

# Only YOU Can Prevent Forest Fires!

## Smokey's Image

In 1950, a young motherless bear cub was found after a forest fire in the Lincoln National Forest, New Mexico. He had burns and his mother could not be found. Some kind people helped him to get well. This young cub was named "Smokey". He became a loved symbol in the United States. Smokey Bear lived in the National Zoo in Washington D.C. until his death in 1976. Smokey's image still reminds people of the harm that forest fires do to wildlife.

In the year 2000 another bear cub was found. This time the homeless cub with the burned paws was found in the remains of the fires that burned in Montana. News programs showed his picture on their broadcasts along with the pictures of burned houses. These pictures were sad. They reminded people that wildlife and people are affected when a forest fire destroys an area. People and animals lose their homes.

In the summer of 2000 many wildfires burned in the western part of the United States. The homes of families were destroyed. Trees and brush that provide shelter and food for animals were also destroyed. But, more destruction took place than this. Most news programs didn't talk about the harmful effects these fires have on our atmosphere. This was something that couldn't easily be shown on television. But these big fires are harmful to the home of us all - Earth.

## Carbon Dioxide is Not All Bad!

Take a deep breath. Your lungs just took in and used the oxygen from our air. But you did more than breathe in. You had to breathe out, too! When you did this, you put the **carbon dioxide** you didn't use back into the air. Our bodies don't need it the way we need **oxygen**. But, this carbon dioxide isn't just waste. Carbon dioxide is helpful. Green plants need carbon

dioxide. It's great the way this works! We breathe out carbon dioxide and green plants take it in. They use it to make their food. It's a big circle of people and green plants providing for each other.

Green plants and trees aren't the only users of carbon dioxide. Our atmosphere also needs a certain amount of carbon dioxide. This carbon dioxide helps to keep our planet warm enough for life. But what happens if there is too much carbon dioxide? More carbon dioxide than is natural is called the **greenhouse effect**. Many scientists believe too much carbon dioxide and other greenhouse gases will make our planet too warm. They say that we could see effects such as polar ice caps melting, oceans rising, and extreme weather patterns.

It is important to have enough carbon dioxide for plants and trees to make food. But, we don't want to put too much carbon dioxide into our atmosphere. This could be harmful to our planet.

## **Forest Fires - Triple Trouble for our Atmosphere!**

Forest fires harm our atmosphere in three main ways. Let's look at those three ways.

### 1. Too Much Carbon Dioxide

First of all, big fires can mean that balance of carbon dioxide gets unbalanced. When trees burn, carbon in the trees is released into the air. So, when a lot of trees burn, a lot more carbon dioxide becomes a part of the air. This puts the balance of gases in our atmosphere out of whack and adds to the greenhouse effect.

### 2. Fewer Trees to Take Carbon Dioxide Out of the Air

The idea is simple - when we have fewer trees, less carbon dioxide is taken out of the air. Think about a forest. That forest uses a lot of carbon dioxide. If the forest isn't

there anymore, the carbon dioxide has no where to go. It ends up in our atmosphere as a greenhouse gas.

### 3. Lots of Ash in the Air

All of the **particulates** that are released into the air when a forest burns can cause breathing problems for many people. Weather patterns can also change because of these particulates.

So, as you can see, when a forest fire damages an area, it means triple trouble for the air.

- Carbon is released into the air by burning trees.
- There are fewer trees to take in carbon dioxide.
- Ash can cause health problems and weather changes.

## What Can Be Done?

Sometimes fires in forests are set on purpose. That may seem hard to believe, but experts say that sometimes it is important to clear out underbrush and dead trees. This material could act as **kindling** and make unplanned fires worse. Many people believe that it is important to let fires burn that start naturally. Many times lightning starts a fire. Experts believe that this is part of the natural environment. They think these fires have a role to play in the way nature works. Right now, government officials in the United States are trying to come up with plans to better manage forests so that the big fires of 2000 will not occur again.

But, this is one area of pollution control where everyone has a responsibility. Some of the fires that burned in the summer of 2000 were set accidentally. Many forest fires can be prevented. We need to be careful about campfires and cigarettes.

As you take your role to prevent air pollution seriously, be watchful for what you can do. Taking care when you are in a

forest is important. Let others know that one spark can mean triple trouble for us all. Smokey Bear has reminded people for decades, “Only YOU can prevent forest fires!”

## **You're an Expert!**

1. Work with a partner. Make two shadow boxes. One should show what an unmanaged forest looks like and the other should show a managed forest.
2. Ask an adult to help you look on the Internet to find information about weather and forest fires. Visit [www.spc.noaa.gov/coolimg/cafires.htm](http://www.spc.noaa.gov/coolimg/cafires.htm). Show this image to a classmate and explain the consequences of a big fire like this.
3. Many news reports about forest fires focus on the loss of human and animal homes. This is certainly a big problem that forest fires cause and after reading this article, you know that forest fires also cause problems for our air. Write a news report that informs the public about this effect of forest fires.

## **Taking Action.....**

Make a list of rules that a person should follow when in the woods. Design a way to display these rules. Visit another classroom and explain the rules and why they are important.