



# HOW DO WILDFIRES SPREAD?

Wildfires are uncontrolled fires that spread quickly and can destroy homes and the environment nearby. But how do these fires start—and how do they spread and become dangerous so quickly?



Lots of things can spark a fire. Such as, a burning campfire ember.

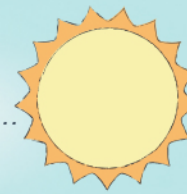


Or, often, human error.

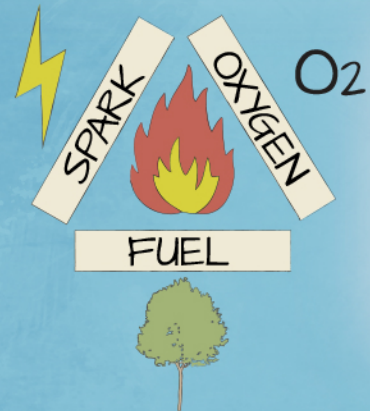
In fact, most wildfires in the US are sparked by human activity.



lightning...



heat from the sun...



If a spark happens in the presence of oxygen and fuel—such as dry grass, brush or trees—a fire can start.

Conditions in the weather and environment can cause a fire to spread quickly.

Overgrown forests can fuel a fire to grow out of control.

Weather conditions such as, drought, winds and extreme heat can make a fire bigger, faster, and more dangerous.

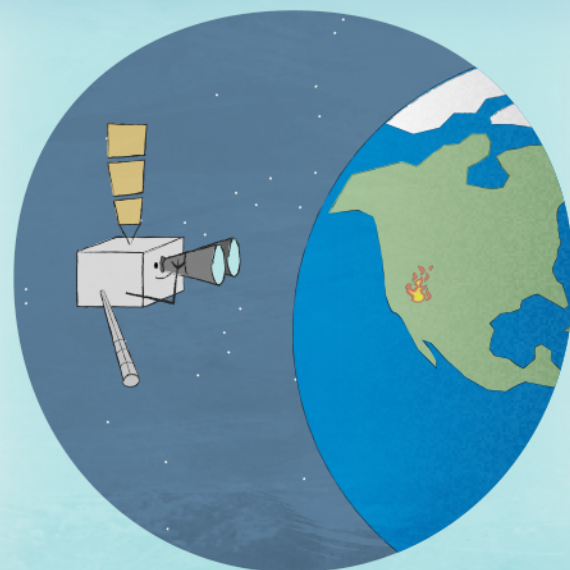


Before taking action, firefighters need to know where a fire is—and how environmental and weather conditions will affect the fire.

Weather satellites such as NOAA's GOES satellites provide information to help firefighters and the rest of us stay safe.

With their special vision, weather satellites like GOES can detect fire and smoke and see the heat of very small fires before they are spotted on the ground.

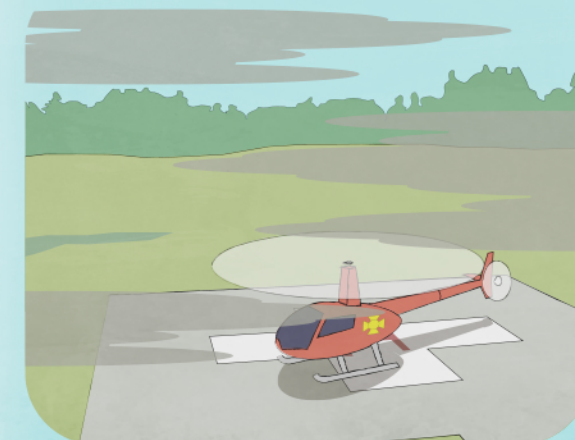
Meteorologists use data from satellites to give firefighters an up-to-the-minute forecast of changing wildfire conditions.



Smoke from a fire can cause poor visibility for firefighting helicopters and airplanes.

It can also cause bad air quality, which is unhealthy for the people nearby.

GOES satellites monitor smoke, helping firefighters determine when it will be safe to fly—and when it's safe for anyone to spend time outside.



Wildfires can be really scary.

Thankfully, GOES satellites are always up there keeping an eye on things to try and help us stay safe!

Find out more about Earth's weather at: [scijinks.gov](http://scijinks.gov)

