



Topic/Objective CHAPTER: 13 Pt 1

NAME:

Pd: 1 2 4 5 other

Thunder Storm

DATE

Essential Question

Cue: Review:

Thoughts: Met Youtube

NOTE Taking AREA:

- Mr. Parr: Thunderstorms

Static

- at any given moment, there are nearly 2000 thunderstorms (T_s) in progress around the world.

Conditions needed for a T_s

- 3 conditions Must exists:

1.)

2.)

3.)

- This happens when moisture begins to condense and release its

Latent Heat

- stored energy in water vapor that is not released to warm the atmosphere until _____, occurs

Limit of T_s

- T_s are limited to duration and Size.

↳ Limit is ~18,000m ⇒ _____
⇒ _____ miles.



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NOTE Taking AREA:

Factors that determine Classification

- 3 Factors that determine the classification of a TS stage

1)

2)

3)

2 main types of TS

TS #1 : _____

TS #2: _____

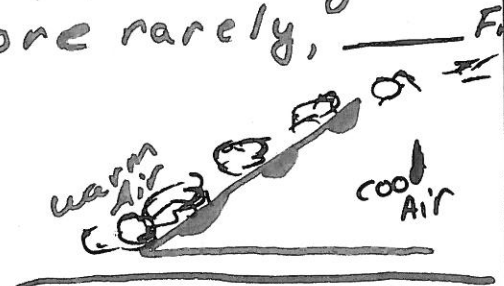
Frontal TS

- Frontal

- are produced by an advancing front and, more rarely, _____ Front



- Bully - Plow



- wedge

SUMMARY:



T3 p12

Essential Question

Cue: Review: Thoughts: Main Idea

NOTE Taking AREA:

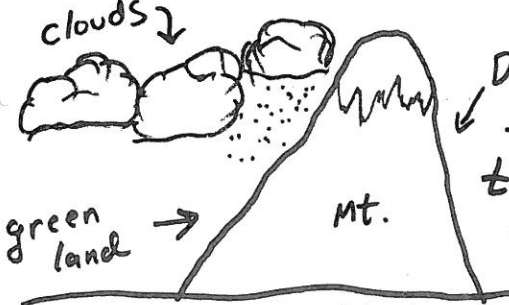
Air Mass T3

- When Air rises due to _____ of EARTH'S surface a storm can occur beneath the Air mass.

2 types of Air Mass T3

- 1) _____ T3
- 2) Breeze T3

(1) ... T3



- cloud is too heavy to go over the Mt. So it precipitates.

Orographic lifting

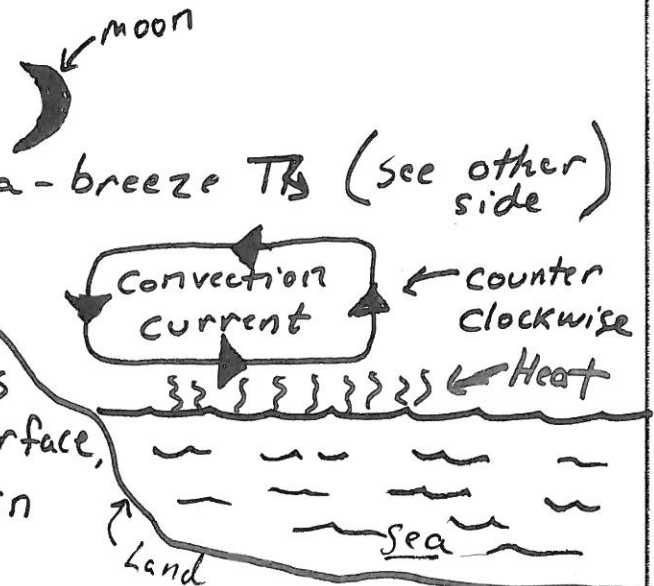
- this is called:

(2) Breeze T3

- the opposite of Sea-breeze T3 (see other side)

Convection Current

- Warm air rises, expands, cools, sinks back toward the surface, where it reheat again





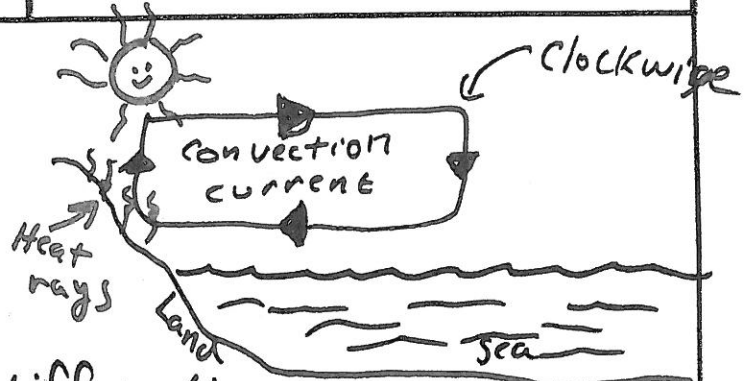
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NOTE Taking AREA:



(2) Sea Breeze

T₃

- Occurs b/c
Land & water
store & release
thermal energy differently

- during the day, the temperature of
Land rises faster than the temp. of H₂O

- @ night it is reversed (see other
side for
Land Breeze)

SUMMARY:



Essential Question

Cue: Review: Thoughts: Main Idea

NOTE Taking AREA:

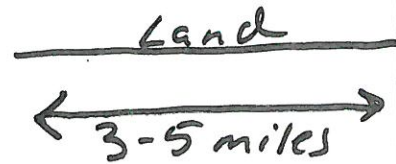
Development of a Thunderstorm

3 Stages

1) Developing stage

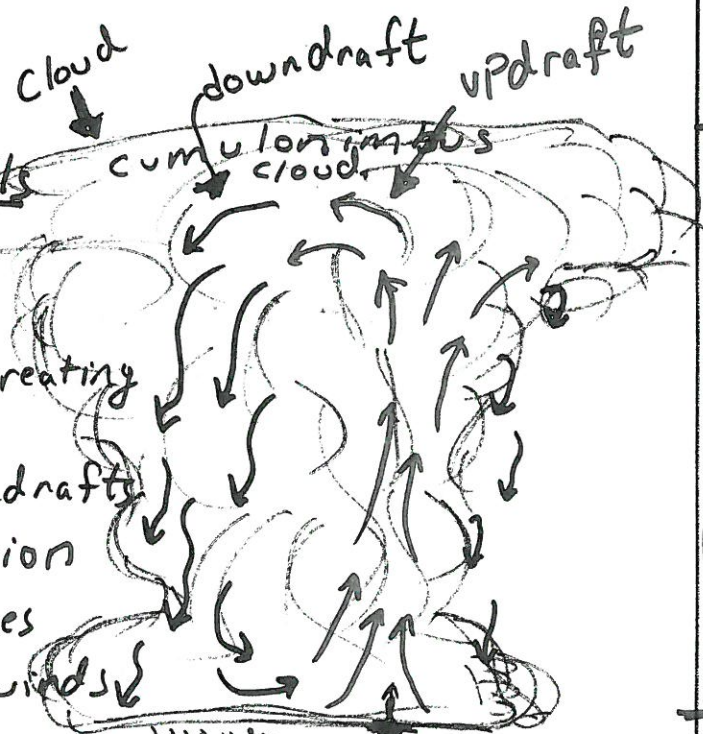
- Developing stage

- Advancing of Earth's surface or an **ADVANCING** front, which causes air to rise



2) Maturing Stage
Event that signals the start of this stage

- Precipitation falls - it cools the air around it.
- cool air sinks, creating downdraft.



greatest vertical distance

- greatest & downdrafts form a convection cell that produces gusty surface winds



NOTES CONTINUE ON OTHER SIDE

hailstones

Possible Tornado



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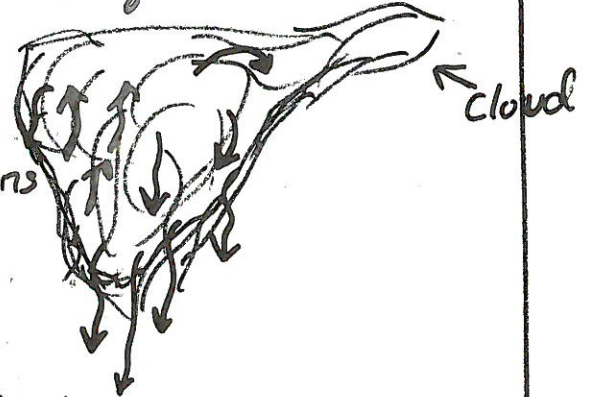
Cue: Review:

Thoughts: Main Idea

NOTE Taking AREA:

- ball of ice caught in the convection cell (convection current) until gravity pulls the ice chunk to the ground.

- cool downdrafts spread in ALL directions when they reach Earth's surface.



- Cools the areas from which the storm draws its energy, updrafts cease, and clouds NO longer form.

5-7 miles

what happens to the updrafts in this stage?

- NO longer form b/c downdrafts cut off the supply of warm air.

- thus the updrafts slows and eventually stop.

- because the downdrafts cooled the surface, cutting off the supply of warm, moist air.

SUMMARY: