



Understanding the Fire Triangle Can Provide Key Information on How to Stop, Slow or Start a Fire

An out-of-control fire is a frightening sight but understanding how fire works can help to both mitigate the danger and extinguish the fire.

The Fire Triangle is a simple way of understanding the components of fire and how if mishandled, it can become dangerous.



Each part of the triangle is a representation of an ingredient needed for a fire to exist - oxygen, fuel, and heat. Fire is a chemical reaction that cannot exist or be sustained without all its essential components. The air around us contains approximately 21% oxygen. For a fire to burn, the air must have an oxygen content of at least 16%.

Fuel is any material that can burn and is characterized by its moisture content (how wet it is), size, shape, quantity, and the arrangement in which it is spread across the landscape. In the case of a wildfire, fuel sources include any kind of combustible material such as grass, shrubs, trees, houses, propane tanks, wood piles, and decks.

A heat source ignites a fire initially and is necessary to sustain and spread. The heat enables fire to spread by removing moisture from nearby fuel, warming the surrounding air, and preheating the fuel in its path. Examples of heat sources include lightning, cigarettes, power lines, catalytic converters, small engine sparks, matches, and lightning strikes.





Now if you need heat, fuel, and oxygen for a fire to exist then if you want to stop a fire you simply remove one side of the fire triangle. For example, if someone wanted to get rid of the heat you could apply water or other methods to get rid of that heat. To remove the oxygen effect, cover up the fire, often with dirt, and restrict its access to oxygen. For reducing fuels, one of the several things that you can do is clear out the vegetation in the fire's path.

To learn more about how you can help prevent wildfires visit [ReadyForWildfire.org](https://www.readyforwildfire.org).