

1

rotation

turning of earth on it's axis.about 24 hours. determines day length.

creates the apparent deflection of winds and ocean currents, and produces the 2x daily rise and fall of ocean tides in relation to the gravitational pull of the Sun and the Moon

2

Coriolis force

deflective force, makes wind that travels in a straight path appear to be deflected in relation to Earth's rotating surface.

deflects wind to the right in the Northern Hemisphere and to the left in the Southern Hemisphere.

Without this, winds would move along straight paths between high and low pressure areas.

3

tides

-deform the solid and fluid regions regions, causing earth's inertia tensor to change.

causes earth's rate of rotation and length of day to change

4

altitude

farther away from earth's surface the colder it is

5

Latitude

lateral distance from the equator measured in degrees north or south

warmer at the equator and the closer you get the north and south poles, the colder it gets. Less temperature change at equator; greater temperature change at the poles

6

cloud cover

circulation patterns influence cloud cover which in turn affect temperatures

7

Convergence lifting

the process by which winds come together from opposite directions and are forced to rise due to compression or 'squeezing'

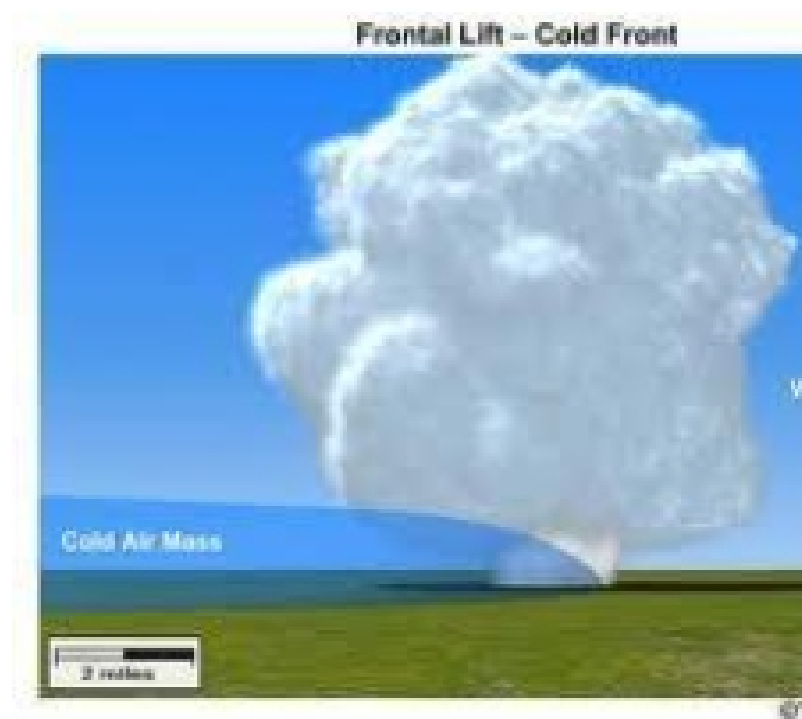
- part of process that occurs in low pressure cells in conjunction with convection
- both convection & convergence are at work to form the Inter-tropical convergence Zone (ITCZ)

8

Conventional lifting

When an air mass from a maritime source passes to a warmer continental region gains buoyancy and lifts initiates adiabatic process.

9



Frontal Lifting

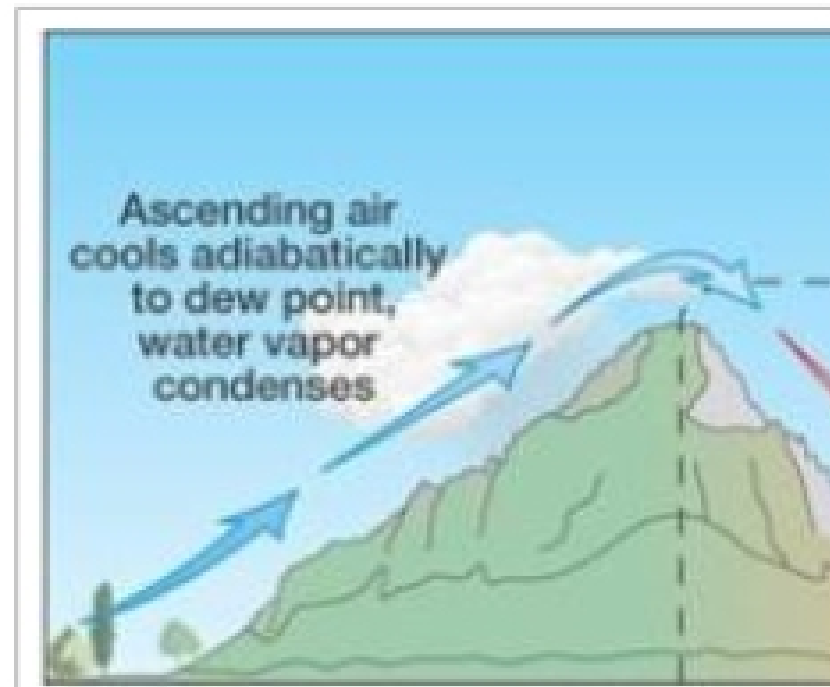
When two air masses collide and the leading air mass is its front
 warm air rises
 cold air falls

10

frontal lifting (cold and warm fronts)

- Warm Front: unable to push cooler air out of the way. identified on map like semicircle pointing in direction of front
- Cold Front: cold dry air moving into warmer air. Cold air is denser. Steep slope. Forces air up vertically. on map looks like triangles pointing in direction of front

11



orographic lifting

Air is forced to rise over a mountainous barrier

12

internal land-forming mechanisms

volcanic and tectonic

13

external landforming mechanisms

weathering and erosional processes

14

hazard

existence of potentially dangerous situation or event

ex: earthquake, volcanic eruption, hurricane

15

vulnerability

susceptibility of a community to a hazard

16

risk

the probability that injury or damage will occur

17

open system

change that occurs in any portion of the basin can affect the whole system

18

drainage basin

terrain that contributes water carried by a stream. also called watersheds.

-water collection area