



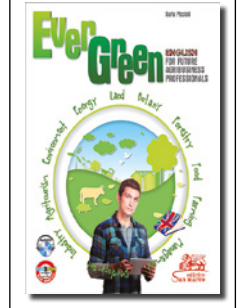
# Hurricanes

Over the past 35 years, the number of hurricanes has remained constant but their average intensity has increased, with the number of Category 4 and 5 storms – the most powerful – nearly doubling.

But how is a hurricane formed? Areas of low pressure over the ocean draw in air from surrounding, higher-pressure areas. The earth's rotation makes those winds spiral counterclockwise<sup>1</sup> in the northern hemisphere. Moist air warmed by the heat of the ocean rises through the storm, intensifying the suction effect. Eventually the storm dumps some of its water as rain, which falls away and can then be pulled in again. If strong atmospheric winds do not break this cycle, the storm becomes a hurricane when spiralling air speeds reach 74 **miles per hour** (119 km/h), forming a vortex of rain-laden clouds that circle a calm eye.

The longer a hurricane stays over warm water like those in the Gulf of Mexico, the stronger it gets. For a hurricane to form, ocean water has to be at least 80 °F (27 °C) to a depth of 150 ft (46 m).

Since ocean heat gives hurricanes their power, it is reasonable to conclude that global warming is at least indirectly responsible for the increase in powerful storms. For this reason, some scientists believe we may have entered a new cycle of heavy hurricane activity after relative calm over the previous 30 years.



## KEYWORD

**Miles per hour** (m.p.h.) is a unit of measure of speed expressing the number of statute miles covered in one hour.

## GLOSSARY

**1** in the direction opposite to movement of a clock's hands



## ACTIVITIES

**1** Answer the following questions.

- 1 How is a hurricane formed?
- 2 What is the average air speed of a hurricane?
- 3 How warm has ocean water to be for a hurricane to form?
- 4 Why is global warming responsible for the increase in hurricanes?