

Low/High Density Forest and Wildfires

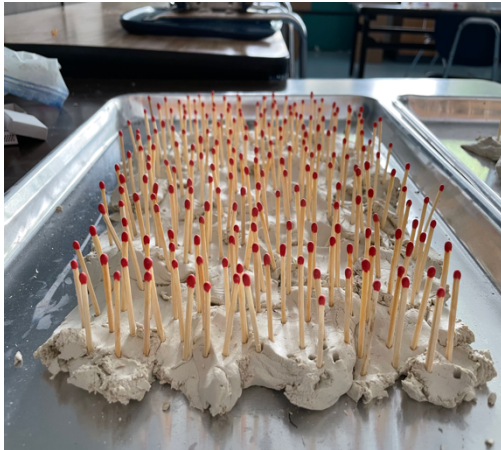
Purpose: This activity models how the density of a forest affects how wildfires spread.

Materials

- Matches
- Metal cookie trays
- Water buckets for safety
- Lighters (1 per adult present in the class)
- Modelling clay
- Safety Glasses (optional)
- Student Notebooks

Activity Set up:

Before the activity set up two “forests” made of modelling clay and matches on a cookie tray. (See image). Create a high density forest and a low density forest by varying the number of matches placed into the modelling clay. For both forests evenly space out the matches.



High Density forest



Low density forest

Running the activity

1. Have students make predictions about what will happen when the forests get ignited. They should write their answers on the data sheet.
2. Light one forest at a time and have students observe the height of the flames and intensity of the fire. Record the DATA as reported by each group (on their data sheet)
3. Have students make a claim about whether wildfires are worse in a high or low density forest?
4. Have students finish the worksheet with looking at California wildfire data.

Below are typical results of the burns:



High Density forest



Low density forest