

Class 5a: Weather and storms

Hurricanes

- Start at low pressure centers
- Steep pressure gradient → strong winds (74 mph)

Hurricanes

Hurricanes

Hurricanes

- Low pressure → air swirling upwards

Hurricanes

- Damage from high winds, rain
- Most deaths from flooding

Midlatitude weather: air masses

- Larger than parcels; maybe continent-sized
- Homogeneous, large, uniform

Air masses

- cP (continental polar)
- mP (maritime polar)

Air masses

- mT (maritime tropical)

Fronts

Warm fronts

- Warm air advances over cold

Cold fronts

- Cold air plows under warm air

Midlatitude cyclonic systems

- Main midlatitude storm system

Midlatitude cyclonic systems

- Occluded
- Dissolving

Thunderstorms

- Violent, convective storm

Thunderstorms

- Hail caused by updrafts; layers of ice
- Lightning caused by electrical separation

Thunderstorms

- Where? High temperatures, humidity, and instability

Tornadoes

- Most violent atmospheric disturbance

Tornadoes

- Most common in North America