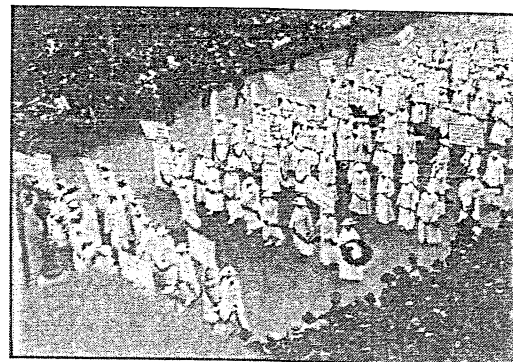


## The Fight for Women's Suffrage

by Judith Schiffer

At the time the United States became a nation, women citizens did not share the same rights as men, including the right to vote. While some people had pushed for women's rights for many years, it was not until 1848 that women began to organize on a large scale. They worked to create a movement to give women rights they did not have, including suffrage. Suffrage is the right to vote.



*Suffrage Parade in New York City, 1913*

The women who organized and fought for the passage of the 19th Amendment were called "suffragists." They were called this because they were fighting to get suffrage for women. Some of the most prominent activists for women's suffrage were Susan B. Anthony, Elizabeth Cady Stanton, and Alice Paul.

Elizabeth Cady Stanton was an activist for equality between men and women. During her lifetime, most married women were not able to do certain things because of the general belief that "a woman's place is in the home," and that only men should govern. She wanted women to be allowed to work outside the home, to participate in politics, and to be able to vote.

In 1848, Stanton and another suffragist, Lucretia Mott, created the Seneca Falls Convention, where 240 women and men met to make a plan of action to fight for new rights for women, especially the right to vote. Many other women's groups joined them, and eventually these groups established a new organization, "The National Woman Suffrage Association." These women fought to have Congress and the states pass an amendment to the United States Constitution that would give women citizens of voting age the right to vote, a "universal suffrage" amendment.

Some supporters of the universal suffrage amendment notably did not support another important suffrage amendment - the 15th amendment. That amendment guaranteed black men the right to vote, and was debated and ultimately passed after the Civil War ended. Elizabeth Cady Stanton and Susan B. Anthony were both in the faction of suffragists that did not support the 15th amendment, and pushed for a universal suffrage amendment instead. Other suffragists did not want to risk not passing the 15th amendment. They took their fight for women's suffrage to the state level, rather than pushing for a constitutional amendment.

Eventually, after the 15th amendment passed, these two factions laid their differences aside. In 1890, they merged to form a single group - the National American Woman Suffrage Association, led by Stanton. Although some members of this group still held prejudiced views, African American activists like Mary Church Terrell and Coralie Franklin Cook joined and influenced the organization, reminding suffragists that they could not ignore black women in their quest for the vote. The new group used tactics like organizing campaigns and suffrage organizations all around the country to build support for women's suffrage. They

fought for states to give all women the right to vote, while also pushing for a constitutional amendment.

In 1913, on the day that Woodrow Wilson became the president of the United States, women and men held a huge parade in front of his new home, the White House, to rally for women's right to vote. Some women were arrested and went to jail. Some were even beaten in jail. This got many citizens angry, and many men and women began to support the suffragists' cause.

In 1916, a woman named Alice Paul founded the "National Women's Party" to take new and bold action towards getting new rights for women, especially the right to vote. From 1916 to 1920 they did things to get public attention and support for their cause. They marched in the streets with signs saying things like, "Help us to get the Vote." They gave out flyers to people on the streets explaining why this amendment should be passed. They pointed out that during World War I women proved that they were just as patriotic and deserving of being able to vote as men were.

World War I started in 1914 and ended in 1918. In 1917, the United States joined the war that was being fought in Europe. American women did many of the jobs that men could not do because men were away from home, fighting in the war. Some women worked in factories that made war weapons. Others were firefighters, railroad and bus conductors, bank tellers, farm workers, and government workers.

As part of her efforts, Alice Paul went on a hunger strike, which gained lots of public attention and support. She refused to eat until the 19th Amendment was passed. When news of her hunger strike became known, more people joined the movement for women's suffrage.

Finally, in 1919, seventy years after the Seneca Falls Convention of 1848, Congress voted to pass the 19th Amendment. It was ratified, or approved, by three-fourths of the states and became law in 1920. All women in every state who were 21 years old or older would now have the right to vote!

Before the 19th Amendment was passed, many states had already given women the right to vote, and also the right to hold political positions, such as governor of their state. After the amendment became law, women in *every state* could now vote and also hold political office. We now have many women who hold high positions in state governments and the Federal Government.

Name: \_\_\_\_\_ Date: \_\_\_\_\_

1. Who were "suffragists"?

- A. men who prevented women from voting
- B. women who helped in American war efforts
- C. women who organized and fought for the right to vote
- D. women who ran for political office

2. What does the text describe?

- A. the presidency and leadership of Woodrow Wilson
- B. a sequence of events leading up to the passage of the 19th Amendment
- C. the causes and effects of World War I
- D. people who were against the women's suffrage movement

3. Read the following sentences from the text.

"In 1913, on the day that President Woodrow Wilson became the president of the United States, women and men held a huge parade in front of his new home, the White House, to rally for women's right to vote in the United States. Some women were arrested and went to jail. Some were even beaten in jail. This got many citizens angry, and many men and women began to support the suffragists' cause."

Which conclusion does this information support?

- A. The fight for suffrage was difficult.
- B. The fight for suffrage was ineffective.
- C. The fight for suffrage was easy.
- D. The fight for suffrage did not get national attention.

4. Why did the suffragists go on hunger strikes and do other things to get public attention?

- A. to discourage people from supporting women's right to vote
- B. to get more people to support women's right to vote
- C. to show that women are physically strong
- D. to help more women realize they can be politically active

5. What is the main idea of the text?

- A. In 1848, Stanton and Lucretia Mott created the Seneca Falls Convention, where 240 women and men met to make a plan of action to fight for new rights for women.
- B. During World War I, American women did many of the jobs that men could not do because men were away from home, fighting in the war.
- C. Suffragists fought hard to increase support for women's right to vote by organizing, holding parades, and going on hunger strikes.
- D. Before the 19th Amendment was passed, many states had already given women the right to vote, and also the right to hold political positions.

6. Read the following sentences from the text.

"Many other women's groups joined them, and eventually these groups established a new organization, 'The National Woman Suffrage Association.' These women fought hard to have Congress and the states pass an amendment to the United States Constitution that would give women citizens of voting age the right to vote."

Based on the text, what does the word "establish" most nearly mean?

- A. destroy
- B. form
- C. make faster
- D. grow

7. Choose the answer that best completes this sentence below.

The National Women's Party took bold actions to get more support for women's right to vote. \_\_\_\_\_, they marched and gave out flyers to people on the streets.

- A. Therefore
- B. However
- C. Furthermore
- D. Specifically

8. What was the National American Woman Suffrage Association?

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9. How did Alice Paul support the women's suffrage movement? Use information from the text to support your answer.

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10. How can the suffragists best be described? Use information from the text to support your answer.

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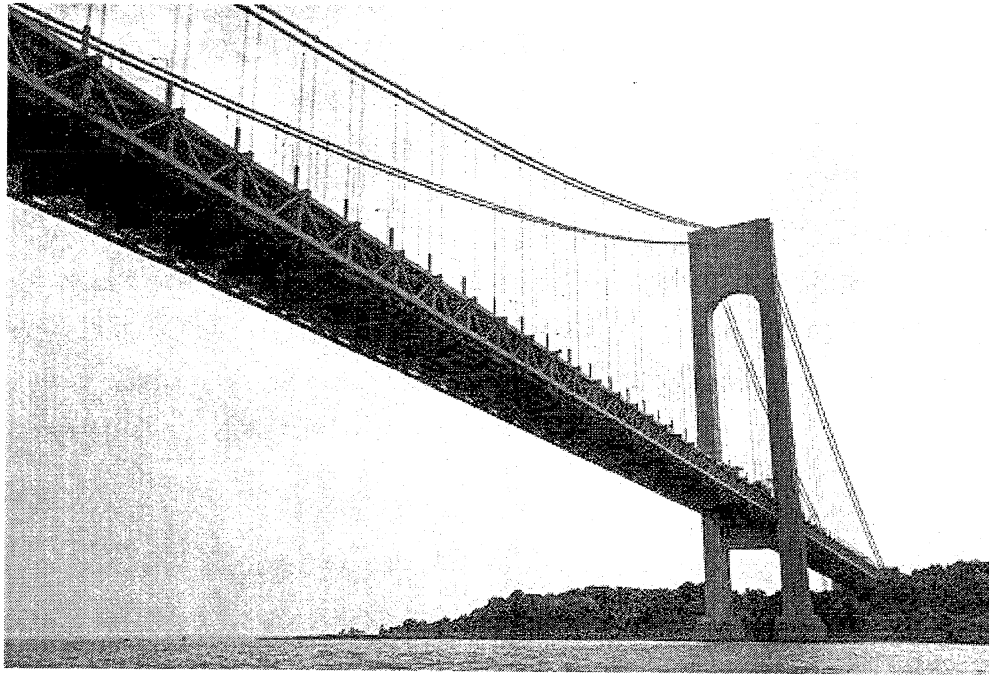
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# The Shortest Path

by Christopher Maag



What happens when you're standing in one spot, and you want to visit a different spot, but there's water in the way? That's the problem people faced for hundreds of years in the area that is now New York City. In New York City, there is a tidal strait called the Narrows, which connects Upper New York Bay with Lower New York Bay. On one side of the water is Brooklyn. On the other side is Staten Island. The Narrows is the place where Brooklyn and Staten Island come closest to touching.

But the Narrows isn't really so narrow. The water is almost a mile wide, and it's more than 100 feet deep. For a long time that wasn't a problem, because only a few people lived in Brooklyn and Staten Island. When they wanted to talk to each other, they climbed into their boats and sailed across.

By the 1800s, people were very annoyed with the Narrows. Lots of people had to travel between Staten Island and Brooklyn to get from their homes to their jobs. Taking a boat every time was very slow and expensive, and in bad weather the ferries couldn't sail at all.

In 1888, the Baltimore & Ohio Railroad announced it would dig a tunnel under the water for freight trains. Tunnels cost a lot of money to build, though, so that plan didn't work. Then in the early 1920s, New York's leaders decided to build a tunnel so that subway trains could

carry people under the Narrows. They paid workers to start digging the tunnel, but the job was too expensive to complete, and they gave up.

Other people wanted to cross the Narrows by building a bridge. In 1910 Charles Worthington proposed a bridge that would hang 260 feet above the water. Six years later, an engineer named David Steinman proposed a taller bridge. But leaders of the military feared the bridges could block big Navy ships entering New York Harbor. So neither bridge was built.

Finally, after World War II, there were so many people living in New York City that leaders decided Brooklyn and Staten Island needed a direct connection. Since tunnels were so expensive, they decided to build a bridge. They hired engineer Othmar Ammann to design it. Ammann decided the bridge should have two separate roadways stacked on top of each other. Both roadways would hang in the air from thick steel cables, supported by two giant steel towers.

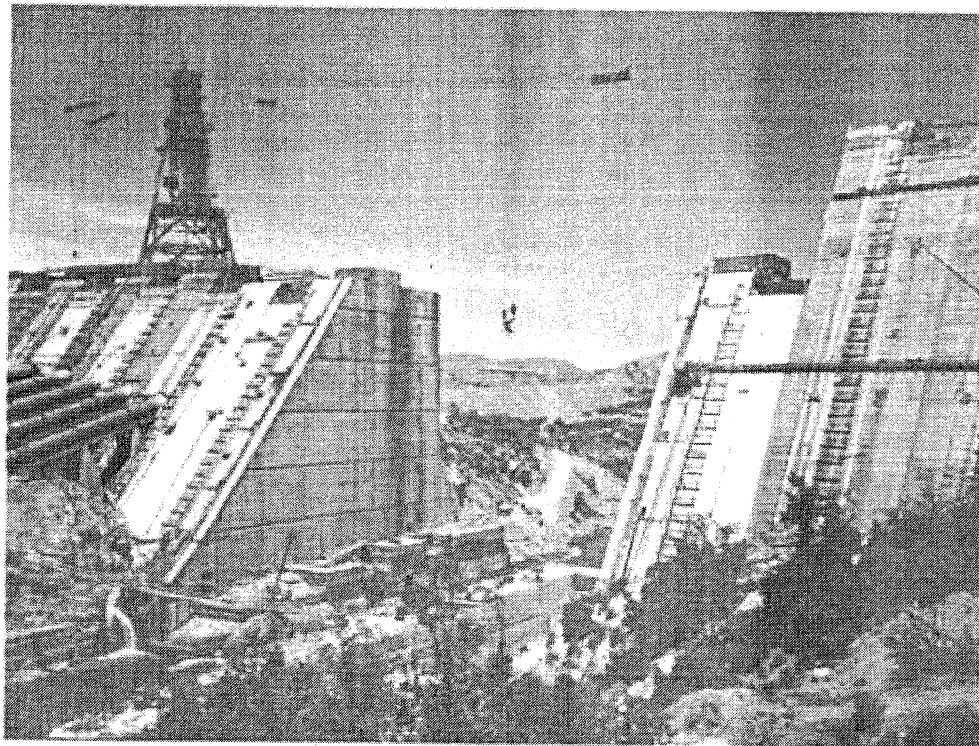
Construction took five years, employed 12,000 workers, and cost \$320 million. The bridge was named after the first European who sailed to New York Harbor, Giovanni da Verrazzano. He explored America in 1524. When the Verrazano-Narrows Bridge opened in 1964, it was the longest of its kind in the world. About 190,000 cars and trucks travel the bridge every day.

Sometimes getting from one place to another is easy. You simply walk there. Other times it can be quite hard. In New York, people tried to solve the problem of crossing the Narrows by sailing boats, digging tunnels, and dreaming of bridges. Figuring out a good solution took hundreds of years.



# Shasta Dam

by James Folta



Shasta Dam is one of the largest dams in the United States. The dam is 602 feet tall and 883 feet thick at its base. Located in Northern California, it blocks the flow of California's biggest river, the Sacramento River. This dam forms a big lake behind it, Lake Shasta, which has a 365-mile-long shore line.

The dam's main use is to provide water for farms in California's Central Valley. The Central Valley is 400 miles long, and grows over 250 different types of fruits and vegetables. The dam protects farms from floods, and it helps to prevent a buildup of salt water from San Francisco Bay. It also provides water for people in nearby towns to drink and use. It has a hydroelectric power plant that creates electricity.

Shasta Dam isn't the only dam in the area. It is just one part of the Central Valley Project, a huge system of dams and reservoirs that provides water to the farms in the Central Valley. This water system was initially conceived of in the 1870s, after people moved to the area in the 1850s. People flocked to California because of the gold rush, hoping to get rich by mining for gold. While most people didn't strike it rich, many ended up staying in the area and farming. But the valley has contrasting rain patterns. In the north, there is more than 30

inches of rain per year, while the south gets less than 5 inches. There are also droughts, when almost no rain falls at all. Additionally, the Central Valley is at a risk to be flooded due to spring rain and infiltrated by saline water coming from the bay. Since farms need water to grow plants, the farmers needed a better, more reliable way to get water. This is why the Central Valley dams were built.

Shasta Dam took many years to build, starting in 1937 and ending in 1945. Many thousands of workers helped build it. In fact, there was so much work to be done that building contractors had to join together in groups to finish it.

The first step was to have 4,700 men dig out millions of tons of granite to make room for the dam. An almost 10-mile conveyor belt ran 24 hours a day to move the rocks away. Next, a railroad brought in dry cement. It was mixed with Sacramento River water, rock, and sand to make wet cement. Before it dried, the workers had to quickly rush the cement to the dam using a custom-built cable system. Once there, the cement was poured into interlocking wooden structures to form the large blocks that make up the dam. After two days, the cement was dry and the wooden structures were broken down and taken away, leaving the dried cement blocks.

Overall, the dam has been a positive addition to the Central Valley, allowing people and farms to thrive. But there are also drawbacks to the dam. The biggest loss is what is now buried under Lake Shasta. When the dam was built, Native American villages and sacred places belonging to the Winnemem Wintu tribe were flooded, and the people who lived there were forced to move. Local salmon were also affected. Because of changes in the Sacramento River from the dam, the salmon have had a harder time living, traveling, and breeding in the river. Fortunately, the dam has a water temperature control system to help the salmon survive.

Shasta Dam is an extremely impressive structure, and is the result of hard work by many people. The dam allows many more people to live and work in the area today. The Central Valley of California would not be the same without it.

Name: \_\_\_\_\_ Date: \_\_\_\_\_

Use the article "The Shortest Path" to answer questions 1 to 2.

1. What is the Narrows?

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2. The Narrows caused a problem for people in New York City. It was difficult for them to travel from one side of the Narrows to the other. What finally solved that problem?

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Use the article "Shasta Dam" to answer questions 3 to 4.

3. What problems did farmers have with water in the Central Valley?

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4. Has the Shasta Dam solved those problems? Support your answer with evidence from the text.

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**Use the articles "The Shortest Path" and "Shasta Dam" to answer questions 5 to 6**

5. Was the problem people in New York City had with the Narrows similar to the problems farmers in the Central Valley had with water? Support your answer with information from both texts.

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6. The author of "The Shortest Path" refers to the Verrazano-Narrows Bridge as "a good solution." Was the Shasta Dam also a "good solution"? Support your answer with evidence from one or both texts.

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# Lesson 31

## Minerals

If you found something that looked like gold, would it be important to find out if it was real? Of course! There are many kinds of minerals, and some of them appear very much alike. Minerals are made up of elements and compounds that are *cemented* together. These elements and compounds give the mineral certain physical properties. To identify a mineral, a geologist checks four different physical properties. They are luster, hardness, color, and streak.

**Luster** is a measure of the shininess of a mineral. Silver and gold are examples of shiny minerals. **Hardness** is a measure of how difficult it is to scratch a mineral. A diamond is very hard. **Color** is another way to identify a mineral. The surface color of a mineral can be different from its inside color. Scientists can find the inside color of a mineral by making a **streak**. To make a streak, you rub the mineral against a hard surface. This leaves a long mark of mineral powder showing the inner color of a mineral.

Because many minerals appear similar, it is necessary to test more than one physical property in order to correctly identify them. Fool's gold looks like real gold, so checking surface color is not enough. Fool's gold leaves a dark green streak, but if you see a yellow streak, you're in luck!

In your house, a scale is an instrument used to measure weight. But in geology, a **scale** is a series of measurements. For example, the hardness scale is a series of measurements between soft and hard. Numbers from 1 to 10 represent the hardness of a mineral. A soft mineral like talc has a hardness of 1 or 2 and is easily scratched. A diamond has a hardness of 10. Hardness of all other minerals is between 1 and 10.

The scale for luster uses words instead of numbers. In the luster scale, *metallic* is shiny like a metal, *glassy* is shiny like glass, and *dull* is not shiny at all.

Consider the table. It describes minerals using the four physical properties discussed in this lesson.

| IDENTIFYING MINERALS    |          |          |                 |               |
|-------------------------|----------|----------|-----------------|---------------|
| Mineral                 | Luster   | Hardness | Color (surface) | Streak        |
| Pyrite<br>(fool's gold) | metallic | 6.5      | gold-yellow     | green-black   |
| Halite<br>(rock salt)   | glassy   | 2.5      | colorless       | white         |
| Alum                    | glassy   | 5.5      | silver          | silver        |
| Talc                    | dull     | 1        | white           | white         |
| Hematite<br>(iron ore)  | metallic | 5        | reddish-brown   | reddish-brown |
| Galena<br>(lead ore)    | metallic | 2.5      | silver-gray     | gray          |
| Quartz                  | glassy   | 7        | white or pink   | white         |
| Hornblende              | glassy   | 5.5      | green-black     | brown-gray    |

# Lesson 31

## Minerals

1. A mineral is made of a single element.  
A. True  
B. False

Write #1 next to the sentence that gives the best evidence for your answer.

2. Real gold leaves a yellow streak.  
A. True  
B. False

Write #2 next to the sentence that gives the best evidence for your answer.

3. A mineral with a hardness of 5 is softer than talc.  
A. True  
B. False

Write #3 next to the sentence that gives the best evidence for your answer.

4. In the following sentence, *cemented* probably means

*Minerals are made up of elements and compounds that are cemented together.*

- A. unmixed
- B. mixed
- C. dirty
- D. valuable

5. For each statement, select True or False.

- |   |      |       |
|---|------|-------|
| A. Talc is the softest mineral.   | true | false |
| B. Pyrite (fool's gold) is the hardest mineral.   | true | false |
| C. Hornblend gives a white streak and is dull.  | true | false |
| D. Hematite (iron ore) is from a metallic, reddish-brown rock.                            | true | false |
| E. To tell the difference between halite and quartz, you should check hardness and color. | true | false |

6. Two mineral samples produce a grayish streak. One of the minerals is harder than the other. What is it?

- A. Galena (lead ore)
- B. Hornblend

7. Two minerals are rated 4 on the hardness scale. They both appear to be white. How you could decide what they are?

- A. Find all the minerals that are white and that have a hardness of 4.
- B. Check the streak and luster.
- C. Both of the above
- D. None of the above







Find the fraction that makes the equation true.

1)  $\frac{7}{8} + ? = 1$

2)  $? + \frac{5}{7} = 1$

3)  $\frac{1}{10} + ? = 1$

4)  $\frac{1}{3} + ? = 1$

5)  $\frac{3}{4} + ? = 1$

6)  $? + \frac{4}{5} = 1$

7)  $? + \frac{1}{2} = 1$

8)  $\frac{6}{7} + ? = 1$

9)  $\frac{3}{9} + ? = 1$

10)  $? + \frac{2}{5} = 1$

11)  $\frac{4}{6} + ? = 1$

12)  $? + \frac{2}{7} = 1$

13)  $? + \frac{8}{9} = 1$

14)  $\frac{1}{8} + ? = 1$

15)  $? + \frac{5}{6} = 1$

16)  $? + \frac{2}{3} = 1$

17)  $? + \frac{6}{9} = 1$

18)  $? + \frac{5}{9} = 1$

19)  $\frac{3}{5} + ? = 1$

20)  $\frac{2}{4} + ? = 1$

Answers

1. \_\_\_\_\_

2. \_\_\_\_\_

3. \_\_\_\_\_

4. \_\_\_\_\_

5. \_\_\_\_\_

6. \_\_\_\_\_

7. \_\_\_\_\_

8. \_\_\_\_\_

9. \_\_\_\_\_

10. \_\_\_\_\_

11. \_\_\_\_\_

12. \_\_\_\_\_

13. \_\_\_\_\_

14. \_\_\_\_\_

15. \_\_\_\_\_

16. \_\_\_\_\_

17. \_\_\_\_\_

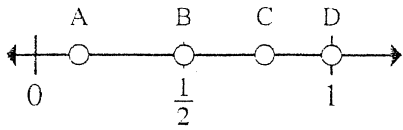
18. \_\_\_\_\_

19. \_\_\_\_\_

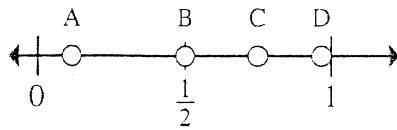
20. \_\_\_\_\_



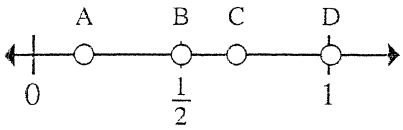
Determine which letter best shows the location of the fraction.



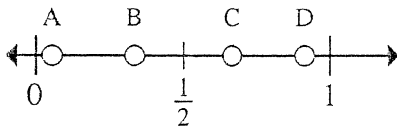
- 1) Which letter best shows  $\frac{2}{2}$ ?
- 2) Which letter best shows  $\frac{1}{2}$ ?



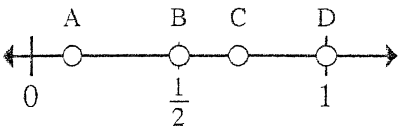
- 3) Which letter best shows  $\frac{3}{4}$ ?
- 4) Which letter best shows  $\frac{2}{4}$ ?



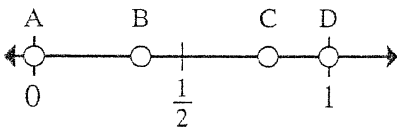
- 5) Which letter best shows  $\frac{3}{6}$ ?
- 6) Which letter best shows  $\frac{1}{6}$ ?



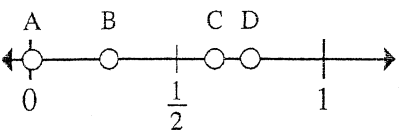
- 7) Which letter best shows  $\frac{2}{3}$ ?
- 8) Which letter best shows  $\frac{1}{3}$ ?



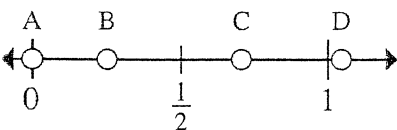
- 9) Which letter best shows  $\frac{4}{8}$ ?
- 10) Which letter best shows  $\frac{8}{8}$ ?



- 11) Which letter best shows  $\frac{0}{3}$ ?
- 12) Which letter best shows  $\frac{3}{3}$ ?



- 13) Which letter best shows  $\frac{6}{8}$ ?
- 14) Which letter best shows  $\frac{5}{8}$ ?



- 15) Which letter best shows  $\frac{0}{8}$ ?
- 16) Which letter best shows  $\frac{2}{8}$ ?

Answers

1. \_\_\_\_\_
2. \_\_\_\_\_
3. \_\_\_\_\_
4. \_\_\_\_\_
5. \_\_\_\_\_
6. \_\_\_\_\_
7. \_\_\_\_\_
8. \_\_\_\_\_
9. \_\_\_\_\_
10. \_\_\_\_\_
11. \_\_\_\_\_
12. \_\_\_\_\_
13. \_\_\_\_\_
14. \_\_\_\_\_
15. \_\_\_\_\_
16. \_\_\_\_\_

# Lesson 32

## Rocks and the Rock Cycle

Rocks are made up of minerals—and there are many different minerals in the earth. However, rocks are not classified by the minerals that make them up. Rather, they are classified by how they were formed. The three types of rock are igneous, sedimentary, and metamorphic.

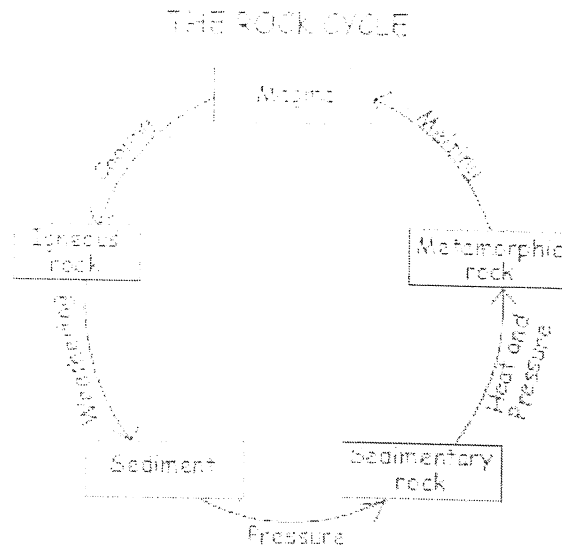
The *molten* layer of rock beneath the earth's crust is called **magma**. Sometimes magma moves into the crust then cools and hardens into **igneous rock**. Granite is an example of igneous rock.

**Sediment** is made up of small pieces of rock, minerals, and the skeletons of small animals that sink to the bottom of a river, lake, or ocean. **Sedimentary rock** is formed from particles of sediment that become cemented together by pressure. The pressure comes from the weight of more and more layers of sediment piling up on top of it. Sandstone and limestone are examples of sedimentary rocks.

Sometimes igneous and sedimentary rocks can be changed by forces inside the earth. For example, the extreme pressure and heat inside the earth can change an igneous or sedimentary rock into a **metamorphic rock**. Metamorphic rock is sometimes pushed up to the earth's surface by earthquakes or the forces that make mountains. Marble is an example of a metamorphic rock that was once a sedimentary rock called limestone.

Other forces can also change rocks. For example, the breaking down of rocks by the force of wind and running water is called **weathering**. A boulder can be worn down to a pebble by running water in a stream. Rocks that are not protected from high winds will gradually wear away. Water gets into cracks in rocks and then freezes and expands, causing rocks to break into smaller pieces.

A cycle diagram is used to show events that happen over and over. For example, the *Rock Cycle* diagram above shows how rocks can change from one kind to another.



# Lesson 32

## Rocks and the Rock Cycle

1. Minerals that make up granite are hardened together.
  - A. True
  - B. False

Write #1 next to the paragraph that gives the best evidence for your answer.

2. Sedimentary rock never changes.
  - A. True
  - B. False

Write #2 next to the paragraph that gives the best evidence for your answer.

3. Metamorphic rock forms on the earth's surface.
  - A. True
  - B. False

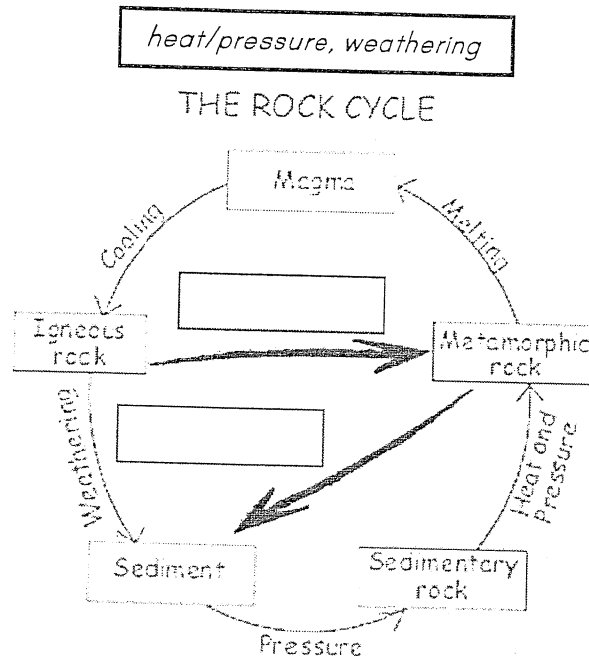
Write #3 next to the paragraph that gives the best evidence for your answer.

4. In the following sentence, *molten* probably means

*The molten layer of rock beneath the earth's crust is called magma.*

- A. melted
  - B. hardened
  - C. loose
  - D. solid
5. The bottom of a lake is covered with huge amounts of small particles. Over a long period of time this material can become what kind of rock?
    - A. magma
    - B. igneous rock
    - C. sedimentary rock
    - D. metamorphic rock

6. In the diagram below, some lines have been added to The Rock Cycle diagram from the lesson. Complete the diagram by writing the following terms in the correct space.



7. Can marble turn back into limestone?  
 A. Yes  
 B. No

# Lesson 33

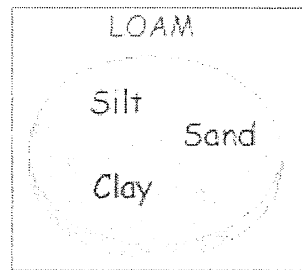
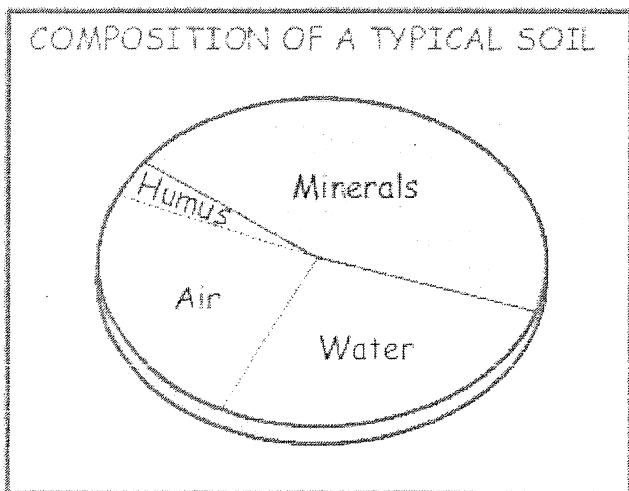
## Soils

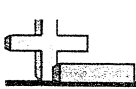
A **soil** is a mixture of rock particles, minerals, water, air, and decayed material. Decayed material comes from dead animals and plants. Any soil material that was once alive is called **humus**. Look at the pie chart below. It shows the *composition* of a typical soil.

Soils come mostly from rocks that were broken into very small pieces by the process of weathering (the breakdown of rocks into smaller and smaller pieces by wind, water, and changes in temperature). Rocks are made up of minerals. As rocks are broken down into smaller and smaller particles, their minerals are released and become a major part of soil. The three basic soils are sand, silt, and clay. **Clay** is made up of extremely small particles that can be seen only by using a powerful microscope. **Silt** is made of particles that are bigger than clay particles. **Sand** particles are much larger than silt particles and are loosely packed. You can feel the difference between these materials when you rub them between your fingers. You can easily identify the smooth texture of clay and the rough texture of sand.

When the three basic types of soil particles are mixed together in different amounts, different textures of soil are produced. For example, soil that feels sandy is made up of mostly sand. However, sandy soil also contains some silt and some clay. The pie graph at right shows the make-up of sandy soil. Which type of particles are there the most of?

Loam is a mixture of soil that is good for growing plants. It feels less gritty than sandy soil. Compare the loam and sandy soil pie charts. Can you explain why loam has a smoother texture than sandy soil?

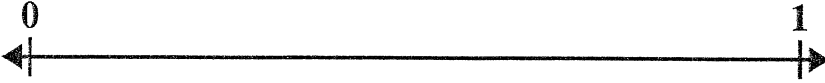




1) Partition into 6 equal pieces and label each partition.



2) Partition into 3 equal pieces and label each partition.



3) Partition into 8 equal pieces and label each partition.



4) Partition into 4 equal pieces and label each partition.



5) Partition into 2 equal pieces and label each partition.

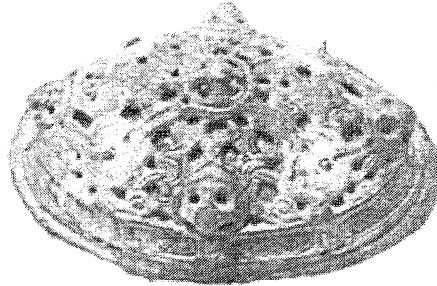






## Viking Voyages

Archaeologists in northwestern England are thrilled about a rare find. The scientists unearthed a burial site of six Viking men and women. They discovered swords, spears, jewelry, and other artifacts.



DCMS/Portable Antiquities Scheme

*This copper brooch belonged to one of the Vikings.*

The site was excavated, or dug up, after a metal detector user discovered two copper brooches in the ground. The worker informed archaeologists, who believe the site dates back to the 10th century. It is one of only a few Viking cemeteries found in England.

## Smash and Grab

The Vikings were pirates and warriors, known for their seafaring voyages. From the late 700s to 1100, the Vikings lived in Scandinavia. That region of Europe includes the present-day countries of Denmark, Norway, and Sweden.

Viking sailors spread fear throughout Europe. They raided and conquered coastal villages in Europe and along the Mediterranean coast. During their raids, Vikings captured slaves. They also pillaged, or stole, treasures, such as silver and gold.

For their voyages, Viking sailors crafted swift, narrow longships that could navigate the stormiest seas. The Vikings were the master shipbuilders of their time. Vikings also worked as farmers and craftspeople. Others hunted and fished.

## Edge of the Unknown

The Vikings' claim to fame may have been their fearsome raids, but they were explorers and traders too. They were among the earliest explorers to travel across the Atlantic Ocean to North America.



Leigh Haeger

*The Vikings traveled to other parts of Europe, the Mediterranean, Greenland, and North America.*

One of the most famous Vikings was explorer Leif Eriksson. He reached North America almost 500 years before Columbus arrived in 1492.

## Time Capsule to the Past

Over time the Viking raiders lost their power, as people learned to defend against their attacks. Today, the remains of Viking villages can be found throughout Europe and North America.

Archaeologists have been studying the burial ground in England to learn more about the life of the Vikings. Based on the objects found, they believe the site was once a Viking settlement.

Vikings were known to bury valuable items with the dead. As one historian put it, the site will allow experts to "uncover the secrets of a time capsule more than 1,000 years old."

## Viking Longships: Ready to Raid

- Longships varied in size, but many were between 60 feet and 90 feet in length.
- A larger ship could carry about 50 raiders at a time.
- Strong winds allowed a longship, which had one large sail, to reach speeds of up to 17 miles an hour.
- Vikings used multiple oars to row the ship when there was no wind.
- The front end of a longship curved upward and was adorned with a wood carving of a snake's or a dragon's head.

## Ancient Village near Stonehenge

### Scientists found the remains of an ancient village near the famous circle of stones.



Baker Vail

Stonehenge is a mysterious monument that consists of a circle of stones. It was built over 4,000 years ago in southwestern England.

In 2007, researchers unearthed an ancient village near Stonehenge. The village might have been home to the builders of the stone circle. Archaeologists discovered the remains of close to 25 small houses about 2 miles from Stonehenge. (Archaeologists study the materials left by prehistoric peoples and their cultures.) The researchers say the village, known as Durrington Walls, was built at about the same time as Stonehenge. They speculate, or guess, that Stonehenge was a memorial site or cemetery for the villagers. The village includes a wooden version of the stone monument.

"Clearly, this is a place that was of enormous importance," says British researcher Julian Thomas, who helped discover the village. He noted that both Stonehenge and Durrington Walls have avenues connecting them to the nearby Avon River. Villagers might have frequently traveled between the two sites.

Eight of the wooden houses have been excavated, or dug up. The structures are about 14 feet long. There was evidence of bed frames along the walls and a dresser or storage unit on the wall opposite the door.

Two of the houses found by Thomas were separate from the others. They might have been the homes of community leaders. Stone tools, animal bones, arrowheads, and other artifacts (human-made objects) were also uncovered in the village.

Name: \_\_\_\_\_ Date: \_\_\_\_\_

Use the article "Viking Voyages" to answer questions 1 to 2.

1. Archaeologists recently unearthed a Viking burial site of six men and women. What artifacts did they discover there?

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2. One historian said the burial site will allow experts to "uncover the secrets of a time capsule more than 1,000 years old." A time capsule contains objects that represent a certain culture, and is usually buried for people in the future to discover it and learn about that culture. Why might the historian think of the Viking burial site as a time capsule?

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Use the article **"Ancient Village near Stonehenge"** to answer questions 3 to 4.

3. What did archaeologists discover about two miles from Stonehenge?

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4. Archaeologists think that Stonehenge was a place of enormous importance for the villagers of Durrington Walls. What evidence supports their conclusion? Give at least two examples from the text.

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Use the articles **"Ancient Village near Stonehenge"** and **"Viking Voyages"** to answer questions 5 to 6.

5. How might studying the remains of villages, objects, and artifacts help scientists understand more about the people they belonged to? Use evidence or examples from both texts to support your answer.

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6. A historian called the Viking burial site a "time capsule." Could Durrington Walls, the village near Stonehenge, be called a "time capsule" as well? Why or why not? Support your answer with evidence from both texts.

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# Lesson 34

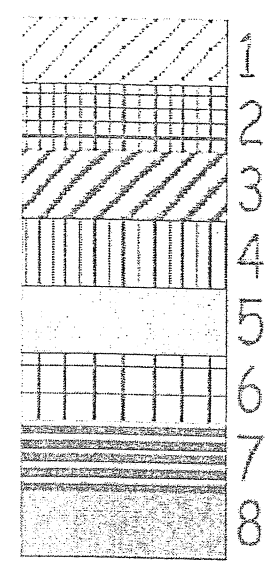
## Fossils

**Fossils** are remains of animals that lived long ago and are often found in sedimentary rock. To understand fossils, let's see how sedimentary rock is formed.

**Sediment** is made of small pieces of rock and other materials that settle to the bottom of oceans, lakes, and rivers. Over a very long time, sediments can form rocks known as *sedimentary rocks*.

Sedimentary rocks form in layers. If you sliced through the rock at the bottom of an ocean, you would see layers something like the ones in the diagram at right. Such a diagram is called a **cross section**. Which of the layers do you think is the oldest? Which is youngest? Why? If you found an object in layer 5, would it be older or younger than one found in layer 4? Why?

LAYERS OF  
SEDIMENTARY  
- ROCK



When an organism dies, it sometimes gets buried in sediment. Over a long time, the sediment hardens around the remains of the animal or plant. Long after the organism decays and disappears, the shape of the organism remains in the sedimentary rock. A fossil created this way is called a **mold**. The sedimentary rock keeps a record of the shape of the organism.

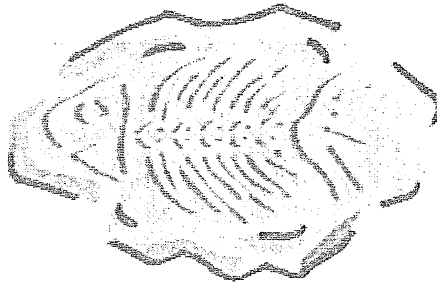
Another kind of fossil is an **imprint**. An imprint is made when an organism's body is pressed into sediments that later become hard.

**Paleontology** is the study of organisms that once lived on the earth. **Paleontologists** search for imprints and molds of prehistoric organisms. Some fossils found by paleontologists are footprints that were *preserved* in rocks. Some footprint fossils tell us about the size of dinosaurs. Others give us clues about how these ancient animals walked and hunted. Is a footprint an imprint or a mold?

Most fossils discovered by paleontologists are imprints or molds of animals and plants that decayed very long ago. However, the hard parts of an organism that have survived a very long time—like bone, shell, or seed—are also called fossils.

A fossil can also be a *preserved* organism. This special fossil shows exactly what the animal looked like. Animals like the woolly mammoth have been found preserved in ice. Cold temperatures slow the decay of the animal's body. Dry environments also slow decay. The hot, dry desert sand has preserved human mummies for more than 5,000 years.

Other organisms become fossils after being petrified. **Petrified** means turned to stone. Wood and bone are examples of materials that may be found petrified.





# Lesson 34

## Fossils

1. Fossils are often found in igneous rock.  
A. True  
B. False

Write #1 next to the paragraph that gives the best evidence for your answer.

2. A fossil of a deep footprint is a clue that the animal was heavy.  
A. True  
B. False

Write #2 next to the paragraph that gives the best evidence for your answer.

3. The study of prehistoric organisms is called geology.  
A. True  
B. False

Write #3 next to the paragraph that gives the best evidence for your answer.

4. Fossil molds can show the detailed shape of an organism.  
A. True  
B. False

Write #4 next to the paragraph that gives the best evidence for your answer.

5. In the following sentence, *preserved* probably means

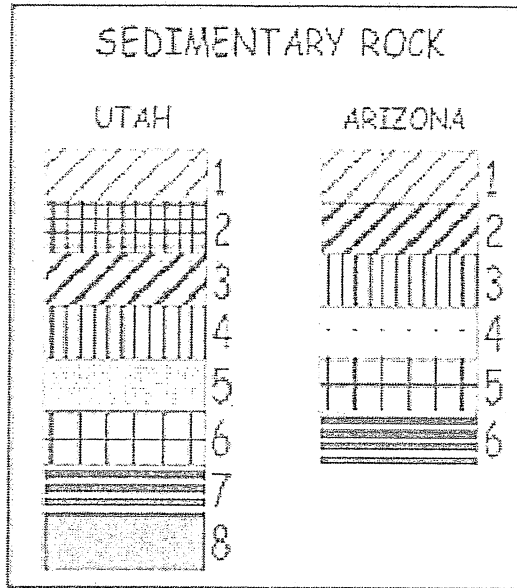
*Some fossils found by paleontologists are footprints that were **preserved** in rocks.*

- A. broken
- B. saved
- C. lost
- D. destroyed

6. Are preserved mummies ever found in the rain forest?  
A. Yes  
B. No

7. Similar sedimentary layers of rock can be found all over the world. The diagram below shows sedimentary rock layers in two states. Layers shown with the same patterns are the same age.

Consider the sedimentary rock layers in Utah and Arizona. Think about how they are the same and how they are different. Then answer the following questions.

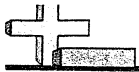


How many sedimentary rock layers do Utah and Arizona have that are the same age?

- A. 3
- B. 1
- C. 5
- D. 2

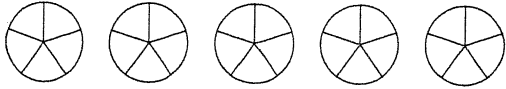
8. A fossil is found in layer 7 in Utah. Another fossil is found in layer 6 in Arizona. Are they the same age?

- A. Yes
- B. No

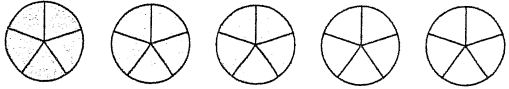


Use the visual model to solve each problem.

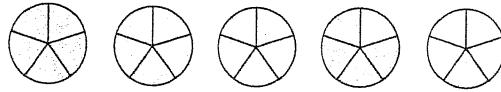
$1\frac{3}{5} + 2\frac{4}{5} = ?$



To solve a fraction addition problem one strategy is to shade in the whole amounts first (1 & 2).



Next fill in the fraction amounts ( $\frac{3}{5}$  &  $\frac{4}{5}$ ).



When all of the pieces are filled in we can see that  $1\frac{3}{5} + 2\frac{4}{5} = 4\frac{2}{5}$

1)  $3\frac{9}{10} + 1\frac{2}{10} =$

2)  $2\frac{4}{5} + 2\frac{1}{5} =$

3)  $2\frac{9}{10} + 2\frac{1}{10} =$

4)  $2\frac{2}{3} + 3\frac{1}{3} =$

5)  $2\frac{9}{12} + 3\frac{4}{12} =$

6)  $2\frac{7}{10} + 2\frac{5}{10} =$

7)  $3\frac{2}{4} + 2\frac{1}{4} =$

8)  $1\frac{2}{4} + 2\frac{3}{4} =$

9)  $3\frac{1}{5} + 2\frac{2}{5} =$

10)  $1\frac{2}{4} + 2\frac{2}{4} =$

11)  $2\frac{2}{5} + 1\frac{2}{5} =$

12)  $3\frac{1}{12} + 2\frac{10}{12} =$

Answers

1. \_\_\_\_\_

2. \_\_\_\_\_

3. \_\_\_\_\_

4. \_\_\_\_\_

5. \_\_\_\_\_

6. \_\_\_\_\_

7. \_\_\_\_\_

8. \_\_\_\_\_

9. \_\_\_\_\_

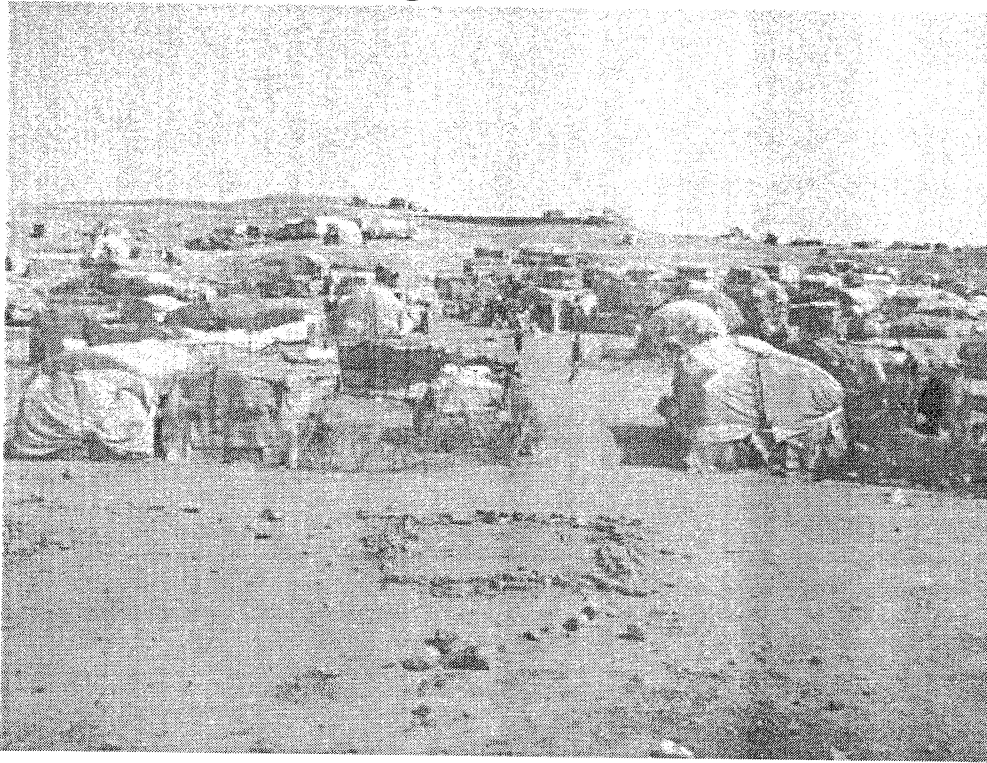
10. \_\_\_\_\_

11. \_\_\_\_\_

12. \_\_\_\_\_



## Coming to the U.S.A.



*Somali refugee camp*

### **When civil war broke out in Somalia, these sisters left their home and came to the United States.**

The Ibrahim sisters-Nimo and Fadumo-came to the United States in 2000. They were born in Somalia, a country in Africa. While they were still very young, civil war and famine came to Somalia. More than a million Somalis were in danger of starving. They had to escape.

Fadumo was 5 years old when her family left Somalia. "I remember the house we used to live in, and how we used to cook, and how it was so different than here," says Fadumo.

When they fled their home country, the Ibrahim family had nowhere to go, nowhere to turn. They were **refugees**. For many years they didn't have a home. They lived in camps in Africa. But thanks to the International Rescue Committee, they were able to move to Boston, Massachusetts. Nimo and her sister went to high school in Boston. Their father got a job, and their mother was taking care of two new babies. They made a brand-new start.

It wasn't easy. Nimo said that fitting in to her new home and learning a new language were difficult at first. "There are a lot of nice people, and there are a lot of cruel people," she said.

"It took me two years to get used to everything and everyone."

There were many good things, as well. Fadumo said she liked "the mix of different kinds of religion and culture" in Boston.

When they were in high school, both Nimo and Fadumo wanted to become doctors and go back to Somalia to try to help people.

"I miss my grandmother and my family in Somalia," said Nimo.

Vocabulary: *refugees* (re-fyoo-JEES) people who leave their country to escape danger

# Immigration

by ReadWorks



The United States of America has long been the world's chief receiving nation for immigrants. An immigrant is a person who leaves his or her country to settle and live in another country. Over the years, many millions of people have uprooted and left family and friends to move to America. Some felt forced to leave because they feared for their lives due to dangers present in their home countries. For example, many immigrants left countries that were at war or that didn't give them the freedom to practice their faith. Immigrants also left their native lands if they couldn't find work or enough food to live. Whatever the reason, immigrants usually have had to sacrifice a life that is familiar for one that is unknown.

The United States was founded by immigrants. From the 1600s through 1775, European colonists settled in the land that is now the United States. Most of these immigrants were from England. Others arrived from France, Germany, Ireland, Scotland, and Spain. Many of these colonists came here looking for economic opportunity. They wanted better land to farm or better work. Others came to escape religious persecution. Some were even convicts brought over from English jails. West Africans also immigrated to the American colonies, but they came against their will. They were captured, sold into slavery, and shipped to the colonies.

Since the United States was established in the late 1700s, it has seen three waves of

immigration. The first wave of American immigration took place from 1820 to 1870. Over seven million people made the voyage to America, mostly from northern and western Europe. About a third of these immigrants were Irish people trying to escape a famine that plagued Ireland in the mid-1840s. Another third of the immigrants from this wave were German. The Chinese also began to immigrate to America during this time. They got word of the Gold Rush in California. They came to work in the mines and get rich.

This flood of immigrants wasn't always welcome by those already in America. Some feared these newcomers would take away their jobs. Others didn't like the politics, customs, and/or religions the new immigrants brought with them. For example, many Irish people were discriminated against for being Roman Catholic. The Chinese also suffered greatly from discrimination.

The next wave of U.S. immigration was by far the greatest. It started in 1881 and ended in 1920. Over 23 million people immigrated to the United States during this period, most of whom came from southern and eastern Europe. But by this time, anti-immigration sentiments had become so strong that a growing number of people demanded laws to make it harder for foreigners to become American citizens. In 1875, Congress passed its first immigration law intended to limit immigration. It kept people who were viewed as undesirable out, including convicts. In 1882, Congress also passed the Chinese Exclusion Act. It prohibited Chinese workers from coming to the United States. A few years later, other laws were passed. One required adult immigrants to have literacy skills. Another limited the number of immigrants from countries outside the Western Hemisphere. However, one of the greatest blows to immigration was the Great Depression of the 1930s. Immigration sharply declined. In fact, there were more people leaving America than coming to America during this time.

The third wave of immigration began in 1965 and continues today. Most immigrants in this wave have come from Asian countries as well as South American countries, Caribbean countries, and Mexico. A large number of these immigrants have settled in the East and Midwest. However, many others have moved to California.

Most immigrants have come to America with the hope of building a better life. However, they were sometimes met with hatred by the people already living in the country who feared the economic and cultural impacts of these newcomers. While this discrimination and the economic downfall of the Great Depression had a negative effect on immigration, American immigration has managed to survive.



Name: \_\_\_\_\_ Date: \_\_\_\_\_

Use the article "Immigration" to answer questions 1 to 2.

1. Most immigrants came to America for a better life. What were these immigrants' home countries like?
2. Why were immigrants not always welcomed by people who were already in America?

Use the article "Coming to the U.S.A." to answer questions 3 to 4.

3. What came to Somalia that forced the Ibrahim family to escape the country?
4. Why hasn't it been easy for the Ibrahims to start their new lives in Boston?

Use the articles "Coming to the U.S.A." and "Immigration" to answer questions 5 to 6.

5. What are some struggles that immigrants or refugees face in their home countries that cause them to come to America? Use at least one example from each text to support your answer.
6. What are some struggles that newcomers might face in America? Use at least one example from each text to support your answer.

