

UNIT

1

Cause and Effect 1: Sentence Structure; Common Patterns with Nouns That Show Cause

The Environment and You

1 Grammar in the Real World

You will read an essay about ecological footprints, a measurement of the impact each person has on the world's natural resources. The essay is an example of one kind of cause and effect writing in which one cause leads to several effects.

A Before You Read What are three common things that people do in their everyday lives that have an impact on the environment? Read the essay. According to the writer, what might be one effect of mining for natural resources such as coal and oil?

B Comprehension Check Answer the questions.

- 1 In your own words, what is an ecological footprint? Provide examples of activities that could cause a large and a small ecological footprint.
- 2 According to the essay, what are three major consequences of large ecological footprints?
- 3 "We do not inherit the Earth from our ancestors; we borrow it from our children" is a Native American proverb. How is this proverb related to the essay?

C Notice Follow the instructions below to help you notice sentence structures that state causes and describe effects.

- 1 In the first paragraph, find the sentence about easily accessible resources and large ecological footprints on lines 10–14. Write *C* above the clause that gives a reason or cause and *E* above the clause that states the effect. Circle the word that introduces the cause.
- 2 In the third paragraph, find the sentence that states the effect of releasing dangerous gases in the air. Circle the phrase that introduces the effect.
- 3 In the fourth paragraph, underline the first sentence. Does the sentence describe a cause or an effect? What phrase does the writer use to introduce it?



Ecological Footprints

Environmentalists are increasingly concerned about the impact that individuals have on our planet, and many people now want to help protect the environment. A good place to start is reducing one's ecological footprint. An ecological footprint is an estimate of how much land, water, and other natural resources are being used by a person or a group. Because resources are easily accessible in developed countries like the United States, people in these countries tend to have large ecological footprints. For example, they may take long showers, leave their computers on for the whole day, buy new things they do not need, and fly frequently between cities. The consequences of large ecological footprints can be disastrous.¹

One of the worst effects of large ecological footprints is the loss of natural resources, such as oil, water, and wood. These resources are being consumed so fast that the Earth does not have time to renew them. Approximately 99 million barrels of oil are produced daily in the world. People use oil to run their cars, heat their homes, and create products such as clothes, paint, and plastic.

Plastic is now one of the biggest threats to our environment, and in fact to each of us. The naturalist David Attenborough shocked the world by showing images of sea birds attempting to feed their young on plastic shopping bags. It is estimated that eight million tonnes of plastic end up in our oceans every year. Unless this stops, there will be more plastic than fish in the ocean by 2050. Already, billions of people around the world are drinking water that is contaminated by plastic. The United States is the country worst affected, with 94% plastic contamination in its tap water.

Large ecological footprints also lead to higher greenhouse gas emissions. The mining of oil, natural gas, and coal, as well as the use of these resources in electrical power plants and automobiles, releases dangerous gases into the air, where they trap² heat. As a result, the Earth gets warmer.

It is our responsibility to find ways to decrease our impact on our planet. Even small changes can make a difference and help to protect the environment. If we do not start reducing our ecological footprints right away, it may be too late for future generations to contain³ the damage.

¹**disastrous:** causing a lot of damage

²**trap:** prevent from leaving

³**contain:** limit

2 Sentence Structure: Simple and Compound Sentences

Grammar Presentation

In cause and effect writing and in academic writing in general, it is effective to use a variety of sentence types. Writers use simple sentences to express facts or opinions strongly. They use compound sentences to link related ideas such as causes and effects.

Simple sentence:

Lack of natural resources is one of the results of large ecological footprints.

Compound sentence:

Large ecological footprints cause many problems, and it is our social responsibility to solve them.

2.1 Simple Sentences

A A simple sentence has only one clause, called a *main clause* or an *independent clause*. Like all sentences, a simple sentence must have a subject and a verb.

SUBJECT VERB
Millions of barrels of oil are produced daily.

Many different elements may come after the verb, including:

object

prepositional phrase

adjective

adverb

SUBJECT VERB OBJECT
Plastic pollution has devastated our oceans.

SUBJECT VERB PREP. PHRASE
Ozone and other greenhouse gases are often in the news.

SUBJECT VERB ADJECTIVE
The Earth is becoming warmer.

SUBJECT VERB PREP. PHRASE
Natural resources that provide energy will run out eventually.

B The subject of a sentence must be a noun phrase. There are many different kinds of noun phrases, including:

adjective + noun

pronoun

noun and noun

noun + prepositional phrase

noun + relative clause

gerund

Small changes can make a difference.

This has devastated many oceans.

Ozone and other greenhouse gases are often in the news.

The health of our oceans remains critical.

Natural resources that provide energy will run out eventually.

Reducing our ecological footprints is crucial.

2.1 Simple Sentences (continued)

C The verb of a sentence can consist of a single main verb or a main verb with an auxiliary verb such as *be*, *do*, and *have*, or a modal such as *can* and *will*.

A verb phrase can consist of more than one verb.

MAIN VERB

*The health of our oceans **remains** critical.*

AUXILIARY VERB

*This **has** devastated many oceans.*

MODAL

*People **may** take long showers.*

*The average temperature **rises and falls**.*

2.2 Using Simple Sentences

A Use short simple sentences to emphasize an important point within the larger discourse.

The consequences of these footprints can be disastrous.

B If the subject or a verb is missing, the sentence is incomplete. It is called a *fragment*.

Avoid fragments by making sure all sentences have a subject and a verb.

FRAGMENT (MISSING SUBJECT): *In the future, will probably be much warmer on Earth.*

CORRECTION: *In the future, **the temperature** will probably be much warmer on Earth.*

FRAGMENT (MISSING VERB): *The worst effect of large ecological footprints the loss of natural resources.*

CORRECTION: *The worst effect of large ecological footprints **is** the loss of natural resources.*

C Academic writers connect independent clauses with transition words to make the relationship between two ideas very clear.

Some examples of transition words are:

as a result, consequently, furthermore, however

You can use a period or a semicolon before a transition word to connect the independent clauses. Use a comma after a transition word.

*These gases trap heat in the air. **As a result**, the Earth gets warmer.*

*These gases trap heat in the air; **as a result**, the Earth gets warmer.*

D You can connect two independent clauses with a semicolon. This is a good choice if the ideas in the two clauses are closely related.

INDEPENDENT CLAUSE 1

INDEPENDENT CLAUSE 2

People should buy less; they should replace items only when absolutely necessary.

2.3 Compound Sentences

A Use compound sentences to connect two ideas. A compound sentence includes at least two independent clauses that are connected by a coordinating conjunction (*and, but, or, so, yet*). Use a comma before the coordinating conjunction.

INDEPENDENT CLAUSE 1

Some people are concerned about the environment,

INDEPENDENT CLAUSE 2

so they recycle as much as they can.

B Avoid run-on sentences and comma splices. A run-on sentence is two independent clauses without a coordinating conjunction.

RUN-ON: *These gases trap heat in the air the Earth gets warmer.*

CORRECTION: *These gases trap heat in the air, so the Earth gets warmer.*

Use a comma and coordinating conjunction when connecting two independent clauses.

A comma splice is two independent clauses combined with a comma.

COMMA SPLICE: *Humans are the cause of many environmental problems, it is our responsibility to resolve them.*

Use a period between the two independent clauses.

CORRECTION: *Humans are the cause of many environmental problems. It is our responsibility to resolve them.*

C The use of *and* and *but* to introduce a sentence is common in some types of writing, such as in newspapers and magazines. However, it is not usually appropriate in academic writing.

Natural resources are being consumed so fast that the Earth does not have time to renew them. And as a result, these resources are becoming scarce.

There are efforts to clean up the oceans. But the health of our oceans remains critical.



Grammar Application

Exercise 2.1 Subjects and Verbs

Read about energy resources in Iceland. Underline the subject, and circle the verb in each independent clause.

- Iceland has huge frozen glaciers, but it also has more than 100 volcanoes.
- In 1998, Iceland decided to become independent from fossil fuels.
- It began to increase its use of renewable energy sources.
- Electricity in Iceland's homes is generated by geothermal springs, or it comes from the energy of the rivers and glaciers.
- The water in geothermal springs is already hot, so Icelanders use it instead of fossil fuels to heat their homes.
- Basic services such as transportation in Iceland are switching to electric vehicles, and all ships in the large fishing industry may eventually operate on hydrogen fuel.
- Iceland satisfies its country's need for energy without relying heavily on fossil fuels.

Exercise 2.2 Fragments, Run-on Sentences, and Comma Splices

A Read the following sentences about the environment. Check (✓) each complete sentence. Write *F* for each fragment, *R-O* for each run-on, and *CS* for each comma splice.

- 1 (a) Over time, people have destroyed the natural habitats of many plants and animals in order to build more homes and grow more food. (b) *F* For this reason, many of our forests now gone. (c) *R-O* Plants and animals are losing their homes they may become extinct.
- 2 (a) _____ Water pollution a serious problem. (b) _____ For many years, people got rid of waste by dumping it into the water. (c) _____ As a result, the quality of the water in many of our oceans, rivers, and lakes unacceptable. (d) _____ In fact, nearly about two billion people in the world do not have safe drinking water, and over two million people die each year from diseases related to water.
- 3 (a) _____ Environmentalists are constantly trying to come up with ideas to protect the environment nobody knows what the environment will be like in the future. (b) _____ However, researchers believe that much has already improved. (c) _____ Individuals are becoming more aware of the environment around them.
- 4 (a) _____ Trying to protect nature in various ways. (b) _____ Some people are helping to clean up the environment by driving electric cars, others are working to preserve endangered plants and animals. (c) _____ These efforts will allow future generations to have clean air and water and to enjoy the world's natural beauty.
- 5 (a) _____ The forests of the Earth are being cut down. (b) _____ The destruction of the forests is the result of human and natural disasters. (c) _____ Has negative consequences on the environment.

B Rewrite the fragments, run-ons, and comma splices in A. Use coordinating conjunctions, transition words, and punctuation to correct run-ons and comma splices. Check your answers with a partner.

- 1 *For this reason, many of our forests are now gone. Plants and animals are losing their homes. As a result, they may become extinct.*

2 _____

3 _____

4 _____

5 _____



Grammar Application

Exercise 3.1 Complex Sentences

A For each pair of sentences about bald eagles, write **C** next to the sentence that shows the cause and **E** next to the sentence that shows the effect. Next, combine the sentences using *because*, *if*, *since*, or *when*. Sometimes more than one answer is possible.

1 E The United States government declared bald eagles an endangered species.

 C Bald eagles were almost extinct in the 1960s.

 Because bald eagles were almost extinct in the 1960s, the United States government declared them an endangered species.

2 The bald eagle showed the qualities of impressive strength and courage.

 The bald eagle was chosen in 1782 to be the symbol for the United States.

3 The government enacted laws that included banning the use of the pesticide DDT.

 The bald eagle population began to recover.

4 In 2007, the bald eagle was taken off the Endangered Species Act's "threatened" list.

 The bald eagles' numbers had greatly increased since the 1960s.

5 The bald eagle population may decrease once more.

 The habitats of the bald eagles are not protected in the future.

6 Some biologists are urging wind energy companies to develop safer turbines.

 The birds are sometimes killed by the blades of wind turbines.

7 People can help protect the bald eagle.

 People volunteer to clean up the habitats where eagles nest.



B Pair Work With a partner, think of two endangered animals. Discuss why the animals are endangered (habitat loss, pesticides, overfishing, etc.) and what is being done to protect the animals. Next, do the role play below. Use *because, if, since, and when* where possible.

A You are a reporter. Interview Partner B about one of the animals you talked about. Ask why the animal is endangered and what the impact of environmental policies has been.

B You are an environmentalist. Answer Partner A's questions.

Partner A Tell me about an endangered animal that people should know about.

Partner B Sea turtles are an endangered animal.

Partner A Why are they endangered?

Partner B One reason is the fishing industry. Many turtles die when they bite the hooks and get caught in the fishing lines.

Partner A How are they today?

Partner B Since there are now programs that protect the turtles, their numbers have improved in recent years.

Switch roles and do the role play again using information about the second animal.

Exercise 3.2 More Complex Sentences



Read the questions below. Then listen to the radio interview about bikeshare programs in large cities. As you listen, take notes. Finally, answer the questions. Use *because, if, since, and when*.

1 Why are bikeshares becoming so popular in large cities?

Bikeshares are becoming popular because they are a great way to reduce pollution.

2 Why do people use a bikeshare?

3 What do people have to do if they want to use the bikes?

4 What happens when riders get a flat tire?



