



Read the passage carefully. Then answer each question in a full sentence, using evidence from the text where asked.

Coastal Fury Unleashed



The air in Grand Isle, Louisiana, felt heavy and thick. Dark, bruised clouds gathered on the horizon, swallowing the blue sky whole. A powerful wind began to whip through the palm trees, making them dance wildly, their fronds rustling like a thousand whispers. Families boarded up windows and stacked sandbags, their faces etched with worry as the news channels warned of Hurricane Katrina's approach. The ocean, usually a calming blue, churned with an unsettling grey fury, its waves growing taller and more insistent with every passing hour.

Hurricanes begin their lives as tropical disturbances over warm ocean waters, typically above 26.5°C (80°F). The sun's heat causes vast amounts of water to turn into vapor, a process called evaporation. This warm, moist air, full of humidity, rises into the atmosphere. As it rises, it cools and condenses, forming towering storm clouds and releasing more heat, which fuels the storm even further. This continuous cycle creates an area of very low pressure at the ocean's surface, drawing in more air and moisture, causing the system to spin and grow.

As the storm continues to gather energy from the warm water, it intensifies, developing into a powerful hurricane. The spinning mass of clouds and thunderstorms forms an "eye" at its center, a calm area surrounded by the most violent winds, known as the eyewall. Hurricane Katrina, which devastated parts of the Gulf Coast in August 2005, reached Category 5 strength with sustained winds of 280 km/h (175 mph) at its peak over the open ocean. Scientists study these massive storms to understand how changes in our



climate might be making them more frequent or intense, and how to better predict their paths and impacts.

COMPREHENSION QUESTIONS

(1) What process turns water into vapor over warm ocean waters?

(2) In the second paragraph, what does "humidity" refer to in the context of hurricane formation?

(3) What is the main idea of the second paragraph?

(4) What effect does the continuous cycle of rising warm, moist air have on a developing storm?



(5) According to the text, what was the peak sustained wind speed of Hurricane Katrina over the open ocean?

(6) Based on the first paragraph, what are two actions families in Grand Isle took to prepare for Hurricane Katrina?

