

Severe Weather Storms

-Caused by Fronts

✓ Thunder/Lightning Storms (page 129-130)

- +heavy rain, thunder, lightning
- occur along fronts with warm, cold, and moist air masses
- +form huge cumulonimbus clouds
- +can include strong winds and hail
- major damage can occur from strong winds, hail, and flash (quick) floods.
 - +lightning occurs when negative electrical charges build up in the clouds. Because opposite electrical charges attract, the negative electricity travels from the cloud to another cloud or the ground which is positively charged.
 - +thunder occurs when the air around a lightning bolt heats up quickly. Because the heated air expands quickly, it makes a crashing sound.
 - lightning heat up to about 30,000 degrees Celsius

✓ Tornadoes/Twisters (pages 130-131)

- occur along fronts with a cold air mass laying on top of warm air mass
- +a violent, rotating column of air in contact with the ground that form at the base of a cumulonimbus cloud.
- +High velocity winds that are different speeds, at different heights, and in different directions.
 - +usually very small (about 50-100 ft in diameter) and quick (only a few minutes) but very strong and destructive.
 - +are measured by the Fujita Scale (page 131) according to their wind speeds and damage.

✓ Hurricanes (page 132)

- A large swirling low pressure system storm that normally forms over the warm Atlantic Ocean near the equator.
- typhoons (which occur over the Pacific Ocean) and cyclones (which occur over the Indian Ocean) are the same types of storms as hurricanes
- +winds rotate counterclockwise at 119 km/hr (approximately 75 mph) or greater
- storm travels west
- +picks up heat, moisture and energy from warm water and but loses power and weakens when the storm travels over land.
- hurricanes create high winds, heavy rains, high ocean waves, and floods
- +the center of a hurricane is called the eye.

✓ Blizzards (page 133)

- caused when a warm front and cold front come together in the winter under freezing temperatures
- +bring howling winds, major snow fall, high snow drifts, and freezing temperatures
- +in order to be characterized as a blizzard, the storm must have 4 things:
 - +winds blowing at least 35 mph
 - +low visibility
 - +snow falling for 3 hours or more
 - +temperatures below 32 degrees F

Severe Weather Safety (page 133)

- be prepared in advance when conditions are right for severe weather storms to occur
- stay tuned to the radio or TV reporting the weather
- listen to any warnings that may be issued by the National Weather Service
- take immediate action:

- tornado action- go to the basement or middle of the house away from windows
- hurricane action- be prepared to leave your house and move away from coasts/beaches. Do not stay in home.

- blizzard action- stay inside

- thunder/lightning action- stay low to the ground and away from tall trees, buildings, water, or any other tall metal objects. A car may also be a good place to go because of the rubber tires.