

**Class**

**Name**

## Unit 1. Dogs That Love Art

### Paragraph 1

1. The world's first art show for dogs opened in New York City in August 2017.
2. Titled dOGUMENTA, this art exhibition was curated by Rocky.
3. Rocky is not your typical art curator.
4. He does not often appear in the art world as a professional of any sort because he is a Maltese Yorkshire terrier mix.
5. Rocky belongs to art critic Jessica Dawson, who started taking her most trusted companion with her to art galleries and museums in 2013.
6. Since then, they have taken the art world by storm, especially with the introduction of dOGUMENTA.

### Paragraph 2

7. Designed to appeal to Rocky and his fellow canines, dOGUMENTA is Dawson's way of giving back to dogs of the world.
8. Unlike most art shows in New York City, the pieces of art in dOGUMENTA are all placed at eye level for canines.
9. Dogs are also allowed to climb on each piece and interact with it in any way they choose.
10. This might mean not only walking on it but also peeing on it! Of course, the artists created their work for the exhibition with dogs in mind.
11. To the dogs attending the show, the most engaging works of art are those that they can interact with.

### Paragraph 3

12. Dawson first thought of an art exhibition just for dogs in early 2016.
13. When she proposed the idea to some fellow art friends, she was surprised at the amount of interest she received.
14. Due to the overwhelming interest and support, Dawson plans to take dOGUMENTA to other cities.
15. Although she is not sure how long the show will run, Dawson is sure that the enthusiasm for the world's first exhibition for dogs will mean it won't be a short run.
16. Dawson thinks dOGUMENTA is just the beginning, and if dogs could talk, they would agree.

## Unit 2. The Strange Sea

### Paragraph 1

1. Coral reefs are amazing structures made by living organisms.
2. There are even more life forms living in a coral reef than in a vast rainforest.
3. One explanation for the existence of all these different life forms is that they represent millions of years of evolution.
4. It is believed that coral reefs evolved about 200 million years ago.
5. Living among the reefs, different species have developed over the millennia.
6. As a result, many strange adaptations have occurred over time, and some truly bizarre creatures of all shapes and sizes have been created.

### Paragraph 2

7. Among the most unusual life forms are several species of fish.
8. One of the strangest is the seahorse, most of which look like miniature horses.
9. Their strangest feature, however, is that the male, not the female, gives birth to the young.

10. The seahorse and the pipefish are the only species notable for this.
11. Another strange creature, the sea dragon, is bigger than most seahorses and has leaf-like appendages that look like seaweed.
12. This helps them camouflage into the habitat of the ocean.
13. There are many other different species of fish that have developed camouflage to such an extent that they do not look like fish: they look like rocks and plants.

### Paragraph 3

14. Other weird fish are the puffer fish, or blowfish, which expand like balloons so that predators do not eat them.
15. Although their skin is highly toxic, these types of fish are considered a delicacy in some Asian countries.

### Paragraph 4

16. Some reef fish are so poisonous that they carry enough venom in their bodies to kill a human being.
17. One of these, the stone fish, resembles a rock. It is mottled brown-greenish in color, which acts like camouflage.
18. It has many venomous spines along its dorsal fin. The stone fish is known as the most lethal fish in the world!

## Unit 3. A Taste for Garlic

### Paragraph 1

1. Garlic is an important ingredient in many culinary traditions.
2. Originally cultivated in Asia, it eventually made its way to Europe and finally to the Americas in the sixteenth century.
3. The spread of garlic was helped by the fact that it is easy to grow and can survive in harsh conditions.

4. A garlic bulb is made up of smaller sections called cloves, which have been used in food and for medicinal purposes for thousands of years.

### Paragraph 2

5. Garlic has a long history of medicinal use.
6. It is believed that Egyptians fed garlic to the slaves building the great pyramids to keep up their strength and stamina and to ward off diseases.
7. The Greeks and Romans believed that garlic cured many diseases and helped heal wounds.
8. It is also noted in ancient literature that Greeks gave garlic to athletes during the Olympic Games in order to increase their strength.

### Paragraph 3

9. More recently, garlic has been mentioned as being used as a treatment for battle wounds in both World Wars.
10. In fact, even today garlic is eaten for its supposed medicinal properties such as fighting colds, coughs, viral infections, and so on.
11. It is also claimed that garlic can prevent high blood pressure, high cholesterol, and even cancer.

### Paragraph 4

12. A different use for garlic in the past was to keep away evil spirits.
13. In some countries, people believed that if they wore garlic around their necks or hung wreaths of garlic outside the doors of their homes, demons and vampires would not enter.
14. In other countries, people ate garlic before hiking through mountain passes, believing it would protect them from tiger attacks.

### Paragraph 5

15. The largest producer and distributor of garlic is California. The popularity of garlic has increased over the years.

16. It is now widely used in all types of cooking, from Italian to Chinese.

17. Used to season soups, stews, sauces, and dressings, garlic is now highly regarded throughout the world for its flavor and aroma.

## **Unit 4. In An Emergency**

### **Paragraph 1**

1. Quick and correct action in a medical emergency can save lives.
2. However, most people do not have medical training, and the assistance they can give is limited to what is called first aid.
3. This consists of five stages: Safety, Response, Airway, Breathing, and Circulation.

### **Paragraph 2**

4. The three aims of first aid are to preserve life, prevent further injury, and promote recovery.
5. As soon as an emergency occurs, the safety of others must be ensured.
6. Also, the scene of the accident must be surveyed for anything dangerous.
7. This may include oncoming traffic, fire, exposed power lines, or unstable structures.
8. It is a general rule that casualties should not be moved, unless by medical professionals and then only when it is absolutely essential.
9. Moving an injured person can cause even greater injury than the initial accident caused.

### **Paragraph 3**

10. After checking the safety situation, it is important to find out as much as possible about the casualty's condition by asking him or her simple questions about how he or she feels, and by looking for signs of injury.
11. These may be external bleeding, broken limbs, or other physical indications.

12. This information will determine the next step and should be passed on to the appropriate emergency service.

#### Paragraph 4

13. Treatment of the casualty must await the arrival of the professional medical team, but in the meantime, the casualty must have clear airways in order to breathe properly.
14. We can also check whether the casualty has a heartbeat by feeling for the pulse.
15. If there is no circulation, then resuscitation should be attempted by using CPR-first aid methods for assisted breathing and using our hands to compress the chest.

#### Paragraph 5

16. The basic first aid techniques are easy to learn and apply.
17. People can help save lives by learning what to do in most accident situations and common medical emergencies such as heart attacks and choking.

### Unit 5. Ocean Threats

#### Paragraph 1

1. The ocean is a vast wonderland teeming with wildlife.
2. From gigantic killer whales to miniscule plankton, millions of creatures call the ocean home.
3. But for many of these creatures, home may someday become a place filled only with destruction.
4. Threats to our oceans grow more with each passing year.
5. Scientists fear that without human action, the ocean will someday become a place of pollution and death.

#### Paragraph 2

6. Our oceans are under attack—both directly and indirectly—from human activities.

7. Global warming continues to cause a rise in sea level, putting our coasts at risk.
8. Pesticides used by humans often end up in our oceans.
9. These pesticides pollute the water and harm the creatures that live there.
10. Pollution caused by waste disposal and oil spillage puts ocean life at tremendous risk of death or disease.
11. Invasive species introduced in some areas have taken over.
12. These species change the local ecosystems and kill native species.
13. Overfishing in some areas causes a depletion in the natural population of many fish and other sea life.

### Paragraph 3

14. It is up to us to restore our oceans.
15. Many individuals are taking the lead in protecting marine wildlife by establishing marine parks to protect endangered species.
16. Regulations have been put in place in many areas to reduce problems caused by overfishing.
17. But these measures alone are not enough.
18. We must help with our own conservation efforts.
19. By doing things such as keeping trash away from our oceans and buying products only from companies that practice safe waste disposal, we can help in the fight for our oceans.
20. The millions of creatures living in our oceans are counting on us to do our part to help keep them safe.

## Unit 6. The Crown Palace of India

### Paragraph 1

1. The Taj Mahal in Agra, India, is one of the world's most famous and beautiful buildings.

2. It is one of the Seven Wonders of the World and a UNESCO world heritage site.
3. The name Taj Mahal means “Crown Palace.
4. ” It is actually the tomb of the Persian princess Mumtaz Mahal, who was the second wife of the Mughal emperor Shah Jahan.
5. She died in Burhanpur during the birth of their fourteenth child.
6. The emperor was so distressed by the death of his beloved wife that he commissioned the construction of the Taj Mahal.

### Paragraph 2

7. Work began on the mausoleum in 1631 and was completed in 1648.
8. The Muslim architect Ustad Ahmed Lahori designed the building, and over twenty thousand workmen from all over India were employed to construct it.
9. A fleet of more than one thousand elephants was used to transport building materials to the site from all over India and Central Asia.

### Paragraph 3

10. The dome of the building is made of white marble, which reflects the changing colors at different seasons and at different times of the day.
11. The exterior is also made of white marble and is inlaid with semi-precious stones.
12. Inside the inner chamber are the jeweled cenotaphs of the emperor and the empress.
13. However, their actual graves are on the level beneath the inner chamber.
14. The building, elaborate gardens, and pools are all a tribute to a beautiful woman who was deeply loved.

### Paragraph 4

15. Every year, the Taj Mahal attracts millions of visitors from all over the world.

16. In order to protect its beautiful architecture, the government has taken steps to reduce its exposure to air pollution.

17. For this reason, tourists must walk from distant parking lots or ride an electric bus if they hope to get a glimpse of this magnificent structure and all its wonder.

## **Unit 7. Detective Stories**

### **Paragraph 1**

1. Detective fiction is a popular genre.
2. Some of the world's most successful and famous authors have written detective stories.
3. There are two main kinds: stories in which private detectives solve a crime, usually a murder; and stories in which a police detective solves a crime.
4. Also, two kinds of detective fiction—mystery and crime—are equally popular.

### **Paragraph 2**

5. The first detective short story was written by Edgar Allen Poe in 1841.
6. This story introduced the first fictional detective to the literary world.
7. However, perhaps the greatest private detective was an Englishman named Sherlock Holmes.
8. Created by Arthur Conan Doyle, Sherlock Holmes was the first fictional detective to gain international popularity.

### **Paragraph 3**

9. The first police detective was probably Sergeant Cuff, who solves the crime in *The Moonstone*, one of the first detective novels in English.
10. The author, Wilkie Collins, was a close friend of Charles Dickens, the best-loved English novelist of all time.
11. In fact, Dickens also wrote a type of crime investigation story in *Bleak House*.

#### Paragraph 4

12. Some of the most famous American writers have written detective fiction.
13. The most highly regarded is probably Raymond Chandler, whose private investigator Philip Marlowe provided the archetype for private detectives to follow.
14. Popularized during the late 1930s, Marlowe showed a more intimate and personal side that had not really been seen before in crime fiction.

#### Paragraph 5

15. The most widely read female detective author is Agatha Christie. She created two unforgettable characters—Miss Marple and Hercule Poirot.
16. Christie produced many books involving these detectives, and she is known as one of the most popular mystery novelists in history.

#### Paragraph 6

17. Detective fiction is as popular today as it has ever been—perhaps more so.
18. Because many famous novels have been adapted for television and film, their stories can now be enjoyed by a wider range of people.

### Unit 8. Blockchain: the Next Big Thing?

#### Paragraph 1

1. Perhaps you've heard of Bitcoin, but do you know how this type of currency works? A system called blockchain is behind it.

#### Paragraph 2

2. Bitcoin transactions are made without using banks and can be completed using a mobile app or computer.
3. You can't carry Bitcoins in your pocket or purse; they exist only in a virtual way.
4. Buyers and sellers don't need to use their real names when they make these transactions.

### Paragraph 3

5. Even though Bitcoin transactions are anonymous, there is still a record of them.
6. That's where blockchain comes in.
7. Blockchain connects records of transactions.
8. Think of links in a chain.
9. Once these records are chained together, it's nearly impossible to change them later.
10. This great difficulty in changing the records means that the people and businesses using blockchain can feel confident that the records they are all using are accurate.

### Paragraph 4

11. Many people are excited about the possibilities of Bitcoin, but others aren't so sure.
12. However, some people who think Bitcoin will ultimately fail as a currency are still excited about blockchain.
13. Some companies are beginning to use blockchain to track and trade stocks and other financial products as well as shipments of vegetables, meat, and other foods.

### Paragraph 5

14. Imagine people are getting sick from eating tainted lettuce.
15. The problem with old methods of tracking something such as a lettuce shipment is that it can take weeks to trace where it came from.
16. Blockchain can make tracking easier. The sooner experts know where the lettuce came from, the sooner they can stop further shipments.
17. They can also see where the tainted lettuce ended up. Cutting down the time needed to track the lettuce will save other people from mistakenly eating it.
18. It will save people from getting sick and will save money.

## Unit 9. The Incredible Edison

### Paragraph 1

1. Thomas Alva Edison was born in 1847 in Milan, Ohio in the US.
2. He was the youngest of seven children.
3. Edison was not an attentive student, and he infuriated his teachers to such an extent that his mother took him out of school after three months and educated him herself at home.
4. From a very early age, Edison was fascinated by anything mechanical and scientific.

### Paragraph 2

5. When he was a young boy, Edison suddenly became almost deaf.
6. Later in life, he blamed the condition on having been lifted up by his ears and put on a train by a conductor.
7. Although his deafness made him shy and solitary, he did not allow it to interfere with his experiments and research.

### Paragraph 3

8. Edison's first job was selling newspapers, fruit, and candy on a railway train at the age of twelve.
9. In 1862, he got work on a train as a telegraph operator and developed his first inventions, the transmitter and electric receiver for the automatic telegraph.

### Paragraph 4

10. Edison's greatest contributions to the modern world were his work on electric light bulbs, the phonograph, telegraphy, and motion pictures.
11. Much of his work was in improving on the ideas of other inventors and in realizing the commercial potential of these inventions.

## Paragraph 5

12. Two of Edison's sayings are relevant to all kinds of his work.
13. He is quoted as saying that "genius is one percent inspiration and ninety-nine percent perspiration.
- 14." He also believed that people could learn as much from the negative results of an experiment as from the positive results.

## Paragraph 6

15. Edison was one of the greatest and most prolific inventors in history.
16. During his lifetime, he patented more than a thousand different inventions.
17. Each patent protected him from other inventors copying his ideas.
18. Although he did not have good health when young, Edison lived for eighty-four years and did not die until 1931.

## Unit 10. The Most Delicious Dessert

### Paragraph 1

1. The history of ice cream—a frozen confection made from dairy products (milk, cream, butterfat, etc.), sugar, and other flavorings and additives—is lost in myth and folklore.
2. No one really knows its true origin.
3. Many people believe ice cream evolved from ancient civilizations, such as the Greeks, Persians, and Romans, who used to chill wines and juices.
4. The best-known, although not verified, account<sup>5</sup> involves the explorer Marco Polo.
5. According to this story, Marco Polo saw ice cream being made when he was in China.
6. On his return to Italy, he described it and how it was made to an Italian chef.
7. This chef then made it for his employer, Catherine de Medici.
8. She took recipes of frozen desserts to France when she married the future King Henry II in 1533.

9. These recipes were taken to England about a hundred years later by a French chef employed by King Charles I.
10. By the seventeenth century, King Charles I was frequently serving it at royal banquets.

### Paragraph 2

11. It was another hundred years before ice cream spread to America.
12. This occurred when European confectioners arrived in New York and Philadelphia and offered different confections, including ice cream.
13. Its popularity slowly spread, and in 1813 Dolly Madison, the wife of US President James Madison, served it at her husband's inauguration.

### Paragraph 3

14. Ice cream was stirred by hand until 1846, when Nancy Johnson, an American, invented a hand-cranked freezer.
15. This turned the ice cream mix in a bed of salt and ice until it was frozen.
16. In 1851, Jacob Fussell began the large-scale commercial production of ice cream in Baltimore in the US.
17. It was not until 1926, however, that the continuous-process freezer was perfected, which allowed the mass production of ice cream and the beginnings of a modern ice cream industry.

## Unit 11. New York in the Movies

### Paragraph 1

1. New York is the largest city in the United States and one of the most famous.
2. People around the world have heard of Times Square, the Empire State Building, and Central Park.
3. At least some of New York's fame around the world is because of the many films that are set in the city.

## Paragraph 2

4. Many popular films set in New York are realistic tales about real people.
5. Sometimes, the stories are tragic.
6. For example, Goodfellas tells the story of real-life gangster Henry Hill.
7. The movie takes a gritty look at crime.
8. In the course of the movie, Hill kills another gang member for making fun of him, deals drugs, robs airplanes, and digs up dead bodies.
9. Other New York films show that in the big city you don't always know your neighbors.
10. Rear Window, by the famous director Alfred Hitchcock, is a thriller about a man who thinks he witnesses a murder across the street.

## Paragraph 3

11. If New York films show a serious reality, they also often feature strong characters who overcome adversity with humor.
12. Ghostbusters is a great example.
13. In this film, the city is under attack from ghosts.
14. The heroes save the day while amusing themselves with sarcastic jokes.
15. The movie Men in Black and its sequels have similar humorous main characters, but this time they are hunting aliens, not ghosts.

## Paragraph 4

16. Of course, New York is also home to Broadway, where many famous theaters are located.
17. Naturally, many movies about the theater are also set in New York.
18. The film 42nd Street, which started life as a classic musical, is about a girl who tries to succeed on Broadway.

19. Yankee Doodle Dandy is another musical film, this one about the Broadway producer George Cohan.
20. It starred actor, singer, and dancer James Cagney, who was probably more famous for playing gangsters like Henry Hill.

## Unit 12. Papermaking Through Time

### Paragraph 1

1. The Chinese invented many things, including the compass, gunpowder, and the seismograph, a tool for recording earthquakes.
2. One of the most useful Chinese inventions, however, was paper.
3. This was invented during the Han Dynasty (202 BCE–220 CE) by Cai Lun, a court official, who used a combination of tree bark and old fish netting to make a type of paper.

### Paragraph 2

4. Traditionally, three different substances were used to make paper: silk, wood—especially bamboo—and plants, such as hemp.
5. Although paper is now made using modern technology, Cai Lun's technique is still practiced in towns near Guiyang in China.

### Paragraph 3

6. The process of papermaking spread from East to West in the twelfth century.
7. The first European paper mill was established in Valencia, Spain, in 1150.
8. After this, paper mills sprang up all over Europe in such countries as France, England, and Germany.
9. By the end of the sixteenth century, paper was being made throughout Europe.

#### Paragraph 4

10. Paper is made from many materials, the most important being trees.
11. Half of the fiber used for making paper comes from wood, and the other half comes from plant fibers, recycled cloth, and vegetable matter, among other things.
12. The problem with using trees for papermaking is the enormous amount of trees being cut down.
13. Paper companies try to plant as many trees as they cut down, but new trees take many years to grow.
14. Some environmental solutions have been created, such as recycling used paper, so that fewer trees have to be cut down.

#### Paragraph 5

15. In modern times, most paper is manufactured in huge quantities in large factories.
16. However, there is still a demand for hand-made paper for special purposes, and papermaking is a craft practiced in most countries of the world.
17. The Japanese, in particular, use a great deal of fine paper in origami, which they have adopted as a national pastime.

### Unit 13. The Art of Picasso

#### Paragraph 1

1. Pablo Picasso was one of the most famous and prolific artists of all time.
2. During his lifetime, he produced thousands of paintings, drawings, and sculptures.
3. He dominated Western art in the twentieth century, and no useful discussion of art is possible without reference to his work.
4. Not only is he important because of his own work, but also he is equally important for his influence on other artists and developments in modern art.

## Paragraph 2

5. Picasso was born in Malaga, Spain, in 1881.
6. He showed his talent at a very early age and was admitted to advanced classes at the Royal Academy of Art in Barcelona when he was only fifteen.
7. In 1903, Picasso moved to Paris, where he lived and worked for many years.
8. The early years in Paris are known as his “Blue Period” because blue was the dominant color in his paintings, which mostly depicted poor people.
9. After this, came the “Rose Period.
- 10.” In these paintings, Picasso’s subject matter was mostly taken from circus life.

## Paragraph 3

11. Picasso’s Paris studio became the artistic center of Paris, and many famous figures were attracted to his work and ideas.
12. These include such great artists as Matisse and Braque.
13. In 1907, Picasso departed from his previous styles of art and began to experiment with what became known as Cubism.
14. This artistic invention is known as Picasso’s greatest achievement in the twentieth century.
15. One of Picasso’s most famous works was inspired by the bombing in 1937 of the Spanish town Guernica by the fascist forces during the Spanish Civil War.
16. This work, called Guernica, can be seen in the Queen Sofia Center of Art in Madrid.

## Paragraph 4

17. Apart from his paintings, Picasso created sculptures, ceramics, and stage designs.
18. He continued working until his death in 1973.

19. To this day, he is recognized as one of the world's most outstanding artists.

## **Unit 14. Bright and Shiny Diamonds**

### **Paragraph 1**

1. Diamonds are the hardest known natural substance.
2. In fact, the name *diamond* comes from the Greek word *adamas* which means invincible.
3. Apart from their hardness, diamonds are not affected significantly by chemicals, and they are extremely durable.
4. Diamonds also sparkle and hold the light, which makes them popular in jewelry.

### **Paragraph 2**

5. Diamonds were created beneath the surface of Earth.
6. They come from igneous rock known as kimberlite or lamproite.
7. This type of rock was formed by volcanic action that occurred during the development of Earth's crust.
8. Diamonds were created beneath the surface of Earth about one billion to three billion years ago.

### **Paragraph 3**

9. It is documented that diamonds were first discovered in riverbeds in India about 6,000 years ago.
10. It was thought this country was the only source of diamonds until at least a thousand years later, when they were found in Borneo.
11. It wasn't until the eighteenth century that diamond deposits were discovered in Brazil and later in Australia, Russia, and the US.

### **Paragraph 4**

12. Diamonds that are mined have been forced near the surface of Earth over time.
13. They can vary in size from tiny grains to large magnificent crystals.

14. Although diamonds are mined in many countries of the world, most come from Botswana, Russia, and South Africa.
15. The cost of mining diamonds is huge, and a significant amount of labor is required.
16. Diamonds are mined not only for the jewelry industry, but also to make tools, due to the durability of the stone.

### Paragraph 5

17. Cutting diamonds requires a high degree of skill.
18. Although diamonds are one of the hardest substances, if an attempt is made to cut them in the wrong place they will split.
19. However, even diamond chips can be used in cheap jewelry and for industrial purposes.

## Unit 15. Islam's Holy Text

### Paragraph 1

1. Most religions have a central religious text that is revered.
2. For Christians, this text is the Holy Bible, for Jews it is the Torah, and for Muslims it is the Qur'an, commonly referred to as the Koran.
3. The Koran is the sacred text of the Muslim religious faith, known as Islam.

### Paragraph 2

4. Muslims believe that the Koran consists of revelations from God (Allah) to the Prophet Muhammad between 610 and 632 CE.
5. These revelations were written down by people close to Muhammad during this time and for several years after his death in 632 CE.
6. These revelations were compiled into the text known as the Koran, which is divided into 114 chapters, or suras, of varying length.

### Paragraph 3

7. The interpretation of the Koran has always been a difficult task, even for Islamic scholars.
8. For example, the meanings of some words are determined by dots above the vowels.
9. In ancient Arabic, however, these dots were often omitted.
10. As a result, some letters looked identical.
11. Accordingly, the meanings of these words depended in many cases on the memories of the people who had written them.
12. Early Muslims had to try to get the exact meanings of the words before these people died and it was too late to record them.

### Paragraph 4

13. There are many interpretations of the Koran because the events are not provided in chronological order, so there is no reference to when these events occurred.
14. In any case, most of the chapters consist of commandments and warnings.
15. The verses are entirely in Arabic, which is the sacred script of Islam.
16. The Koran serves as the source of Islamic law, and its importance is felt throughout the Muslim world.

### Paragraph 5

17. Muslims believe that by reciting this sacred text, they create a holy atmosphere, and there are many Muslims who have learned the Koran by heart, or word for word.

## Unit 16. Studying the Past

### Paragraph 1

1. History is a record of what has happened in the past.
2. It is usually a chronological record of events that describes a civilization or an institution.

3. We study history not only because it is interesting to know about the past, but also because knowledge of the past can help us to understand the present.
4. It can also help us avoid making mistakes in the future.

### Paragraph 2

5. Nowadays, historians have many resources for understanding the past.
6. However, long ago their resources were very limited, and in some cultures and societies they are still limited.
7. For example, there are isolated tribes in the highlands of Papua New Guinea who have no written language.
8. They can communicate only orally and with simple pictures.
9. Their history, therefore, is limited to what has been handed down orally or drawn on bark or cave walls.
10. There can be no written history until there is a form of writing, a substance to write with, a material to write on, and so on.
11. The first substances for writing on were stone, tree bark, papyrus, and animal skins, with paper being used later.

### Paragraph 3

12. Modern historians have a wealth of written records to consult.
13. These consist of books, printed documents, newspapers, personal letters, archival records, artifacts, and oral accounts.
14. In more recent years, audio recordings, film, and video records have become available.
15. Furthermore, archaeologists can study ruins and the remains of cities and civilizations for information about the past.

16. Historians also have records of the actual speeches of many historical leaders.

#### Paragraph 4

17. In an attempt to make as many historical records as possible available to researchers, librarians and archivists now store all this material either on microfilm or digitally.

18. At some time in the future, someone will no doubt invent an even more efficient way of storing historical information.

### Unit 17. The Mighty Dollar

#### Paragraph 1

1. The word *dollar* is so closely associated with money that the “\$” sign is often used to mean money.
2. Although most people associate the dollar with the currency of the US, the word actually originates from Bohemia, now the Czech Republic. The word *dollar* comes from *thaler*.
3. This was the name given in 1519 to coins minted from silver mined in Joachimsthal, now called Jachymov. (*Thaler* is an abbreviated form of the word Joachimsthaler.)

#### Paragraph 2

4. Later, the English version of the word dollar was given to silver coins minted in many countries—in particular the Spanish peso, which circulated widely in Britain’s North American colonies.
5. This was because of the importance of the Spanish empire and because there was a desperate shortage of British currency based on the pound.
6. When the United States became independent of Britain after the American War of Independence, the government of the newly independent country chose the dollar instead of the pound as its unit of currency.

#### Paragraph 3

7. As other countries became independent of Britain, they also had to decide whether or not to change their currency.
8. Partly because of its proximity to the US and the large amount of trade between the two countries, Canada changed to the dollar soon after independence in 1853.

9. Canadian coins were still minted in Britain until 1908.
10. Unlike Canada and the US, Australia retained the pound for a hundred years after gaining independence and did not adopt the dollar until 1966.

#### Paragraph 4

11. There is disagreement concerning the origins of the dollar sign, \$.
12. One theory is that it is a superimposition of S on U, the letters of the US.
13. A more widely accepted theory, however, is that it comes from a simplification of the letter P from peso with the “S” from peso superimposed on it.

### Unit 18. Giving Back

#### Paragraph 1

1. *Noblesse oblige* is a French expression that literally translates as “nobility obligates.
2. ” It is sometimes used in English and has come to mean “the obligation of the upper classes to contribute to the well-being of the poor by acting honorably and generously.”

#### Paragraph 2

3. Bill Gates, the founder of Microsoft, is one of the richest people in the world and is probably one of the most generous.
4. In 2000, he and his wife founded the Bill and Melinda Gates Foundation.
5. It was created to improve the well-being of the poor.
6. Bill knew the foundation needed a strategic plan to succeed.
7. As such, the foundation brings together the smartest people to solve some of the world’s biggest problems and to find ways to fund solutions to help the poorest people lift themselves out of poverty.
8. Bill and Melinda spend a lot of time getting other “noblesse” to give money to the foundation.

9. In 2006, the multi-billionaire Warren Buffett pledged most of his wealth to the foundation.

### Paragraph 3

10. The foundation has a different focus for different regions.

11. In their home state of Washington, Melinda and Bill help vulnerable children.

12. Across the US, they work to improve students' education in high school and college. Globally, their focus is on health.

### Paragraph 4

13. The Gates Foundation has great intentions and achieves excellent results.

14. In 2000, one of its first objectives was to install 47,000 computers in 11,000 public libraries in all 50 of the states of America. That was achieved by 2002.

15. The foundation's global health program has helped decrease the number of deaths in children under five: In 1990, 11.

16. 2 million children under five died; in 2016, that figure had been reduced to five million.

### Paragraph 5

17. Bill and Melinda Gates are making a meaningful difference.

18. Perhaps if each of us helped others less fortunate than ourselves, we could make the world a better place for everyone.

19. Let's not leave it up to someone else to do!

## Unit 19. The Quaking Beneath Us

### Paragraph 1

1. Of all the devastating natural disasters, earthquakes are perhaps the most damaging.

2. Apart from the destructive power of an earthquake, the problem with them is that they cannot be predicted with any accuracy.

3. Scientists know where earthquakes are most likely to occur, but they do not know when.
4. Unlike volcanic eruptions, which can be equally devastating, earthquakes give little warning.
5. Volcanologists—scientists who study volcanoes—can predict from observing the behavior of a volcano when it is likely to erupt.
6. There is then usually time for the population in the neighborhood to be evacuated.
7. This is not the case with earthquakes.

### Paragraph 2

8. Although scientists understand completely how and why earthquakes occur, there is nothing at the present time that they can do to prevent them.
9. Earthquakes are caused by the movement of layers of rock beneath Earth's surface.
10. Pressure builds up, and the layers slip, causing massive movements of Earth's crust.
11. Great cracks and crevasses appear on the streets, and floors and walls of homes.
12. Buildings may also collapse as their foundations move or crack.
13. People can become buried under rubble. The devastation can be appalling.

### Paragraph 3

14. Every year, there is a serious earthquake somewhere in the world.
15. Some countries are located over earthquake-prone areas.
16. China, Japan, and Turkey, for example, all suffer from fairly frequent earthquakes.
17. Many earthquakes occur beneath the surface of the sea.
18. Although these seaquakes do little damage where they occur, they can potentially cause tidal waves called tsunamis that race towards the shore, destroying everything in their path.

#### Paragraph 4

19. One of the most potentially dangerous earthquake belts is in California, which sits astride the San Andreas Fault.
20. Sooner or later, there will be a terrible earthquake there, causing massive damage and loss of life.
21. Californians just hope “the Big One” will not happen in their lifetime.

### Unit 20. Design, Print, and Drive: 3D-Printed Cars

#### Paragraph 1

1. A 3D printer builds a solid object slice by slice from a digital file.
2. These printers can build items in almost any size.
3. And they can build with almost any substance, including paper, plastic, metals, and even food.

#### Paragraph 2

4. Imagine using 3D technology to make an automobile.
5. It has actually been done! A car made mostly by a 3D printer is still extremely rare, though.
6. For now, vehicle manufacturers are using 3D printing to try new designs for the parts of a car.
7. Using 3D printing allows engineers to easily make multiple versions of a part to test at the same time.
8. This saves time and money. It saves materials, too.

#### Paragraph 3

9. Most cars you see on the road today don't yet have parts made by 3D printers, but that's slowly changing.
10. One large manufacturer, Ford, is experimenting with 3D-printed parts such as the plastic molding inside of cars and decorations on the outside.

11. It seems likely that in a few years 3D parts won't be unusual at all.

#### Paragraph 4

12. A few inventors are going much further in their experiments with 3D cars and car parts.

13. For example, a car called the Strati was printed in 44 hours.

14. It isn't available for people to buy yet. For the most part, 3D cars are still experimental.

15. In other words, they are being built, but they aren't ready for sale yet.

#### Paragraph 5

16. Although we don't know exactly when, the day will come when you should be able to design your own car.

17. It won't be like anyone else's car because you'll have so many options of functions and designs to choose from.

18. You'll watch it being printed, after which you'll drive it away.

19. People will say, "Remember when we used to buy cars that someone else designed?"