



Topic/Objective CHAPTER: //

NAME:

Pd: 1 2 4 5 other

Cloud type

DATE

1 of 4

Essential Question

What are Clouds

Clue: Review
Thoughtful Main Idea

NOTE Taking AREA: DISCLAIMER: NO Copyright, or plagiarism. Infringement intended

Clouds

↳ Clouds are a large collection of very tiny droplets of water or ice crystals

The droplets are so small and light that they can float in the air

Luke

Howard

↳ In 1803 clouds were 1st classified by Luke Howard

Based on 2 differ categories

(1) Shape

Puffy (Heap)	Cotton balls	Cumulus
Long, flat thin layers...	Pages in a book Blanket	Stratus
wispy	Feathery, cotton candy Curly hair	Cirrus
Precipitation	"To fallout of" Rain/snow	Nimbus

(2) Altitude

High : Cirro 52,000 - 25,000 miles

Middle: Alto 16,000 - 10,000 miles

Low : Strato 6,000 - 0 miles

2,000, 70, 30,000



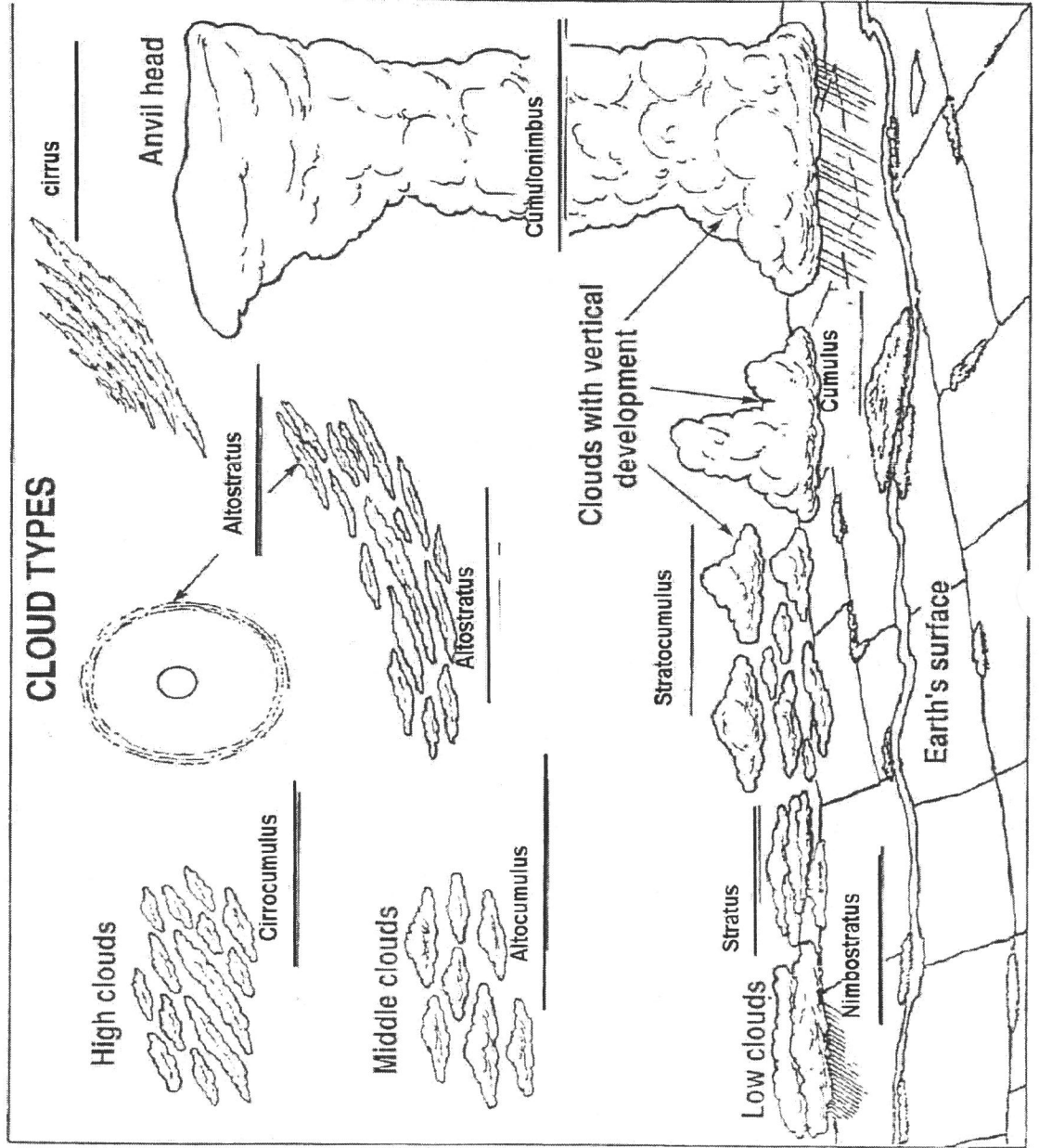
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NOTE Taking AREA:



SUMMARY:



Types of Clouds

Essential Question

What are the Types of Clouds & how they form.

Cue: Review:

Thoughts: Main Idea

NOTE Taking AREA:

Cirrus

- ↳ Thin, wispy clouds composed of ice crystals
- ↳ highest of all clouds. A.K.A. "Mares tails"

Fair weather

- ↳ Fair weather
- ↳ but with grey-blue sky expect precipitation (rain) w/in 24-72 hours


Cirrocumulus

- ↳ layer of puffy clouds composed of small, white, "flakes" which are arranged in groups or lines.




Fair weather

- ↳ resembles: Fish Scales "Mackerel Sky"
- ↳ Fair weather

Cirrostratus

- ↳ thin, whitish blanket through which the  shines producing a "Halo"

Halos

- ↳ ring around the moon or  which is formed due to ice crystals w/in the clouds.
- ↳ This refracts / reflects the light off them.
- ↳ if around the  its referred to as a Moon Ring
- ↳ if around the  its called a Halo



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NOTE Taking AREA:

Halos

↳ if the ☉ is low in the horizon
you can see 2 rainbows on
both sides of the ☉
these are called Sundogs



Sundogs

is a circle around the sun which appears as
a rainbow or ring. mostly visible on the sides

Cirrostratus

↳ usually contains ice crystals that
appear like white veil.

Rain

↳ Usually indicates Rain or Snow w/in 24 hours

SUMMARY:



Types of Clouds

Essential Question

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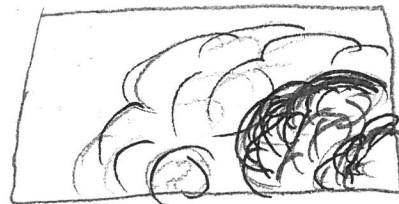
NOTE Taking AREA:

Alto cumulus

↳ ^{large} globular mass
 ↳ Big lumps of cotton. Puffy, white or grayish white clouds

↳ appear wavy or "billowy" which can sometimes form "turrets" (Castellanus)

↳ Caused by updrafts in the mature stage of a thunderstorm.



Will give you
Rain

↳ Fair weather w/ afternoon showers
 "Rain"

Altostratus

↳ similar to Alto cumulus but blanket like-sheet layering.

↳ Fair weather w/o showers.



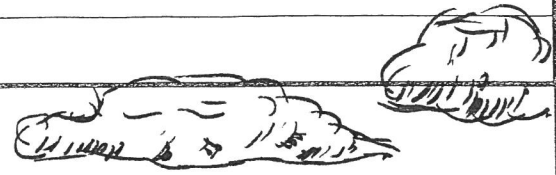
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NOTE Taking AREA:



Cumulus

↳ Basic type of cloud which expands vertically into the higher layers (Altitudes)

Fluffy w/flat base

↳ individually they are billowy masses w/flat base that can extend outward b/c extremely large black & ominous-looking.

Fair weather

↳ Fair (Humid) weather

Stratocumulus

↳ low clouds w/flat bases & rounded at the top.



↳ These are the one that we usually make "pictures" from.

Common in winter time

↳ often a^{low} soft grey/white w/darker parts (rolls)
 ↳ May produce light rain or snow showers
 ↳ can be All day

SUMMARY:



Types of Clouds

Essential Question

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NOTE Taking AREA:

Stratus

↳ basic type to form at low levels w/o a definite shape.

↳ Blanket, laying - sheet like

winters skies

↳ usually grey or dark grey in winter time skies

gives you
Rain

↳ indication of All DAY drizzle / light precipitation can come from them.
↳ Rain

↳ Stratus cloud on the ground is Fog

Nimbostratus

↳ low clouds, flat beneath and rounded at the top.

↳ dark grey "wet" looking w/poor visibility

↳ STEADY long ranging rain or snow varying from light to moderate.

↳ Thick enough to block out the sunlight.



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NOTE Taking AREA:

Cumulonimbus
"Thunderheads"

↳ have great vertical development w/base Almost touching ground.

↳ At High Altitude, the wind shear blows their top off in the direction of the wind, creating an Anvil shape.

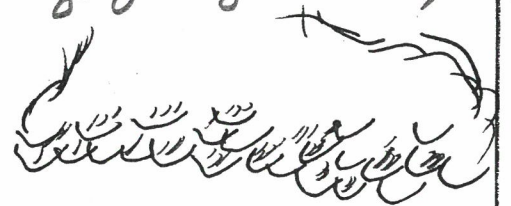
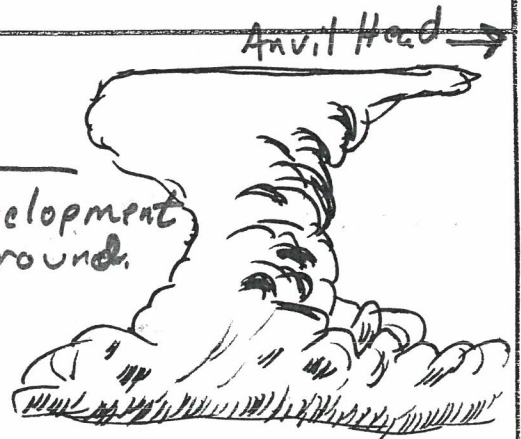
↳ can become violent storm clouds producing HEAVY showers, lightning and Thunder and possible hail, strong gusty winds, or even TORNADOES.

Mammatus
Clouds

("ma" "Ma" "tus")

↳ can appear at the bottom of cumulonimbus clouds but look like Pouches or udders.

↳ "severe updraft"



SUMMARY:

CLOUD DESCRIPTION WORKSHEET

NAME	ELEVATION (in feet)	DESCRIPTION	SIGNIFICANCE
CIRRUS "mares tails"	18,000-52,000 3.72 miles	Thin, wispy, feathery and silky.	If with grey-blue background rain is to be expected.
CIRROCUMULUS "mackerel sky"	25,000-52,000 3.72 miles	A layer composed of small white flakes which are arranged in groups or lines. Resembles fish scales	Fair weather.
CIRROSTRATUS	Around 25,000	A thin, whitish blanket through which the sun shines producing halos	Usually with forecasts of rain or snow within 24 hours.
ALTOCUMULUS	10,000 -16,000 1.24-3.72 miles	Humid Warm morning air. Like wool packs or big lumps of cotton.	Fair weather clouds With afternoon showers.
ALTOSTRATUS	10,000 -16,000 1.24-3.72 miles	Like wool packs or big lumps of cotton.	Fair weather clouds.
CUMULUS	2,000 - 4,000 1.24 miles	Fluffy, billowy floating clouds.	A fair (humid) weather cloud.
STRATUS	Mostly below 5,000 1.24 miles	A heavy grey blanket over whole sky. Really a heavy fog which has risen.	"Low ceiling". Rain not necessary but probable.
STRATOCUMULUS	2,000 - 6,000 1.24 miles	A low cloud, flat beneath and rounded at the top. Soft grey with, darker parts	May produce light rains or snow
NIMBOSTRATUS	2,000 - 6,000 1.24 miles	A low cloud, flat beneath and rounded at the top. Dark grey wet looking.	Rain or snow steady long ranging from light to moderate
CUMULONIMBUS "Thunderhead"	4,000 -30,000 11.16 miles	Bases may almost touch the ground. <i>Anvil</i> shaped top.	Storm clouds; lightning, rain and hail. Also produces tornadoes.

