

Weather Vocabulary

WORD	DEFINITION/MEANING
air mass	large bodies of air that have the same temperature, moisture, and pressure; cause most of the weather
angle of incidence	angle the sunlight hits the earth, more intensity = warmer
cloud	tiny water droplets in the atmosphere, formation depend on air mass movement, usually form at frontal boundaries and low pressure areas
cloud: cumulonimbus	taller cumulus clouds, often result in thunderstorms "nimbus" = rain
cloud: cumulus	mid to low level clouds, fluffy and look like cotton, mean fair weather
density	amount of matter in an object, cold air is denser than warm air (heavier), warm air rises because it is less dense (not as heavy)
front, cold	colder air replaces warmer air; usually moves from northwest to southeast; represented by a solid line of triangles on a weather map (triangles point to warmer air); results in cooler weather and high pressure
Coriolis effect	explains why the air curves over the earth (rotating earth); winds in the Northern Hemisphere curve to the right, winds in the Southern Hemisphere curve to the left
cloud: stratus	lowest clouds, look like layers, result in overcast weather and sometimes produces precipitation
convection	heat transfer through means of air
global wind	when air moves over a vast distance, also known as atmospheric circulations, do not change much
frontal boundary	where two fronts meet
instrument: hygrometer	used to measure humidity
leeward	side of the mountain where cooled air sinks and descends, faces away from the wind, air is dry because it is sinking and condensation does not occur; deserts often found on leeward sides of mountains
rain shadow effect	lack of precipitation on the leeward side of the mountain
wind speed	changes as air pressure changes
sea breezes	air flows from sea to land, explains why beaches are usually windy (remember: the land heats up and cools down faster)
trade winds	occurs between the Equator and 30 degrees north and south, blow from east to west
temperature	degrees warm or cold; influenced by cloud cover

runoff	excess water that the ground cannot absorb
latitude	location north and south of the Equator
humidity	amount of water vapor in the air (more “sticky” feeling = high humidity; higher humidity = greater chance for rain and storms)
front, warm	warmer air replaces cooler air; usually moves from southwest to northeast; represented by a solid line of semicircles on a weather map (semicircles point toward the colder air); results in warmer weather and low pressure
cloud: cirrus	high clouds, wispy and look like feathers, composed of ice crystals (higher elevation = colder temperatures)
anchor	to hold, keep fixed
air pressure, high	occurs when the air pressure is higher than areas around it; usually means cooler temperatures and drier weather
climate	weather over a period of time
front, occluded	when a cold front overtakes a warm front in an atmospheric depression
hail	a type of precipitation, lump of ice, forms because when water droplets cycle in the cloud and freeze
instrument: wind vane	used to measure wind direction
instrument: thermometer	used to measure temperature (degrees Celsius or Fahrenheit)
instrument: barometer	used to measure air pressure
condensation	when water vapor becomes liquid
altitude	height or elevation
air pressure	weight of the air above the surface of the earth, applies pressure on objects
air pressure, low	occurs when the air pressure is lower than areas around it; usually means warmer temperatures and wet weather
barometric pressure	atmospheric pressure (normal = 29.92 inches in a column of mercury or 1013 millibars)
hurricane	a rotating storm system that forms in warm ocean waters, usually increases intensity when crosses warm waters
land breezes	wind that moves from land to sea (remember: the land heats up and cools down faster)
local wind	move across small distances close to the earth’s surface, not as predictable because they change with air pressure
prevailing winds	move from west to east, typically how most storms move, determine movement of fronts
precipitation	form of water that falls from a cloud to the earth

windward	side of a mountain the air ascends (goes up), faces toward the wind, precipitation occurs, vegetation is rich
wind	moving air, caused by differences in air pressure from place to place, moves from high to low pressure
weather	daily or hourly conditions
meteorology	study of the weather
instrument: anemometer	used to measure wind speed (mph)
evaporation	when liquid becomes water vapor
forecast	weather predictions
fog	cloud that touches the ground
meteorologist	scientist who studies the weather
Polar Easterlies	occurs between 60 and 90 degrees north, 60 and 90 degrees south; winds blow from east to west
trend	patterns in weather data
Sun	driving force for the weather
nimbus	means "rain" in Latin, brings precipitation
monsoon	large land-sea breeze, produces much rain
front	forms when two air masses meet; boundaries that separate different air masses