

Essay: Wildfires: A History of the Blaze

Introduction

Wildland fires have played an important role in North American history. They have helped shape our public and private lands. Wildfires have caused thousands of deaths, destroyed millions of acres of timber and even several towns in their path. However, wildland fire is not solely a destructive force. It is necessary for the growth of some plant species, and is part of an ecological cycle. Historically humans have started fires to clear the land, suppressed wildfires, allowed fires to burn naturally, and used fire to reduce fuel loads.

Records of fire scars in fossilized trees and other vegetation indicate that fires influenced ecosystems on Earth at least 350 million years ago. How fire came to be controlled and used on a daily basis by humans is not well understood. Experts cannot even agree upon the time period when humans began to use fire in their daily lives for cooking, warmth, etc. From various archeological studies it appears that wildfires often burned across large sections of land throughout the world. Early humans were often **nomadic**. Because they tended to move and change settlements frequently their lifestyles were adaptable to wildfires. As civilizations and agricultural communities developed, humans began to become more settled in a specific area. They built their homes from wood, depended upon the large forestlands that surrounded them, and developed large stable agricultural communities. When fire struck it could have disastrous results, so as communities developed and grew, the people living in them became more fearful of the destructiveness of fire.

Early European explorers in North America recorded that Native Americans used fire to clear the land of unwanted vegetation so they could improve hunting, gathering and farming. When Europeans settled in America they continued this practice, using fire to clear large portions of the land for homes and agricultural purposes. They continued to utilize fire as they moved westward. Sometimes the fires they started burned out of control and other times fires began naturally due to lightning. Settlers began working to prevent wildfires from invading their communities. They still used fire to clear lands for new communities but they tried their best to eliminate wildfires from their existing towns. Thoughtful prevention and suppression of wildfires would become an increasing need.

With a growing population and industrial growth during the 1700s and 1800s the threat of wildfires grew. Land that was recently cleared of trees usually had lots of brush left on it, a perfect fuel for wildfire. Lightning and sparks from machinery (typically from railroads) produced menacing wildfires in the 1880s.

In 1905, the U.S. Forest Service was established and quickly became the lead agency in the fight against wildfires. The early U.S. Forest Service plan was to rid the country of any and all wildfires. The policy was to prevent fires from happening and stamp out any fires that did occur as quickly as possible (**fire suppression**). **Lookout stations**, commonly towers or high places used for spotting fires in the forests were built throughout the new national forests. **Fire spotters**, or “lookouts,” were assigned to those stations to locate fires early and respond to them immediately.



Figure 1: Four women and two men at Devil's Head Lookout Station in Pike National Forest, Colorado (1910-1920). [Photo provided by Douglas County History Research Center of the Douglas County Libraries, Guy Watson Smith Collection].

In 1910 the “Big Blowup” fire in northeastern Washington, northern Idaho, and western Montana destroyed 3 million acres of timber and killed over 80 firefighters. In 1911 Congress passed the “**Weeks Act**,” (named after Representative John W. Weeks of Massachusetts, the main sponsor of the Act) which among other things, provided financial aid to state forestry organizations that participated in cooperative fire protection work with the federal government. In 1935, Ferdinand Silcox, the Forest Service Chief, introduced the “10AM Policy,” which became a new universal U.S. Forest Service goal to control a fire by 10AM the morning following its spotting. While the number of forest fires decreased slightly from the 1920s thru 1960s, fires continued to burn and could not be stopped completely.

Changes in Technology

As the **fire exclusion policy** (complete fire suppression) continued in our national forests, improvements were made to firefighting tools and techniques. When the U.S. Forest Service

began, foresters had to hike for miles into a fire area with heavy equipment and then work frantically to fight the fire once they arrived on the scene. They would dig trenches or cut **fire lines** to clear an area to the soil. By leaving nothing to fuel the advancing fire they hoped to keep fire from spreading further. In the early days these “firefighters” were any men the Forest Service could recruit to work. It often took long periods of time for the firefighters to hike to fires. Then, in 1934, a new idea was introduced: to have men parachute near fires to enable firefighters to reach the blaze more quickly. These parachuting firefighters would soon be named “smokejumpers.” The U.S. Forest Service began experimenting with parachuting in 1939 and the first smokejumping teams were used during the fire season of 1940.

Smokejumping techniques have changed and improved over time. The first jump was out of a single engine plane, but today jumps are from multi-engine planes or helicopters. Planes are also now used for land surveys, to detect fires and to drop water or fire-retardants on wildfires.

The first smokejumping efforts of 1940 consisted of two teams: one in Montana containing 7 members and one in Washington containing 6 members. In total, the first smokejumping teams had only 13 male members but today there are over 270 men and women smokejumpers in the U.S. Forest Service. In 1981, Deanne Shulman became the first female smokejumper.



Figure 2: Smokejumper parachuting into a wildfire (Provided by the Leo Keith Brown Family and www.wildlandfire.com).

Many changes and enhancements to equipment have been made to improve safety for smokejumpers. Since 1940, the design of smokejumper parachutes has changed at least 10 times. Parachutes have changed color, from the original white to white and orange panels; therefore improving visibility of the parachutes. The material used to make the parachutes changed from the original silk to various types of nylon to the “rip-stop” nylon used today. The design of the rip cord and the circumference of the parachutes have also changed.

Clothing worn by the smokejumpers also improved. Through much research, various fire resistant uniforms have been developed. Today, smokejumpers wear a padded Kevlar ("fireproof") jump suit and a helmet with a metal face grate to protect them from fire, rocks, and trees. A "fire box" containing tools, food, and water to support two people for up to 48 hours is dropped by parachute for each pair of jumpers at the scene. Through extensive research, **fire shelters** were developed (and continue to be modified) to provide a protective shelter from the heat of a wildfire if a firefighter is trapped. In 1977 the U.S. Forest Service made it mandatory for firefighting employees to carry a fire shelter with them. Fire management has changed throughout history and so have technologies to fight wildfires.



Figure 3: Early to mid-1940s photo of a uniformed Smokejumper in a plane preparing to jump (Image from records of the American Friends Service Committee, Civilian Public Service Records, Swarthmore College Peace Collection, ca. 1942-1946)



Figure 4: Smokejumper, Todd Jenkins, in uniform preparing to jump (Photo provided by Mike McMillan/ www.spotfireimages.com).

Fire Management

As early as 1930, some land managers started suggesting a return to **natural fire management**. Under natural fire management, instead of aiming for total fire suppression, fires started from natural causes such as lightning would be allowed to burn without suppression. This would eliminate some fuel build up and allow the natural fire cycle to occur. This suggestion was not popular at the time and those promoting fire exclusion policies won.

In the late 1940s and early 1950s a large population growth occurred in the U.S. The return of World War II soldiers caused an increased demand for new homes and timber needs boomed. This increased timber demand, combined with wildfire problems, led foresters to work to protect timber and continue to advocate the exclusion of all fire from wooded areas. Throughout much of the 20th century, public land managers and American citizens alike have continued to view fire as a destructive force, and a force to be controlled.

In 1944 the U.S. Forest Service introduced Americans to Smokey Bear and the slogan “Only you can prevent forest fires.” Smokey was created to be used in Forest Service public service announcements to teach Americans about the importance of preventing forest fires. The Forest Service wanted citizens to realize that fire prevention was good stewardship and a responsibility of all Americans. This campaign was a huge success. Smokey is one of the world’s most well known fictitious characters and the use of his image is protected by U.S. federal law.

However, continued fire suppression without other forest management techniques, produced a dangerous situation in our nation’s forests. Without natural fires, fuels and vegetation began to build up in many areas. The build up of deadwood and thick forest undergrowth can produce a fire hazard especially during drought conditions.

By the 1940s, ecologists recognized that fire was an important part of ecosystem function and that total suppression could interfere with natural patterns of **succession**, the recovery process when an area is disturbed that enables forest regeneration. In the 1950s and 1960s, the U.S. Forest Service and the National Park Service began to experiment with **prescribed fires**, where fires are set on purpose in order to burn away material that could be harmful later.

A prescribed fire is intentionally set, in a skillful manner, to achieve certain outcomes, such as to improve habitat for wildlife and livestock, to improve watershed, or to reduce hazardous build up of fire fuels in the hopes of preventing large wildfires in the future. Land management agencies have learned more about prescribed fire and often use it as a fire-fighting tool. Yet, prescribed fire does not always work as intended. If weather becomes unpredictable, for example if there are sudden changes in wind direction, prescribed fires can be difficult to manage. If foresters lose control of a prescribed fire the result could be a major forest fires (such as the Grand Canyon and Los Alamos fires in 2000).



Figure 5: A prescribed burn gets out of control becoming a wildfire that burned 1,200 acres near the Los Alamos National Laboratory in 2000 (Photograph copyright Kari Brown, National Interagency Fire Center).

By the 1970s the National Park Service had introduced a fire management plan which allowed **naturally occurring fires**, lightning-caused fires, to burn without human influences or suppression. The result would be reduced fuel loads. The challenge was when to allow a natural fire to burn and when to control it. At that time the U.S. Forest Service was not ready to implement a natural fire management policy. They were still exploring their options in fire management.

Then, in 1988, a total of 248 wildfires started in the greater Yellowstone area, 50 of them in Yellowstone National Park. Thirty-one fires that season were initially allowed to burn because they were deemed naturally occurring (lightning initiated); 28 of these began inside the park. Due to drought conditions these fires quickly got out of control. In all, 1.2 million acres burned in and around Yellowstone National Park and sixty-seven structures were destroyed, including 18 cabins used by employees and guests and one backcountry patrol cabin. Surveys found that 345 elk, 36 deer, 12 moose, 6 black bears, and 9 bison died in the greater Yellowstone area as a direct result of the fires. An estimated \$120 million was spent in fighting these fires. There was a great public outcry as a result of these raging fires. The public did not understand why the fires got out of control and caused so much damage. Public land managers in both the National Park Service and the U.S. Forest Service began to reexamine their fire management

plan and policies. Public land management agencies introduced fire management plans with stricter guidelines under which naturally occurring fires should be allowed to burn. They also began to better inform the public of the value and purpose of fire in forests.

After years of suppressing wildfires, today we see a variety of options. The ideas of fire suppression, prescribed fire, and natural burns have all been added to fire management policies. Since 2001, even Smokey Bear has added to his message. He is teaching not only fire prevention, but also about the important role fire plays in our ecosystem. There are many factors involved in fire management which land use agencies are forced to consider. For example, people are moving closer to forested lands and expect protection for themselves, their homes, and their property during wildfires. This increasingly complicates approaches to fighting fires for land use agencies. Public forests also often adjoin privately owned forest lands and a wildfire occurring on public lands could have an impact on a private forest owner. Land use agencies must also consider environmental impacts, ecological impacts, and economic impacts of wildfires. Fire management is ever changing, but it is important for land use agencies to look to the past, learn from mistakes and gain new knowledge for the future when developing fire management plans.

Worksheet 1: Reading Comprehension Activity

Wildfires: A History of the Blaze Question and Answer Class Activity

What is the title of this essay?	Due to records of fire scars in fossilized trees.
How do we know wildfires have been around for at least 350 million years?	Tendency to move and change settlements frequently
What is nomadic?	Preventing fires from happening or stamping out any fires that occur as quickly as possible.
What is fire suppression?	Towers used for spotting fires in the National Forests
What are lookout stations?	One of the things this provided was financial aid for joint fire protection work between the US Forest Service and State Forest Service agencies.

What was one thing the "Weeks Act," passed by Congress in 1911, provided?	A 1935 Forest Service policy to control a fire by 10AM the morning following its spotting.
What is the "10AM Policy"?	An area cleared to the soil leaving nothing to fuel wildfires.
What are fire lines?	Smokey Bear
In 1944 who was introduced by the USDA Forest Service?	"Only you can prevent forest fires!"
What was Smokey Bear's slogan?	He was created for use in public service announcements to teach Americans about the importance of preventing forest fires.

Why was Smokey Bear created?	True, Smokey Bear's image is protected by US federal law.
True/False: Smokey Bear's image is protected by U.S. federal law.	Parachuting forest firefighters
What are smokejumpers?	1940
When were the first smokejumpers used to fight fires?	Single engine plane
Out of what did the first smokejumper jump?	Today there are over 270 men and women smokejumpers in the Forest Service.
How many smokejumpers does the Forest Service have today?	Deanne Shulman, 1981

Who was the first female smokejumper and in what year did she jump?	That fire was one of the main causes of change in many ecosystems in the United States.
By the 1940s what did ecologists come to realize?	The idea was that suppression of naturally occurring fire had unnatural impacts on wild-land succession and ecosystems.
Why in the 1970s did the National Park Service decide to let naturally occurring fires burn?	1.2 million acres
How many acres of land were burned in the 1988 Yellowstone fires?	Wildfires started from natural causes such as lightning are allowed to burn without suppression.
What happens in natural fire management?	Prescribed burns that got out of control.

<p>The Grand Canyon and Los Alamos fires in 2000 are examples of what?</p>	<p>The recovery process when an area is disturbed that enables forest regeneration.</p>
<p>What is succession?</p>	<p>A fire management tool where a fire is intentionally set in a skillful manner to achieve certain outcomes, such as to improve habitat for wildlife and livestock, to improve watershed, or to reduce hazardous build up of fire fuels in the hopes of preventing large wildfires in the future.</p>
<p>What is a prescribed burn?</p>	<p>Smokey is teaching not only fire prevention, but also about the important role fire plays in our ecosystem.</p>
<p>What is Smokey Bear teaching today?</p>	<p>Fire management techniques will always be changing.</p>
<p>What is the one thing that is certain about fire management in the future?</p>	<p>Wildfires: A History of the Blaze</p>

Worksheet 2: Keywords

Name: _____ Date: _____

Directions: Read the essay entitled "[Wildfires: A History of the Blaze](#)." Copy a sentence that uses the word below. Then propose your own definition of the concept.

Fire Suppression

1. Sentence:
2. Definition:

Fire Lines

1. Sentence:
2. Definition:

Prescribed Fire

1. Sentence:
2. Definition:

Succession

1. Sentence:
2. Definition:

Naturally Occurring Fires

1. Sentence:
2. Definition:

Natural Fire Management

1. Sentence:
2. Definition:

Tillamook Story:

An Oregon Legend: From Ashes to Forest

(Student Page)

The Tillamook State Forest is a temperate rainforest located in the northern Coast Range Mountains west of Portland, Oregon.

On a hot August afternoon in 1933, one spark ignited a fire that changed the lives of people, the landscape and the future of what is known today as the Tillamook State Forest. A series of devastating wildfires transformed the original forest into a virtual wasteland, but one of the world's largest reforestation projects has returned the area to a beautiful green forest once again.



After the Tillamook Burn



Reforestation in the Tillamook Burn area

The Tillamook Burn became the collective name for the series of large wildfires that began in August, 1933 and struck every six years through 1951. The combined total of acres lost to those wildfires was 355,000 acres. The fires had major environmental, economic, and social consequences for the coastal counties of northwest Oregon. The logging industry, the foundation of the local economies, was brought to a halt. Wildlife native to the area was destroyed due to habitat loss. Rivers were choked with sediment and debris. Seed cones—the genetic blueprint for a new forest—were wiped out by fire.

In the years since the fires, foresters, professional tree planters and volunteers have worked painstakingly to reestablish the forest and its many resources. Oregon voters passed a constitutional amendment in 1948 authorizing \$12 million in bonds to rehabilitate the land. The long reforestation project, the largest ever undertaken, began in 1949. Helicopters were used for the first time for large-scale aerial seeding. On the ground, forestry crews, prison inmates and school groups planted trees by hand. In total, helping hands planted 72 million seedlings giving the burned-over landscape a new start.



Tree planting was part of the reforestation effort.



Helicopter being used for large-scale aerial seeding.

Along with the reforestation came efforts at fire prevention. Crews worked to "fireproof" the forest with a network of roads that would provide better access for firefighters in the event of a fire. A network of forest lookout stations was also established.

The new Tillamook State Forest is a place of hope. Decades of investment and hard work are beginning to pay off. Harvests of some timber are beginning to provide revenue, jobs and raw materials for counties and local communities. Healthy fish and wildlife populations have returned, bringing a sense of wildness and diversity. People are back in the picture today: campers, hikers, anglers, off-highway vehicle enthusiasts, horseback riders.

This hand-made forest is managed today by the Oregon Department of Forestry. It is managed to be a healthy, productive, and sustainable ecosystem that provides a full range of social, economic and environmental benefits to the people of Oregon. Products we need and use every day, habitat for native fish and wildlife species, recreational opportunities, from horseback riding to mountain biking, and revenue to fund local services all come from the Tillamook Forest. The Tillamook State Forest is a land to learn from and to enjoy.

The Tillamook Burn was officially renamed the Tillamook State Forest by Oregon Governor Tom McCall on July 18, 1973. Today the area is covered with young trees, but the charred trunks left by the old burn remind people of the vulnerability of our forest resources and the ever-present need to be careful with fire.

This information and story was provided by the Oregon Department of Forestry
(http://www.oregon.gov/ODF/TSF/tillamook_story.shtml)

Worksheet 3

After reading about the Tillamook Burn and the impact wildfire had in Oregon, use the following questions to research wildfires in your state. Answers to these questions should be displayed in a creative format on a poster. The poster should contain answers to all of the questions and at least three pictures, graphics or drawings related to wildfires and/or the research questions. You can add additional information to the poster as you see fit. You will need to attach a Bibliography of your sources. The poster will be used in a presentation to the class. Presentation date: _____.

Wildfire Research Project Questions:

1. What is the population of your state?
2. How many national and/or state forests or parks does your state have? Or how much public land does your state have?
3. Does your state's economy rely heavily on the timber industry? Consider what percentage of your state's economy comes from timber or wood and paper products. What are the main industries in your state?
4. What is the main type of tourism in your state? Does this tourism rely on forested areas or public lands in your state?
5. How many wildfires have occurred in your state over the past 50 years? If you have a forest near your school, how many wildfires have occurred in that forest (be sure to name the forest and the number of wildfires that have occurred there)? On average how many wildfires occur annually in your state?
6. Does your state have a major historic fire that is well known, such as the Tillamook Burn and what is the name of it? When did it occur?
7. Are wildfires a major concern/issue in your state?
8. Where do you think wildfires are of greater concern - in your state or in other states?
9. Name at least one interesting fact about wildfires in your state, which you learned while researching this topic.
10. BONUS QUESTIONS (worth 2 points total, 1 point each): Contact a local forester in your area and find out: On average, how much money is allocated or spent annually on fighting wildfires in your state or at one particular forest in your state (it can be a national or state forest)? How do most wildfires in your state (or local forest) begin (lightning, human causes, etc)?

Possible places to search for this information:

*Local library – indexes to old newspaper articles, encyclopedias, books containing your state's history or economic information

*Internet – State website, State statistical site, State economic site, state forestry sites, USDA Forest Service (<http://www.fs.fed.us/fire/>), National Interagency Fire Center (<http://www.nifc.gov/faq.html>), GeoMac (<http://geomac.usgs.gov/>)

*Call, visit, or contact someone in the state forest, state park, fish & wildlife office, or department of natural resources in your area and ask if they can answer some of your wildfire research questions. You might also try a representative of the U.S. Forest Service, Bureau of Land Management, U.S. Fish & Wildlife Service, or National Park Service.

Rubric 1: Worksheet 3 (Evaluation Guidelines for the Poster)

Name: _____ Due Date: _____

Date Received: _____

Poster Guidelines

	Beginning 1	Developing 2	Accomplished 3	Exemplary 4	Points
Research & Gather Information	Displays answers to 4 or fewer research questions on poster.	Displays answers to at least 5 research questions on poster.	Displays answers to 6-7 research questions on poster.	Displays answers to 8-9 research questions on poster.	
Pictures	Poster contains no pictures, graphics, or drawings.	Poster contains 1 picture, graphic or drawing.	Poster contains 2 pictures, graphics or drawings.	Poster contains three or more pictures graphics or drawings.	
Punctual	Hands in poster 4-5 days after the due date.	Hands in the poster 2 - 3 days after the due date.	Hands in the poster one day after the due date.	Hands in the completed poster at the beginning of the class period on the due date.	
Neatness (legibility, spelling, overall layout)	Poster is messy and obviously done quickly. It contains 10 or more spelling errors.	Poster contains 6-9 spelling errors. The writing is sloppy and the information is not clearly organized.	The poster is acceptable and at grade level. Graphics and writing are neat and well organized. There are 3-5 spelling errors.	Poster is slightly above grade level work. Graphics and writing are neat & clearly organized. There are 2 or fewer spelling errors.	

Bonus Points: _____ Total Points: _____

A = 15-18 B = 11-14 C = 6-10 D = 4-5

Rubric 2: Worksheet 3 (Evaluation Guidelines for the Presentation)

Name: _____ Date: _____
(Group Members: _____)

Time Allotted for Presentation: _____

Presentation Guidelines:

	Beginning 1	Developing 2	Accomplished 3	Exemplary 4	Points
Organization	Presentation is difficult to understand because there is no sequence of information.	Presentation is difficult to follow because student jumps around and does not follow a logical sequence.	Presentation is understandable because information is presented in a logical sequence.	Presentation is understandable and interesting. Information is presented with enthusiasm and in logical sequence.	
Content	Student presents 3 or fewer facts from the poster.	Student presents 4-5 facts from the poster.	Student presents 6-7 facts from the poster.	Student presents 8-9 facts from the poster.	
Poster	Poster is messy and hard to read. Does not add to the presentation.	Information being presented is not all represented on the poster, adding confusion to the presentation.	Poster is at grade level, and is useful to the presentation.	Poster is legible, well organized and clearly explains the information being presented.	
Length of Presentation (*allotted time is: 2 minutes)	Too long, 5 minutes or more; or too short, 20 seconds or less	Too long, 4 minutes or more; or too short, between 30-45 seconds	Within one minute of allotted time +/-	Within 30 seconds of allotted time +/-	
Eye Contact	Student reads all of the information directly from the poster with no eye contact.	Student occasionally uses eye contact, but still reads most of the information from the poster.	Student maintains eye contact most of the time but frequently returns to notes.	Student maintains eye contact with the class, seldom returning to notes.	

Actual Time of Presentation: _____

Total Points: _____

A = 18 – 20, B = 13-17, C = 8-12, D = 5-7

Rubric 3: Worksheet 4

After watching sections of *The Greatest Good* to gain a better understanding of Smokey Bear, his message, and the reasons behind his message, you will create your own "new character." You are responsible to create a new character for the U.S. Forest Service or other natural resource agency that sends a new Public Relations message about fire. The new character should help explain and promote the importance of fire to forest ecosystems or promote the use of prescribed fire to reduce fuel loads. You should draw or build a model of this character. The picture or model should also contain some type of message or slogan similar to "Only you can prevent forest fires!" The message can be displayed in any creative way you would like; however, in some way it should communicate your basic message about the importance of fire to forest ecosystems or about the use of prescribed fire. Here is the "New Character- Rubric" to give you a better idea of the expectations of this project.

- 1 point** - Project shows poor effort, incomplete (below age level)
- 2 points**- Average (work looks similar to Smokey poster examples viewed in film) no individuality shown. Understanding appropriate for grade level
- 3 points** - Excellent effort displayed in project, creativity shown. Understanding at or above grade level.

1. Character project completed.	points awarded _____
2. Original ideas or symbols used.	points awarded _____
3. Evidence of knowledge of the importance of fire in forest ecosystems or about the use of prescribed fire.	points awarded _____
4. Project displays a clear message of the importance of fire in forest ecosystems or about the use of prescribed fire.	points awarded _____
5. Student followed directions of assignment.	points awarded _____
6. The character displayed a positive and appropriate message	points awarded _____

Total points awarded _____ Grade _____
 A = 16-18pts, B = 13-15pts, C = 10-12pts, D = 9 pts and below

Comments: _____

Assessment 1: Application & Integration Exercise

Create a new technique or tool for fighting wildfires.

Based on the information you have learned while study wildfires and based on additional research you can do on your own, create a new technique or tool for fighting wildfires (use the Assessment Rubric for more guidelines). You may choose to display your technique or tool with a drawing, poster, diorama or written description. This project should convey your understanding of wildfire management.

Techniques/tools discussed: Prescribed fires, fire suppression, lookout stations, fire lines, smokejumpers, various types of planes and uses for planes, various parachutes, Kevlar suits, fire box, helmets, and fire shelters.

Other Tools not discussed: Pulaski, drip torch, axes, spanner wrench, fire weather instrument kit

Assessment Rubric:

	1 - no response	2 - effort made, work below grade level	3 - average, work at grade level	4 - excellent, work above grade level
The student expresses a knowledge and understanding of wildfire management				
The student's project explains the new tool or technique so that it is understandable to others				
The student's new tool would be useful and addresses a need firefighters may have				
The student's project shows creativity and effort.				
It is obvious the student did additional research to complete this project.				

Total Points: _____

A = 18-20 B = 12 -17 C = 8 -11 D = 7 - 5

ASSESSMENT 2: TEST

1. When was the U.S. Forest Service created and what was its original fire management plan?
2. What are three changes that occurred in smokejumping since 1940?
3. Define: natural fire management, fire exclusion policy, and prescribed fires.
4. Explain two changes that occurred in public land management agencies as a result of the Yellowstone fires in 1988

ASSESSMENT 2: TEST - CONTINUED

5. List at least two types of factors which land use agencies are forced to consider when creating fire management plans.

6. Name at least three facts you learned about wildfires in your state.

7. What was Smokey Bear's original message and why was he created?

8. When did Smokey first add to his original message and what message did he add?

ASSESSMENT 3: REFLECTIVE EXERCISE

In Your Own Words

Write an editorial newspaper article offering your opinion on wildfire management in this country or on a fire issue (in your area or else where). You will need to do some additional research. Find information on a fire management plan, or information on a wildfire issue in your area or elsewhere in the world. You may find some useful information at the national database of state and local wildfire programs website: www.wildfireprograms.com/index.html. Here are some questions you might consider (you do not have to use the following questions):

1. Does the wildfire management plan in your area or in the U.S. seem effective to you?
2. Does your local forest or the U.S. government spend too much money or not enough money on wildfire management?
3. Should people be allowed to build homes or businesses near public forest lands? And if they are allowed to do so, is the federal, state, county, city government responsible for protecting their homes from a wildfire?
4. What suggestions would you make on wildfire management? (Do you have any recommendations to make to the U.S. Forest Service or your local forest?)
5. What are your thoughts on prescribed fires? Consider the following: Are they useful? Are they used often enough? What do you think are the benefits and downfalls to prescribed fires?

It's your turn to take a stance.

Read the editorial section of your local paper and then write your own editorial on a wildfire issue in your area or another area. Be sure to offer your opinion on the issue but also support your opinion with facts and reasons explaining why you think what you think.