

Name _____

Date _____

Hurricanes

Use the text to answer each question below.

1. A hurricane is a tropical storm with very strong winds in a circular pattern. Hurricanes form on water, like over the ocean, and can last for days. Not all hurricanes reach land, but when they do, they usually cause damage with their heavy winds and rains.

A thunderstorm is a storm that causes heavy rain, thunder and lightning for a short period of time. It doesn't have a spiral wind formation, and it can form on land.

Here are some things that cause a hurricane:

1. The surface of the ocean water must be at least 82 degrees F
2. Water vapors rise, adding heat energy to the storm
3. Wind near the ocean's surface spirals inward

Which of the following describes a difference between thunderstorms and hurricanes?

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| A. Hurricanes last for a shorter period of time than thunderstorms. | B. Thunderstorms have much stronger winds than hurricanes. |
| C. Thunderstorms don't have a spiral wind formation and hurricanes do. | D. Hurricanes form over warm land while thunderstorms form over water. |
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2. Hurricane winds blow in a spiral pattern around a calm, circular center called the eye. The eye is 20 to 30 miles wide and relatively calm. There is little or no rain in the eye. Surrounding the eye is the eyewall, a wall of thunderclouds. The eyewall is where you'll find the storm's most rain and the strongest winds. Long rainclouds spin inward toward the eyewall. These are called spiral rainbands.

The eye of a hurricane is best described as

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| A. a calm area in the center of the storm. | B. a wall of thunderclouds. |
| C. a spiraling group of rainbands. | D. a stretch of 20 to 30 miles of heavy rain. |

3. Some hurricanes are stronger than others. They're rated on a scale of 1 to 5 based on wind speed, storm surge and potential to cause damage. A storm surge is an abnormal rise in sea level due to a hurricane or other intense storm. It causes flooding. Category 5 storms are the most dangerous, while Category 1 storms are the least. But don't be fooled. Category 1 storms can still cause serious damage.

Which of the following is true about the scale used to rate hurricanes?

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| A. chances of flooding decrease as the category number goes up | B. smaller category numbers are linked to more dangerous hurricanes |
| C. category numbers are decided only on hurricane wind speeds | D. as the category number goes up, storm intensity increases |

4. Hurricanes and tropical storms can happen across the globe, but they originate near the equator, in warm, tropical waters. They can occur in the Atlantic Ocean, Pacific Ocean and Indian Ocean. Some areas experience more hurricanes than others. For example, the southeast coast of the US gets hit a couple times a year, while California rarely experiences tropical storms.

Because hurricanes form and grow in warm weather, the Atlantic hurricane season is between June 1 and November 30, the hottest months in the Caribbean. Eastern Pacific hurricane season starts just a couple weeks earlier, on May 15. It's rare to see a hurricane during colder months like January and February.

Hurricanes, cyclones and typhoons are all the same type of tropical storm, they just have different defining factors. For example, a tropical storm in the region of the Indian or western Pacific oceans is called a typhoon.

Which of the following would **not** help the formation of a hurricane?

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|-----------------------------|--------------------------------|
| A. warm, tropical waters | B. a location near the equator |
| C. colder weather in winter | D. summer temperatures in July |

5. Did you know hurricanes weren't always given names? At first they were numbered, but numbering the hurricanes was confusing for newscasters and people watching the news. Since 1953, an international committee has provided a list of names for the hurricanes. At first, only women's names were used, but in 1979, men's names were added.

Which of the following would have been a possible hurricane name in the year 1960?

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|----------------|-----------|
| A. Christopher | B. Donna |
| C. Ernesto | D. Arthur |

6. It's hard to predict exactly where a hurricane will hit land. The ocean's temperature and current can unpredictably affect a storm's path. This means weather forecasters can anticipate exactly where a hurricane will hit only a few days in advance at best.

One of the deadliest and most destructive storms in US history was Hurricane Katrina. It made landfall on August 29, 2005 in southeast Louisiana and caused at least 1,833 deaths. Most of these casualties occurred in New Orleans, which flooded when the levee system failed hours after the storm moved inland. A levee is a type of man-made dam that runs along the banks of a river or canal to help prevent flooding.

How does a hurricane stop? A hurricane needs a supply of moisture from warm ocean waters. If the storm moves over land or cold water, it loses its driving force. The storm weakens and eventually dies out.

The length of a hurricane is dependent on

- A. the failure of dams like a levee system.
- B. a steady source of moisture from warm water.
- C. the heat from the sun shining on land.
- D. a cold ocean current near land.