

LIFE NEWSPAPERS IN EDUCATION

NIE

Words at work

The calm before the storm

MEANING: a quiet period immediately before a time of great activity or trouble.
Example: For teachers, the day before the school year begins is the calm before the storm.

PART 4



Stormy weather

Between November and April it is possible that giant, spinning, whirlwind storms could hit parts of Australia during cyclone season.

What is a cyclone

CYCLOCNES are intense, violent storms characterised by high-speed winds rotating clockwise around a tropical low-pressure system that form when the warm temperature of the sea reaches a threshold level and the wind structure rises.

Cyclones produce gale force winds and torrential rain.

To be identified as a cyclone, it must be travelling more than 119km per hour and it must have been formed over the ocean in a tropical region.

The environment and the community in the path of a cyclone feel the effects with flooding, damage to the area, fatalities and injuries to the local population and economic impact on businesses, infrastructure and properties.

Cyclone categories

The severity or intensity of a cyclone is described in categories, determined by the maximum average wind speed.

The Australian Bureau of Meteorology classifies cyclones by the following wind speeds:

Category 1 = Wind speeds up to 125kmh = Slight damage to vegetation and farmland.

Category 2 = Wind speeds from 126-169kmh = Significant damage to vegetation; minor house damage; severe damage to signs and trees; heavy damage to crops

Category 3 = Wind speeds from 170-224kmh = Structural damage; house roofs damaged and power failures most likely.

Category 4 = Wind speeds from 225-279 kmh = Significant roofing and structural damage; airborne

debris; widespread power failure.

Category 5 = Wind speeds above 280kmh = Almost total destruction and extremely dangerous; houses flattened, cars overturned.

The eye of the cyclone

A feature of these compact, circular storms is the eye – a central region of the cyclone, typically 32-64km across, where it is relatively calm, mostly cloud free with lighter winds.

The most dangerous and destructive part of a tropical cyclone is the eye-wall where the winds are strongest and rainfall is heaviest especially when it passes over land.

Rain-bands are the outer parts of a cyclone trailing away from the eye-wall in spirals where sudden bursts of rain happen.

Be prepared

IF YOU live in a cyclone prone area there are a few steps you can take to prevent injury and damage.

★ To reduce flying debris, clear property of loose items or secure them.

★ Assemble an emergency survival kit, tinned food, water, medicines, important documents, torches, candles and matches, portable radio and batteries.

★ In the event of a cyclone, stay inside and shelter in the strongest part of the house eg bathroom.

★ Listen to the local radio/watch TV for updates and warnings.

★ Remain indoors until you are advised that it is safe.

Furious facts

- Cyclones are called hurricanes in North America and typhoons in Asia.
- According to the Bureau of Meteorology, Australia has, on average, 13 cyclones a year.
- Tropical cyclones in the Southern Hemisphere spin clockwise.
- The average life of a cyclone is three to seven days.
- Cyclones are assigned names, which are chosen from a list.
- Cyclone Tracy (1974) has been Australia's most destructive cyclone.

Try this

Bottled cyclone

Equipment

2 plastic soft drink bottles; a nail and hammer; water; food colouring; strong glue; masking tape

Procedure

Remove labels and lids from both bottles and join the flat sides of lids together with glue.

Using the nail and the hammer, carefully punch a large hole, at least $\frac{1}{2}$ cm in diameter, through the middle of the joined lids.

Fill one of the bottles with water and add some food colouring.

Screw the joined lids onto the full bottle and then screw the empty bottle onto the top of the full bottle. Wrap some tape around the lids to make sure the seal is tight.

Turn the bottles upside down so that the one full of water is on the top. Then move the bottles in a circular motion so the water inside starts to rotate.

Watch what happens.
Explanation

When you spin the bottles, you create a vortex similar to that created by a cyclone.

TOMORROW: Stormy weather Part 5