

Lady Liberty Gets a Makeover!

BLIZZARD BAG #1

foundation	toll	arrival	expression	upon
makeover	fireworks	freedom	affected	project
restoration	pounded	restore	century	re-opened

Directions: Fill in each blank with the word that best completes the reading comprehension.

The Statue of Liberty has stood on an island in New York Harbor for more than 100 years. Her raised torch and dignified (1) _____ have given comfort to many immigrants (2) _____ their (3) _____.

The Statue of Liberty is a symbol of (4) _____. The people of France gave us this great gift. Americans loved the statue. Many sightseers visited it through the years. All types of weather had (5) _____ on it. Pollution had (6) _____ it. These things took a (7) _____ on the statue's appearance. The torch needed to be replaced. The rays of the crown needed to be made stronger. People noticed that Lady Liberty needed a (8) _____ !

A (9) _____ was formed to raise funds for the project. This group wanted to (10) _____ Ellis Island, too. Many immigrants entered the U.S. through Ellis Island. People contributed millions of dollars to the (11) _____ project. The team included engineers, architects, historians, and others. The team did lots of planning for this big job.

The restoration work began in 1984. Almost 1,000 workers did the labor. They put in new elevators. They strengthened Lady Liberty's crown. One special part of the (12) _____ was to cover carefully the flame of the new torch with thin sheets of 24k gold. The torch had never shone so brightly!

The monument (13) _____ on July 5, 1986, during an event called Liberty Weekend. President Reagan and French President Francois Mitterrand were there. The festivities celebrated the Statue of Liberty's centennial. Her official 100th birthday was on October 28, 1986. Dazzling (14) _____ went off. Large ships filled New York Harbor. Lady Liberty was all dressed up and ready to go into the twenty-first (15) _____.

<p>1. Where is the Statue of Liberty?</p> <p><input type="radio"/> A New York Harbor</p> <p><input type="radio"/> B The Mississippi River</p> <p><input type="radio"/> C Lake Superior</p> <p><input type="radio"/> D Lake Michigan</p>	<p>2. The leader of which other country was with President Reagan for the re-opening of the Statue of Liberty?</p> <p><input type="radio"/> A Canada <input type="radio"/> C Iran</p> <p><input type="radio"/> B France <input type="radio"/> D Mexico</p>
<p>3. What was the name of the three-day event that celebrated the Statue of Liberty's centennial?</p> <p><input type="radio"/> A Liberty Weekend</p> <p><input type="radio"/> B Statue of Liberty Gala</p> <p><input type="radio"/> C The Torch Party</p> <p><input type="radio"/> D None of the above</p>	<p>4. What kind of metal was used on the flame of the new torch?</p> <p>_____</p>

History of the Empire State Building

property	meters	business	operation	construction
million	investment	site	mansions	observation
record	complex	unrented	mansion	tore

Directions: Fill in each blank with the word that best completes the reading comprehension.

One of the most well-known landmarks in the world is the Empire State Building. It is located at 350 Fifth Avenue in New York City, New York. This 102-story landmark was completed in 1931. The American Society of Civil Engineers designated the building as one of the Seven Wonders of the Modern World. It was the world's tallest building until 1972 when New York City's World Trade Center Towers were constructed. After the Trade Center Towers were destroyed in 2001, the Empire State Building was once again the tallest building in New York.

The site was once a farm owned by John Thompson in 1799. The land was sold to Charles Lawton for \$10,000 in 1825. In 1827 William Backhouse Astor purchased the land as an (1) _____ for \$20,500. The Astor brothers began building their (2) _____ on the (3) _____. In 1893, William Waldorf Astor (4) _____ down his mansion on Fifth Avenue and built the Waldorf Hotel there. His aunt, Mrs. William Backhouse Astor, who had her mansion next door, tore down her (5) _____ next and erected the Astoria Hotel. The new (6) _____ was called the Waldorf-Astoria Hotel. The Waldorf-Astoria Hotel was sold to Bethlehem Engineering Corporation for around \$20 million in 1928. This was to be the (7) _____ for the Empire State Building. The building took its name from one of New York's nicknames, "The Empire State."

Excavation began on January 22, 1930. On March 17, (8) _____ began. By May 1, 1931, the ribbon was cut, and the Empire State Building was officially opened. Herbert Hoover, President of the United States, was able to turn on the lights with the push of a button from Washington, D.C. As the tallest building in the world at the time, the (9) _____ deck took in approximately two (10) _____ dollars in its first year of (11) _____. Even so, the Great Depression left most

of the rooms (12) _____, and it was nicknamed "The Empty State Building."

It was sold in 1951 to Roger L. Stevens and his (13) _____ partners for a (14) _____ 51 million dollars. It was the highest price paid for a building at the time. It has been sold twice since then with the last selling price being \$57.5 million.

The National Parks Service recognized the building as a National Landmark in 1986. The Empire State Building is struck by lightning about one hundred times each year. It is 1,453 feet, 8 and 9/16 inches or 443.2 (15) _____ to the top of the lightning rod. On clear days visitors can see up to 80 miles. They can see five states including New Jersey, Pennsylvania, Connecticut, and Massachusetts, as well as New York. It is considered by many to be the Eighth Wonder of the World.

<p>1. The Empire State Building has how many stories?</p> <p>_____</p> <p>_____</p>	<p>2. When was construction on the Empire State Building first started?</p> <p><input type="radio"/> A 1932</p> <p><input type="radio"/> B 1931</p> <p><input type="radio"/> C 1930</p> <p><input type="radio"/> D 1922</p>
<p>3. Who was the first person to turn on the lights in the Empire State Building?</p> <p><input type="radio"/> A President Herbert Hoover</p> <p><input type="radio"/> B President Franklin Roosevelt</p> <p><input type="radio"/> C President Abraham Lincoln</p> <p><input type="radio"/> D President Harry Truman</p>	<p>4. What was the recorded selling price for the Empire State Building in 1954?</p> <p>_____</p> <p>_____</p>
<p>5. How often is the Empire State Building struck by lightning?</p>	<p>6. How far can you see from the top of the Empire State Building on a clear day?</p> <p><input type="radio"/> A 80 miles</p> <p><input type="radio"/> B 20 miles</p> <p><input type="radio"/> C 60 miles</p> <p><input type="radio"/> D 40 miles</p>

Problem solving with formulas

When problem solving in algebra, it is a good idea to have a general problem-solving plan. This can help lay the groundwork for finding the solution to any given word problem.

Joan is going to take a bike trip. She plans to ride 9 miles in 45 minutes. At what rate (mi/h) must she travel?

Plan: Use the formula $d = rt$, where d is the distance, r is the rate, and t is the time. First, change 45 minutes to terms of hours which is $\frac{45}{60} = \frac{3}{4}$. So, the time is equal to $\frac{3}{4}$ of an hour. Now, solve using the formula $d = rt$.

$$d = rt$$

$$9\left(\frac{3}{4}\right) = r\left(\frac{3}{4}\right)\left(\frac{4}{3}\right)$$

$$\frac{36}{3} = r$$

$$r = 12 \text{ miles per hour}$$

Thus, 12 mi/h is the rate at which Joan must travel to ride 9 miles in 45 minutes.

- Use the formula $d = rt$ to find the average speed of driving 330 miles in $5\frac{1}{2}$ hours.

A school drama club is putting on a play. Its expenses will be \$300. Use the formula $p = nt - e$, (p is profit, n is number of tickets, t is price per ticket, e is expenses) to answer questions 2–5.

- How many tickets must be sold at \$3 each to make \$1,500 profit?
- If the drama club expects to sell approximately 600 tickets, what should it charge for each ticket to make \$1,800 profit?
- If the drama club sells 500 tickets at \$2.50 each, what will be its profit?
- If the drama club expects to sell only 450 tickets at \$2.50 each, by how much would it have to lower expenses to make \$1,000 profit?

Scientific notation**Rational Numbers**

A number is expressed in scientific notation if it is written as a number between 1 and 10 multiplied by a power of 10. For example, 3.2×10 is written in scientific notation.

1. Write 350,000 in scientific notation.

$$3.5 \times 10^5$$

Write as a number between 1 and 10 by moving the decimal five places to the left. Multiply by 10^5 .

2. Write -0.000012 in scientific notation.

$$-1.2 \times 10^{-6}$$

Write as a number between 1 and 10 with the negative sign by moving the decimal six places to the right. Multiply by 10^{-6} .

Note: When changing a large positive or negative number to scientific notation, the power of 10 is positive. When changing a small positive or negative number to scientific notation, the power of 10 is negative.

A number not written in scientific notation is written in standard form. For example, 25,000 is written in standard form. To change a number from scientific notation to standard form, move the decimal to the right if the power of 10 is positive and to the left if the power of 10 is negative.

1. Write -4.1×10^4 in standard form.

$$-41,000$$

Move the decimal four places to the right since the power of 10 is a positive 4.

2. Write 5.2×10^{-2} in standard form.

$$0.052$$

Move the decimal two places to the left since the power of 10 is negative 2.

1. Explain how to write each of the following numbers in scientific notation: 254,000 and 0.000053.

Write each number in scientific notation.

2. 6,784,000

3. -0.0000045

4. 0.0089

5. 90,000,000

6. -273,000

7. 0.00000000000017

Write each number in standard form.

8. -3.2×10^7

9. 5.05×10^3

10. 7.6×10^5

11. -8.003×10^{-4}

12. 2.389×10^{-6}

13. -4.32×10^{-9}

SECTION

2

Reinforcement

Doing Science

Directions: Complete the following sentences using the words below. Some of the words might not be used.

variable

models

trials

experiment

control

metric

bias

hypothesis

experimental research design

English

descriptive research

1. A method of solving scientific problems based mostly on observations is _____.
2. A(n) _____ is a method of answering scientific questions by testing a hypothesis through the use of a series of carefully controlled steps.
3. Prior knowledge, new information, and previous observations are used to form a(n) _____.
4. A(n) _____ is a sample treated like other experimental groups except that the variable is not applied.
5. Computer _____ help modern scientists do their work.
6. After a hypothesis is developed, a(n) _____ is often designed to test the hypothesis.
7. Multiple _____ of an experiment ensure valid results.
8. Experiments are reliable only if one _____ at a time is tested.
9. The International System of Units is based on the _____ system.
10. A random sample is one way to reduce _____ when choosing people for an experiment.

Directions: Match the SI unit with what it measures by writing the correct letter in the space provided.

_____ 11. meter

a. mass

_____ 12. kilogram

b. volume

_____ 13. square meter

c. length

_____ 14. cubic meter

d. area

SECTION

3

Reinforcement

Science and Technology

Directions: Use the words to complete the sentences below. Some of the words may not be used.

hobby
information
science

knowledge
modernization
worldwide

lifestyle
discoveries
globalization

1. Scientific _____ often challenges old ways of thinking or doing things.
2. People of all races, ages, sexes, cultures, and professions practice _____.
3. Some scientific discoveries have been made by people pursuing a(n) _____.
4. Scientific _____ are constantly incorporated into products that influence our style of living.
5. Thanks to modern information technology, information about new scientific discoveries is available _____.
6. Modern technology has led to the _____ of new information.

Directions: Answers the following questions on the lines provided.

7. What is meant by the statement "Science can provide information that people use to make decisions"?

8. Name three aspects of everyday life that have been greatly changed by new technologies.

SECTION

3

Reinforcement

Science and Technology

Directions: Use the words to complete the sentences below. Some of the words may not be used.

hobby
information
science

knowledge
modernization
worldwide

lifestyle
discoveries
globalization

1. Scientific _____ often challenges old ways of thinking or doing things.
2. People of all races, ages, sexes, cultures, and professions practice _____.
3. Some scientific discoveries have been made by people pursuing a(n) _____.
4. Scientific _____ are constantly incorporated into products that influence our style of living.
5. Thanks to modern information technology, information about new scientific discoveries is available _____.
6. Modern technology has led to the _____ of new information.

Directions: Answers the following questions on the lines provided.

7. What is meant by the statement "Science can provide information that people use to make decisions"?

8. Name three aspects of everyday life that have been greatly changed by new technologies.

SECTION

2

Reinforcement

Doing Science

Directions: Complete the following sentences using the words below. Some of the words might not be used.

variable

models

trials

experiment

control

metric

bias

hypothesis

experimental research design

English

descriptive research

1. A method of solving scientific problems based mostly on observations is _____.
2. A(n) _____ is a method of answering scientific questions by testing a hypothesis through the use of a series of carefully controlled steps.
3. Prior knowledge, new information, and previous observations are used to form a(n) _____.
4. A(n) _____ is a sample treated like other experimental groups except that the variable is not applied.
5. Computer _____ help modern scientists do their work.
6. After a hypothesis is developed, a(n) _____ is often designed to test the hypothesis.
7. Multiple _____ of an experiment ensure valid results.
8. Experiments are reliable only if one _____ at a time is tested.
9. The International System of Units is based on the _____ system.
10. A random sample is one way to reduce _____ when choosing people for an experiment.

Directions: Match the SI unit with what it measures by writing the correct letter in the space provided.

_____ 11. meter

a. mass

_____ 12. kilogram

b. volume

_____ 13. square meter

c. length

_____ 14. cubic meter

d. area

★ **Enrichment Activity 5-3**



Paul Revere, Artisan

Paul Revere (1734–1818), who was famous for warning the minutemen of Lexington that the British troops were coming, was also a businessperson and renowned craft worker who fashioned silver goods. His designs are still popular today.

DIRECTIONS: Analyzing Information Use the table to answer the questions.

Silver Objects	Period A 1761–1775		Period B 1779–1797	
	Number	Percent	Number	Percent
Flatware	410	35.8	2,069	49.15
Tea and Coffee Wares	61	5.3	198	4.7
Tablewares	129	11.3	177	4.2
Personal Items	449	39.2	623	14.8
Harness Fittings	0	0.0	1,044	24.8
Miscellaneous	96	8.4	99	2.35
Total Objects	1,145	100.0	4,210	100.0

- How many silver tea and coffee wares did Revere make between 1761 and 1775?

- By what percentage did Revere's making of flatware increase between 1761–1775 and 1779–1797?

- Revere made more miscellaneous items in Period B than Period A, yet the percentage of his business for such items was greater in A than in B. How can that be true?

- Which category represented the greatest increase in number of items produced between the two time periods?

- How did Revere's silver business change between Period A and Period B? Give specific facts to support your answer.

