

# The role of wildland fires in an ecosystem

By National Park Service, adapted by Newsela staff on 12.12.16

Word Count **415**



TOP: Flames scorch the area in California's Santa Cruz Mountains on September 27, 2016. BELOW: The fire triangle shows the three elements that must combine to start a fire. Photo: Photo by Tayfun Coskun/Anadolu Agency/Getty Images

## What Role Does Fire Play In Different Ecosystems?

Fire happens when different chemicals interact. It can start with lightning, lava or a match. Fires often cause destruction. But fires can sometimes be a good thing in natural places.

All fires need three things to burn. They need heat, fuel and air. Together these are called the fire triangle. If you remove any one of them the fire will not burn. Heat first comes from the ignition source. Lightning and lava are natural ignition sources. Fuel is any material that will burn.

Where and how quickly a fire moves depends on three things. First, it depends on the land. Fires burn faster up hills than they do on flat ground. Second, it depends on the weather. Third, it depends on the types of fuel. Grasses burn quickly. Logs may take hours or days to burn.

Fire can help the diversity of plants and animals. What may look at first like devastation soon becomes new life. Fire breaks down living things like trees. This turns into special dirt. This special dirt can help the growth of plants and animals. Fewer trees also leads to more sunlight for seeds to grow.

## **Fire Facts: The Triangle**

Firefighting is based on the fire triangle. Firefighters aim to remove heat, fuel or air. That even applies to you! If your clothing catches on fire, be sure to stop, drop and roll. Rolling on the ground gets rid of the air and the fire goes out.

Lightning and lava can start fires naturally. Still, humans start most wildfires. Fires usually start accidentally. Sometimes people light fires to harm others or cover something up. That is called arson.

## **Dangers Of Fire**

Fire can harm humans. It may damage houses. Smoke can also be a cause of damage. Smoke smells unpleasant, leaves ashes and affects human health. In addition, smoke can make it difficult to see when driving.

## **Fire As A Natural Resources Management Technique**

Fire managers use fire for good reasons. They may want to make an area better for plants and animals. They decide to start fires the way a doctor decides to give someone medicine. These are called prescribed fires.

Remember that fire is a powerful force. Only trained professionals should start fires.

## **Watch And Learn**

These professionals also closely watch fires that started in nature. They allow them to burn to see what they can learn. Still, all fires have risks. Protecting human life is always the primary concern.

## Quiz

- 1 One MAIN idea of the article is that fires can be good.  
Which paragraph from the section "What Role Does Fire Play In Different Ecosystems?" BEST supports this idea?
- 2 Which sentence from the section "Fire As A Natural Resources Management Technique" BEST states a MAIN idea of the article?
  - (A) They may want to make an area better for plants and animals.
  - (B) They decide to start fires the way a doctor decides to give someone medicine.
  - (C) Remember that fire is a powerful force.
  - (D) Only trained professionals should start fires.
- 3 What is the focus of the chart?
  - (A) how oxygen and heat move upward during a fire
  - (B) how hard it is to start a fire
  - (C) how fires are easy to put out
  - (D) how fires need several things to burn
- 4 Why is the information in the chart organized in a triangle?
  - (A) to show that fires burn quickly when they are moving uphill
  - (B) to show that oxygen, heat and fuel are equally important in fires
  - (C) to show that there is more than one type of fuel for fires
  - (D) to show that the outside edges of fires are the most dangerous

Writing Prompt:  
Discuss 3 pros and 3 cons of a wildfire  
in our ecosystem.

Student Name: \_\_\_\_\_

Score: \_\_\_\_\_

**Addition Word Problems**

WorkSpace

The population of a New York City was 8,363,710 in 2008. It was expected to increase by 1,201,987 by the end of 2009. What was the expected population of New York City at the end of 2009?

Answer = \_\_\_\_\_

Mr. Jackson wrote a book on Fairy Tales and released 50,525 copies. Because the book was popular among the readers, the publishers decided to publish a second edition with 40,399 copies. Find the total number of copies published.

Answer = \_\_\_\_\_

In the society library, there are 398,456 old books. The management decided to add 67,876 new books. How many books will be there in library?

Answer = \_\_\_\_\_

A company manufactures 523,500 bolts on Monday and 324,800 bolts on Tuesday. Find the total number of bolts manufactured on those two days.

Answer = \_\_\_\_\_

Student Name: \_\_\_\_\_ Score: \_\_\_\_\_

**Subtraction Word Problems**

Work Space

There are 5718 DVDs in Mr. Miller's shop. 2199 are audio DVDs and the rest of them are video DVDs. Find the number of video DVDs in Mr. Miller's shop.

Answer = \_\_\_\_\_

Clara withdrew \$ 6789 from her account. The initial amount in her account was \$ 8790. Find the balance left after the withdrawal.

Answer = \_\_\_\_\_

A free medical camp was conducted in Mexico. 1278 males participated in the camp. The entry book shows 4012 people participated in the camp. Find the number of females who participated.

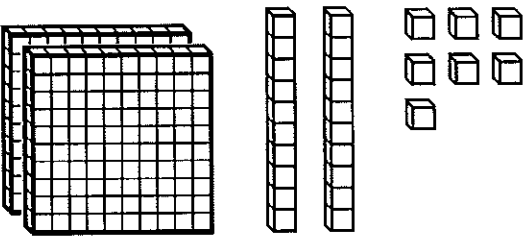
Answer = \_\_\_\_\_

Cathy needs at least 2000 points to go to level 2 in a video game. She has only 1254 points in level 1. How many more points does she need to qualify for level 2?

Answer = \_\_\_\_\_

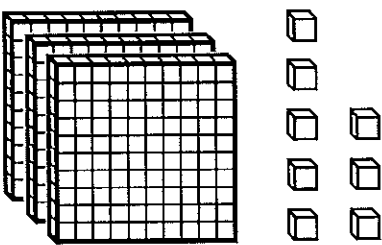
# Place Value

Identify the number of Hundreds, Tens and Ones, then write the number.

1)  H=\_\_\_\_\_ T=\_\_\_\_\_ O=\_\_\_\_\_

Number = \_\_\_\_\_

---

2)  H=\_\_\_\_\_ T=\_\_\_\_\_ O=\_\_\_\_\_

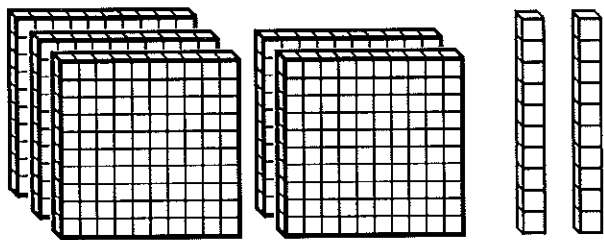
Number = \_\_\_\_\_

---

3)  H=\_\_\_\_\_ T=\_\_\_\_\_ O=\_\_\_\_\_

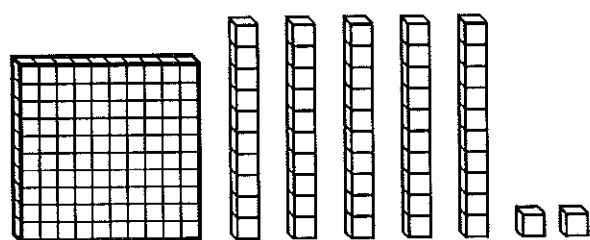
Number = \_\_\_\_\_

---

4)  H=\_\_\_\_\_ T=\_\_\_\_\_ O=\_\_\_\_\_

Number = \_\_\_\_\_

---

5)  H=\_\_\_\_\_ T=\_\_\_\_\_ O=\_\_\_\_\_

Number = \_\_\_\_\_

Name:

Date:

Number:

# Place Value Power!

— — —

What is your number? — — —

What is the value of the...

How many...

hundreds place \_\_\_\_\_

hundreds \_\_\_\_\_

tens place \_\_\_\_\_

tens \_\_\_\_\_

ones place \_\_\_\_\_

ones \_\_\_\_\_

What is 10 more than the number?  
\_\_\_\_\_

What is 10 less than the number?  
\_\_\_\_\_

Compare

\_\_\_\_\_ ○ \_\_\_\_\_

What is 100 more than the number?  
\_\_\_\_\_

What is 100 less than the number?  
\_\_\_\_\_

How many ones do you need to add to the number to make a ten?  
\_\_\_\_\_

Draw a model of the number.

Is the number Even or Odd?

Draw

Name \_\_\_\_\_

Date \_\_\_\_\_

# Rounding Numbers

Millions ( 000,000)	Hundred Thousands (00,000)	Ten Thousands (0,000)	Thousands ( 000 )	Hundreds ( 00 )	Tens ( 0 )	Ones
------------------------	----------------------------------	-----------------------------	----------------------	--------------------	---------------	------

Directions: Round each number to the nearest **Tens Place**.

a. 22 \_\_\_\_\_

g. 107 \_\_\_\_\_

b. 68 \_\_\_\_\_

h. 225 \_\_\_\_\_

c. 95 \_\_\_\_\_

i. 118 \_\_\_\_\_

d. 84 \_\_\_\_\_

j. 385 \_\_\_\_\_

e. 79 \_\_\_\_\_

k. 882 \_\_\_\_\_

f. 53 \_\_\_\_\_

l. 224 \_\_\_\_\_

Directions: Round each number to the nearest **Hundreds Place**.

i. 113 \_\_\_\_\_

a. 733 \_\_\_\_\_

j. 538 \_\_\_\_\_

b. 255 \_\_\_\_\_

k. 611 \_\_\_\_\_

c. 733 \_\_\_\_\_

l. 893 \_\_\_\_\_

d. 879 \_\_\_\_\_

m. 734 \_\_\_\_\_

e. 443 \_\_\_\_\_

n. 125 \_\_\_\_\_

f. 454 \_\_\_\_\_

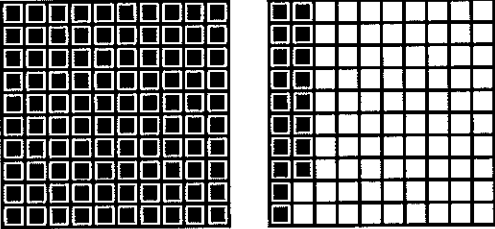
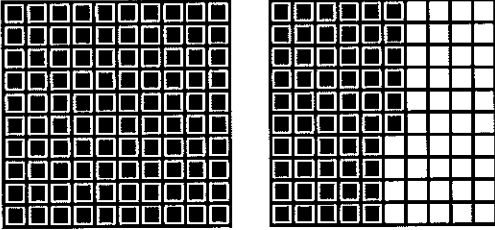
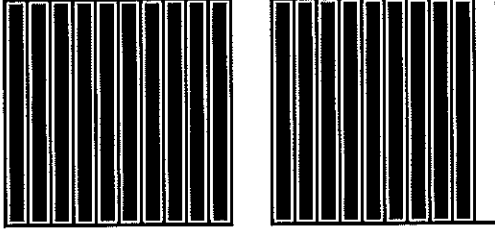
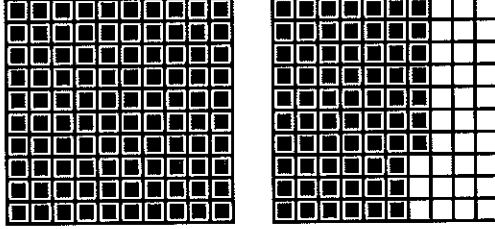
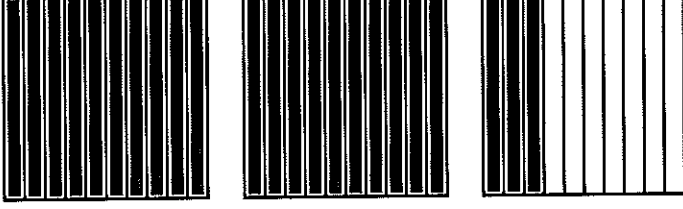


Name \_\_\_\_\_

Decimals: Tenths Hundredths

Date \_\_\_\_\_

Teacher \_\_\_\_\_

Model	Fraction or Mixed Number	Decimal	Word Form
		<hr/>	
		<hr/>	
		<hr/>	
		<hr/>	
		<hr/>	