read

Natural Hazards

Tropical Storms

quiz

The Big Picture

natural hazards

*tectonic hazards**

Natural Hazards

weather hazards

climate change

Location

Tropical storms occur between 5 and 30 degrees north and south of the Equator. Areas of intense low-pressure allows warm, moist air to rise rapidly.

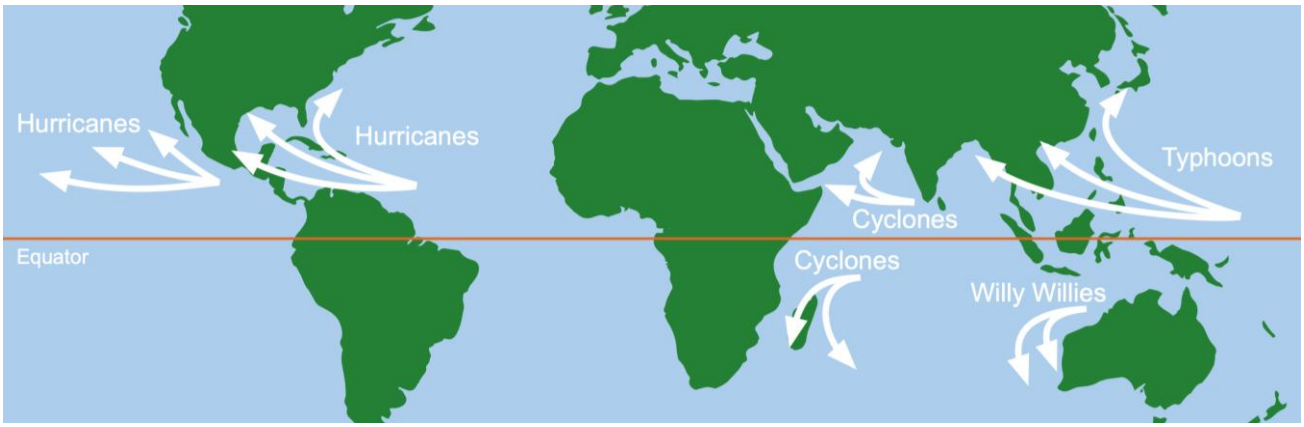
Key Terms

Coriolis effect – The spinning movement of the Earth.

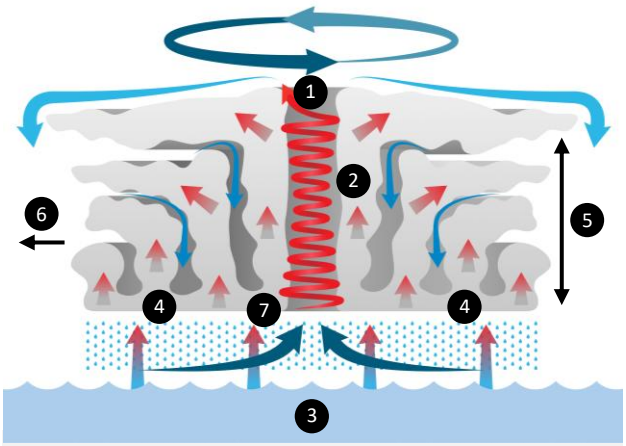
Eye – mostly calm weather found at the centre of a tropical storm.

Low-pressure – Occurs when air is rising in the atmosphere.

Tropical storm – An intense low-pressure system, forming over tropical oceans and with winds of hurricane force.



Structure and features



1. Eye
2. Eye wall
3. Water => 27°C
4. Rain bands
5. Height can be more than 13 km
6. Direction of movement
7. Torrential rain, very strong winds and thunder and lightening.

Formation

1. Tropical Storms start between 5° and 30° north and south of the equator where surface sea temps reach at least 27°C.
2. Warm air rises rapidly under low-pressure conditions as it is heated.
3. The rising air draws up more airing large volumes of moisture from the ocean, causing strong winds.
4. The Coriolis effect causes the air to spin upwards around a calm central eye of the storm.
5. Rising air cools and condenses to form large, cumulonimbus clouds which generate torrential rainfall.
6. Cool air sinks into the eye, therefore, there is no cloud so it is drier, clear and much calmer.
7. The tropical storm travels across the ocean by the prevailing wind.