

What will occur when land & H₂O are heated differently?

A: heat will move from the hotter surface to the air above & the cooler surface air will move to the hotter surface. L-4

Name the 2 types of fog.

A: ground (radiation) & advection L-3

How do large bodies of water influence the climate?

A: create a more mild climate (warmer winters, cooler summers) L-3

What type of fog occurs over water?

A: advection fog L-2

Name the 4 types of fronts.

A: cold, warm, stationary, and occluded L-5

Why did releasing the plastic bottle create a cloud?

A: caused cooling & condensation L-2

What are the 3 necessary ingredients for a cloud?

A: H₂O vapor, cooling, condensation nuclei L-4

Name 3 types of condensation nuclei.

A: smoke, pollution, dust L-3

Describe how a cloud forms.



L-3

What is the result of a cold front meeting a warm front?

A: cold front is more dense & causes warm air to rise, causing clouds & precipitation L-3

How do large bodies of water effect a climates precipitation?

A: large bodies of H₂O add H₂O vapor & increases the likelihood of precipitation.
L-3

As elevation increases, the climate becomes _____.

A: colder

L-1

Why are some climates dry on 1 side of a mountain?



L-4

What increases greenhouse gases in the atmosphere?

A: burning fossil fuels, population growth, industry

L-2

_____ gradual increase in the temp. of Earth's atmosphere.

A: global warming

L-2

Why is an increase of greenhouse gases a concern?

A: more gases would absorb more emitted heat from Earth's surface & ~~absorb~~ "trap" the heat in the atmosphere.

L-3

Name 3 types of greenhouse gases.

A: H₂O vapor

L-3

True ~~or~~ False

Short wave solar radiation heats up Earth's surface.

A: True

L-1

What gas is the most important for understanding the processes that take place in the atmosphere?

A: H₂O vapor

L-1

True or False

H₂O Vapor can enter & leave Earth's atmosphere.

A: False

L-1

What time of the year & why? do thunderstorms occur?

A: spring/summer, requires warm/humid air rising L-3

Describe how latitude effects climate's temp.

A: a location relative to the equator determines how much solar radiation it receives. L-3

What causes lightning?

A: warm air rising & colliding causing friction with cold/sinking air molecules

L-5

Name 5 climate controls.

A: 1. latitude
2. proximity to H₂O
3. altitude/elevation
4. proximity to mountains
5. ocean currents

L-5

Where do hurricanes occur?

A: over oceans, Atlantic ocean

L-2

_____ are conditions that influence climate in an area.

A: climate controls

L-2

Why is the eye of a hurricane calm?

A: warm humid air rises from the ocean & dry air moves to the low pressure center. L-5

What are the 2 main characteristics of climate?

A: temp. & precipitation

L-2

What causes hurricanes to ~~to~~ slow down over land?

A: land friction & less warm H₂O vapor. L-2

_____ is an area's long-term pattern of weather.

A: climate

L-1

_____ is the weight of all the air in the atmosphere pressing down on Earth

A: air pressure

L-1

What causes wind?

A: caused by difference in air pressure due to unequal heating of earth's surface & atmosphere.

L-3

Why does air have pressure?

A: because it has mass

L-2

Name the 3 forces that determine the direction of wind.

A: pressure gradient, Coriolis effect, & friction

L-5

How are altitude & air pressure related?

A: higher altitude = decrease in air pressure

L-1

What gas drives storm systems?

A: water vapor

L-2

What molecules make up low & high pressure systems?

A: low = water vapor
high = Nitrogen & oxygen

L-3

Describe a front.

A: boundary between two air masses

L-3

Air moves from _____ pressure to _____ pressure.

A: high to low

L-1

Winds don't blow directly, they curve from the rotation of Earth. What is this called?

A: Coriolis Effect

L-2

This force slows winds down close to Earth's surface _____.

A: friction

L-2

_____ is H₂O vapor condensing on a surface.

A: dew

L-1

_____ is the amount of actual H₂O vapor in the air.

A: specific humidity

L-2

Describe dew point.
A: the temperature at which saturation occurs and condensation begins.

L-3

Why can warm air hold more H₂O vapor?

A: because its molecules are further apart & have more vacancy.

L-1

What instrument measures relative humidity?

A: psychrometer

L-5

Describe relative humidity.

A: how near the air is to its maximum capacity for holding H₂O vapor.

L-3

What must occur for dew to form?

A: cooling below dew point. ~~condensation~~

L-2

_____ means the relative humidity is equal to the specific humidity.

A: saturation

L-2

_____ is the state of Earth's atmosphere at a particular place & time.

A: weather

L-1