

Science

Chapter 8 Notes

Lesson 1:

Air pressure: decreases as you go up through the five layers of the atmosphere.

Convection current: form when air temperatures are different; the cool, heavy air will sink and the warm air will rise, causing wind as air moves from an area of high air pressure to low air pressure.

- Winds generally blow from west to east because of the moving of huge convection currents combined with the spinning of the Earth.

Lesson 2:

Air Mass: a large body of air with similar properties all through it.

- Four Kinds of Air Masses:
 - Continental Polar Air - form over land near the poles, cold and fairly dry.
 - Continental Tropical Air - form over large, hot deserts, warm and fairly dry.
 - Maritime Polar Air - form in the ocean near the poles, cold and moist.
 - Maritime Tropical Air - form over tropical oceans or rainforests, warm and very humid.

Precipitation : caused by a front of rising warm air.

Lesson 3:

Severe storm warning: means that severe storms have already formed and you should prepare for them.

Tornadoes : when upward winds lift on end of a spinning column of air while downward winds push down on the other end; the spinning air column must touch the ground to be classified as a tornado.

Hurricanes: get their energy from warm ocean water.

- To prepare for a hurricane:
 - Board up your windows
 - Store food and water
 - Have flashlights and battery-powered radios available
 - Put valuables in plastic containers high off the ground
 - Stay inside

Lesson 4:

Barometer : shows air pressure.

Anemometer : measures wind speed.

Rain gauge : measures how much rain has fallen.

On a weather map:

- "H" - refers to an area of high pressure.
- "L" - refers to an area of low pressure.

Lesson 5:

Climate: the average of weather conditions over a long time, usually 30 years. Includes things such as average amount of precipitation, average temperature, and how much the temperature changes during the year.

Ocean currents: can make a climate warmer or cooler; the Gulf Stream and the North Atlantic Drift are large currents that cause winds which make northern Europe's climate much warmer than it would be otherwise.

Fossils: provide one way for scientists to try and learn about climates in times before written records.