

Lesson 13

Comparing Text Structures, Part 2: Cause–Effect, Compare–Contrast

Learning Target

When you compare and contrast how the information in texts is structured, you will better understand the purpose of each text.

- **Read** How is a house different from a skyscraper? They each have a different structure and purpose. Authors use different **text structures** for specific purposes, too.
- The purpose of a **cause–effect text structure** is to tell about events and explain why they happen. Words and phrases like *cause*, *effect*, *because*, and *as a result* are sometimes used in a cause–effect structure.
 - The purpose of a **compare–contrast text structure** is to describe how two or more things are similar and different. A compare–contrast text structure will frequently use words like *both*, *unlike*, *similarly*, and *in contrast*.

Comparing texts can help you see their structures and purposes.

Read the passages below. Look for evidence of the structure and the purpose of each one.

Passage 1: Octopuses and squids have ink sacks. When threatened, they defend themselves by shooting a thick cloud of dark ink into the water. Because the ink is thick and dark, it hides octopuses and squids from their attackers. As a result, octopuses and squids have time to escape.

Passage 2: Octopuses and squids live in salt water. Both have blue blood, hard beaks, and eight arms lined with suckers. Octopuses live in dens on the sea floor where they hunt for clams, lobsters, and crabs. In contrast, squids live in the open ocean and eat fish and shrimp.



► **Think** What have you learned about text structures? Use the chart below to help you compare and contrast the purposes and text structures of the passages. Include evidence of the structure of each passage.

Passage	Author's Purpose	Text Structure	Evidence of Structure
1			
2			

- **Talk** Share your chart with a partner.
- Which text structure did the author of Passage 1 use?
 - Which text structure did the author of Passage 2 use?
 - How did each text structure support the author's purpose for writing the passage?



Academic Talk

Use these words and phrases to talk about the text.

- **text structure**
- **compare–contrast text structure**
- **cause–effect text structure**

Why Are THE OCEANS Salty?



by Anupa Desai

- 1 For much of history, it was a mystery why the oceans were salty. Different cultures, assuming that the oceans began as freshwater and only later became salty, came up with their own explanations. The Vikings related a story of a sailor dropping a magical salt grinder to the bottom of the ocean. People in the Philippines told of a giant who carried sacks of salt from island to island but then accidentally dropped them all into the sea. Other cultures had similar stories to explain the cause of the ocean's saltiness.
- 2 Scientists eventually figured out the truth. The stories were correct in one way: The amount of salt in the ocean has increased over time. Where did all the new salt come from? From the land. Most rocks contain salts, and over millions of years the forces of wind, rain, and ice break down the rocks and release the salts. Rainfall carries the salts to rivers, and the rivers carry the salts into the oceans. As a result, the ocean is salty.

OCEANS AND SEAS

by Richard Green

- 1 Some people use the words *ocean* and *sea* interchangeably, but these words refer to different things. An ocean is an enormous body of salt water, such as the Pacific or the Atlantic. In contrast, a sea is a smaller body of salt water, such as the Mediterranean Sea between Africa and Europe. Oceans are so large that people view them as surrounding the continents. The opposite is true for seas: They are surrounded by other, larger geographic features. Some seas are entirely encircled by ocean: The Sargasso Sea in the Northern Atlantic is an example of this. Other seas, such as Hudson Bay in Canada, are enclosed on some sides by ocean and other sides by land. Finally, a few seas, such as the Caspian in Asia, are completely landlocked within continents. Despite their differences, however, all seas have two things in common: They are made of salt water, and they are smaller than the oceans.

Close Reader Habits

When you reread the articles, **underline** details that tell what each passage is about, and **circle** words and phrases that suggest the text structure.

Explore

What text structure does the author of each passage mainly use to present information?



Look for words that show cause and effect or comparison and contrast.

Think

- 1 Identify the purpose and text structure of each passage. Then tell what evidence helped you figure out the structure.

Passage	Author's Purpose	Text Structure	Evidence of Structure
"Why Are the Oceans Salty?"			
"Oceans and Seas"			

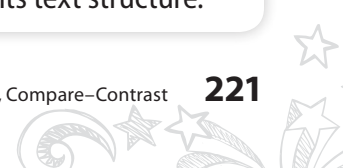
Talk

- 2 Share your charts. Look at the evidence you found for each text structure. How does each text structure support the author's purpose? If your partner has good evidence that you do not, add it to your chart.

Write

- 3 **Short Response** Explain how the text structure of each passage supports each author's purpose for writing. Use text evidence to support your response. Use the space provided on page 226 to write your answer.

HINT Be sure to quote words and phrases from each passage as evidence of its text structure.



TSUNAMIS and HURRICANES

by Tim Brown

- 1 Both tsunamis (soo NAHM eez) and hurricanes are powerful storms. They flood lands and damage property. Each kind of storm is extremely dangerous.
- 2 Tsunamis occur mostly in the Pacific Ocean. They form when a large amount of water is displaced, or moved, by an earthquake or another event that disturbs the floor of the ocean. Such a disturbance creates a series of massive waves. This “wave train” may travel up to 500 miles per hour, destroying everything in its path. Luckily, tsunamis are relatively rare. There are only about six every century.
- 3 In contrast, hurricanes may occur on any coastline. Hurricanes form over warm ocean waters during the hotter months of the year. During a hurricane, heavy rains fall, and strong winds blow with speeds of more than 74 miles per hour. The winds rotate around an “eye,” which is the calm center of the storm. In the center, winds are low and skies are clear. On average, a hurricane travels at speeds of only about 15 to 20 miles per hour.
- 4 Both tsunamis and hurricanes have earned their names. The term *hurricane* comes from a Spanish word for “storm.” The term *tsunami* comes from two Japanese words meaning “harbor” and “wave.” Since 1979, weather agencies have given men’s and women’s names to specific hurricanes. In contrast, weather agencies do not normally give names to tsunamis. Regardless of their names or where the words come from, hurricanes and tsunamis alike are fierce storms that most people would rather not experience.

Close Reader Habits

How does Tim Brown structure his information about tsunamis and hurricanes? Reread the article. **Underline** any details that help you understand how Brown organized his information.

Tsunami: A WALL OF WATER

by Yuki Tanaka

- 1 A tsunami is a series of huge waves. Earthquakes cause many tsunamis. Erupting volcanoes or underwater landslides may also trigger tsunamis. Nearly all tsunamis occur in the Pacific Ocean within the “Ring of Fire.”
- 2 Warning signs tell us when a tsunami is approaching. The first warning sign of an approaching tsunami is called *drawback*. The ocean suddenly recedes, or draws back, and then roars forward violently with a chain of extremely high waves. These surging waves can reach from 30 to 100 feet above sea level. They can crash onto land at speeds of 500 miles per hour, causing damage to buildings and injuring or killing animals and people.
- 3 There have been many record-breaking tsunamis throughout history. One of the largest tsunamis happened after Krakatoa, a volcano in Indonesia, erupted in 1883. The eruption caused some waves to rise more than 130 feet above sea level. As a result, about 36,000 people drowned.
- 4 The most deadly tsunami in modern times occurred in the Indian Ocean in 2004. People in India, Thailand, Indonesia, and other parts of Asia were taken by surprise when the tsunami slammed into the coast. This tsunami left millions homeless and killed more than 300,000 people.
- 5 More recently, a powerful earthquake rocked Japan on March 11, 2011. The earthquake caused 60-foot tsunami waves. This resulted in more than 15,000 deaths and more than 25,000 injuries. It destroyed buildings and damaged a nuclear power station. Although Japan has a good warning system, many Japanese could not escape from the dark wall of surging water.

Close Reader Habits

How does Yuki Tanaka structure her information about tsunamis? Reread the article. **Underline** any details that help you understand how Tanaka organized her information.



Some science articles tell what happened and why it happened. Others compare and contrast events, ideas, or concepts.

Think Use what you learned from reading the science articles to answer the following questions.

- 1 The box below gives details on how the articles by Tim Brown and Yuki Tanaka present information.

Details
<ul style="list-style-type: none"> • Describes how tsunamis and hurricanes are different • Explains what causes tsunamis • Explains what causes hurricanes • Gives examples of what happens when storms reach land • Explains what caused several tsunamis in the past • Gives examples of deadly tsunamis

Write details from the list to complete the chart below. Use **each** detail **one** time.

Article by Tim Brown	Article by Yuki Tanaka	Both Articles

2 Select **one** sentence from **each** article that provides the **best** evidence of each article’s text structure.

- A** “Such a disturbance creates a series of massive waves.” (“Tsunamis and Hurricanes”)
- B** “In the center, winds are low and skies are clear.” (“Tsunamis and Hurricanes”)
- C** “In contrast, weather agencies do not normally give names to tsunamis.” (“Tsunamis and Hurricanes”)
- D** “A tsunami is a series of huge waves.” (“Tsunami: A Wall of Water”)
- E** “There have been many record-breaking tsunamis throughout history.” (“Tsunami: A Wall of Water”)
- F** “This resulted in more than 15,000 deaths and more than 25,000 injuries.” (“Tsunami: A Wall of Water”)

3 In “Tsunami: A Wall of Water,” how is paragraph 3 **different** from the ones that come before and after it?

- A** It is the first paragraph that describes a specific tsunami.
- B** It is the last paragraph that explains the causes of tsunamis.
- C** It is the last paragraph that describes famous tsunamis in history.
- D** It is the first paragraph that explains how tsunamis damage buildings.

Talk

4 State the purpose of each passage. Then compare how each author presents information about tsunamis. Use the chart on page 227 to organize your ideas and evidence.

Write

5 Short Response Compare and contrast the purpose and text structure of “Tsunamis and Hurricanes” with that of “Tsunami: A Wall of Water.” Use details from **each** passage in your response. Use the space provided on page 227 to write your answer.

HINT Briefly state how the passages are alike. Then discuss how their purposes and structures differ.

WORDS TO KNOW

As you read, look inside, around, and beyond these words to figure out what they mean.

- colonies
- structure
- habitats

FLORIDA Keys

by Darrell Otis

- 1 *July 12.* So far, our summer vacation in Key Largo has been great. We went to Pennekamp Coral Reef State Park yesterday, took a tour on a glass-bottom boat, and saw some amazing coral reefs. Did you know that the Florida Keys have the only living coral barrier reef in North America?
- 2 Our guide told us that the reef is made of coral polyps. These tiny sea animals have soft bodies and live in warm, shallow waters. They form large colonies and are connected to one another. When coral polyps die, they leave behind a hard limestone skeleton. Over time, layers of skeletons build up to form a structure called a reef. A coral reef grows slowly upward from the ocean floor, and it may only grow one inch every year.
- 3 On top of the reef, there are thousands of living coral polyps. Because coral polyps are animals, they need to eat food. At night, they reach out their tentacles, or long feelers, to catch food that floats by. They also get their food from tiny algae that live inside them. The algae use the sun's energy to produce food.

Check out this close-up photo of a coral polyp! It clearly shows the tentacles (the long feelers) that they use to catch food.





I took this photo while scuba diving in a kelp forest off the coast of California. The bass at the upper left looks pretty cozy—this is his natural habitat, after all.

- 4 Many types of animals live in the coral reefs in Key Largo. They swim and hide among forty kinds of soft and hard corals. I saw colorful tropical fish, spiny lobsters, and sea urchins. Shrimps and crabs also live on coral reefs.
- 5 Last year, our family took a trip to California. There, I had a chance to look at kelp forests up close. Both kelp forests and coral reefs are underwater habitats.
- 6 Kelp is long, brown algae that lives in cool, shallow waters. Similar to coral polyps, kelp needs sunlight and a hard surface in order to grow. Kelp has three parts: the holdfast, the stipe, and the blade. The holdfast is the part that attaches to the ocean floor; the stipe connects the holdfast to the blade; and the blade is the leafy part that takes in sunlight and converts it to food.
- 7 Kelp forests form when kelp grows closely in crowded groups. Like coral reefs, kelp forests provide homes for many kinds of sea life, including fish, jellyfish, sea urchins, and otters. These animals can hide in the long, swaying kelp.
- 8 Kelp can grow two feet a day! At Monterey Bay Aquarium, I saw kelp that grew 28 feet high, but some giant kelp reaches a height of 200 feet. I like going to places where I can learn while having fun.

WORDS TO KNOW

As you read, look inside, around, and beyond these words to figure out what they mean.

- **benefit**
- **fragile**
- **substances**



Keep Coral Reefs Healthy

by Mary Wilford

- 1 Coral reefs are extremely important. Known as the “rainforests of the sea,” they provide homes to millions of different plants and animals. Coral reefs support roughly 25 percent of all the ocean’s creatures. Furthermore, they benefit the economy by encouraging tourism and the fishing industry. Also, they provide ingredients to make new medicines. We must try to protect our fragile coral reefs.
- 2 Coral reefs are made of small animals called coral polyps (PAH lips). Coral polyps are sensitive. They often react to changes in their environment. For example, one change that causes harm to coral reefs is a rise in the water temperature. Usually, corals live in water that is 70°F to 85°F. If the temperature rises by only one or two degrees, coral polyps become stressed. As a result, they will expel, or push out, the tiny plants called algae that live inside their bodies. However, coral polyps need these algae to survive. The algae provide oxygen and food. Without algae, coral polyps cannot get enough food. Therefore, they may starve and die.
- 3 If algae are expelled, coral polyps change color. They turn chalky white because their brilliant colors came from the algae in their tissues. This process is known as coral bleaching. Bleached coral reefs can sometimes recover. However, a large number of coral polyps may die as a result of bleaching. One of the worst examples of coral bleaching happened in 1998. About 16 percent of the coral reefs around the world were damaged or died.
- 4 Another threat to coral reefs is pollution. Acid rain, oil spills, and chemical fertilizers cause water pollution. These substances poison coral polyps and other animals that live in coral reefs. Coral polyps can only grow in very clear, clean water with plenty of sunlight. The algae that live in coral polyps use sunlight to make food. But water pollution makes the water cloudy. There is less sunlight, so algae cannot make food for the coral polyps.
- 5 We can help preserve and protect our precious coral reefs. First, we need to reduce air and water pollution. One way to do this is walk or ride a bike instead of using a car. Another way is to stop littering and dumping harmful chemicals into the ocean. You don’t have to live near the ocean to help the coral reefs. Let’s start today!

Think

Use what you learned from reading the journal entry and the editorial to answer the following questions.

- 1** This question has two parts. First, answer Part A. Then answer Part B.

Part A

Which statement **best** describes a major difference between the text structures of “Florida Keys” and “Keep Coral Reefs Healthy”?

- A** “Florida Keys” tells why it is more important to save the kelp than the coral reefs, while “Keep Coral Reefs Healthy” tells about events in the history of coral reefs.
- B** “Florida Keys” explains the similarities and differences between coral reefs and kelp, while “Keep Coral Reefs Healthy” tells about causes and effects of damage to coral reefs.
- C** “Florida Keys” is a personal account of seeing life in the ocean, while “Keep Coral Reefs Healthy” compares the different types of damage that pollution does to the coral.
- D** “Florida Keys” presents inspiring reasons for learning more about ocean life, while “Keep Coral Reefs Healthy” presents inspiring reasons for saving the reefs.

Part B

Choose **one** sentence from **each** passage that supports the answer in Part A.

- A** “Our guide told us that the reef is made of coral polyps.” (“Florida Keys”)
- B** “The algae use the sun’s energy to produce food.” (“Florida Keys”)
- C** “Similar to coral polyps, kelp needs sunlight and a hard surface in order to grow.” (“Florida Keys”)
- D** “Coral reefs are extremely important.” (“Keep Coral Reefs Healthy”)
- E** “For example, one change that causes harm to coral reefs is a rise in the water temperature.” (“Keep Coral Reefs Healthy”)
- F** “Let’s start today!” (“Keep Coral Reefs Healthy”)