

Disney  
**PLANES**  
**FIRE & RESCUE**

# EDUCATIONAL ACTIVITY BOOK





# FOREST TREASURES



## FOREST WORD SEARCH

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 they are used for?

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

### Word Search Words:

|              |             |
|--------------|-------------|
| cinnamon     | maple syrup |
| cocoa beans  | medicine    |
| coffee beans | turpentine  |
| cork         | nutmeg      |
| fruit        | nuts        |
| gum          | rubber      |
| lumber       | wood pulp   |

## FOREST RECREATION SURVEY

Besides giving us many products we use every day, forests have other important jobs. They provide oxygen for us to breathe and they absorb carbon dioxide to help keep our planet healthy. They also offer beautiful settings where people can play and relax.

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

My favorite way to enjoy the forest is:

| Name     | Friends and Family<br>Favorite Forest Recreation Activity |
|----------|-----------------------------------------------------------|
| 1. _____ | _____                                                     |
| 2. _____ | _____                                                     |
| 3. _____ | _____                                                     |
| 4. _____ | _____                                                     |
| 5. _____ | _____                                                     |

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# TRUE/FALSE QUIZ

**How much do you know about the ecology of wildlands?  
Take this 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 some thing 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 U.S.
- \_\_\_\_\_ 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, 9 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 U.S.

1. *False.* Heat, oxygen and fuel are the components of the fire triangle. The interaction of the three is responsible for the creation and maintenance of fire. When managing a wildfire, firefighters work to curb one or more of these three elements. For example, they might contain the fire so that its fuel will become exhausted, use water to reduce the heat of the fire, or use dirt to smother the fire by reducing its oxygen supply.

2. *True.* Fire occurs naturally in our nation's forests in 25-200-year cycles. Some areas burn even more often—some annually. Without fire or other disturbances, forest vegetation goes through successional changes. Light-loving plants are replaced by shade-loving plants. This is a normal process. Prescribed fires are used to reduce fuels and to bring the forest into a condition where light-loving plants are in the majority.

3. *False.* Prescribed fire is used by wildland fire managers to keep forests healthy. It is a controlled system of setting and managing a fire in a safe way to keep forests clear of dense vegetation that provides excessive fuel for wildfires. It also aids in the new growth of native vegetation and maintains the many plant and animal species whose habitats depend on periodic fire. Prescribed fire is one of the most effective means of preventing unwanted wildfires.

4. *True.* Hot, dry, and windy conditions cause a wildfire to spread quickly. In addition, lightning strikes from thunderstorms often ignite wildfires.

5. *False.* Since 1991, there have been up to an average of 75,000 wildfires a year.

6. *False.* Firefighters do use water to control wildfires, but they also remove the fire's fuel by removing trees and plants or using bulldozers to create a fire line.

7. *False.* Nearly every ecosystem in the country has some kind of plant that is dependent on periodic fire for its survival.

8. *True.* Both directly and indirectly, people are the major cause of wildfires. Carelessly discarded cigarettes and other smoking products, sparks from cars, trains, and power equipment, power lines that spark, campfires left unattended, and arson are all examples of human involvement in wildfires.

9. *True.* Good fires are prescribed fires (see #3). Most unwanted and unplanned fire burning in forest, shrub, or grass, is a bad fire. Because a wildfire's behavior is erratic, wildfires can destroy lives, property, and wild areas (our forests, grasslands, etc.).

10. *False.* Since 2006, wildfires have been increasing due to droughts and extremely high temperatures; more people living in forested areas; and lots of vegetation that burns.



# CAMPFIRE SAFETY GUIDE

**Keep your campfire from becoming a wildfire with these tips!**

## BEFORE ...

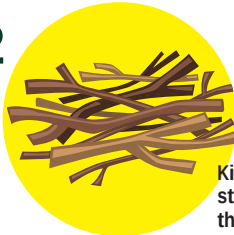
- Choose a spot that's protected from wind gusts and at least 15 feet from your tent, gear, and anything flammable.
- Clear a 10-foot diameter area around your campfire spot by removing leaves, grass, and anything burnable down to the dirt.
- Don't build your campfire near plants or under tree limbs or other flammable material hanging overhead.
- If allowed, dig a pit for your campfire, about 1-foot deep, in the center of the cleared area.
- Build a fire ring around the pit with rocks to create a barrier.
- Don't use any type of flammable liquid to start your fire.
- Gather three types of wood to build your campfire and add them in this order:

1



Tinder – small twigs, dry leaves or grass, dry needles.

2



Kindling – dry sticks smaller than 1" around.

3



Firewood – larger, dry pieces of wood up to about 6-8" around.

## DURING ...

- Keep your fire small.
- Always keep water and a shovel nearby and know how to use them to put out your campfire.
- Be sure an adult is always watching the fire.
- Keep an eye on the weather! Sudden wind gusts can blow sparks into vegetation outside your cleared area, causing unexpected fires.

**REMEMBER:** If it's too hot to touch, it's too hot to leave.

## AFTER ...

- If possible, allow your campfire to burn out completely – to ashes.
- Drown the campfire ashes with lots of water.
- Use a shovel to stir the ashes and water into a "mud pie." Be sure to scrape around the edges of the fire to get all the ashes mixed in.
  - Drown the ashes with water again.
- Check that your campfire is cold before leaving. Hold the back of your hand just above the wet ashes, especially around the edges of the fire. **DO NOT** touch the ashes or you might burn yourself.
- If you feel heat, stir more water into the ashes.
- When the ashes are cold, disassemble your fire ring and scatter the rocks.
  - If you built your campfire in a fire pit, be sure it's filled in with wet dirt.



# CAMPFIRE SAFETY GUIDE

Keep your campfire from becoming a wildfire with these tips!

## Cool Campfires!

Here's how to safely build three kinds of campfires:



**TEPEE:** Make a pile of tinder and arrange your kindling over it like the poles of a tepee. Keep the tepee shape as you add more wood to the fire.



**CROSS FIRE:** Place a pile of tinder between two parallel pieces of kindling. Once the fire is burning, lay more pieces of kindling across the fire perpendicular to the first pair. As you add larger sticks to the fire, make each new layer perpendicular to the last, building a pyramid shape.



**LOG CABIN:** Surround your tinder pile with a square of kindling built by laying two sticks parallel on either side of the tinder, then two sticks on top of and perpendicular to the first pair. Build up several levels and end with a "roof" of small kindling across the top. Add larger sticks in pairs to keep the fire's log cabin shape.

## Use This Checklist to Make Sure Your Campfire is Safe

### DO

- ☐ Light a fire only when an adult is present and in charge.
- ☐ Keep young children and pets away from the fire.
- ☐ Make sure your campfire is a safe distance from your tent or anything that can burn.
- ☐ Use rocks to create a fire ring in the center of a large cleared area.
- ☐ Use the Drown-Stir-Drown-Feel method to put out your campfire safely.

### DON'T

- ☐ Don't start a campfire when it is windy.
- ☐ Don't leave a fire unattended.
- ☐ Don't leave your fire without first putting it completely out.
- ☐ Don't use flammable liquids to start a campfire.
- ☐ Don't extinguish a campfire with just dirt or sand — add H<sub>2</sub>O!
- ☐ Don't bury warm/hot coals or ashes in a campfire pit.
- ☐ Don't burn glass, cans, plastics, or garbage in your campfire.
- ☐ Don't play or goof around near a campfire.



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# WILDFIRE FACTS

Learn more about wildfires and how to prevent them!



**It's always wildfire season somewhere in the U.S.** A wildfire is any unwanted, unplanned damaging outdoor fire. Since 2000, almost 80,000 wildfires are recorded each year by the National Interagency Fire Center. On average, 9 out of 10 wildfires are caused by people's carelessness. Wildfires burn more than 6.5 million acres of forests and grasslands each year.

**Certain ecosystems need fire.** Not all fires are bad. Many forest and grassland areas actually depend on fire to sustain them. In these fire-adapted areas, the plants and animals evolved with periodic wildfires. Longleaf pine in the southeast, ponderosa pine in the west, and prairies of the Great Plains are examples. These ecosystems need fire at the right time and under the right weather conditions to maintain their naturally occurring diversity of plant and animal life (see [www.smokeybear.com/natural-fire.asp](http://www.smokeybear.com/natural-fire.asp)). What they don't need are fires started carelessly by people.

**Wildfires can have damaging effects.** When wildfires occur during hot and dry weather, they can burn extremely hot, burning all vegetation. If heavy rains follow a wildfire, soils can erode, causing landslides and degrading streams. These huge fires create large plumes of smoke that affect people's health.

**Large wildfires impact communities and local economies.** Large wildfires can disrupt recreation and tourism. Wildfires burn trees used by wildlife and for timber to build houses. Houses can be damaged or destroyed, and firefighters' and the public's lives can be put at risk. Wildfires near towns can reduce property values because of landscape damage. Sources of drinking water can be degraded with soil and silt caused by runoff from vegetation-denuded slopes.



**Human behavior is usually to blame.** People, both directly and indirectly, are the cause of 9 out of 10 wildfires—whether due to children playing with matches or lighters; people carelessly discarding smoking materials or BBQ coals; sparks from power equipment and power lines; campfires or yard debris fires left unattended or improperly extinguished; or arson. As a result, there is a continuing need for children and adults to learn the necessary care and caution when dealing with fire outdoors.



# SMOKEY BEAR'S FIVE RULES FOR FIRE PREVENTION

1. Only you can prevent wildfires.
2. Always be careful with fire.
3. Never play with matches or lighters.
4. Always watch your campfire.
5. Make sure your campfire is completely out before leaving it.





# WILDFIRE PREVENTION DETECTIVE SKILLS TEST

**Can you spot a wildfire before it starts?  
Test your Wildfire Detective skills by studying these outdoor scenes!**



**1. What wildfire prevention advice would you bring to this party?**



**2. Patrol this backyard for behaviors that could cause a wildfire. How many can you see?**



**3. Can you tell these friends the safe way to leave a campsite?**

## Answers

1. This campfire is too large for safety; position the campfire away from low-hanging branches and in the middle of a 10-foot diameter area cleared to bare ground; NEVER use gasoline to start any fire; ALWAYS have a bucket of water and a shovel nearby to put out your campfire; extinguish the fire burning in the grill; don't park in tall grass as it can catch fire from the exhaust system.
2. Where legal, burn yard debris in a covered container; NEVER burn yard debris on a windy day; position the fire away from low-hanging branches in a 10-foot diameter area cleared to bare ground; have a garden hose ready to extinguish the fire; adjust the grill controls to avoid flame ups; NEVER allow children near a fire without adult supervision; ALWAYS keep your eyes on any outdoor fire. Be sure to check with local agencies that regulate outdoor residential burning to ensure that your fire meets all rules and laws. Even better: use a chipper to compost small branches, leaves, and other yard debris.
3. Position the campfire in the middle of a 10-foot diameter area cleared to bare ground; circle the fire with rocks to create a barrier; pile kindling and firewood at the edge of the cleared area; store matches away after you've lit your fire; use plenty of water to extinguish a campfire — with a shovel, stir the water and ashes together into a muck, then drown the ashes again, and check to be sure they are cold before you leave. If it's too hot to touch, it's too hot to leave.