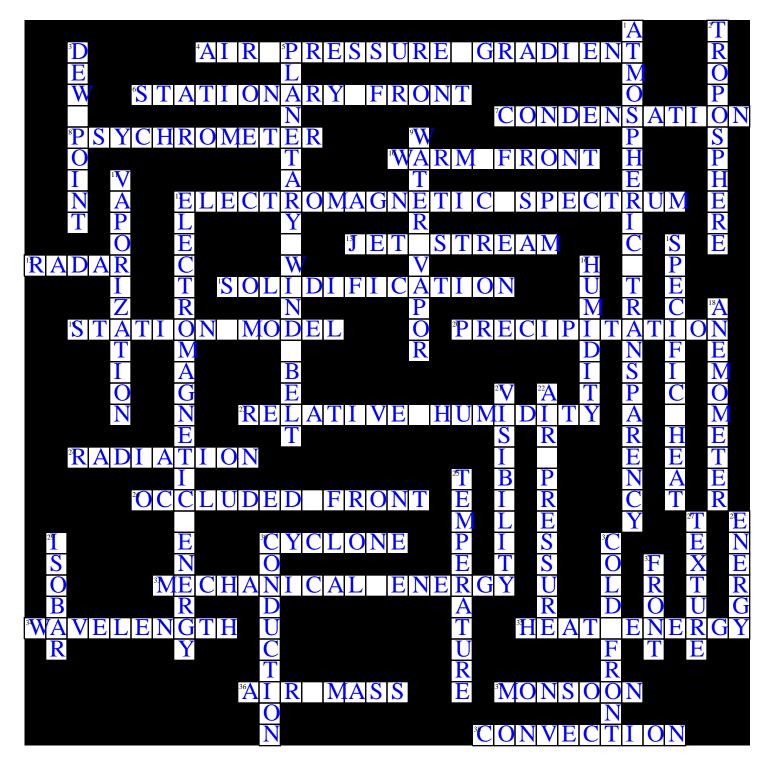
Unit 7 Vocabulary Crossword Auletta/Albertina

Earth Science Unit 7: Meteorology Vocabulary



Across

- 4 The amount of difference in air pressure over a specific distance; the greater the pressure gradient, the greater the speed of the wind
- 6 A weather condition in the which the boundary between two air masses remains in the same position
- 7 The change in state or phase from a gas to a liquid, such as when water vapor changes to liquid water droplets as clouds form
- 8 An instrument that is used to indirectly measure the amount of water vapor in air, such as a sling psychrometer; with the use the use of data tables, temperature readings from a psychrometer can be used to determine relative humidity and dew point.
- 10 The boundary of an advancing warm air mass and retreating wedge of a cooler air mass; characterized by a gentle slope, long periods of precipitation, and strato (layered) clouds
- 12 A chart that shows the full range of types of electromagnetic energy, usually in order of wavelength.
- 13 A concentrated curving band of high speed, easterly moving winds usually at the top of Earth's troposphere
- 15 An instrument that uses radio / microwave electromagnetic radiation to observe many weather features such as precipitation, tornados, and hurricanes
- 17 The processes by which a liquid changes to a solid
- 19 Weather data on maps represented by circles, with symbols with and around each circle that indicate the many weather variables
- 20 Falling liquid or solid water from clouds towards Earth's surface.
- 23 The ratio of the amount of water vapor in the air to the maximum amount it can hold; often expressed as a percent
- 24 the transfer of energy through air and space by light waves.
- 26 The boundary of opposing wedges of cold air masses formed when a cold front overtakes a warm front, lifting the warm air mass off Earth's surface, forming mid-latitude cyclones (lows).
- 30 A low-pressure portion of the troposphere that has air moving counterclockwise and towards its center-includes hurricanes, tornadoes, and mid-latitude cyclones, also called a low.
- 33 All the energy of an object or system not related to the individual motions of atoms and molecules; the total of the potential and kinetic energy of an object or system
- 34 The distance between the point on a wave and the corresponding point on the next wave, such as the distance between two successive crests in an electromagnetic wave
- 35 Energy that is transferred from one body to another as a result of a difference in temperature or thermal energy of two bodies
- 36 A large body of air in the troposphere with similar characteristics of pressure, moisture, and temperature
- 37 Cyclic and extreme weather changes caused by the shifting wind and pressure belts; especially strong in southeast Asia where summer brings wet weather from the ocean and winter brings dry weather from the continental interior
- 38 The transfer of heat energy by circulatory movements in a fluid, (usually liquids or gases) that result from differences in density with the fluid.

Down

- 1 How transparent the atmosphere is to insolation; how easily insolation can pass through the air.
- 2 The part of the atmosphere immediately above Earth's surface; where most weather changes occur
- 3 The temperature at which the air becomes saturated with water vapor and the relative humidity is 100%; at temperatures below the dew point, condensation or sublimation of water vapor occurs.
- 5 East-west zones on Earth where the wind blows from one direction much of the time; also see Prevailing Winds; example – the prevailing southwest winds that blow over the contiguous United States
- 9 Gaseous water in the atmosphere; also called moisture or steam
- 11 The change in state from liquid to a gas, such as liquid water into water vapor.
- 12 Energy that is radiated (given off) from all objects not at temperature of absolute zero, examples – visible light, radio waves, infrared radiation, and ultraviolet radiation; often called light or radiant energy.
- 14 The quantity of heat, in calories, needed to raise the temperature of one gram of a substance one degree Celsius; the degree of difficulty a material offers to heating up or cooling off
- 16 The amount of water vapor (gaseous water) in the atmosphere
- 18 A weather instrument used to measure wind speed.21 The farthest distance at which one can see a
- 21 The farthest distance at which one can see a prominent object at Earth's surface with the naked eye; decreased by fog, air pollution, and precipitation.
- 22 The weight of the atmosphere pushing down on a given unit of area; affected by changes in temperature, water vapor, and altitude
- 25 A measure of the average kinetic energy of the particles in a body of matter; a measure of how hot or cold a substance is
- 27 The roughness or smoothness of a surface
- 28 The ability to do work
- 29 An isoline used on weather and climate maps that connects points of equal air pressure
- 30 The transfer of energy in the form of heat or electricity from one atom to another within an object by direct contact
- 31 The boundary of an advancing cold air mass and a warmer air mass, where the underlying cold air pushes forward like a wedge; characterized by a sleep slope, rapid changes in weather, thunderstorms, and sometimes hail and tornados.
- 32 The interface, or boundary, between two air masses of different characteristics