

1-1 Subject Matter

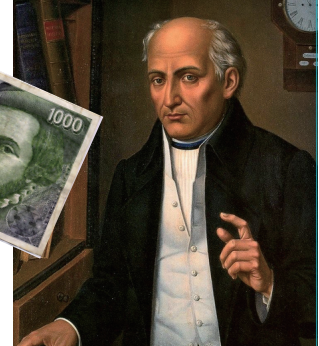
The **subject matter** of an article is simply what the article describes. It is usually the answer to the question “what is this article about?” If you’re ever confused about what the subject matter of an article is, try reading through the article again and taking note of what each paragraph is presenting.



Chichén Itzá, an ancient Mayan archaeological site in Mexico



a Spanish 1,000-peseta banknote featuring Hernán Cortés



Priest Miguel Hidalgo y Costilla launched a revolt against Spanish rule.

1 Land of Empires and Revolutions

- 1 Located between the United States and Central America, Mexico is a vibrant nation of over 130 million people. Its long and complex history stretches from early native cultures through centuries of Spanish rule to a hard-won freedom.
- 2 People have lived in the land now called Mexico for at least 13,000 years. Starting around 1200 BCE, several major civilizations rose and fell there. Among the most innovative were the Maya, who thrived between 250 and 900 CE. They had advanced writing and calendar systems and built huge cities with large pyramids.
- 3 In the 1200s CE, the Aztecs moved into the region from the north. Inspired by earlier civilizations, they built a powerful empire which at its peak

✓ Cortés's route of conquest through Mexico



ruled over millions of people. However, many who lived under Aztec rule hated them because of their harsh practices, which included human sacrifice.

4 In 1519, the Spanish soldier and explorer Hernán Cortés arrived in Mexico and claimed the land for his king. Cortés used force, threats, and clever deals to seize power. He captured the Aztec emperor and tried to rule through him. Soon, however, fighting broke out, and the Spanish were forced to flee. They later returned with help from native groups who opposed Aztec rule. New diseases brought by the Europeans had also severely weakened the Aztecs. In 1521, their empire fell to the Spanish, who named their newly conquered territory New Spain. 15 20

5 Anger soon grew in New Spain, though. People born there had less power and fewer rights than Europeans. The revolutions in the United States and France inspired calls for change. In 1810, a priest named Miguel Hidalgo y Costilla started a revolt. After many hard battles, Mexico finally won its freedom from Spain in 1821.

6 Freedom, however, did not bring peace right away. Throughout the 1800s and 1900s, Mexicans faced social unrest and corrupt leaders. Only after World War II did the country start becoming more modern and industrial. Its economy grew rapidly, but poverty remains today. In the 21st century, a new chapter in Mexico's history is being written. Can this nation draw on the lessons of its past to build a brighter future? 25 30

Questions

1. What is this article about?
(A) The history of a country. (B) The life of a famous leader.
(C) A new political system. (D) An important discovery.
2. What is the second paragraph mostly about?
(A) An ancient technology. (B) Ancient ways of keeping time.
(C) The history of pyramids. (D) An ancient civilization.
3. What is the third paragraph about?
(A) Important lessons from the past. (B) The rise of a powerful empire.
(C) A controversial religious practice. (D) The 1200s in North America.
4. What is the fourth paragraph about?
(A) What the Spanish learned from the Aztecs.
(B) The effect of European diseases on North America.
(C) How the Spanish conquered Mexico.
(D) The life of Hernán Cortés.
5. What is the final paragraph about?
(A) Mexico's fight for independence. (B) Mexico after its independence.
(C) Mexico's economic miracle. (D) What the future holds for Mexico.



2 Enabling the Blind to Read

1 When a person cannot see, life is limited in many ways. Blind people must rely on their other senses to make up for their lack of sight. Fortunately, their fingers allow them to read words, numbers, and even punctuation through a specially printed system called Braille.

2 Braille is not some new “language” created for the blind. It is actually a code, known as the Braille alphabet, which consists of small raised dots grouped into cells. Each cell contains up to six dots arranged in a unique pattern. Before Braille was invented, raised versions of alphabetic letters were used to enable blind people to read by touch. That, however, proved too difficult and time-consuming to be of much real use.

3 Louis Braille, a teenaged student at the Royal Institute for the Blind Youth in Paris, created the Braille system in the 1820s. Braille had lost his own sight in an accident at the age of three. At the institute, the intelligent young student learned a touch-reading method based on raised dots. That system had been invented by a former soldier named Charles Barbier. It was more complicated than the system Braille later created, though. Some people believe Barbier’s system was designed so that soldiers could read



⤴ Louis Braille (1809–1852)

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⤴ A blind person uses a keyboard with Braille labels to read and learn.

⤴ Braille alphabet

A	B	C	D	E	F	G	H
⠁	⠃	⠉	⠑	⠅	⠋	⠗	⠎
N	O	P	Q	R	S	T	U
⠝	⠥	⠥	⠠	⠞	⠠	⠞	⠞
		0	1	2	3	4	5
		⠼	⠼	⠼	⠼	⠼	⠼

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messages at night without needing any lights. In fact, he had created it to help blind people such as Louis Braille. Realizing the value of Barbier's code, Braille worked to make it simpler and easier to use.

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4 Since Braille's code was first shared with the world, countless blind people have used it to read every variety of text. Schoolbooks, comic strips, legal papers, musical scores, menus, playing cards, games—almost everything has been printed in Braille. The system is also used on computer keyboards to allow the blind to make use of technologies like email. Not as many people use Braille today as they did in the past, though. Modern tools like smartphones mean that fewer people have to rely on Braille in the 21st century. Still, the Braille alphabet remains an important tool for blind people even today. Indeed, it is now available in more than 130 languages!

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Questions



^ The Braille system enables blind people to read.

I	J	K	L	M
⠠	⠠	⠠	⠠	⠠
V	W	X	Y	Z
⠠	⠠	⠠	⠠	⠠
6	7	8	9	
⠠	⠠	⠠	⠠	

1. What is this article mainly about?
(A) Schools for blind people.
(B) The life of Louis Braille.
(C) Problems with the Braille system.
(D) How a reading system developed.
2. What would be another good title for this article?
(A) The Difficulties Blind People Face.
(B) How Technology Has Replaced Braille.
(C) How Braille Works and Why It Matters.
(D) A New Language for Blind People.
3. What is the second paragraph mainly about?
(A) Defining and describing Braille.
(B) Why Braille became so popular.
(C) How Braille compares with spoken languages.
(D) The history of the Braille alphabet.
4. What is the third paragraph mainly about?
(A) Louis Braille's meeting with Charles Barbier.
(B) Braille's experiences at a school for the blind.
(C) A method soldiers used to read at night.
(D) Louis Braille's influence on Charles Barbier.
5. What is the fourth paragraph mainly about?
(A) The many uses Braille has been put to.
(B) The difficulties of Braille's method.
(C) The reasons why Braille is not popular today.
(D) The various languages that Braille is available in.

>> A scientist measures an Antarctic ice core before sending it to a lab for study.
(cc by NASA/Lora Koenig)



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3 Nature's Time Machines

1 It looks like a simple cylinder of ice, but it is actually a time machine! An ice core lets us look into the past, sometimes as far back as 800,000 years. Scientists cut these cylinders from ice sheets and glaciers in Antarctica and Greenland. They contain records of what happened on Earth from the Ice Age until now.

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2 How is this possible? Ice forms in layers. Snow falls and becomes solid. More snow then falls on top of this and becomes solid, too. As these layers build up, bubbles of air get trapped in them. Inside the bubbles there may be tiny amounts of chemicals and dust. Sometimes, bubbles even contain pollen from ancient flowers. Scientists can “read” the contents of air bubbles for information about our planet’s past.

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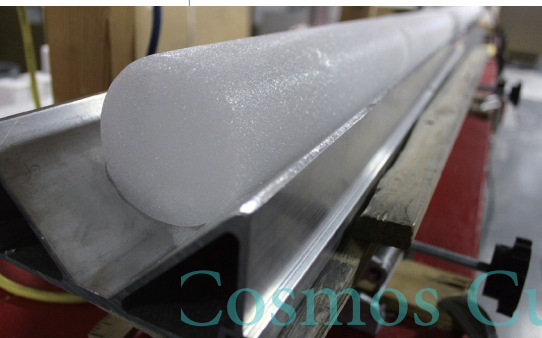
3 One thing that these air bubbles can tell us is which gases were present in Earth’s atmosphere at a certain time. For example, we know that there used to be less methane in our atmosphere. The levels increased as humans began using fossil fuels. This is strong evidence that human activity is responsible for the climate crisis. The bubbles also teach us about past storms and other natural disasters. They often contain bits of dust or ash which offer clues

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about activity in deserts and volcanic areas.

4 The ice itself, like its bubbles, can provide us with information. Water freezes differently depending on the outside temperature. By studying the water molecules of an ice core, scientists can find out whether the Earth was warmer or colder during a certain period.

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⚡ Scientists use a shallow ice core drill to collect ice core samples. (cc by Helle Astrid Kjær)

⚡ A scientist examines an ice core. An ash layer in the ice shows evidence of a major volcanic eruption about 75,000 years ago. (cc by Eli Duke)

- 5 Scientists have to drill into deep ice for ice cores. To examine recent history, however, they can use hand drills in shallow ice. Going further back in time, they might drill down over three kilometers! 25
- 6 After cutting, of course, the cores must be kept very cold. Today, many are stored at the National Science Foundation Ice Core Facility in the United States, where freezers remain at about -36°C . In the future, more will be kept in Antarctica at the Ice Memory Project, which began in 2015. There, a natural ice cave stays near -52°C all year. 30

Questions

1. What is another possible good title for this article?
(A) Doing Scientific Work in a Cold Climate.
(B) What is the Ice Memory Project?
(C) Reading Earth's Frozen History.
(D) Can Glaciers Predict Disasters?
2. What is this article mainly about?
(A) Fossil fuels. (B) Storms. (C) Air bubbles. (D) Ice cores.
3. What does the third paragraph focus on?
(A) Bubbles. (B) Disasters. (C) Volcanoes. (D) Methane.
4. What is the final paragraph mainly concerned with?
(A) Transit. (B) Storage. (C) Sales. (D) Research.
5. Which paragraph describes a physical process?
(A) The first paragraph. (B) The second paragraph.
(C) The fourth paragraph. (D) The fifth paragraph.