

Name: _____

Digit Values

What is the value of the underlined digit?

5,632,814 - The value of the digit 5 is **5 millions**, or **5,000,000**.

5,632,814 - The value of the digit 6 is **6 hundred-thousands**, or **600,000**.

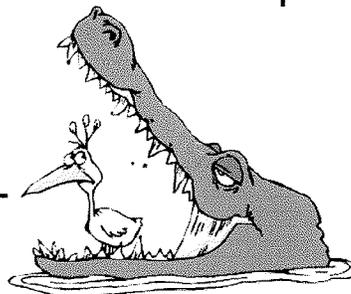
5,632,814 - The value of the digit 3 is **3 ten-thousands**, or **30,000**.

5,632,814 - The value of the digit 2 is **2 thousands**, or **2,000**.

5,632,814 - The value of the digit 8 is **8 hundreds**, or **800**.

5,632,814 - The value of the digit 1 is **1 tens**, or **10**.

5,632,814 - The value of the digit 4 is **4 ones**, or **4**.



Write the value of the underlined digit.

a. 7,198,752 - _____

b. 8,256,726 - _____

c. 1,071,861 - _____

d. 5,472,261 - _____

e. 6,896,804 - _____

f. 472,861 - _____

g. 3,467,530 - _____

h. 5,707,501 - _____

7, 4 5 6, 8 0 2

i. In the number above, which digit has the greatest value? _____

j. In the number above, which digit has the least value? _____

k. What is the value of the digit in the ten-thousands place of the number above? _____

l. What is the value of the digit in the hundred-thousands place of the number above? _____

Name: _____

Ferdinand Magellan

by Kelly Hashway

When we think of explorers, one of the first names that comes to mind is Christopher Columbus. But there are many other explorers who did great things, one being Ferdinand Magellan. Magellan was a Portuguese sailor who proved it was possible to sail around the globe.



In 1492, Christopher Columbus had sailed west trying to reach the Indies in hopes that Spain would be able to trade with Asian kingdoms on the other side of the world. But as you know, Columbus discovered America and never really made it to the Indies.

Later, eastern routes to the Far East were discovered, but Spain wanted to find a quicker route by water. So in 1519, Ferdinand Magellan set sail from Seville, Spain under the rule of King Charles I. His goal was to discover a westward route to the Spice Islands in Indonesia. The Spice Islands were named for the spices produced there, which were in great demand in Europe.

Magellan took five ships and approximately 270 men with him on his expedition. During the trip, Magellan explored the eastern coast of South America, looking for a water passage through the continent. He discovered a body of water that cut through the southern tip of South America, connecting the Atlantic Ocean and Pacific Ocean. This body of water was named the Strait of Magellan.

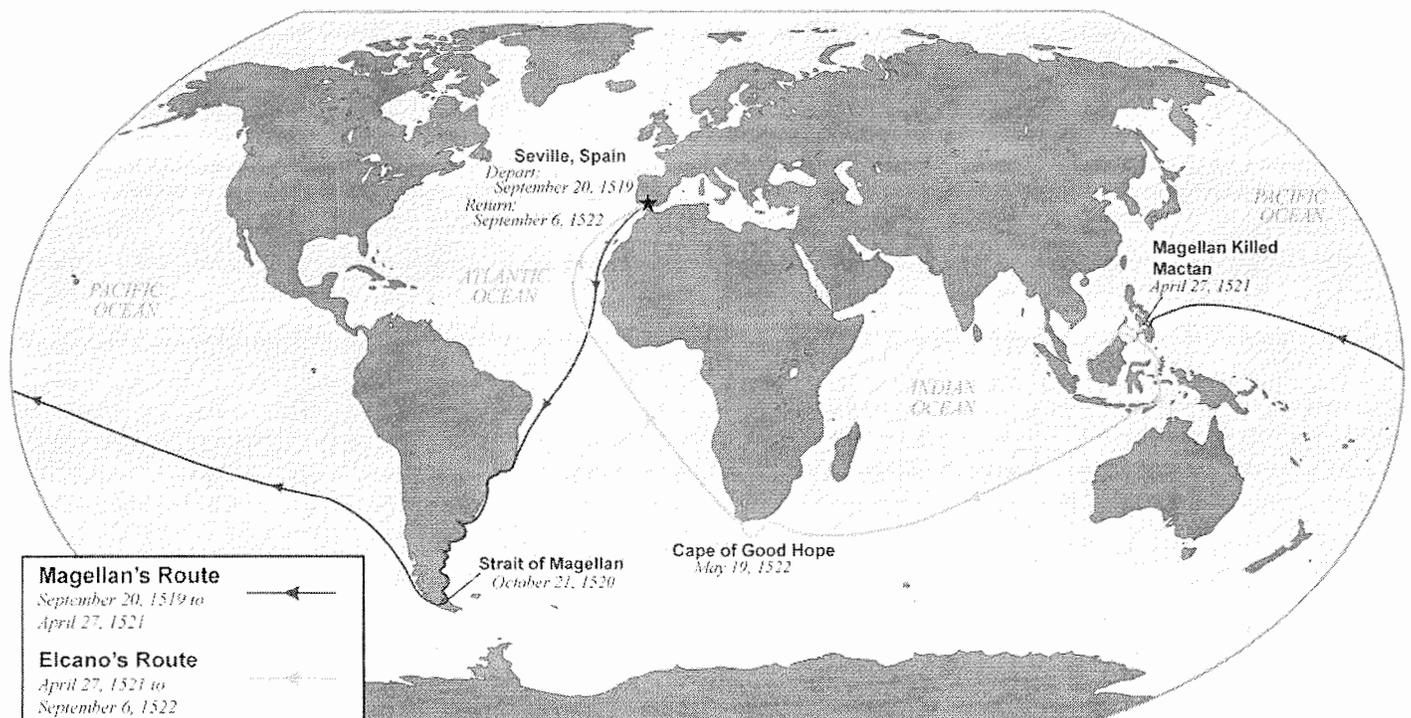
The journey wasn't an easy one for Magellan or his men. The rough waters caused one of the five ships to be separated from the others and eventually return to Spain. Another ship

crashed into a rocky island. With only three ships left, Magellan continued for months, making it to the Philippines. Here, Magellan was killed during a religious dispute with a local tribal king on the island of Mactan. This was later called the Battle of Mactan.

The remaining crew members were led by Juan Sebastián Elcano. Because there weren't enough men to sail all three ships, Elcano ordered the men to burn one of the remaining ships. They then sailed two ships to the Maluku Islands, better known as the Spice Islands. There they loaded up on valuable spices before attempting to return to Spain.

Near the end of the voyage one of the two remaining ships was captured by the Portugese and wrecked in a storm. In 1522, three years after the expedition began, Elcano returned to Spain with only 17 crew members and only one of Magellan's five ships.

While the voyage cost the lives of many men, it was important to our history. Magellan was the first European explorer to sail from the Atlantic Ocean to the Pacific, and he was also the first to cross the Pacific Ocean. But more than that, Ferdinand Magellan proved that a ship could sail around the globe.



Name: _____

Ferdinand Magellan

by Kelly Hashway



Use information from the article and map illustration to answer the questions.

1. What was the purpose of Ferdinand Magellan's expedition?
 - a. to explore South America
 - b. to find a water route to Indonesia
 - c. to find gold in India
 - d. to find a land route to the Indies

2. Did Magellan sail around the world? Explain.

3. How long did it take Magellan to sail from Spain to the Strait of Magellan?
 - a. about three years
 - b. a little less than two years
 - c. about a year
 - d. just under six months

4. Why did Elcano order his men to burn one of the ships?

5. What fraction of Magellan's ships returned to Spain at the end of the voyage in 1522?
 - a. one-fifth
 - b. two-fifths
 - c. two-thirds
 - d. fourth-fifths

Name _____

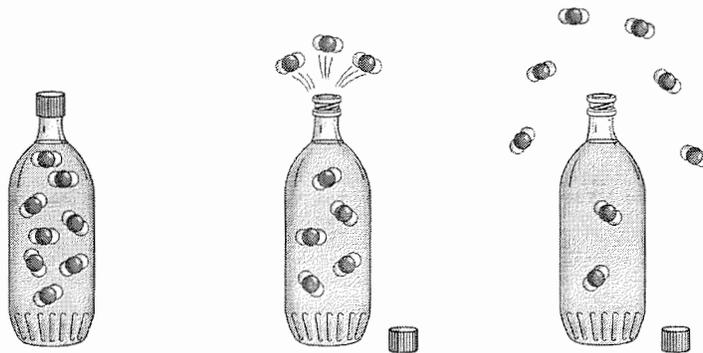
Day 1

Weekly Question

What puts the fizz in soda?

Have you ever popped open a can or bottle of soda, only to be sprayed with a wet burst of bubbles? That rush of liquid and fizz is propelled by carbon dioxide (CO₂) gas in your drink. In fact, this presence of carbon dioxide is why soft drinks are called **carbonated** beverages. Carbonation occurs during the manufacturing and bottling process, when large amounts of carbon dioxide gas are added to flavored water. The **mixture** of liquid and gas is put under pressure before the can or bottle is sealed.

As soon as you open your soda, the pressure is released and CO₂ escapes into the air. The gas will continue to leave your soda until the amount of CO₂ in the liquid is equal to the amount of CO₂ in the air. That's why, if you don't finish your soft drink right away, your drink goes "flat."



Daily Science

Big Idea 6



WEEK 1

Vocabulary

carbonated

KAR-buh-nay-tid
containing carbon dioxide gas

mixture

MIKS-chur
a combination of two or more different substances

A. Use the vocabulary words to complete the sentences.

1. Club soda is a _____ beverage.
2. Chocolate milk is a _____ of chocolate syrup and milk.

B. Mixtures can usually be separated into their individual substances.

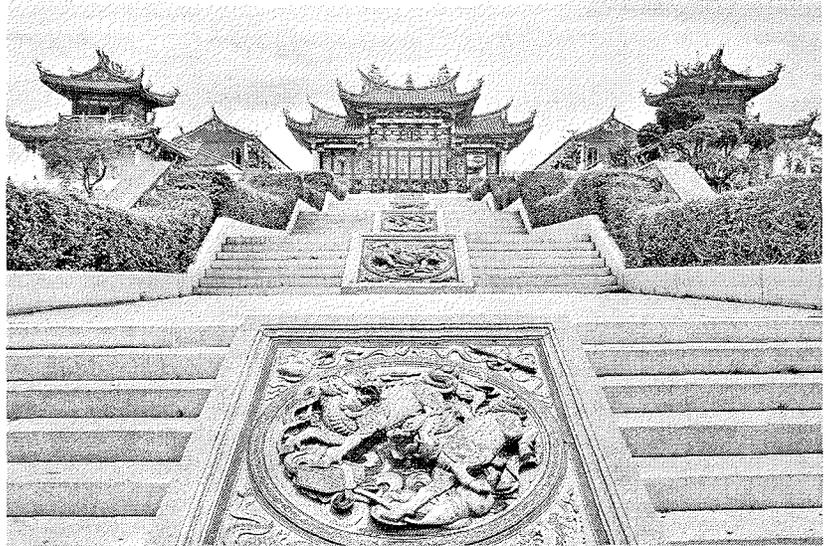
Explain how, in a carbonated liquid, the gas separates from the liquid.

Name: _____

The Ancient Civilization of China

By Anita Kim Venegas

Let's begin with a definition of ancient: something from the very distant past that is no longer in existence. It is common today to hear someone talk about their great-grandparents as ancient. Clearly, if your great-grandparents are still alive, they cannot be ancient, though they seem very old to you.



Much of what we know today about ancient history is developed from the work of archaeologists. Archaeologists discover artifacts they find underground and explain to others how these artifacts describe the lives of people who lived long ago. Archaeologists have taught us a lot about ancient China.

China's civilization began about 4,000 years ago with the Xia Dynasty. A dynasty is ruled by an emperor. The emperor will pass the leadership to his son, and the son will pass the leadership to his son. Over the last 2,000 years, there have been four dynasties: the Song, the Yuan, the Ming, and the Qing. Each time the basic needs of clean water, food, and safety were not provided, the people revolted against the ruling dynasty. A new leader from a different family would take over the ruling of the country, and a new dynasty would begin. The Qing Dynasty ended in 1912 when events in China caused turbulence among the people. The population was growing quickly, resulting in food shortages and famine. A revolution by the peasants ended the ruling power of the emperor, who lived in the Forbidden City in Beijing. Many leaders have made significant changes over the last 100 years following the end of the Qing Dynasty.

Throughout the history of ancient China, the Chinese invented many items that we use

often: paper, kites, umbrellas, the compass, dominoes, fireworks, gunpowder, movable type, and the world's first paper money. Most people think of rice as the staple crop of China, but it's not the only one. Wheat is a staple crop as well, used more for making noodles than for baking bread. Rice was, and still is, grown in the warmer climate of the southern provinces; wheat is grown in the cooler climate of the northern areas.

Daily life was difficult. Most families lived in small villages, planting and harvesting rice as well as vegetables, while raising pigs, goats, and chickens. Many farmers today continue to live as they did centuries ago. Since China's population is the largest of any country on Earth, farmers will always be needed to raise animals and grow crops for the people.



Perhaps the oldest structure in China is the Great Wall. Building of the wall began 2,300 years ago during the Qin dynasty as a way to protect China from invaders from the north. The wall was not always successful in keeping invaders out. Earlier sections of the wall were built by soldiers and prisoners. The Great Wall stretches for 13,000 miles across China.

Guard towers were placed strategically along the path. The towers were lit up with fire to warn citizens of approaching armies. Most of the Great Wall that visitors see today was built during the Ming dynasty, from 1368 to 1644.

Today, China is undergoing great change. City streets are jammed with cars and buses, skyscrapers seem to touch the clouds, and high speed trains whiz past flooded rice fields. But take a trip into the countryside, and you will step back in time to the years of ancient China.

About the Author

Anita Kim Venegas is the author of The Adventures of Peanut and Dutch.

Name: _____

The Ancient Civilization of China

By Anita Kim Venegas

1. Based on the information in the article, how did we learn much of what we know today about ancient China?
- a. Great-grandparents passed down stories.
 - b. Archaeologists recovered ancient artifacts.
 - c. Emperors kept detailed records of their rule.
 - d. Soldiers and prisoners carved writings into the Great Wall of China.

2. Identify the main reason why the Chinese people revolted against their rulers throughout history.

3. Which list of items were **not** invented by the Chinese?

- a. dominoes, kites, and paper money
- b. umbrellas, movable type, and gunpowder
- c. chewing gum, coins, and stamps
- d. paper and fireworks



4. Why is farming an important aspect of Chinese society, both in ancient times and today?

5. Why did the ancient Chinese people build the Great Wall of China?

Name: _____

The Ancient Civilization of China

By Anifa Kim Venegas

Match each vocabulary word from the article with the correct definition.



_____ 1. compass

a. the society and culture of a group of people living in a particular area

_____ 2. famine

b. the ruler of an empire

_____ 3. civilization

c. an overthrow of the current ruler or government by the people in favor of a new one

_____ 4. staple crop

d. a line of rulers coming from the same family tree

_____ 5. emperor

e. items made by humans that have historical and cultural value

_____ 6. archaeologists

f. a crop that a group of people, a region, or a country relies on as a primary source of food

_____ 7. dynasty

g. an instrument used to determine the direction of magnetic north

_____ 8. artifacts

h. poor farmers who hold a low social status

_____ 9. revolution

i. people who study human history though analyzing physical remains and artifacts

_____ 10. peasants

j. shortage of food