

## B. DIFFERENT TYPES OF WEATHER

### Stormy Weather: Exploring Earth and Space Systems

Have you ever experienced a storm? Storms are fascinating natural events that occur in our Earth's atmosphere. They can bring strong winds, rain, snow, or other types of precipitation. Let's dive into the world of storms and explore the different types that occur in our Earth and space systems.

There are several common types of storms that we encounter. Let's learn about four of them. **Hurricanes** are massive storms that form over warm ocean waters. They have strong winds that can reach speeds of over 74 miles per hour! These winds move in a circular motion, forming a swirling pattern. Hurricanes bring heavy rain, powerful waves, and can cause severe damage to coastal areas. They usually occur in late summer or early fall. Tornadoes are powerful and destructive storms that form from thunderstorms. They appear as a rotating column of air that extends from a cloud to the ground. Tornadoes can cause significant damage with their strong winds. They are often accompanied by heavy rain, thunder, and lightning. **Tornadoes** can occur in any season but are more common in the spring and summer. **Blizzards** are winter storms that bring heavy snow, strong winds, and low temperatures. They can cause whiteout conditions, making it difficult to see. Blizzards can lead to snowdrifts, which are piles of snow that accumulate due to the strong winds. These storms can be dangerous and disrupt transportation and daily activities. **Thunderstorms** are common and occur in many different regions. They bring rain, thunder, lightning, and sometimes hail. Thunderstorms form when warm, moist air rises rapidly, creating towering clouds called cumulonimbus clouds. Lightning occurs due to electrical charges in the clouds, and thunder is the sound produced by the rapid expansion of air around a lightning bolt.

All these storms have one thing in common—powerful winds. The strong winds associated with these storms can cause trees to sway, branches to break, and even buildings to be damaged. The wind can carry raindrops, snowflakes, or hailstones, which are types of precipitation. Precipitation refers to any form of water that falls from the atmosphere to the Earth's surface. Rain is the most common type of precipitation, but in colder regions, it can fall as snow or sleet.

Now, let's see how well you understood the passage with some multiple-choice questions:

1. Which of the following is not a common type of storm?
  - a) Earthquakes
  - b) Hurricanes
  - c) Thunderstorms
  
2. What are hurricanes characterized by?
  - a) Heavy snowfall
  - b) Swirling winds
  - c) Tidal waves
  
3. When do hurricanes usually occur?
  - a) Winter
  - b) Spring
  - c) Late summer or early fall
  
4. What causes thunderstorms?
  - a) Rapidly rising warm, moist air
  - b) Extreme cold temperatures
  - c) Earthquakes
  
5. What type of precipitation is associated with blizzards?
  - a) Rain
  - b) Hail
  - c) Snow
  
6. Which storm is characterized by a rotating column of air?
  - a) Thunderstorm
  - b) Tornado
  - c) Hurricane
  
7. What is the most common form of precipitation?
  - a) Snow
  - b) Rain
  - c) Hail
  
8. Which storm is associated with whiteout conditions?
  - a) Tornado
  - b) Hurricane
  - c) Blizzard

## **Answers:**

1. a) Earthquakes

Explanation: Earthquakes are not considered storms. They are caused by tectonic plate movements.

2. b) Swirling winds

Explanation: Hurricanes have strong winds that move in a circular motion, creating a swirling pattern.

3. c) Late summer or early fall

Explanation: Hurricanes typically occur in late summer or early fall when ocean waters are warm.

4.a) Rapidly rising warm, moist air

Explanation: Thunderstorms form when warm, moist air rises rapidly, creating towering clouds.

5 c)Snow

Explanation: Blizzards are winter storms that bring heavy snowfall.

6. b) Tornado

Explanation: Tornadoes are characterized by a rotating column of air that extends from a cloud to the ground.

7. b) Rain

Explanation: Rain is the most common form of precipitation.

8. Answer: c) Blizzard

Explanation: Blizzards can cause whiteout conditions due to heavy snow and strong winds, making it difficult to see.