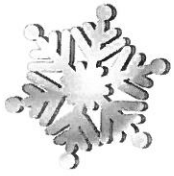
6TH GRADE

BLIZZARD BAGS

MANCHESTER

ELEMENTARY



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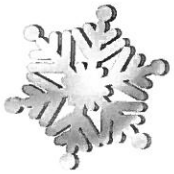


Warm-Up 3

Name _____

Antarctica

Antarctica is an ice-covered continent. It lies near the South Pole. It is larger than Australia and just a bit smaller than South America. Antarctica covers 5.4 million square miles. That is about 9.7 percent of Earth's land area. It is not a nation, and there are no citizens. No one lives there permanently. However, several nations have scientific research posts there.

About 98 percent of the continent is covered with ice. Its ice cap holds about 70 percent of all of the fresh water on Earth. At its thickest point, the ice covering Antarctica is about three miles in depth. The ice sheet is so thick and heavy that it keeps most of the land underwater!

Antarctica is the coldest continent on Earth. Average temperatures rarely climb over -31°F. That is still 63°F below freezing! The lowest temperature recorded on Earth was in Antarctica. It was a bone-chilling -128°F. It is also one of the driest places on the planet. There is a great deal of wind but hardly any rain or snow.

Until about eighty million years ago, Antarctica was connected to Australia. We know this because of the fossil record. Fossils of plants, reptiles, and other creatures prove that the continent was actually a tropical paradise at that time.

Check Your Understanding

1. Which continent is slightly larger than Antarctica?
   a. Australia
   b. Asia
   c. South America
   d. Greenland

2. Why do you think there are no native settlements or permanent cities on Antarctica?
   a. The climate is too cold.
   b. Food would be hard to find.
   c. There are no edible plants.
   d. all of the above

3. How do you know that Antarctica was *not* always as cold as it is today?
   a. Australia is not covered with ice.
   b. Fossil plants and animals found in Antarctica are from warmer climates.
   c. People are living on Antarctica today.
   d. Antarctica looks like it will warm up.

4. How many degrees below freezing was the lowest recorded temperature on Antarctica?
   a. -128°F
   b. -160°F
   c. -96°F
   d. -200°F

/4

Warm-Up 4

Name _____

The Taj Mahal

The Taj Mahal is on the list of the Seven Wonders of the Modern World. Historians, tourists, and students of **architecture** and design admire it for two reasons. One is for its beauty. The other is the love story that led to its creation.

The Taj Mahal stands on the banks of the Yamuna River in Agra, India. Its construction began in 1631 and was finished in 1653. It is an Islamic tomb built of white marble, which was imported from all over India and neighboring lands. Its creation required the use of more than 1,000 elephants to transport the marble. More than 22,000 builders labored for twenty-one years to erect it. They used twenty-eight different kinds of precious and semi-precious stones to decorate the temple.

This "Crown Palace" is a monument to love. Shah Jahan was the fifth Mughal emperor of India. When he was a fourteen-year-old prince, he fell in love with a fifteen-year-old Persian princess. Five years later, she became his third wife. This was in 1612. He called her "Mumtaz Mahal," which means "Jewel of the Palace." They had a happy marriage. However, she died giving birth to their fourteenth child. Heartbroken, her husband ordered the building of the Taj Mahal. This tomb is a tribute to her. It still stands as an enduring symbol of their love.

Check Your Understanding

1. How old was the princess when they were married?
   a. thirty-one years old
   b. twenty years old
   c. twenty-five years old
   d. fourteen years old

2. Which culture does the Taj Mahal represent?
   a. American
   b. Islamic
   c. Jewish
   d. Chinese

3. Which of the following ideas can you infer from the passage?
   a. Mahal means "palace."
   b. White marble was valued highly in Indian buildings.
   c. The Taj Mahal is both a tomb and a temple.
   d. all of the above

4. What does **architecture** refer to?
   a. the design of buildings
   b. Indian religions
   c. the damming of rivers
   d. all of the above

/4

Name _____

Solve Addition and Subtraction Equations

To solve an equation, you must isolate the variable on one side of the equal sign. You can use **inverse operations**: undoing addition with subtraction or subtraction with addition. These actions are made possible by the **Addition and Subtraction Properties of Equality.**

Solve and check.

Example 1: $y + 6.7 = 9.8$

Step 1 Look at the side with the variable. Subtract the number that is added to the variable, or add the number that is subtracted from the variable. Be sure to perform the same operation on both sides of the equation.

$y + 6.7 = 9.8$

$y + 6.7 - 6.7 = 9.8 - 6.7$ Subtract 6.7 from both sides.

Step 2 Simplify both sides of the equation.

$y + 6.7 = 9.8$

$y + 6.7 - 6.7 = 9.8 - 6.7$

$y + 0 = 3.1$

$y = 3.1$

Step 3 Check your answer in the original equation.

$y + 6.7 = 9.8$

$3.1 + 6.7 \stackrel{?}{=} 9.8$

$9.8 = 9.8$

So, $y = 3.1$ is the solution.

Example 2: $57 = x - 8$

$57 = x - 8$

$57 + 8 = x - 8 + 8$ Add 8 to both sides.

$57 = x - 8$

$57 + 8 = x - 8 + 8$

$65 = x + 0$

$65 = x$

$57 = x - 8$

$57 \stackrel{?}{=} 65 - 8$

$57 = 57$

So, $x = 65$ is the solution.

Solve and check.

1. $x + 13 = 27$ **2.** $38 = d - 22$ **3.** $12.4 = a + 7.9$ **4.** $w - 2\frac{3}{5} = 4\frac{2}{5}$

_____ _____ _____ _____

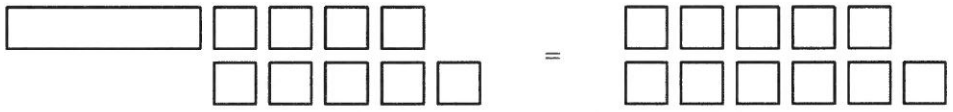
Name _____

Model and Solve Addition Equations

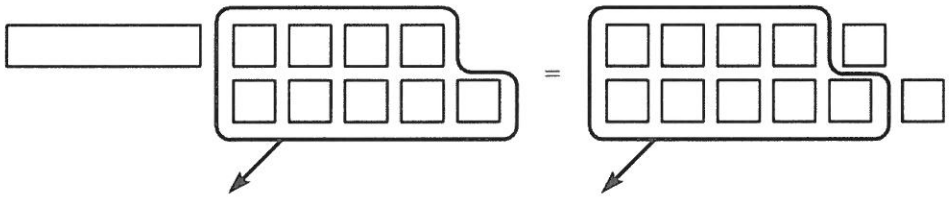
You can use algebra tiles to model and solve equations. Use a long rectangle to represent the variable, and a square to represent 1.

Model and solve the equation $x + 9 = 11$.

Step 1 Model the equation using algebra tiles.



Step 2 Get the variable by itself on one side of the equation. Remove the same number of tiles from each side.



Step 3 Write the solution.

$x = 2$

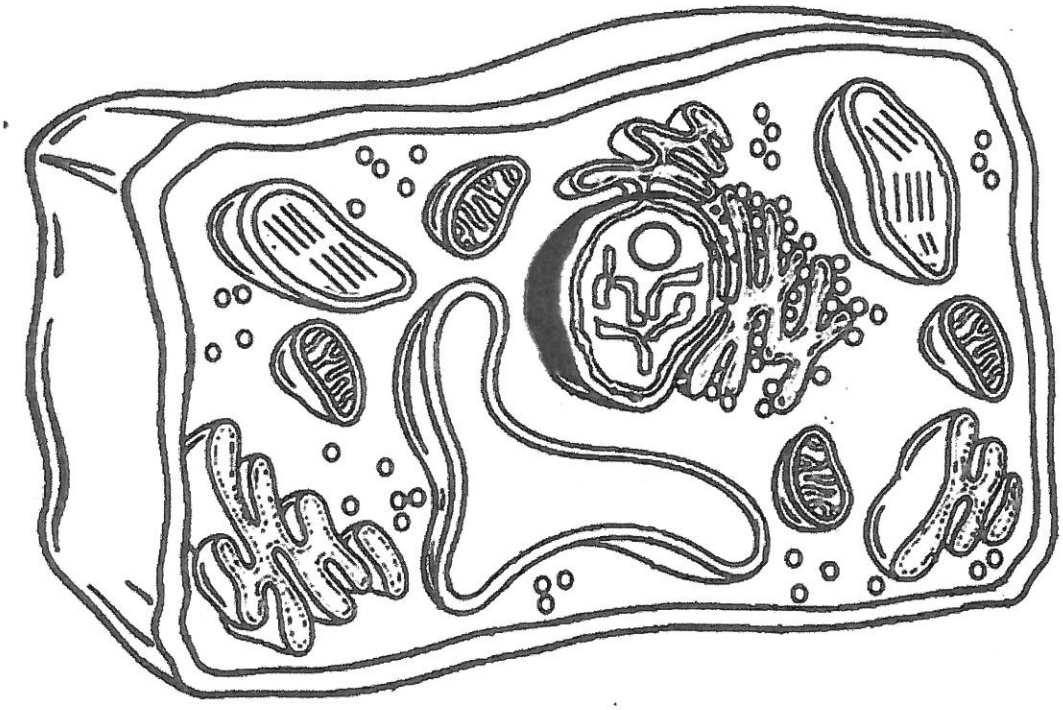
Solve the equation by using algebra tiles or by drawing a picture.

1. $x + 4 = 10$

2. $8 = x + 2$

Plant Cell Coloring

- ☐ Cell Membrane (orange)
- ☐ Nucleoplasm (yellow)
- ☐ Mitochondria (red)
- ☐ Vacuole (lt. Blue)
- ☐ Chromatin (gray)
- ☐ Cell Wall (dark green)
- ☐ Nucleolus (brown)
- ☐ Chloroplasts (light green)
- ☐ Smooth Endoplasmic Reticulum (pink)
- ☐ Rough Endoplasmic Reticulum (pink)
- ☐ Ribosome (purple)
- ☐ Cytoplasm (white)
- ☐ Golgi Apparatus (dk blue)



Analysis

1. Name two things found in a plant cell that are not found in an animal cell:

2. How does the shape of a plant cell differ from that of an animal cell?

3. What is the function of the chloroplasts?

4. What is the function of the vacuole?

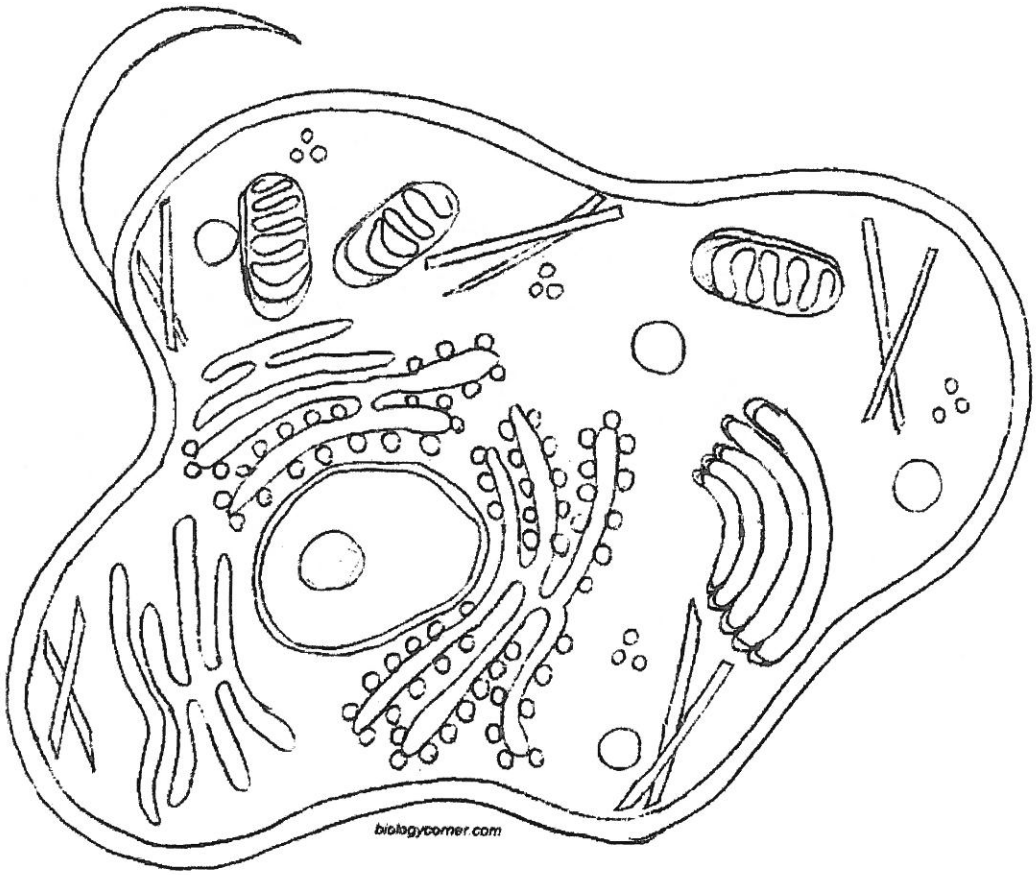
Animal Cell Coloring

I. Directions: Color each part of the cell its designated color.

Cell Membrane(light brown) ☐
Cytoplasm (light yellow) ☐
Nucleoplasm (pink) ☐
Nuclear Membrane(dark brown) ☐

Nucleolus (black) ☐
Golgi Apparatus (pink) ☐
Flagella (red/blue striped) ☐
Rough Endoplasmic Reticulum (dark blue) ☐
Smooth Endoplasmic Reticulum(light blue) ☐

Mitochondria (orange) ☐
Lysosome (purple) ☐
Microtubules (dark green)
Ribosome (red) ☐



II. Briefly describe the function of the cell parts.

1. Cell membrane _____
2. Endoplasmic Reticulum _____
3. Ribosome _____
4. Golgi Apparatus _____
5. Lysosome _____
6. Microtubule _____
7. Mitochondria _____
8. Nucleus _____