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CLEAN STEM Flash

A Timely Climate and Energy E-Learning Series to Use and Share

August 26th, 2021

Topic: Ecosystems and Wildfires

As summer approaches an end and wildfire season is in full swing it can be good to evaluate what that means for the ecosystems around us. Due to climate change wildfires are ever more present and intense affecting many aspects of ecosystems. In this newsletter, you will find two resources on the topic of wildfires: 1) a short video the relationship of pine beetles, climate change, and wildfires, and 2) an activity where students use remote sensing data to look at wildfires. We have also included an article that discusses the interrelationship between beavers, rivers, and wildfires. The article would be a good lead-in to the activity.

CLEAN Resource Feature

Video: [Dr. Susan Prichard and Pine Beetles](#)

In this video, scientist Dr. Susan Prichard discusses the impact of pine bark beetles on western forests. She explains how climate change, specifically rising temperatures, is exacerbating the problem. The video provides a link to forest health and wildfires.

Audience: Middle School, High School, College Lower

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Use this video as an introduction to forest and fire ecology. It can serve as a jumping off point for understanding how ecosystems are affected by the warming climate and the subsequent effects. Though this video is based in Washington, it is relevant for all areas affected by pine beetles and wildfires.

CLEAN Resource Feature

Activity: [Fired Up Over Math: Studying Wildfires from Space](#)

In this activity, students learn how scientists assess wildfires using remote sensing, then use some of the same techniques to solve grade-level appropriate math problems.

Audience: Middle School, High School

Take a look at some more CLEAN resources focused on [Wildfires](#).

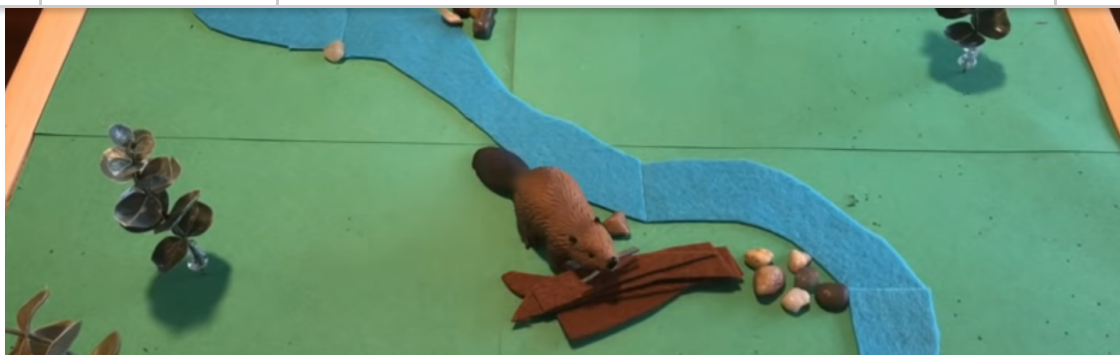
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This activity would pair well with the article discussed below, as the techniques the scientist used to study the beaver habitat are similar to those used in the activity. Students use satellite imagery to look at areas affected by wildfires and quantify the extent of the fires.

In the News: [Are Beavers Nature's "Little Firefighters"?](#)

Ecosystems and wildfires are intrinsically connected. This article discusses how beavers' habits prevent wildfires from destroying their habitats. Beavers dams help the surrounding area stay wet so that when wildfires hit, the area is not as greatly affected. This research is done using remote sensing techniques, related to the resource above. Can you go an extra step and tie in pine bark beetles to beaver habitat, too?

The photo below is from the stop motion animation by Emily Fairfax that is at the bottom of the article.

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