

NAME: Mrs. Sjuts

DATE: Thurs, Oct 28, 2024

TOPIC: E Transfer in Atm & Oceans

ESSENTIAL QUESTION: Obj 6: How does ocean water circ. affect E distribution in Earth's system Obj 7: diff. heat & convection Obj 8: How E transfer relates to winds & air masses Obj 9: How do air mass types affect weather & fronts?

QUESTIONS AND CONNECTIONS:

E Transfer in atm ...

What is it caused by?

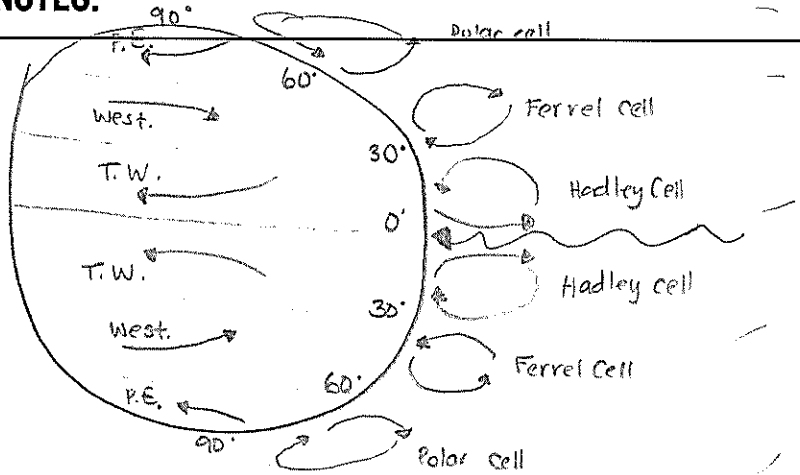
What is an air mass?

Types of air masses?

What is a front?

What causes air masses to move?

NOTES:



Caused by diff. heat & Coriolis Effect!

↻ Right in N. Hemi ↻ Left in S. Hemi
Storms ↙ ↘

Air Mass: lg body of air that takes on charact. of the area over which it forms

C - continental, dry P - polar, cold
M - maritime, wet T - tropical, warm

Arctic - very cold, dry

EX: cP, cT, mP, mT

Front: boundary between 2 air masses of diff densities

* Movement of air masses caused by

EX: cold, warm, stationary, occluded
(more to come.)

OCEANS ~~~~~>

QUESTIONS AND CONNECTIONS:

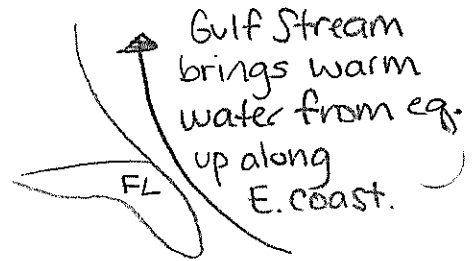
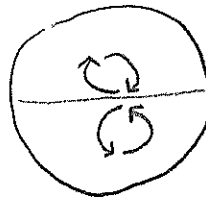
NOTES: oceans...

How is E circulated in the ocean?

→ Global Conveyor Belt: constant motion of the ocean water transferring E. Caused by thermohaline^(density) currents & wind currents.
 sometimes used interchangeably

→ Thermohaline: part of a large-scale ocean circulation driven by global density gradients controlled by temp & salinity (deep ocean currents)

Gyres: closed circular current systems (bec. of Coriolis Effect & land)

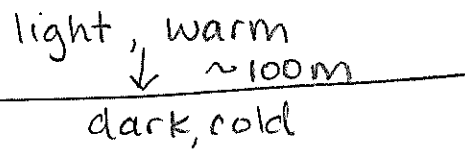


Key vocab to explain thermohaline:

↳ Salinity - saltiness of water
- 35 ppt or 3.5% pg 392-5

↓ Sal (+ Fresh H ₂ O)	↑ Sal (- Fresh H ₂ O):
melting ice precip	freezing of water evap
<u>Removal of Salt</u>	<u>Adding Salt</u>
- precipitate forming on coast	- weathering of rocks
- spray drops	- volcanic eruptions

pg 396 Light absorption



Thermocline - rapidly decreasing temps w/depth



SUMMARY:

- forming of shells, bones, teeth of orgs.