**Unit 5**

**Lesson 2:**

**Atmosphere:** a blanket of gases that surrounds earth and certain other planets

**Air pressure:** the result of the weight of air in the atmosphere pressing down on earth

**Density:** the concentration of matter in an object or part of an object

**Altitude:** the height of an object above the surface of the earth

**Troposphere:** the atmospheric layer closest to the surface of the earth, which extends from the ground to between 6 and 11 miles above the surface

**Stratosphere:** a layer of the atmosphere above the troposphere where temperature rises slightly with altitude

**Mesosphere:** a layer of the atmosphere between the stratosphere and thermosphere, which lies between 30 to 50 miles above the surface of the earth

**Thermosphere:** a layer of the atmosphere

**Exosphere:** the top layer of the thermosphere

**Lesson 3:**

**Conduction:** the transfer of heat between two adjoining objects, caused by a temperature difference between the objects

**Electromagnetic Radiation:** radiation consisting of electromagnetic waves, including radio waves, infrared, visible light, ultraviolet, X rays, and gamma rays

**Radiation:** the process in which energy is emitted by one body, transmitted through an intervening medium or space, and absorbed by another body

**Lesson 4:**

**Precipitation:** moisture, such as rain, snow, sleet, and hail that falls from the atmosphere to the earth

**Humidity:**  the amount of water vapor in the air at any one time and depends on temperature

**Weather:** the day-to-day conditions of an area, including the temperature, wind direction and speed, air pressure, relative humidity, and precipitation

**Lesson 5:**

**Air Pressure Gradient:** the change in air pressure over a given distance

**Lesson 6:**

**Air Mass -** a body of air covering a relatively wide area, with about the same properties through any horizontal section

**Front -** a zone of transition between two different kinds of air masses

**Maritime -** of or related to the sea

**Polar -** of or relating to the North or South Pole

**Lesson 7:**

**Stationary Front -** a front between warm and cold air masses that is moving very slowly or not at all

**Occluded Front -** a front that forms when warm air is wedged upward between two cold fronts

**Warm Front -** a transition zone between a mass of warm air and the colder air it is replacing

**Cold Front -** the zone separating two air masses, of which the cooler, denser mass is advancing and replacing the warmer

**Isobar -** line on a weather map that connects areas of equal air pressure

**Lesson 8:**

**Barometer -** a tool that measures air pressure

**Hygrometer –** a tool that measures humidity

**Meteorologist -** a scientist who studies weather and reports on weather conditions

**Lesson 11:**

**Climate -** the long-term pattern of weather over time for a particular area, including temperature and precipitation

**Climate Zone -** area on earth that has similar temperature, rainfall, snowfall, and sunshine

**Weather -** the day-to-day conditions of an area, including the temperature, wind direction and speed, air pressure, relative humidity, and precipitation

**Lesson 13:**

**Greenhouse Effect -** the process in which the absorption of short wave radiation by the atmosphere heats up a planet

**Greenhouse Gases -** atmospheric gases that contribute to the greenhouse effect that include water vapor, nitrous oxide, methane, and carbon dioxide, which is the most abundant