



Smokey's Forest Science

The Story of Smokey Bear



The time? The early 1950's. *The place?* A forest in New Mexico. *The situation?* An American black bear cub surrounded by a raging wildfire climbs to the top of a tree to escape the flames. What happens? He survives—thanks to firefighters who find and rescue him. They name him Smokey and send him to live at the National Zoo in Washington, D.C.

This real life Smokey Bear became the living symbol of the Forest Service's Smokey Bear campaign that—to this day—works to educate the public about wildfire prevention. Smokey Bear needs your help now more than ever. If our nation's wildlands (forests, grasslands, and rangelands) are destroyed by fire, Smokey and his animal friends have no home and you can't enjoy the great outdoors. It can take your lifetime or longer for a forest to recover from a disastrous wildfire.

Whenever you are on a trip in our nation's forests, be sure to remember Smokey Bear's important message—
Only you can prevent wildfires.

Part A. How much do you know about the ecology of wildlands and other natural areas? Take Smokey's True/False quiz to find out!

- _____ 1. Heat, oxygen and fire make up the fire triangle, a term that explains the elements of fire.
- _____ 2. Fire is a natural part of most forest ecosystems.
- _____ 3. Prescribed fire, or the setting and controlling of fire in wildland areas by firefighters, is something that is done only to practice firefighting skills.
- _____ 4. A high danger of wildfire exists when the weather is hot, dry, or windy, or when thunderstorms occur.
- _____ 5. An average of 1,000 wildfires occurs each year in the United States.
- _____ 6. Firefighters can only put out wildfires with water.
- _____ 7. Fire is harmful to every kind of tree and vegetation found in the forest.
- _____ 8. From 2001 to 2006, 8 out of 10 wildfires were started by people.
- _____ 9. Forests experience good fires and bad fires.
- _____ 10. Currently, the number of wildfires has decreased in the United States.

Part B. Use Smokey's Field Research Notebook to investigate the natural cycle of fire and its impact on forest vegetation in different areas of the United States.

Smokey's Field Research Notebook

Area of United States _____

Forest type _____

Frequency of natural fires _____

Forest adaptations to natural fires _____

Effects on forest without natural fire _____





Forest Treasures

Part A. Wildlands and other natural areas cover almost one-third of the Earth's land, and they are home to many different kinds of plants and animals. Forests also give us many resources. Can you find some of them in the Word Search below? Do you know what are they used for?

Word Search Words: cinnamon, cocoa beans, coffee beans, cork, fruit, gum, lumber, maple syrup, medicine, turpentine, nutmeg, nuts, rubber, and wood pulp

Q	E	N	I	T	N	E	P	R	U	T	Z
P	X	T	N	I	C	C	A	B	R	D	W
U	L	N	U	O	N	O	E	M	L	Q	O
R	G	O	T	R	H	F	J	N	S	T	O
Y	W	M	M	Z	P	F	R	U	I	T	D
S	N	A	E	I	R	E	B	M	U	L	P
E	R	N	G	U	M	E	N	U	T	S	U
L	U	N	O	P	F	B	B	T	I	J	L
P	B	I	G	R	O	E	M	S	I	T	P
A	B	C	O	C	O	A	B	E	A	N	S
M	E	D	I	C	I	N	E	X	T	I	E
F	R	O	O	T	T	S	I	C	O	R	K

Part B. Besides giving us many different products we use every day, forests also have other important jobs. They provide oxygen for us to breathe and they absorb carbon dioxide to help fight global warming. They also offer beautiful settings where people can play and relax.

In what ways do your family and friends enjoy our nation's wildlands? Use the chart below to conduct a survey and find out.

Forest Recreation Survey

My favorite way to enjoy the forest is

Name	Friends and Families Favorite Forest Recreation Activity
1. _____	_____
2. _____	_____
3. _____	_____
4. _____	_____
5. _____	_____

Use the information to help your teacher make a graph of everyone's favorite forest activities.



Choose one product from the search above. Create a chart and follow the product from its forest roots to the final product. Use the back of this paper to record your findings.





Wildfire Detectives

Part A. Be the leader of Smokey's Wildfire Patrol!

Can you find the actions that might lead to wildfire in the case files below? Change the characters' actions to prevent wildfire.

Case File #1

The Jones Family wanted to enjoy a holiday barbeque in the great outdoors. Mr. Jones set up his grill to prepare the family meal. After the family enjoyed their food, Mr. Jones threw the coals onto the vegetation because he thought they were cool. After a fun meal, the Jones Family headed home.

What might happen next: _____

What I would change: _____

Case File #2

It was a very hot and dry morning when Nick and Shelly awoke at their forest campsite. They quickly built a campfire on a patch of dirt near some trees with low hanging, dead branches, away from the campsite's established fire ring. A breeze began to blow, causing the flames to grow taller.

What might happen next: _____

What I would change: _____

Case File #3

Marcus invited Hudson, his best friend, on a weekend trip with his parents to the local mountains. By the afternoon of the second day, they had an idea. Wouldn't it be cool to set twigs on fire and see who could put out their twig fire the quickest by stomping on it? The two got the lighter from the fireplace mantle in the cabin and took it outside to try their experiment.

What might happen next: _____

What I would change: _____

Now, choose one of the scenarios above and—using your fire prevention smarts—write a short story about how one set of characters above was able to enjoy their day in the forest safely. Use the back of this page for writing.

Part B. Check out www.smokeybear.com to find out more of Smokey's wildfire prevention tips. Then follow your teacher's direction and work in teams to create a new case file showing other careless behaviors in the forest. Use the outline below to organize your thoughts.

Team Case File

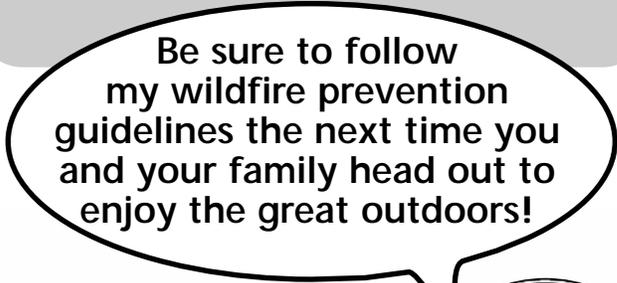
Characters:

1. _____
2. _____
3. _____

Scenario:

Careless Behavior:

Solution:



Be sure to follow my wildfire prevention guidelines the next time you and your family head out to enjoy the great outdoors!



Go to www.smokeybear.com to find out more about how you can help.