

Hurricanes

Pre-Reading

A. Warm-Up Questions

1. Describe the most extreme weather you have ever experienced.
2. Which areas of the world commonly experience hurricanes?
3. How do hurricanes cause damage?
4. Which is more dangerous to humans, wind or water?



B. Vocabulary Preview

Match up as many words and meanings as you can.

Check this exercise again after seeing the words in context on page 2.

- | | |
|----------------------|--|
| ___ 1. rotating | a) to leave a dangerous area |
| ___ 2. exceed | b) to hit or touch the ground after being in the air |
| ___ 3. air pressure | c) to repeat from one to the other, to take turns |
| ___ 4. make landfall | d) the filling or overflowing of an area with water |
| ___ 5. downgraded | e) a person who studies and specializes in weather |
| ___ 6. storm surge | f) moving in a circular motion, spinning |
| ___ 7. flooding | g) reduced in the level of seriousness |
| ___ 8. meteorologist | h) to be more than |
| ___ 9. alternate | i) the force of air on a surface |
| ___ 10. evacuate | j) a sudden rise and rush of water that moves inland |

Reading

1. A hurricane is a strong, tropical storm with **rotating** winds. When winds **exceed** 74 miles (114 kilometers) per hour, a storm reaches hurricane status. Atlantic hurricane season takes place annually from June 1 to November 30. Northeast Pacific hurricane season starts a few weeks earlier. In the Northwest Pacific, this type of storm is called a “typhoon.” In the South Pacific and Indian Ocean, it is called a “cyclone.”
2. Hurricanes form over warm water. The heat from the surface of the water rises and creates an area of low **air pressure**. The surrounding high-pressure air moves in and the warm air rises. The colder temperatures above create a strong, steady wind. As the air begins to spin, the storm grows wider and stronger and becomes a hurricane. The heat from the ocean acts as its fuel.
3. Hurricane wind speed ranges from Category 1–5. The strongest hurricanes are Category 3–5. A Category 5 hurricane, with wind speeds 155 miles (250 kilometers) per hour or higher, is as strong as it gets. Hurricanes weaken as they pass over colder waters or when they **make landfall**. A **downgraded** hurricane becomes a “tropical storm.”
4. The spinning winds create an eye in the center of the hurricane. The eye is an area of low pressure that is usually only a few miles wide. When the eye passes over land, there is a small period of calm weather. Just outside of the eye is the eye wall. This is where the strongest winds are located. People who mistake the eye for the end of the storm realize they must quickly go back to their shelters.
5. One of the greatest threats of a hurricane is the **storm surge**. This is when strong winds push coastal water inland. A storm surge happens quickly and can be several feet high. In a hurricane, more people die from the **flooding** than from the strong winds. In addition to being life-threatening, a storm surge can destroy or damage property and land.
6. To keep track of hurricanes, **meteorologists** use a rotating name list. The alphabetical list of official hurricane names **alternates** between female names (e.g., Irma) and male names (e.g., Jose) that are easy to remember. If a hurricane causes major damage, the name is removed from the list (e.g., Andrew and Katrina). Weather centers monitor the paths of these storms and help save millions of lives during hurricane season by telling people when and where to **evacuate**.

A hurricane often sucks the water away from shore. The water then comes back quickly in a storm surge. This meteorological phenomenon is often deadly because curious people go out to investigate during the eye of the storm.

Comprehension

A. True or False?

Read the statements below.

If the statement is true, write T beside the sentence.

If it is false, write F and correct the information.

- _____ 1. Hurricanes, typhoons, and cyclones are the same types of storms in different parts of the world.
- _____ 2. Atlantic hurricane season is over before December.
- _____ 3. Hurricanes typically form when ocean water is cooler than average.
- _____ 4. The eye of the hurricane has the highest winds and strongest rain.
- _____ 5. A storm surge often causes flooding during a hurricane.

B. Ask & Answer

Practice asking and answering the following questions with your partner.

Then write your answers in complete sentences in your notebook.

- 1. When does a storm officially become a hurricane?
- 2. How do hurricanes form?
- 3. What is paragraph 3 mainly about?
- 4. What are the identifying features of the eye of the hurricane?
- 5. What is a storm surge?
- 6. Why does the reading mention the names Andrew and Katrina?
- 7. How are hurricanes named?

Vocabulary Review

A. Matching

Match the scientific words to their descriptions.
Use each answer only once.

- | | | | |
|----------|----------------------|----|--|
| _____ 1. | storm surge | a) | a person who studies and specializes in weather |
| _____ 2. | eye of the hurricane | b) | the strongest category of a hurricane, has winds 155 mph or higher |
| _____ 3. | eye wall | c) | the low-pressure center of a hurricane |
| _____ 4. | air pressure | d) | the sudden push of coastal water inland by strong winds |
| _____ 5. | meteorologist | e) | the part of a hurricane that has the strongest and fastest winds |
| _____ 6. | Category 5 | f) | the force of air on a surface |

B. Complete the Sentences

Complete the sentences using vocabulary from page 1.
You may need to change the word forms.

- We had to move our supplies to the second floor due to the _____ on the first floor.
- Before the hurricane reached us, it was _____ to a tropical storm.
- I keep _____ between watching the news and checking my Twitter feed.
- The _____ expected the hurricane to make landfall in Miami.
- Emergency workers will not answer calls when the winds _____ 60 miles per hour.
- Our greatest concern is the _____, which could rise as high as 10 feet above sea level.
- In the Northern Hemisphere, hurricane winds _____ counterclockwise.
- We advise everyone along the coast to _____ because of the Category 4 hurricane.

Grammar Review

A. Come Vs. Go

Though they have similar meanings, most cases of **come** and **go** are clear-cut.

Come

Come means to move toward something. We often use it for sentences about visiting and home.

- The hurricane is coming this way.
- Come up to our apartment if yours floods.
- Come over to my place. You'll be safer here.
- My aunt is coming to (our place in) Georgia because she was evacuated.

Go

Go means to move in a direction. We often use it for sentences about travel or other outings.

- The hurricane is going north.
We will be out of it soon.
- Let's go to the gas station before it's too late.
- I can't wait to go home!
I hope our house is in one piece.
- We will go to the shelter and wait out the storm.

***Note:**

In the expression **coming or going**, *coming* means arriving and *going* means leaving.

- I heard about the storm! Is it coming or going?

B. Come Back Vs. Go Back

The expressions **come back** and **go back** follow a simple rule:

Use *come back* if you are currently at the place you're referring to and *go back* if you are NOT currently there.

- I want to go back to the Caribbean when it isn't hurricane season.
- Come back and tell us how things are after you check on the damage.
- Go back and board up your windows.
- Are you going back to get your pets?
- It's not safe out here. Let's go back to the shelter.
- We hope your family comes back. We'll rebuild the community together.

C. Practice

Write four sentences to practice this grammar. Alternate between "come (back)" and "go (back)."

1. _____

2. _____

3. _____

4. _____

Discussion

1. Are you interested in learning about the science of weather?
Why or why not?
2. Do you think hurricanes are affected by climate change?
3. Where would you take shelter during a hurricane if you were at home?
What about at school?
4. Should people evacuate during hurricane watches and warnings?
What can go wrong in a mass evacuation?
5. Are you and your family prepared for a natural disaster?

Group Work

Work in a small group. Pretend you are a family. Decide how old each person is and what each person's role is (e.g., baby, teenager, father, grandmother, pets, etc.). Think about how to protect yourself, your family members, and your property in the case of a natural disaster. Share your emergency plan with the other groups in your class. Think about the following:

- food
- supplies
- documentation
- other (special needs)
- emergency shelter
- evacuation route

Discuss your plan with your classmates.
Did your family forget anything important?

Did You Know?

The English word *hurricane* comes from "Huracan," the Mayan weather god of wind, storms, and fire.