Chapter 1  Napoleon: From Schoolboy to Emperor

Napoleon was a French soldier who became emperor of France. He was born in 1769 on the island of Corsica. When he was only 10 years old, his father sent him to military school in France. N. wasn’t a very good student in most of his classes, but he excelled in mathematics and military science. When he was 16 years old, he joined the French army. In that year he began the military career that brought him fame, power, riches, and, finally, defeat. N. became a general in the French army at the young age of 24. Several years later, he became the emperor of the French Empire.

N. was many things. He was, first of all, a brilliant military leader. His soldiers were ready to die for him. As a result, N. won many, many military victories. At one time he controlled most of Europe, but many countries, including England, Russia, and Austria fought fiercely against him. His defeat – his end – came when he decided to attack Russia. In this military campaign against Russia, he lost most of his army.

The great French conqueror died alone -- deserted by his family and friends -- in 1821. N. was only 51 years old when he died.

Chapter 2  Pompeii: Destroyed, Forgotten, and Found

Today many people who live in large metropolitan areas such as Paris and New York leave the city in the summer. They go to the mountains or to the seashore to escape the city noise and heat. Over 2,000 years ago, many rich Romans did the same thing. They left the city of Rome in the summer. Many of these wealthy Romans spent their summers in the city of Pompeii. P. was a beautiful city; it was located on the ocean, on the Bay of Naples.

In the year 79 C.E., a young boy who later became a very famous Roman historian was visiting his uncle in P.. The boy’s name was Pliny the Younger. One day Pliny was looking up at the sky. He saw a frightening sight. It was a very large dark cloud. This black cloud rose high into the sky. Rock and ash flew through the air. What Pliny saw was the eruption -- the explosion -- of the volcano, Vesuvius. The city of P. was at the foot of Mt. V.

When the volcano first erupted, many people were able to flee the city and to escape death. In fact, 18,000 people escaped the terrible disaster. Unfortunately, there was not enough time for everyone to escape. More than 2,000 people died. These unlucky people were buried alive under the volcanic ash. The eruption lasted for about 3 days. When the eruption was over, P. was buried under 20 feet of volcanic rock and ash. The city of P. was buried and forgotten for 1,700 years.

In the year of 1748 an Italian farmer was digging on his farm. As he was digging, he uncovered a part of a wall of the ancient city of P.. Soon archaeologists began to excavate -- to dig -- in the area. As time went by, much of the ancient city of P. was uncovered. Today tourists from all over the world come to see the ruins of the famous city of Pompeii.

Chapter 3  Lance Armstrong: Survivor and Winner

Lance Armstrong was born on September 18, 1971 in a suburb of Dallas, Texas, called Plano. Lance began running and swimming competitively when he was only 10 years old. By the time he was 13, he was competing in triathlons and won the Iron Kids Triathlon. Lance’s mother, who raised L. mostly by herself, recognized and encouraged his competitive spirit.

During his senior year in high school, L. was invited to train with the US Olympic cycling developmental team in Colorado. From that time on, L. focused completely on cycling. By 1991, L. was the US National Amateur Champion. He also won 2 major national races the same year -- even beating some professional cyclists.

Although he was generally doing very well, L. had his ups and downs. In 1992, he was expected to do very well at the Barcelona Olympics, but finished in 14th place. This was a big disappointment. L. got over the disappointment and decided to turn professional. In his first professional race, the 1992 Classic San Sebastian, he ended up finishing dead last, 27 minutes behind the winner. L.’s mother continued to encourage L. through his difficult times.

Things went much better for L. in the following years. In 1993, he was the youngest person to win the World Race Championships. In the same year, he entered the Tour de France for the first time. He won one stage of the race, but dropped out of the race before finishing. In 1995, he even won the Classic S. S., the race he had finished last in, in 1992. L. also won the most important US tournament, the Tour du Pont, 2 times, in both 1995 and 1996. By 1996, L. was ranked 7th among cyclists in the world, and he signed a 2-year contract with a French racing team.

At that time, everything was looking very good for L.A. However, everything changed dramatically and drastically in October of 1996, shortly after...
his 25th birthday. At this time, L. was diagnosed with advanced cancer that had already spread to his brain and lungs. He almost immediately underwent 2 cancer surgeries. After these 2 surgeries, he was given a 50-50 chance of survival as he began an aggressive 3-month course of chemotherapy. The chemotherapy left L. very weak, but the treatment worked well. Quite soon after, L. was declared free of cancer. L. returned to cycling and training only 5 months after he was initially diagnosed with cancer. He vowed he would return to competitive cycling better than ever.

However, his French cycling team dropped L. from the team. They didn’t believe that L. would ever be able to return to his former level of strength and endurance. Fortunately the US Postal Service Team became his new sponsor. With the support of the US Postal Service Team, L. returned to racing in 1998. After one particularly bad day during one of his races, L. pulled over and decided he was done with racing. However, after spending time with his really good cycling friends, L. returned to racing, and again he was off again in pursuit of cycling victories!

L.’s big comeback was marked by his victory at the 1999 Tour de France. L. repeated this feat in the years 2000, 2001, 2002, 2003 and 2004, for a total of 6 consecutive victories in the Tour de France, the most prestigious and the most grueling of all cycling contests. L.s’ Tour de France record may never be beaten or even matched. Interestingly, L. was the youngest person to win the World Cycling Championships in 1993 and the oldest person ever to win the Tour de France in 2004!

In addition to his amazing athletic performance, L.A. has established the L.A. Foundation, which is devoted to providing information about cancer and support to cancer victims. He has also written a book about his life and winning the TdF, called Every Second Counts, and for L., every second has counted.

L.A. gives a lot of credit for his success to his mother, whose independent spirit and support for L. inspired him to overcome all of life’s obstacles, both on and off the racetrack. Lance, in return, has provided inspiration to many, for his courage — both athletic and personal.

Chapter 4 The Internet: How it Works

The Internet consists of millions of computers, all linked together into a gigantic network. Now every computer that is connected to the Internet is part of this network and can communicate with any other connected computer.

In order to communicate with each other, these computers are equipped with special communication software. To connect to the Internet, the user instructs the computer’s communication software to contact the Internet Service Provider, or ISP. Now an Internet Service Provider, or ISP, is a company that provides Internet service to individuals, organizations, or companies, usually for a monthly charge. Local ISPs connect to larger ISPs, which in turn connect to even larger ISPs. A hierarchy of networks is formed. And this hierarchy is something like a pyramid, with lots of small networks at the bottom, and fewer but larger networks moving up the pyramid. But, amazingly, there is no one single controlling network at the top. Instead, there are dozens of high-level networks, which agree to connect with each other. It is through this process that everyone on the Internet is able to connect with everyone else on the Internet, no matter where he or she is in the world.

How does information that leaves one computer travel through all of these networks, and arrive at its destination, another computer, in a fraction of a second?

The process depends on routers. Now routers are specialized computers whose job is to direct the information through the networks. The data, or information, in an e-mail message, a Web page, or a file is first broken down into tiny packets. Each of these packets has the address of the sender and of the receiver, and information on how to put the packets back together. Each of these packets is then sent off through the Internet. And when a packet reaches a router, the router reads its destination address. And the router then decides the best route to send the packet on its way to its destination. All the packets might take the same route or they might go different routes. Finally, when all the packets reach their destination, they are put back into the correct order.

To help you understand this process, I’m going to ask you to think of these packets of information as electronic postcards. Now imagine that you want to send a friend a book, but you can send it only as postcards. First, you would have to cup up each of the pages of the book to the size of the postcards. Next, you would need to write your address and the address of your friend on each of these postcards. You would also need to number the postcards so that your friend could put them in the correct order after he receives the postcards. After completing these steps, you would put all the postcards in the mail. You would have no way to know how each postcard traveled to reach your friend. Some might go by truck, some by train, some by plane, some by boat. Some might go by all 4 ways. Now along the way, many postal agents may look at the addresses on the postcards in order to decide the best route to send them off on to reach their destination. The postcards would probably arrive at different times. But finally, after all of the
postcards had arrived, your friend would be able to put them back in the correct order and read the
book.

Now this is the same way that information is sent over the Internet using the network of
routers, but of course it happens much, much faster!

Chapter 5  Language: How Children Acquire Theirs

What I’d lie to talk to you about today is the topic of child language development. I know that you
all are trying to develop a second language, but for a moment, let’s think about a related topic, and
that is: How children develop their first language. What do we know about how babies develop
their language and communication ability? Well, we know babies are able to communicate as soon
as they are born—even before they learn to speak their first language. At first, they communicate
by crying. This crying lets their parents know when they are hungry, or unhappy, or
uncomfortable. However, they soon begin the process of acquiring their language. The first state
of language acquisition begins just a few weeks after birth. At this stage, babies start to make
cooing noises when they are happy. Then, around four months of age they begin to babble. Babies
all over the world begin to babble around the same age, and they all begin to make the same kinds
of babbling noises. Now, by the time they are ten months old, however, the babbling of babies
from different language backgrounds sounds different. For example, the babbling of a baby in a
Chinese-speaking home sounds different from the babbling of a baby in an English-speaking
home. Babies begin a new stage of language development when they begin to speak their first
words. At first, they invent their own words for things. For example, a baby in an English-
speaking home may say “baba” for the word “bottle” or “kiki” for “cat.” In the next few months,
babies will acquire a lot of words. These words are usually the names of things that are in the
baby’s environment, words for food or toys, for example. They will begin to use these words to
communicate with others. For example, if a baby holds up an empty juice bottle and then says
“juice,” to his father, the baby seems to be saying, “I want more juice, Daddy” or “May I have
more juice, Daddy?” This word “juice” is really a one-word sentence.

Now, the next stage of language acquisition begins around the age of 18 months, when the
babies begin to say two-word sentences. They begin to use a kind of grammar to put these words
together. The speech they produce is called “telegraphic” speech because the babies omit all but
the most essential words. An English-speaking child might say something like “Daddy, up” which
actually could mean “Daddy, pick me up, please.” Then, between two and three years of age,
young children begin to learn more and more grammar. For example, they begin to use the past
tense of verbs. The children begin to say things such as “I walked home” and “I kissed Mommy.”
They also begin to overgeneralize this new grammar rule and make a lot of grammar mistakes.
For example, children often say such things as “I goed to bed” instead of “I went to bed,” or “I
eated ice cream” instead of “I ate ice cream.” In other words, the children have learned the past
tense rule for regular verbs such as “walk” and “kiss,” but they haven’t learned that they cannot
use this rule for all verbs. Some verbs like “eat” are irregular, and the past tense forms for
irregular verbs must be learned individually. Anyway, these mistakes are normal, and the children
will soon learn to use the past tense for regular and irregular verbs correctly. The children then
continue to learn other grammatical structures in the same way.

If we stop to think about it, actually it’s quite amazing how quickly babies and children all
over the world learn their language and how similar the process is for babies all over the world.
Do you remember anything about how you learned your first language during the early years
of your life? Think about the process for a minute. What was your first word? Was it “mama” or
maybe “papa”? Now think also about the process of learning English as a second language. Can
you remember the first word you learned in English? I doubt that it was “mama.” Now, think
about some of the similarities and differences involved in the processes of child and adult
language learning. We’ll talk about some similarities and differences in the first and second
language learning processes tomorrow. See you then.

Chapter 6 Hydroponic Aquaculture: How One System Works

The growing of plants without soil has developed from experiments carried out to determine what
substances (like soil and water) make plants grow. Growing plants in water( rather than in soil) ---
in other words, hydroponics--- dates back many more years than you might think. Scientists
believe that hydroponics or aquaculture is at least as ancient as the pyramids of Egypt. Scientists
also know that a primitive form of aquaculture has been used in the region of Kashmir for
centuries. In fact, scientists believe hydroponic growing actually preceded soil growing. They
even believe that using hydroponics as a farming tool started in the ancient city of Babylon with
its famous hanging gardens. These hanging gardens were probably one of the first successful
attempts to grow plants hydroponically.

However, returning to more modern times, researchers at the University of the Virgin Islands have
developed a system of hydroponic aquaculture that is both simple and low cost. The system uses gravity to create recirculating water systems in which fish are raised and vegetables are grown. Let me take a minute to explain the process of how this particular system of hydroponic aquaculture works on the island of St. Croix in the Virgin Island.

To start with, rainwater is collected in a large 3,000-gallon tank. This tank is located on the highest point of the island. The tank is so large that it measures about 12 feet in diameter. Once the tank is filled with rainwater, fish are added to the tank and subsequently raised in a large tank. So, first, the researchers collect rainwater in a large tank, then they add fish; the fish swim around and excrete waste into the water.

The next step in the process happens in this way. The rainwater collected in the large tank slowly runs out of the bottom of the large fish tank and into another tank. This other tank holds the waste from the fish. The water is then filtered. After the water is filtered, it is passed through a “bio-filter” that contains bacteria. These bacteria convert any harmful ammonia produced in the fish waste into nitrates. These nitrates are then used to feed the plants in the next stage of the process.

So, what happens next? Well, after the water has passed through this bio-filter, it enters two 100-foot-long hydroponic tanks. Just above the 100-foot-long tanks of water, plants are suspended on trays. In this particular case, the plants suspended on trays are lettuce plants. The plants’ roots stand in the water. Now, through the roots, the plants soak up or absorb the nitrates and other nutrients in the water before the water drains out of these 100-foot-long tanks into a large reservoir. The reservoir is located at the lowest point on the island. It is now necessary of course to get the water from the lowest part of the island back up to the highest point on the island so the water can circulate through the process again. Now, how do they get the water from the reservoir up to the 3,000-gallon fish tank, and then the hydroponic process starts all over again.

The aquaculture scientists say that this relatively simple system produces about 25,000 heads of lettuce, and one ton of fish in a year from just one 3,000-gallon fish tank. A commercial company would need to have several tanks in order to make the process profitable, but researchers at the University of the Virgin Islands have demonstrated exactly how aquaculture can be used to grow plants without using soil. The process could help some countries that are looking to develop new methods to produce food in “soil-less culture”. Just to give an example, in the case of tomatoes, dirt farmers raise about 3,500 plants per acre. In hydroponics, the tomato plants can be placed much closer together, and it’s possible to cultivate as many as 10,000 plants on an acre of land. In the future, we will probably see more and more agriculture being done as hydroponic aquaculture. And many consumers won’t know the difference.

Chapter 7 A Tidal Wave: What Is It? What Causes It? How Can We Predict It?

A tidal wave is a very large and very destructive wall of water that rushes in from the ocean toward the shore. Many scientists call these waves tsunami. In Japanese tsunami means “storm wave.” But do you know that tidal waves are not caused by storms and that they are not true tides at all? A true tide is the regular rise and fall of ocean waters, at definite times each day, but a tidal wave comes rushing in suddenly and unexpectedly. A tidal wave is caused by an underwater earthquake. Scientists call the underwater earthquake a seaquake. The word “seaquake” is made up of two words, the word “sea” which means “ocean” and the word “quake.” “To quake” means “to shake” or “to tremble.” When a seaquake takes place at the bottom of the ocean, the ocean floor shakes and trembles, and sometimes the ocean floor shifts. It is this shifting that produces the tidal wave. The tidal wave begins to move across the sea at great speed.

Tidal waves have taken many human lives in the past. Today scientists can predict when a tidal wave will hit land. They use a seismograph to do this. A seismograph is an instrument that records the strength, the direction, and the length of time of an earthquake or seaquake. It is not possible to hold back a tidal wave, but it is possible to warn people that a tidal wave is coming. This warning can save many lives.

Listening Factoid 1

The largest wave known was not a tsunami. It was caused by a landslide that sent about 100 million tons of rock crashing into a bay in Alaska in 1958. The slide produced a single wave which covered the hills on the opposite side of the bay up to a distance of nearly 1,700 feet inland. Then the wave, which was 200 feet high, raced back out to sea. No one was killed.

Listening Factoid 2

The speed of a tsunami depends on the depth of the water in the ocean. The deeper the water, the faster the tsunami moves. In the Pacific Ocean, for example, a tsunami travels at a speed of up to 600 miles, or 970 kilometers, per hour. As the tsunami comes close to the shore, however, the
The speed of the tsunami drops to about 100 miles (or 160 kilometers) per hour. That’s still speedy—and deadly!

As the tsunami approaches land, its speed drops, but this is when the wave begins to grow in height. Tsunamis may rise to 100 feet or 30 meters in height.

Tsunamis occur in all of the oceans of the world, though they are the most common in the Pacific.

Chapter 8  Levels of Language Usage: Formal and Informal

Today I want to talk about levels of language usage. You probably have noticed that people express similar ideas in different ways, depending on the situation they are in. This is very natural. All languages have two broad, general categories, or levels of usage: a formal level and an informal level. English in no exception. I’m not talking about correct and incorrect English. What I’m talking about are two levels of correct English. The difference in these two levels is the situation in which you use a particular level. Formal language is the kind of language you find in textbooks, reference books such as encyclopedias, and in business letters. For example, a letter to a university would be in a formal style. You would also use formal English in compositions and essays that you write in school. People usually use formal English when they give classroom lectures or speeches and at ceremonies such as graduations. We also tend to use formal language in conversations with persons we don’t know well or with people we have a formal relationship with, such as professors, bosses, doctors, friends of our parents’, strangers, etc. Informal language is used in conversation with colleagues, family, and friends, and when we write personal notes or letters to close friends, as well as in diaries, etc.

Formal language is different from informal language in several ways. However, today I’m going to talk only about a couple of ways. First of all, formal language tends to be more polite. Interestingly, it usually takes more words to be polite. For example, I might say to a friend or family member, “Close the door, please,” but to a stranger or someone in authority I probably would say “Would you mind closing the door?” or “Excuse me, could you please close the door?” Using words like “could” and “would” makes my request sound more polite, but also more formal. I want to be polite but not too formal with my friends and family.

Another difference between formal and informal language is some of the vocabulary. There are some words and phrases that belong in formal language and others that are informal. Let me give you a couple of examples of what I mean. Let’s say that I really like soccer. If I’m talking to my friend or colleague I might say “I’m just crazy about soccer!” But if I were talking to my supervisor or a friend of my parents’, I would probably say “I really enjoy soccer” or “I like soccer very much.” Let’s say I’m telling someone some news I heard about the police arresting a criminal. To my friend I might say, “The cops bagged the crook.” To my parents’ friend I might say “The police arrested the thief.”

Although the line between formal and informal language is not always clear and although people are probably less formal today than in the past, it is useful to be aware that these two levels, or categories, do exist. The best way for a non-native speaker of English to learn the difference is to observe the different ways English speakers speak or write in different situations. Television newscasters, your college professors in your class, your doctors in their offices, etc., will usually speak rather formally. However, your classmates, teammates, family members, and friends will generally speak in an informal fashion. The difference can be learned over time by observing and interacting with native speakers.

Chapter 9  Power: The Kinds People Use and Abuse

John Mack, who is the author of a book about power, says that the need for a sense of personal power is one of the primary forces in human life. On the other hand, he also says that a feeling of powerlessness is one of the most disturbing of human emotions—a feeling to be avoided at all costs. Just what is power?

Psychologists define power as the ability to determine or to change the actions or behavior of other people. Psychologists are trying to identify different kinds of power so that they can better understand how people use these different kinds of power to gain control over other people. They are trying to understand how people manipulate other people for good and evil purposes. Psychologists have identified five basic types of power, and I’d like to talk about each of these briefly in the next few minutes.

The first type of power is called information power. Some psychologist believe that information power is one of the most effective types of power and control. The person who has information that other people want and need, but do not have, is in a position of power. Why is this? Well, most people like to receive and have information. Having information increases a person’s own sense of power. People who provide information can manipulate those who do not
have information. Often, when people receive information, they do not know that they are being manipulated by those who provided the information. The psychologist named Edwards says, for example, that newspapers provide a lot of information to their readers, and that these newspaper readers generally believe the information they read. Readers do not question the accuracy of the reports about world events they read in the newspapers.

A second type of power is called referent power. For example, a person may want to behave like the members of a particular group, such as a soccer team (or a group of classmates), or a person may identify with and want to be like a certain teacher, a friend, or say, a rock star. If you identify with another person, that person has power over you, and that person can influence your actions and behavior. Many people imitate and are controlled by the people they identify with. Let me give you a sad example of the use of this type of power for evil purposes. In the 1970s in Jonestown, Guyana, more than 900 people committed suicide when their religious leader Jim Jones told them to kill themselves. They did what he told them to do because he had referent power over them. They identified with him; they believe him, and they did what he told them to do. More recently a man named David Koresh controlled the lives and destinies of a small community of men, women, and children in Waco, Texas. Most people in his community died in a fire, along with their leader, during a confrontation with U.S. government agents.

A third kind of power is classified as legitimate power. Government officials, according to Edwards, have a lot of legitimate power. When the government decides to raise taxes or make people go to war, most people will do what their government officials tell them to do. One psychologist reported on an experiment that showed an example of this type of power. In this experiment, a researcher asked people on the street to move away from a bus stop. When he was dressed as a civilian, few people moved away from the bus stop. When the researcher was dressed as a guard, most people moved away from the bus stop. The guard’s uniform seemed to give the researcher a look of legitimate power.

A fourth kind of power is called expert power. An expert is a person who is very skilled in some area, such as sports, or who knows a lot about something, such as computers. Most people are impressed by the skills or knowledge of an expert. Some of these “experts” use their skills at playing sports or knowing about computers to gain power and influence—and to gain money or admiration, according to Edwards. In other words, they use their expertise to gain power.

Finally, reward or coercive power is used by people who have the power to reward or punish another person’s actions or behavior. Giving a reward will change people’s behavior because it offers people a chance for gain. Giving a punishment may or may not cause the people to do what the powerful person wants them to do, but the changes may not last for a long time. The person who uses coercive power may also have to carefully watch that the less powerful person does, in fact, change his or her actions or behavior.

To sum up, then, power may be gained in many ways. It may come from having information that other people want or need; it may come from being a referent for other people to identify with or to imitate; it may come from having an official, or legitimate, position of authority; it may come from having skills or expertise; or it may come from having the power to reward or punish people. We all exercise one or more of these various kinds of power over other people, and other people will try to exercise one or more of these kinds of power over us throughout our lives.

**Chapter 10 Asian and African Elephants: Similarities and Differences**

The African and the Asian elephants are the largest land animals in the world. They are really enormous animals. The African and the Asian elephants are alike, or similar, in many ways, but there are differences between the 2 types of elephants, too.

What are some of the similarities between the African and the Asian elephant? Well, for one thing, both animals have long noses, called trunks. An elephant sometimes uses its trunk like a third hand. Both kinds of elephants use their trunks to pick up very small objects and very large, heavy objects. They can even pick up trees with their trunks. For another thing, both the African and the Asian elephants have very large ears, although the African elephant’s ears are considerably larger.

In addition, both animals are intelligent. They can be trained to do heavy work. They can also be trained to do tricks to entertain people. In other words, they both work for people, and they entertain people also.

As I said before, the African and Asian elephants are alike in many ways, but they are also quite different, too. Let me explain what I mean. The African elephant is larger and heavier than the Asian elephant. The African male elephant weighs between 12,000 and 14,000 pounds. In contrast, the average Asian male elephant weighs between 7,000 and 12,000 pounds.

Another major difference between the 2 kinds of elephants is the size of the ears. Asian elephants have smaller ears than African elephants do. The teeth are different, too. The African elephant has 2 very large teeth. These teeth are called tusks. The Asian elephant sometimes does
not have any tusks at all. The elephants differ in color, too. The African elephant is dark gray in color while the Asian elephant is light gray. Occasionally an Asian elephant is even white in color! The last big difference between the 2 elephants is their temperament. The Asian elephant is tamer than the African elephant. In other words, the African elephant is much wilder than the Asian elephant. As a result, it’s more difficult to train the African elephant to perform tricks to entertain people. That’s why the elephants you see in the circus are probably Asian elephants … not African elephants.

Yes, there certainly are differences between the African and the Asian elephants, but there is one big similarity between the 2 animals: they are both fascinating and enormous animals.

Chapter 11 Lincoln and Kennedy: Similar Destinies

John F. Kennedy and Abraham Lincoln lived in different times and had very different family and educational backgrounds. Kennedy lived in the 20th century; Lincoln lived in the 19th century. Kennedy was born in 1917, whereas Lincoln was born more than a hundred years earlier, in 1809. As for their family backgrounds, Kennedy came from a rich family, but Lincoln’s family was not wealthy. Because Kennedy came from a wealthy family, he was able to attend expensive private schools. He graduated from Harvard University. Lincoln, on the other hand, had only one year of formal schooling. In spite of his lack of formal schooling, he became a well-known lawyer. He taught himself law by reading law books. Lincoln was, in other words, a self-educated man.

In spite of these differences in Kennedy and Lincoln’s backgrounds, some interesting similarities between the 2 men are evident. In fact, books have been written about the strange coincidences in the lives of these 2 men. For example, take their political careers. Lincoln began his political career as a congressman. Similarly, Kennedy also began his political career as a congressman. Lincoln was elected to the U.S. House of Representatives in 1847, and Kennedy was elected to the House in 1947. They went to Congress just 100 years apart. Another interesting coincidence is that each man was elected president of the United States in a year ending with the number 60. Lincoln was elected president in 1860, and Kennedy was elected in 1960; furthermore, both men were president during years of civil unrest in the country. Lincoln was president during the American Civil War. During Kennedy’s term of office, civil unrest took the form of civil rights demonstrations.

Another striking similarity between the 2 men was that, as you probably know, neither president lived to complete his term in office. Lincoln and Kennedy were both assassinated while in office. Kennedy was assassinated in Dallas, Texas, after only 1,000 days in office. Lincoln was assassinated in 1865 a few days after the end of the American Civil War. It’s rather curious to note that both presidents were shot while they were sitting next to their wives.

These are only a few examples of the uncanny, or unusual similarities in the destinies of these 2 Americans – men who had a tremendous impact on the social and political life in the United States and the imagination of the American people.

Chapter 12 The Titanic and the Andrea Doria: Tragedies at Sea

On the morning of April 10, 1912, the luxury liner the Titanic left England on a voyage to New York. Four days later, she lay at the bottom of the Atlantic Ocean. On Wednesday, July 18, 1956, the ocean liner the Andrea Doria left Italy. The Andrea Doria was also traveling to New York. Eight days later this great ship also lay at the bottom of the Atlantic.

The sinking of these two huge ships, these two very, very large ships shocked the world. Reports of these two tragedies filled the newspapers for days. When the Andrea Doria went down, people compared her sinking with the sinking of the Titanic. There were similarities between the two events; however there were also important differences.

What were some of these similarities? First of all, both ships were transatlantic ocean liners. In addition, they were also both luxury liners. They carried many of the world’s rich and famous people. In fact, ten American millionaires lost their lives when the Titanic went down. Today millions of dollars worth of gold, silver and cash may still remain locked inside these two sunken ships.

Another similarity was that, as each ship was sinking, there were acts of heroism and acts of villainy. Some people acted very bravely, even heroically. Some people even gave up their lives so that others could live. There were also some people who acted like cowards. For example, one man on the Titanic dressed up as a woman so that he could get into a lifeboat and save his own life. One last similarity was that both of these ships were considered “unsinkable.” People believed that they would never sink.

I’d like to shift my attention now to the differences between these great ship disasters. To begin with, the Titanic was on her maiden voyage; that is, she was on her very first voyage across the Atlantic. The Andrea Doria on the other hand, was on her 101st transatlantic crossing. Another
difference was that the ships sank for different reasons. The Titanic struck an iceberg whereas the Andrea Doria collided with another ship. Another contrast was that the Andrea Doria had radar to warn of the approach of another ship, but the Titanic was not equipped with radar. The Titanic only had a lookout. The lookout was able to see the iceberg only moments before the ship struck it. But, of course, the greatest difference between these two terrible accidents was the number of lives lost. When the Titanic sank, more than 1,500 people died. They drowned or froze to death in the icy north Atlantic water. Over 700 people survived the sinking of the Titanic. In the Andrea Doria accident 60 people lost their lives, and about 1,650 lives were saved. One of the reasons that so many people died on the Titanic was that the ship was considered to be unsinkable, and so there were about half the number of lifeboats needed to rescue all the people aboard the ship. The Andrea Doria had more than enough lifeboats to rescue every person on the ship; however, they were able to use only about half of the lifeboats they had because of a mechanical problem. The passengers and crew of the Andrea Doria were very lucky that another ship was able to rescue most of them. The passengers on the Titanic were not so fortunate. It is interesting that the wreck of the Titanic was only found in September of 1985.

Whenever there are large numbers of people traveling together on a boat, ship, or plane, the possibility of disaster is always present. Most people arrive safely at their destination, but accidents like shipwrecks and plane crashes do happen, and these accidents remind us that no matter how safe we feel, accidents can happen suddenly and unexpectedly.

Chapter 13 Dinosaurs; Why They Disappeared

Several theories have been proposed about why the dinosaurs disappeared from the face of the earth. In recent years one popular theory proposes that climatic changes caused the dinosaurs to become extinct. This climatic change theory says that millions of years ago the climate of the world gradually became colder. As the earth slowly became colder, fewer plants were able to grow. The cold weather finally resulted in a severe shortage of food for the dinosaurs. As you probably know, most of the dinosaurs were vegetarians, and they depended on plants for their food supply. In summary, them, the disappearance of the dinosaurs was caused directly by a shortage of plants to eat, and indirectly by a change in the climate. Many scientists still believe that the climatic change theory best explains why the dinosaurs disappeared. This theory argues that the dinosaurs disappeared gradually—slowly—as the earth became colder and ass their food supply dwindled.

Today there is new evidence for the theory that the dinosaurs did not disappear gradually, but that they disappeared quickly and suddenly. This theory is known as the asteroid theory. It states that a huge asteroid, or perhaps a comet, hit the earth about 65 million years ago. When this comet or asteroid hit the earth, it caused a huge dust cloud. The huge dust cloud covered the whole earth and blocked out the sun for months. Since there was no sun for many, many months, most of the plants on earth died the dinosaur’s food supply was destroyed in a period of months.

While this asteroid theory is not new, what is new is the evidence for the theory. Until recently there was no evidence that an asteroid or a comet had hit the earth 65 million years ago. What happened recently was that scientists found large amounts of a rare earth element called iridium all over the world. This iridium was found in layers of the earth that are 65 million years old. The iridium was found in the same layers where the bones of the last dinosaurs were found.

The element iridium is very uncommon, in fact, rare, on the earth. It is an element, however, that is more often found in space. Scientists speculate that this iridium was brought to earth 65 million years ago when a comet or asteroid hit the earth.

The comet or asteroid theory explains two things: (1) It explains the larger amounts of the rare element iridium found in the 65-million-year-old layers of earth, and (2) it explains why the dinosaurs disappeared from the earth.

Today scientists continue to debate the two theories: the climatic change theory and the asteroid theory. In the future evidence may be found that supports a new theory of why the terrible lizards died out.

Chapter 14 The American Civil War: Why It Happened

The American Civil War was fought over 100 years ago. It began in 1861 and lasted until 1865. The battles of the American Civil War resulted in the death of 620,000 Americans. What caused this terrible civil war between the North and the South?

Well, historians believe that there were many causes of the war. One of the important causes of the war was the friction between the North and the South over the issues of slavery. The southern way of life and the southern economy were based on the use of slave labor. For almost 250 years before the Civil War, the economy of the South depended on the use of black slaves. The slaves were used to plant and pick cotton and tobacco. Cotton and tobacco were the main
crops grown in the South. Most southerners did not think it was wrong to own, buy, or sell slaves like farm animals. Slavery was, in fact, the foundation of the entire economy and way of life in the South. This was not the situation in the North. The northern economy did not depend on the use of slave labor. Why not?

Well, in the South there were many large cotton plantations that used hundreds of slaves. In the North, however, there were smaller farms. The northern farmers planted many different kinds of crops, not just cotton or tobacco. The Northerners did not need slaves, since their farms were smaller than most of the southern plantations. In fact, many Northerners were so opposed to slavery that they wanted to end slavery completely. The northern attitude against slavery made the Southerners angry. So, for many years before the war, there was constant friction between the North and the South over this issue. This friction eventually led to war.

There was another friction, too, as I said before, between the North and the South. There were, in other words, other causes of conflict between the North and the South. One involved the growth of industry in the North. While the South remained an agricultural area, the North became more and more industrialized. As industry increased in the North, it brought more people and greater wealth to the northern states. As a result, many Southerners began to fear northern political and economic domination. Because of this fear, many Southerners believed that the South should leave the Union and that they should form their own country.

In 1860, the Southerners decided it was time to leave the Union when Abraham Lincoln became president of the United States. Lincoln, as you may know, was against slavery. The people of the South were afraid that their way of life and their economic system were in danger with Lincoln in the presidency. Consequently, the southern states decided to secede from the Union. In other words, they wanted to break away from the North and form a separate country. In 1861, South Carolina seceded, and by June of 1861 eleven states had seceded and established a new country. They called the new country the Confederate States of America. The war between the North and the South began when the southern states seceded from the Union.

The main reason that the North went to war against the South was to bring the southern states back into the Union. In other words, the North went to war to keep the United States one country. After 4 years of terrible fighting, the North won the war against the South, and the US remained one country. The North won the war mainly because of its economic and industrial strength and power.

The Civil War had two important results for the US: (1) the Civil War preserved the US as one country; and (2) it ended slavery in the US.

Many Americans wonder what the US would be like today if the South had won the Civil War. The history of the US would have been very different if the South had won the war between the states.

Chapter 15  Endangered Species: What Are the Causes

Over the history of the earth, millions of animals and plant species have disappeared. Most of these species disappeared, or became extinct, because of natural causes such as climatic changes or a catastrophic event, like an asteroid hitting earth. What is different today is that most species that are in danger of becoming extinct are not endangered because of natural causes but because of human activity. Today, we will be looking at the reasons that many plants and animals are endangered and how these reasons, or causes, are related to human activity.

The single most important cause of endangered species today is the destruction and/or degradation of habitat. Most animals and plants are adapted to live and reproduce in a specific environment, or habitat. They cannot survive if they lose the specific habitat that they are adapted to live and reproduce in.

There are many ways that human activity destroys habitat. For example, forests, grasslands, and deserts, which provide habitat to many plants and animals, are cleared in order to develop residential areas for people to live in and industrial areas for people to work in. Land is also cleared to prepare it for farmers to grow crops on. Swamps and marshes, which provide habitat to many animal and plant species, are often drained and filled in, also to provide land for development or agriculture. In addition, rivers are sometimes dammed in order to provide people with electrical power. All of these human activities, such as clearing forests, grasslands, and deserts, draining swamps and marshes, and damming rivers result in the destruction of habitats that many plants and animals need to live and reproduce in.

Closely related to the destruction of habitat is the degradation of habitat, which also endangered many species. Some examples of manmade causes that degrade habitat are oil spills, water pollution, and acid rain. You probably have seen pictures in newspapers or on TV of dead or dying marine animals and birds covered with oil after an oil tanker accident. Human beings also cause water pollution, which endangers the survival of many fish and marine animals. Acid rain, which results from people burning fossil fuels, also harms many species of fish and many species
of trees. To sum up, some of the things related to human activity that result in the degradation of the environment are oil spills, water pollution, and acid rain.

Illegal wildlife trade is the next major cause of endangered species. Although many governments have passed laws protecting endangered species, many animals are still illegally hunted. Sometimes people hunt these animals for food, but more often they hunt them only for specific parts of their bodies. For example, some species of animals such as tigers are illegally hunted for their furs. Elephants, which are the biggest land animals in the world and an endangered species, are often killed for their hides and tusks. These elephant hides and tusks are used to make souvenirs and works of art to sell to tourists and art collectors. Other animals such as chimpanzees are trapped to be sold to zoos for people to look at or for medical experiments. Some beautiful birds, such as some species of parrots, are in danger of extinction because so many are captured to be sold as pets to people all over the world.

The third major cause that many species are endangered is over exploitation. People have always exploited, or used, plants and animals, and will, no doubt, continue to do so. It is only when people exploit animals and plants in an excessive manner that they become endangered. Some animals have already been hunted to extinction for food and sometimes for sport. Let me give you one well-known example—the passenger pigeon in the United States. Passenger pigeons were once so plentiful that people said they darkened the sky for hours, even days, when they flew over the land. Many people thought that the passenger pigeons could never disappear, but, in reality, they became extinct at the beginning of the 20th century. They became extinct as a result of over hunting, partly for food but mostly for sport. Today, some fish, like the cod, which is an important source of food for people in many parts of the world, have been over fished. As a result, cod are in danger of becoming extinct. At one time cod, like passenger pigeons, were very plentiful, and it seemed they could never be gone. And it’s not just animal species like the codfish that are in danger of becoming extinct. According to a recent article in the New Scientist, the Brazil nut tree, a very important source of nuts for both animals and people, is endangered due to over harvesting of the nuts.

The fourth and final reason that some species today are endangered has to do with competition that is directly related to human activity. As you know, most animal and plant species have to compete with other species in their habitat for food, water, and any other resources they both need. This is usually natural, that is, not related to human activity. However, some animal and plant species today also face competition that is directly related to human activity. There are two kinds of competition that animal and plant species can face that is related to human activity. One has to do with domestic animals and the other has to do with what is called “introduced” species.

Let’s discuss competition with domestic animals first.

I’m sure you are all familiar with most domestic animals such as cattle, horses, sheep, goats, and so forth. But did you know that these domestic animals can be a threat to wild, that is, non-domestic animals? The first reason is because these domestic animals compete for habitat with wild animals. And, in addition, the people who own these domestic animals often hunt, trap, and poison wild animals in order to protect their livestock. The wolf is an example of an animal that is widely hunted to near extinction to protect domestic animals.

Another serious threat to some species is competition with introduced species, that is, plants or animals that are introduced, or brought, by humans into a new habitat, either on purpose or by accident. Take, for example, the introduction of a species of rabbit into Australia. In the 19th century, Europeans purposely introduced a species of European rabbit into Australia so they could hunt them for sport. Unfortunately, this animal has caused great damage to the habitat of many native animals and plants of Australia. Another introduced species, the brown tree snake, was accidentally introduced into the island Guam in the late 1940s. These snakes accidentally rode along on military cargo planes that landed there. Since that time, the brown tree snake has destroyed a large part of the bird population of Guam.

Before I close, let me repeat the four major causes of endangered species today: 1) the destruction and/or degradation of habitat, 2) the illegal wildlife trade, 3) over exploitation, and 4) competition with domestic and “introduced” species.

Let me conclude by saying that the relationship of all living plants and animals is complex and interdependent. The destruction of one animal or plant species can threaten the survival of other species of animals and plants. Human beings are part of the natural world and they might also, one day, become an endangered species themselves. Because the four major causes of endangered species today are largely the result of human activity, only human beings can change the situation. Time is running out for many endangered plant and animal species.