Topics	Notes, Diagrams, Drawings
Severe weather	Weather events that cause major damage, injuries, and death
Thunderstorms	 have warm temperatures, moisture, and rising air which may be supplied by a low (L) pressure system • When these (↑) conditions occur a cumulus (or cumulonimbus) cloud can grow into a 10-km tall thundercloud in as little at 30 minutes • Are also known as electrical storms because of their lightning
Thunderstorm life cycle	 Cumulus stage Cumulus cloud forms and air rises (updraft) Mature stage Downdrafts begin to appear, air currents move toward the ground Heavy winds, rain, and lightning dominate the area Dissipating stage Updrafts stop, winds die down, lightning ceases, and precipitation weakens
Lightning	 Strong updrafts and downdrafts within a storm cause tiny ice crystals to ride and sink, crashing into each other creating positively & negatively charged particles in a cloud Difference in charges of particles within the cloud and ground causes electricity and this is seen as a bolt of lightning

Topics	Notes, Diagrams, Drawings
Tornado	 violent, whirling column of air in contact with the ground Thunderstorm updrafts begin to rotate and the wind coming into the storm starts to swirl and forms a funnel. The air in the funnel spins faster and faster and creates a very low pressure area which draws more air into it Diameter of several hundred meters (largest tornado exceeded 1,500 meters in diameter) Speeds can reach more than 400 km/hr
Tornado alley	 More tornadoes occur in the United States than anywhere else on Earth Central United States, from Nebraska to Texas Cold air blowing southward from Canada collides with warm, moist air moving northward from Gulf of Mexico
Hurricane	 intense tropical storm with winds exceeding 119 km/hr Form in late summer over warm, tropical ocean water Eye: center of hurricane, clear skies & light wind Once a hurricane moves over land or colder water, it loses its energy and dissipates Asia: typhoon Australia: cyclone Typical hurricane: 480 km across More than 150,000 larger3 than a tornado
Winter storm: blizzard	 violent winter storm characterized by freezing temperatures, strong winds, and blowing snow Swirling snow reduces visibility and freezing temperatures can cause frostbite and hypothermia
Severe weather safety	U.S. National Weather Service issues watches and warnings for different types of severe weather
	During thunderstorms, stay inside and stay away from metal objects and electrical cord. If you are outside, stay away from water, high places, and isolated trees
	U.S. National Weather Service also issues a daily UV Index Forecast which include precautions on sunny days (covering up, using sunscreen, wearing a hat and sunglasses). Surfaces such as snow, water, and beach sand can double the effects of the Sun's UV radiation