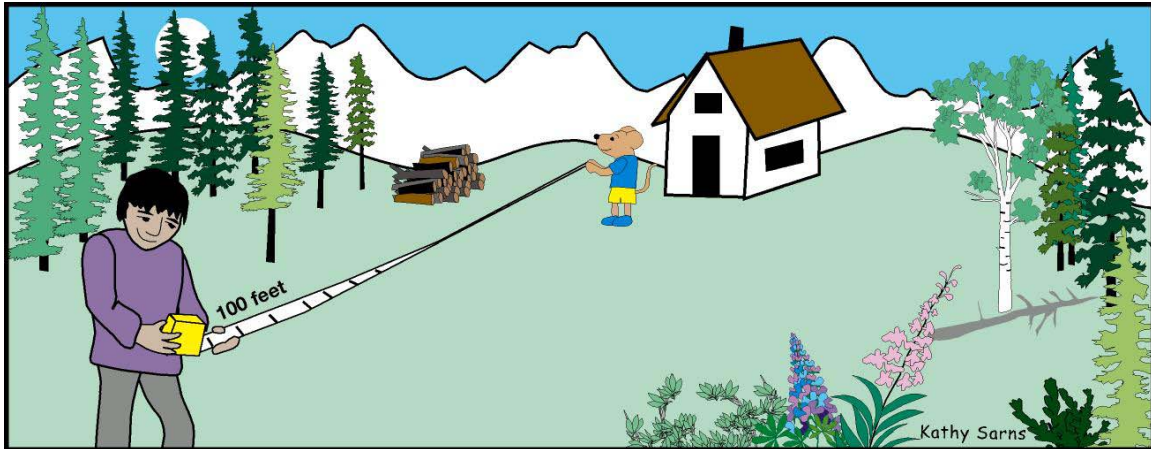


# DEFENSIBLE SPACE



**Grade Level:** 4-12

**Alaska State Content Standards:** SA15, GeoE4

**Subject:** Science, Geography

**Skills:** Application, Construction

**Duration:** 1 class period

**Group Size:** individual

**Setting:** indoors

**Vocabulary:** defensible space, fuel

## OBJECTIVE

Students describe a defensible space and its importance.

## TEACHING STRATEGY

Students design a plan to provide a defensible space around their home.

## MATERIALS

- Paper and pencil
- Defensible Space Checklist
- Magazine pictures of homes or cabins in a forested area
- Permanent markers

## TEACHER BACKGROUND

In Alaska, thousands of acres burn in wildland fires every year. Some of these fires also endanger or destroy remote homes and cabins. Over the past several years, hundreds of homes and cabins have been destroyed by

wildland fires. If these homes and cabins had a **defensible space** established around them, the chances of the fire reaching the structure could have been reduced and fire protection could have been improved.

A **defensible space** is an area you create around your home or cabin that is free from burnable materials. Sometimes a defensible space is the only protection you and your remote site may have against a wildfire. A well-established and maintained defensible space may mean the difference between a loss of life and property, or survival and property protection if a wildfire does occur.

To create a defensible space around your home or cabin, you should clear a circle of roughly 30 feet around the

surrounding area of trees, shrubs, and tall grasses that could carry a fire to your building. Fire can easily travel up trees, out overhanging branches, and reach rooftops, or it can move quickly through dry shrubs and grass and reach firewood or machinery stored against the structure. Thinning trees 30 – 100 feet from your home or cabin and removing the lower branches on the remaining trees can help reduce the chance of fire reaching your roof. Removing shrubs and cutting back tall grass can reduce the ways a fire can reach your structure. Move things that can catch fire at least 30 feet away from the house such as firewood, gas or diesel fuel cans, propane tanks, cars, trucks, four-wheelers and snow machines are all things that can catch fire and spread to your home. Propane bottles should be marked with a warning sign for fire fighters to see. If you have a water source on site, identify it with a sign so that it can be used in case of a fire.

Your defensible space includes your building's roof. Some types of roofing material burn easily and flying sparks from a fire as far away as a mile can ignite the roof. Choosing metal roofing, asphalt shingles, or non-burnable material can help reduce the chances of your home or cabin's roof catching fire from drifting sparks. If you can, wet down the roof during dry times to reduce the risk of fire.

If there is a wildfire in the area around your home or cabin, tell your local fire fighting agency where your building is located and if it is occupied. Be sure to alert them to any specific fire hazards such as fuel tanks or access problems.

*From "Protecting Your Home or Cabin From Wildland Fires", Alaska Wildland Fire Coordinating Group, US Government Printing Office: 2000 – 573-278/21013 Region No. 8.*

## PROCEDURE

1. Ask students why they think some homes or cabins can burn during a wild fire and others do not. Brainstorm ideas.
2. Explain that sometimes a cabin or home is saved from wildfire because those owning the property have taken special precautions to remove as much **fuel** from around the house as possible creating what is called a **defensible space**. Discuss defensible space using the information provided in the Teacher Background and the Fire Safety Checklist.
3. Pass magazine pictures of homes or cabins located in forested areas. Using markers, have students mark a defensible space. On it they should determine what should be altered, what should be marked, and what should be removed all together.
4. Compare and discuss his/her ideas determining whether or not each student did create a defensible space.

## EVALUATION

Have students draw a picture and a description of their own home. Have each student then draw and write how he/she would build a defensible space around his/her home.

## DEFENSIBLE SPACE CHECKLIST

1. Clear trees, brush and other flammable items at least 30 feet away from your home or cabin, and be sure no branches are left hanging over the roof.
2. Within 100 feet of the structure, thin brush and shrubs, remove tall grass, and spruce tree branches up at least six feet. Stack firewood at least 30 feet away.
3. Make sure your building's roof is made of non-burnable materials and kept clear.
4. Be sure to clear the ground to bare soil for at least 5 feet around approved burn barrels and open fires.
5. If you have a water source, make sure you can reach all around the building with a hose or other method.
6. Put spark arresters on chimneys and chainsaws.
7. Know your home or cabin's legal description or latitude and longitude location.
8. Make sure your home or cabin is accessible to fire fighters.
9. Have the correct tools to fight a fire located in a place you can quickly get to; an ax, shovel, and pump for your water source.
10. Know your local burning laws, and obtain a permit to burn out-of-doors between May 1 and September 30 where required.
11. Don't burn on windy or dry days.
12. Don't dump hot ashes or burning cigarette butts on the ground, and remember that hot mufflers on off-road vehicles can catch dry moss, grass, and leaves on fire.
13. Know your local fire protection and prevention authorities and how to contact them.

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