



UNIT: H20 TITLE: Living With Fire Preparedness

Lesson Plan

Overview:

In Kansas, wildfires can and do occur. Property owners can assess and take action to minimize risk due to wildfires to property and people. Nationally, the National Fire Prevention Association provides property owners with strategies to be FireWise.

Lesson Goals: Students will apply strategies from Firewise to assess and make recommendations for their school site to be minimize risk from wildfires.

Objectives:

Students will be able to:

1. Using the FireWise materials, students will conduct an assessment and identify recommendations for the immediate, intermediate and extended fire zones of their school site.

Anchoring Phenomena:

<https://youtu.be/pfbEcMeYFFA> Overview FireWise Video

Standards	High School
HS-ESS3-1 Earth and Human Activity Construct an explanation based on evidence for how the availability of natural resources, occurrence of natural hazards, and changes in climate have influenced human activity.	
Cross Cutting Concepts	Obtaining, evaluating, and communicating information
Disciplinary Core Ideas	ESS3.B, ESS3.C:
Science and Engineering Practices	Cause and Effect
Common Core-ELA	
Writing	
Speaking and Listening	SL.9-10.4, SL.11-12.4
Reading	

Teacher Background:

<https://www.nfpa.org/Public-Education/By-topic/Wildfire/Firewise-USA>

<https://www.nfpa.org/Public-Education/By-topic/Wildfire/Preparing-homes-for-wildfire>

Materials and Preparation:

Make sure students have access to their Prescribed Fire Management Plans and additional tools they might need to collect data, including measuring tapes,

Procedures:

Engage:

Refer students back to their prescribed burn management plans for their schools site and ask them to imagine that instead of doing a prescribed burn, they are tasked with developing a plan to make sure the school and property have minimized their risks for a wildfire. What sort of information would they want to gather to develop their plan?

Explore:

Direct students to the Fire Preparedness Student Worksheet.

Review the assignment--In their prescribed burn teams, ask students to look at data they collected when developing the prescribed burn management plans and determine what information they might already have that would assist them in developing a fire prevention plan for the school.

Ask students to develop a list of what additional information they might need. This might include any emergency protocols the school might have (from school administrator), roof materials and conditions (from school maintenance) the location of vegetation and trees on the property, the spacing of vegetation and trees on the property, combustible materials that are attached to or near the school (e.g. a wood pergola), use of mulch in beds next to the school, etc.

Have groups share their ideas and allow students to explore the FireWise Home site:

<https://www.nfpa.org/Public-Education/By-topic/Wildfire/Preparing-homes-for-wildfire>

Ask students to identify any additional information they might want to gather to develop fire prevention recommendations for the schools site.

Using their maps as a guide, take students outside to gather both visual observation data and to collect quantitative data on the location and spacing of trees and vegetation. Provide teams with a measuring tape to complete their measurements and make notations on their maps. NOTE: Students may develop their own google map and include notes directly on their map. [See this resource for tutorial on using My Maps](#)

With data gathered, have groups develop their fire prevention recommendations, especially as they relate to tree and vegetation placement.

Explain:

Give teams time to share their recommendations and discuss where there is consensus across teams.

Key Questions to Explore:

1. What features of the school will help with fire prevention?
2. Where might improvements be made for fire prevention? What recommendations would you make to further minimize risk from wildfires to the school site?

Elaborate:

The school is interested in planting more trees on the school site. In your teams, develop your recommendations.

Key Questions to Explore:

1. Would you recommend further trees being planted on the school site, why or why not?
2. Where would your team recommend planting the trees? How many? In what arrangement?

Evaluate:

Evaluate team fire prevention plans based on the rubric.

Evaluation Rubric:

0-5 Points	6-10 Points	11-15 Points	Points Awarded
Team has identified only a few fire risks on the school site and recommendations in their fire preparedness plan for the school site	Team has identified some of the fire risks on the school site and appropriate recommendations in their fire preparedness plan for the school site	Team has identified both fire risks on the school site as well as appropriate recommendations in their fire preparedness plan for the school site.	
The fire preparedness plan is not accurately presented in a Google Map and pin descriptions lack detail to create a complete picture of the team's fire preparedness plan.	The fire preparedness plan is accurately presented in a Google Map and pin descriptions partially create a picture of the team's fire preparedness plan.	The fire preparedness plan is accurately presented in a Google Map and pin descriptions create a complete picture of the team's fire preparedness plan.	
Only one or two members actively engage with another team to develop and present their fire preparedness plan.	Most team members actively engage with another team to develop and present their fire preparedness plan.	All team members actively and effectively engage with another team to develop and present their fire preparedness plan.	
		TOTAL OUT OF 45 POINTS	

References/Resources

At Home: Using the FireWise resource

(<https://www.nfpa.org/Public-Education/By-topic/Wildfire/Preparing-homes-for-wildfire>), evaluate your home for fire prevention.