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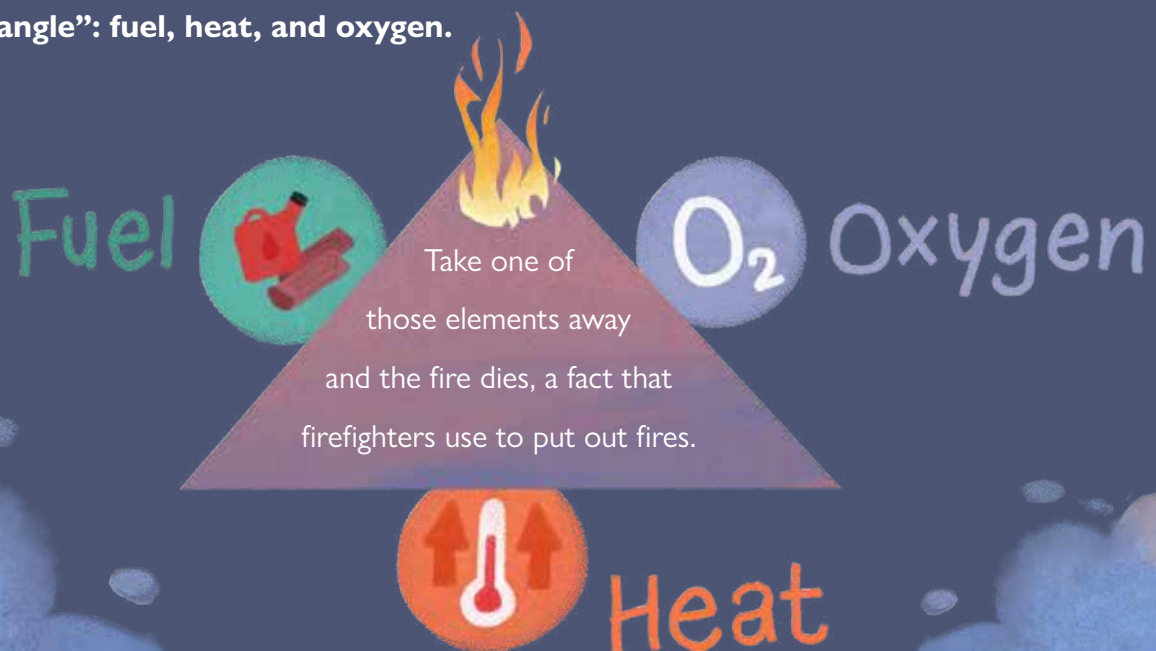


# WHAT'S SO WILD ABOUT WILDFIRE?

By Jeanne Panek

Have you ever been mesmerized by flames? Whether it's a crackling campfire or the tip of a birthday candle, fire is spellbinding. But fire can also be unpredictable and dangerous. Taming fire is like taming a tiger—you always risk it going wild. Finding the balance between fire as a tool and fire as a destructive force has challenged humans for a million years.

Fire behaves like a living thing—moving, growing, consuming, dying—but it's not alive. So, what is it? Fire scientists describe fire as a chemical reaction made from three things, called the **“fire triangle”**: fuel, heat, and oxygen.





## Fire is a part of the natural world

Wildfire was around long before humans. Some landscapes actually thrive with wildfire. In fire-adapted forests, many trees have fire-proof bark, like a fire-fighter's suit. Some trees—like giant sequoias—actually need the heat from fire to open cones that are glued shut. This ensures that their seeds sprout when conditions are best for growth—after fire has burned away competing trees and left sunny openings and fertile ash, ideal for seedlings to thrive. Native Americans have long used fire to clear land and promote the growth of certain plants for food and fiber.

So, fire has always been a natural part of healthy ecosystems, sweeping through landscapes at regular intervals like a broom cleaning up a mess. That is, until settlers came West and changed everything.



## Fire as the enemy

Since the mid-1800's, western forests have supplied the timber for cities, ships, railways, and even flumes for the Gold Rush. Wildfire became the enemy because it destroyed valuable trees. So, forest managers worked hard putting out wildfires to protect the trees, with Smokey Bear leading the effort. For over a hundred years—right up until the present day—techniques were developed to fight forest fires, from fire lookouts to tanker planes and smokejumpers to fire mapping from satellites.

Western forests continued to grow during that century, but without natural fire. They've become crowded with trees that aren't fireproof, that once burned away in regular fire sweeps. Now there are too many trees and not enough water, sunlight, or nutrients, so all the trees weaken. Insects and disease kill the weak trees. The forests are filling up with unburned dead trees, fallen logs, and branches.



Remember, fuel is one element of the fire triangle. Now forests are full of dry fuel that burns easily when lightning strikes or a campfire spark goes astray. Heat is another element of the fire triangle. With the fuel overload, wildfires now burn hotter than they ever have. These megafires are so hot that they even burn fireproof trees and roots, and kill soil organisms. After a monster wildfire, the landscape is left so sterile and lifeless that anything struggles to grow back. Megafires are increasing every year in the West. People



*Fire aftermath in New Mexico*

living in wildfire country are worried for their homes and land, but powerless to help themselves. They can only wait for public forest managers to solve the problem and protect them. But forest managers are struggling to fight megafires and few have resources to do more.





## Bringing megafires under control—fire scientist at work

**Lenya Quinn-Davidson, California fire-fighter and fire ecologist**, is hard at work with a solution. She's optimistic that megafires in the West can be tamed, that the cycle of natural low-intensity fires can be brought back, and that ordinary people are part of the solution. How? By setting fire to the land with small beneficial fires, called “controlled” or “prescribed” fire, that consume the unnaturally high fuel loads before a wildfire starts.

As a kid, Lenya was afraid of the blazes near her rural California home. Now she walks with a drip torch through forests and fields, training citizens—ranchers, hippies, homeowners, youth, families—to safely set fire to their land. She also collaborates with Native Americans, whose leaders share their cultural burning techniques. People are now empowered—with Lenya's vision and resolve—to protect themselves and their communities. Even as the West blazes with wildfire this fall, ordinary people are out on the land, restoring natural fire to California's landscapes, successfully protecting their homes, and leading the movement to use prescribed fire to tame megafires throughout the West.