

CURIOSITY AT HOME

WILDFIRE WATCH

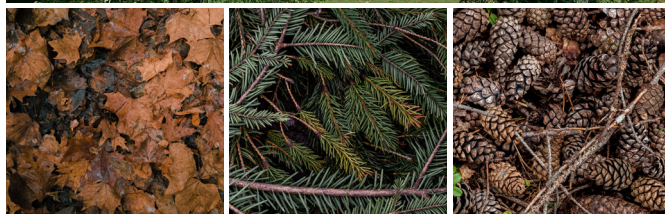


Wildfire serves an important role in keeping many ecosystems healthy. However, human impacts on the environment can change how wildfire affects different regions and lead to unwanted accidental fires. Practice using different weather factors to predict fire danger levels in your area and learn more about preventing accidental fires.

Note: This activity does **NOT** involve the use of fire.

MATERIALS

- Science notebook or paper
- Something to write with
- Local weather information—this can be gathered from the newspaper, a cellphone app, [weather.gov](https://www.weather.gov), or using tools such as a thermometer
- Access to an area outside to observe and collect leaves, sticks, and other fuels



PROCEDURE

- Copy the table on the next page into your science notebook.
- In your table, record the following meteorology data points for your location: temperature, humidity, and wind speed..
- You can use tools like a thermometer or use websites (like <https://www.weather.gov>), a phone app, or a newspaper for reference.
- Next, go to an outside area where you can collect some fallen plant life. Examples might include grass, leaves, sticks, or pieces of bark.
- Plants can serve as fuels for wildfires, and scientists look at the moisture content in these fuels to help them predict fire danger.
- Analyze your plant fuels—draw or write a description in the table in your science notebook. Note whether they seem wet, moist, or dry. How fast do you think these fuels might burn, and for how long? Do they seem like they would dry out quickly or slowly?
- Read the descriptions below for each of the five fire danger levels (low through extreme). Using your weather and fuel data, make a prediction for the current fire danger level in your area.
- Check your prediction against the rating for your area found on <https://www.weather.gov/fire>.



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FIRE DANGER PREDICTION WORKSHEET

Location: _____ Date: _____ Time: _____

Temperature: _____ Humidity: _____ Windspeed: _____

Use this area to draw or write your plant fuels collected from outside. Label whether they were wet, moist, or dry.

Fire danger prediction: _____

Fire danger rating from website: _____

Experiment continued on next page...



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WHAT'S HAPPENING?

Weather conditions play a big part in the level of fire danger in an area. High temperatures, low humidity, and strong winds can all increase the likelihood of a fire to start and spread. Scientists use weather data as well as information about fuels and local geography to predict fire danger.

Fire scientists use five different color-coded levels to help the public understand fire potential and prevent human-caused wildfires. You may have seen signs at state or national parks displaying that area's current color-coded fire danger level.

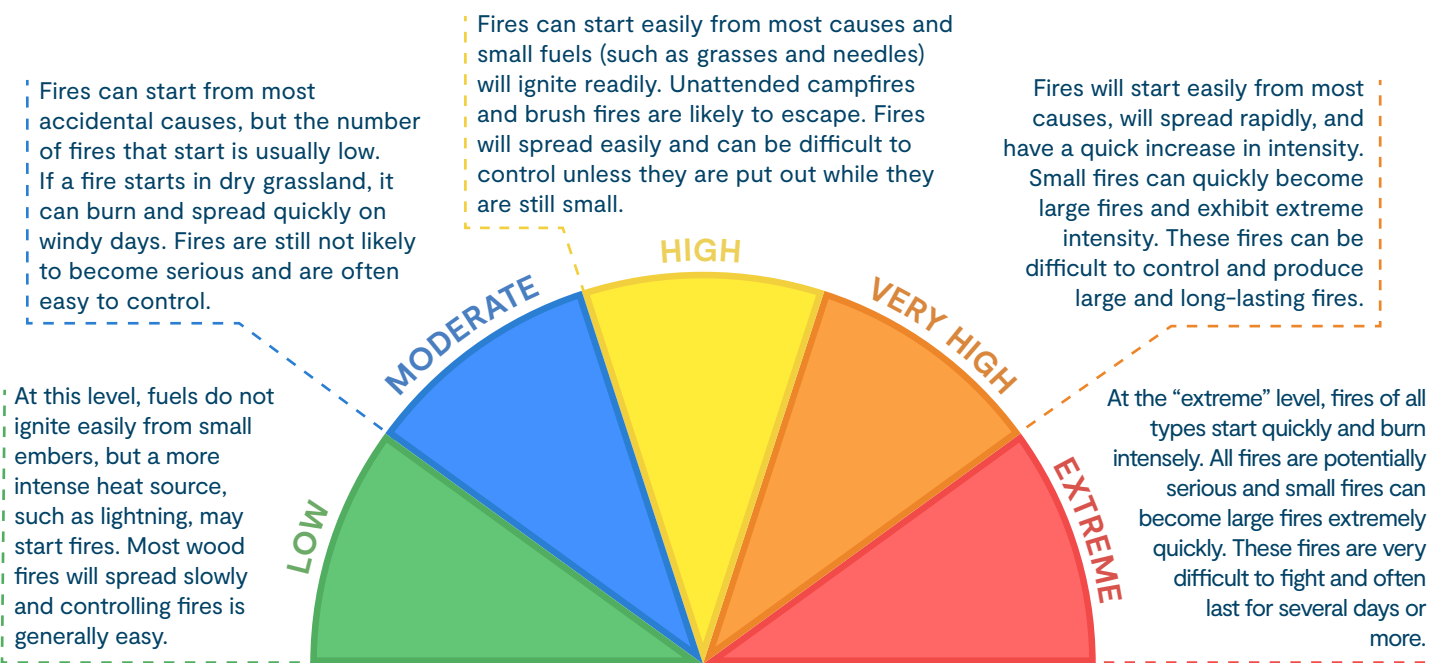


Chart adapted from fs.usda.gov



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K-2 GRADE EXPLORATION

- Where have you seen fire before? At a campfire? On TV? In a fireplace?
- What can you remember about fire? What color is it? What do you smell? What do you feel?
- What season is the hottest and driest where you live?
- What things can you do to be fire safe? Think about both indoor spaces and outside in nature.



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3–5 GRADE EXPLORATION

- Humidity is the level of moisture in the air. How do you think higher or lower humidity will affect fire danger level? What about wind speed?
- What geographic characteristics do you think might put a habitat at greater risk for accidental wildfires?
- What are some steps humans can take to prevent accidental wildfires?
- What things can you do to be fire safe? Think about both indoor spaces and outside in nature.
- What would happen to the amount of fuel in a forest if humans tried to stop all the natural forest fires? How might that affect the size of future fires?



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6–8 GRADE EXPLORATION

- Humidity is the level of moisture in the air. How do you think humidity levels affect fire danger levels?
- How does wind speed affect fire danger?
- Topography describes the physical features of the land. This can include hills, mountains, rivers, lakes, and valleys. How do you think topography affects fire danger levels?
- Some fires can be beneficial to forest ecosystems. Why do you think this might be? How could a fire help improve forest health?
- What things can you do to be fire safe? Think about both indoor spaces and outside in nature.



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