

Wildland Urban Interface & Wildfire Module

Objectives

Students will:

- (1) Understand the transfer of energy as it relates to fire (conduction, radiation, and convection)
- (2) Understand that wildland fire is inevitable
- (3) Understand and apply, through building a model, the steps of creating defensible space
- (4) Participate in fieldwork creating defensible space

Studying energy transfer in depth is the first step to becoming a firefighter.

Colorado Standards

Grade	Subject	Expectation	Module Activity
6	Prevention & Risk Management	Demonstrate ways to advocate for safety, and prevent unintentional injuries	Firewise Activity Defense by Diorama Activity
6	Oral Expression & Listening	Successful group discussions require planning and participation by all	Firewise Activity Defense by Diorama Activity
6	Geography	Human and physical systems vary and interact	Firewise Activity Defense by Diorama Activity
6	Life Science/ Earth Systems	Complex interrelationships exist between Earth's structure and natural processes that over time are both constructive and destructive	Firewise Activity Defense by Diorama Activity
6	Life Science/ Earth Systems	Changes in environmental conditions can affect the survival of individual organisms, populations, and entire species	Steep Fire, Flat Fire Activity
7	Oral Expression & Listening	Small and large group discussions rely on active listening and the effective contributions of all participants	Firewise Activity Defense by Diorama Activity
7	Physical Science	Mixtures of substances can be separated based on their properties such as solubility, boiling points, magnetic properties, and densities	Hot and Cold Water Demonstration Convection Activity
8	Life Science	Human activities can deliberately or inadvertently alter ecosystems and their resiliency	Firewise Activity Defense by Diorama Activity
8	Physical Science	There are different forms of energy, and those forms of energy can be changed from one form to another – but total energy is conserved	Energy Transfer Activity Steep Fire, Flat Fire Activity

STEM Connections

Science – Students will explore the science of wildfire and heat transfer as well as make connections between natural processes and the health of ecosystems.

Technology – Students will understand how science-informed techniques and tools can be used to reduce wildfire risk.

Engineering – Students are challenged to think about how to design and modify homes to reduce the risk of wildfire.

Math – Students will apply percentage calculations to understand what variables influence the spread of wildfire.