

A **TRUE** BOOK™

**NATURAL
DISASTER!**

All About Earthquakes

Discovering How Earth
Moves and Shakes



Libby Romero

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Libby Romero

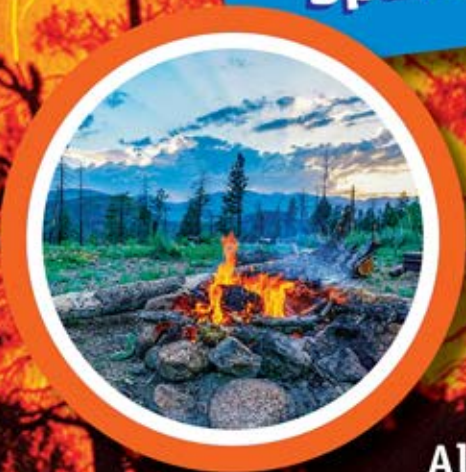
 SCHOLASTIC

A **TRUE** BOOK™

**NATURAL
DISASTER!**

All About Wildfires

Discovering How They
Spark, Burn, and Spread



Alessandra Potenza

 SCHOLASTIC

Up in Smoke

Hot **embers** blanket the forest floor. Bright yellow and **orange flames** lick tree trunks and leaves. The hazy sky is **glowing red**. Soon, the whole forest is ablaze! This inferno is known as a wildfire, an unplanned fire that burns through a wilderness area.

These natural disasters happen all over the world. Every year in the United States, thousands of wildfires **burn through about 7 million acres** (2.8 million hectares) of land. That's an area slightly smaller than the state of Maryland. As wildfires spread, they destroy everything in their path, including **entire towns**.

Let's explore the science behind wildfires, how firefighters tame the flames, and what you can do to keep safe.



Wildfires are usually named after the location where they start.

A wildfire in California as seen from a satellite in space.

CHAPTER

1

Into the Flames

Wildfires can burn through many different types of natural areas, from forests to grasslands. Most wildfires are small and contained. But even a small wildfire can be dangerous. Flames can reach temperatures of about 1,472 degrees Fahrenheit (800 degrees Celsius) and travel up to 14 miles per hour (22 kilometers per hour). That may seem slow. But it's fast enough to endanger people and property. But how do wildfires start? And why are they so destructive?



Sometimes a wildfire starts from a lightning strike (left). More often, they start from campfires that are not put out properly.

How Wildfires Happen

Some wildfires are caused naturally by lightning or volcanic eruptions. But most wildfires are caused by human activity. Sometimes, wildfires are started by accident—such as a spark from a campfire. Other times, people start wildfires to cause harm. This is called **arson**. In some countries, people set fire to forests on purpose in order to clear the land for farming. If these fires are not properly controlled, they can spread.

The Fire Triangle

Like all fires, wildfires need three elements to burn: heat, fuel, and oxygen. This is called the fire triangle. A heat source is anything that will spark a fire, such as a lightning strike or a hot ember from a campfire. Fuel is anything that will catch fire, such as dead trees and logs. And finally, wildfires burn by consuming oxygen in the air. If you take away any of these elements, the fire will go out.



A spark from lightning, a dry tree, and wind create the fire triangle, the perfect conditions for a wildfire.