



ATMOSPHERE AND CLOUDS

WHAT ARE THE DIFFERENT CLOUDS TYPES?

ATMOSPHERE AND CLOUDS

- TROPOSPHERE - THE LOWEST PORTION OF THE ATMOSPHERE WHERE TEMPERATURE DECREASES AND WHERE WEATHER OCCURS

ATMOSPHERE AND CLOUDS

- STRATOSPHERE - A REGION OF THE ATMOSPHERE WHERE TEMPERATURE INCREASES AND IS THE LAYER THAT CONTAINS OZONE

ATMOSPHERE AND CLOUDS

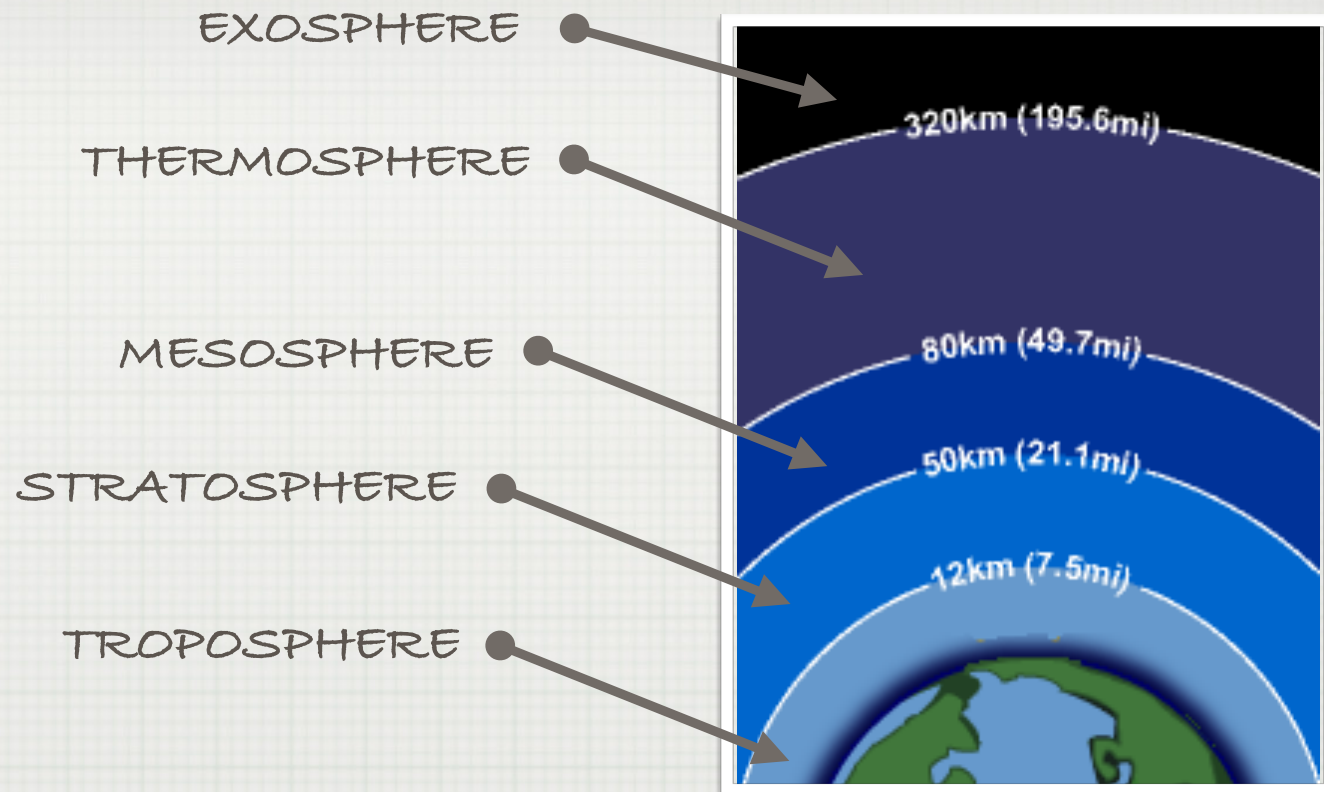
- MESOSPHERE - A REGION OF THE ATMOSPHERE WHERE TEMPERATURE DECREASES AND METEORS BURN UP

ATMOSPHERE AND CLOUDS

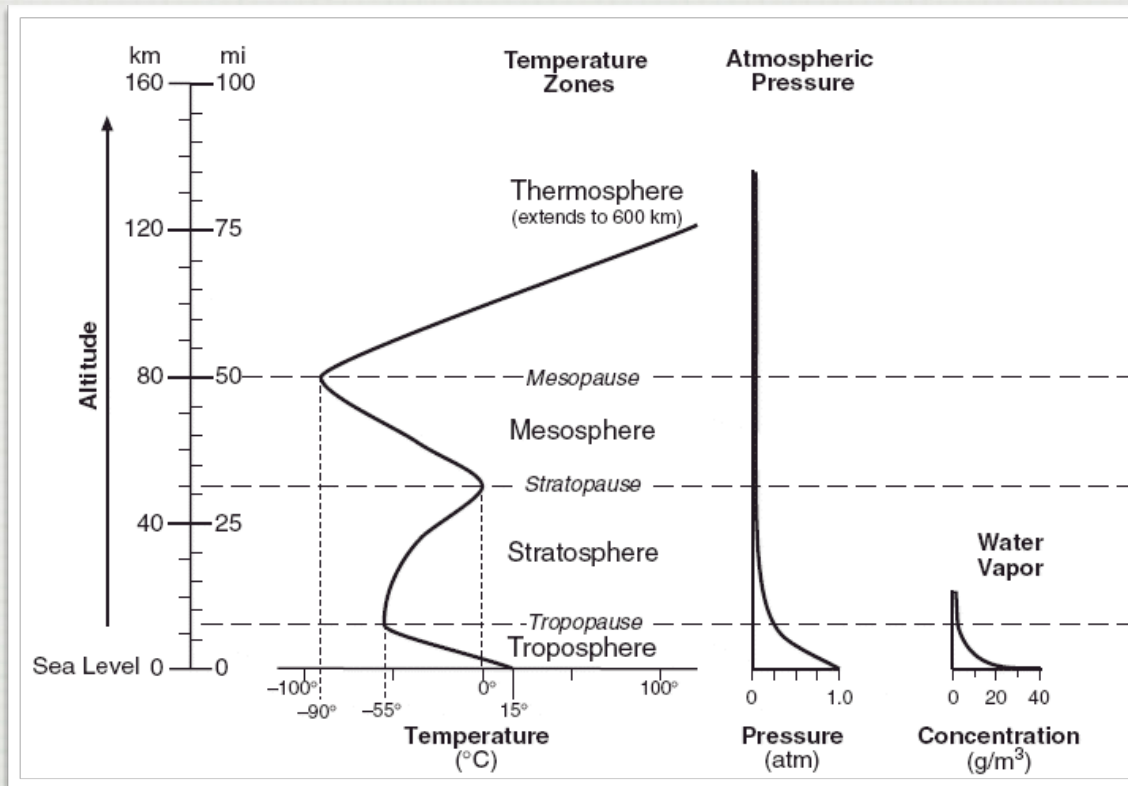
- THERMOSPHERE - A REGION OF THE ATMOSPHERE WHERE TEMPERATURE INCREASES AND HIGH-ENERGY X-RAYS AND UV RADIATION ARE ABSORBED

ATMOSPHERE AND CLOUDS

- EXOSPHERE - THE OUTER MOST SHELL OF THE ATMOSPHERE WHERE TEMPERATURE INCREASES AND GASES SLOWLY "LEAK" OUT



EARTH'S LAYERS



EARTH SCIENCE REFERENCE TABLES

ATMOSPHERE AND CLOUDS

- WEATHER - THE PRESENT CONDITION OF THE ATMOSPHERE --- INCLUDING TEMPERATURE, PRESSURE, WIND, HUMIDITY, AND MOVEMENT
 - CHANGES ARE DUE MAINLY TO UNEQUAL HEATING OF LAND MASSES, OCEANS, AND THE ATMOSPHERE

Discovery
HD SHOWCASE



ATMOSPHERE AND CLOUDS

- CLOUD - VISIBLE AGGREGATE OF MINUTE DROPLETS OF WATER, OR TINY CRYSTALS OF ICE, OR A MIXTURE OF BOTH



ATMOSPHERE AND CLOUDS

- CLOUD FORMATION - PROCESS WHEN WATER VAPOR IN THE AIR CONDENSES [GAS TO LIQUID] AS THE AIR IS COOLED TO THE DEWPOINT

R.E.C.C

RISES - EXPANDS - COOLS - CONDENSES

ATMOSPHERE AND CLOUDS

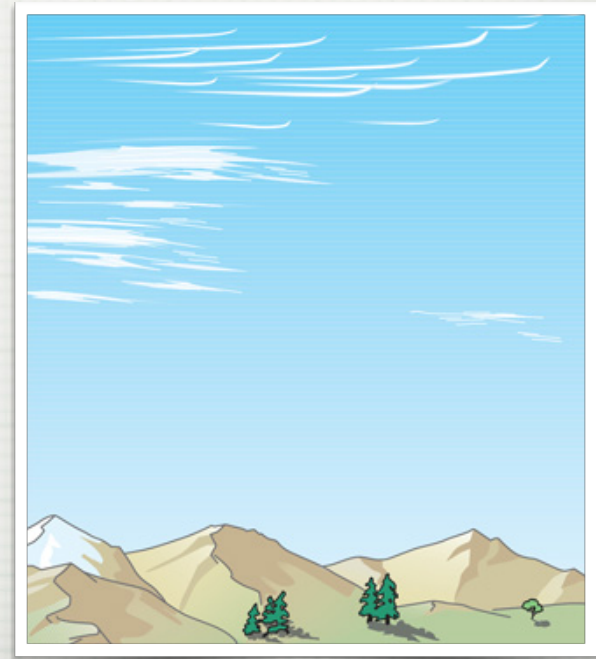
- GENERALLY, CLOUDS ARE CLASSIFIED ON THE BASIS OF FORM AND HEIGHT [FROM CLOUD BASE]
 - HIGH-LEVEL CLOUDS [ABOVE 6,000 M]
 - MID-LEVEL CLOUDS [2,000 - 6,000 M]
 - LOW-LEVEL CLOUDS [BELOW 2,000 M]
 - VERTICALLY DEVELOPED CLOUDS [RANGE]

ATMOSPHERE AND CLOUDS

- THREE TYPES OF CLOUDS:
 - CIRRUS - MEANING "CURL" OR "FILAMENT"
 - CUMULUS - MEANING "HEAP"
 - STRATUS - MEANING "LAYER"

ATMOSPHERE AND CLOUDS

- CIRRUS CLOUDS:
 - MOST COMMON HIGH LEVEL CLOUDS
 - OCCUR IN FAIR WEATHER
 - POINT IN THE DIRECTION OF AIR MOTION
 - MADE OF ICE CRYSTALS





CIRRUS

ATMOSPHERE AND CLOUDS

- CIRROSTRATUS CLOUDS:
 - HIGH LEVEL CLOUDS
 - NEARLY TRANSPARENT
 - PRODUCES A HALO AROUND THE SUN
 - MADE OF ICE CRYSTALS

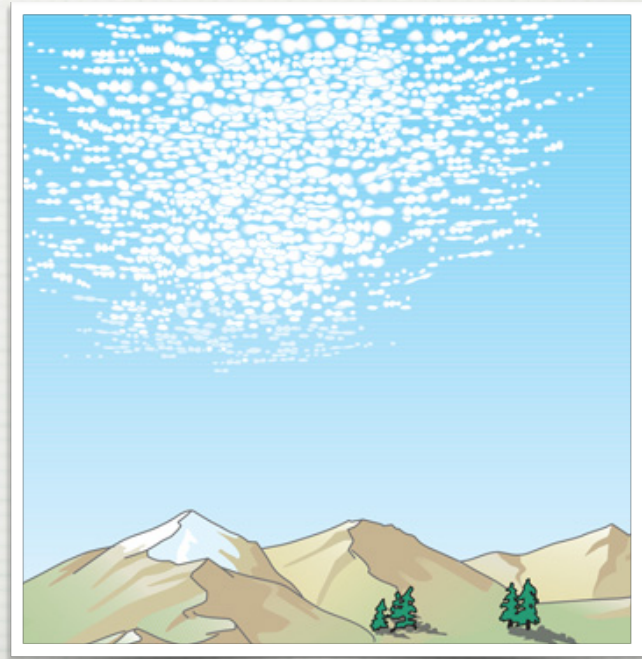




CIRROSTRATUS

ATMOSPHERE AND CLOUDS

- CIRROCUMULUS CLOUDS:
 - HIGH LEVEL CLOUDS
 - APPEAR AS WHITE PATCHES OF SMALL CELLS OR RIPPLES
 - MADE OF ICE CRYSTALS

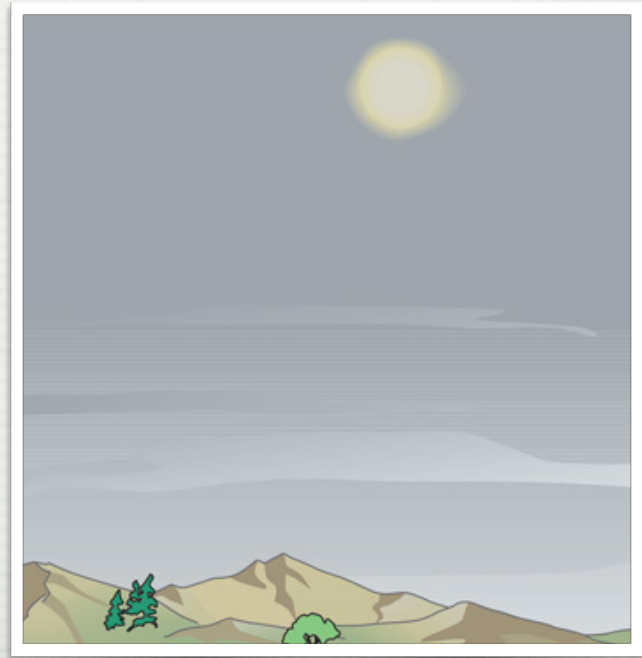




CIRROCUMULUS CLOUDS

ATMOSPHERE AND CLOUDS

- ALTOSTRATUS CLOUDS:
 - MID-LEVEL CLOUDS
 - PRECEDES RAIN
 - SUN SEEN AS IF SHINING THROUGH GLAZED GLASS

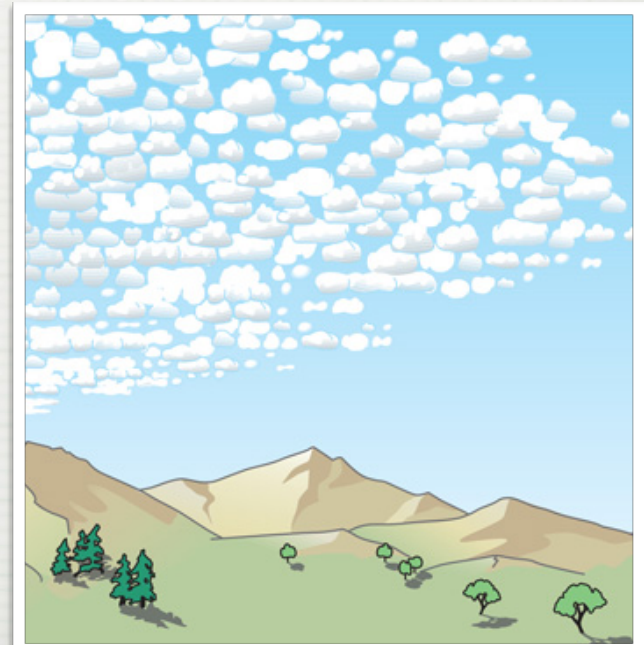




ALTOSTRATUS CLOUDS

ATMOSPHERE AND CLOUDS

- **ALTOCUMMULUS CLOUDS:**
 - MID-LEVEL CLOUDS
 - ROUNDED MASSES OR PARALLEL BANDS

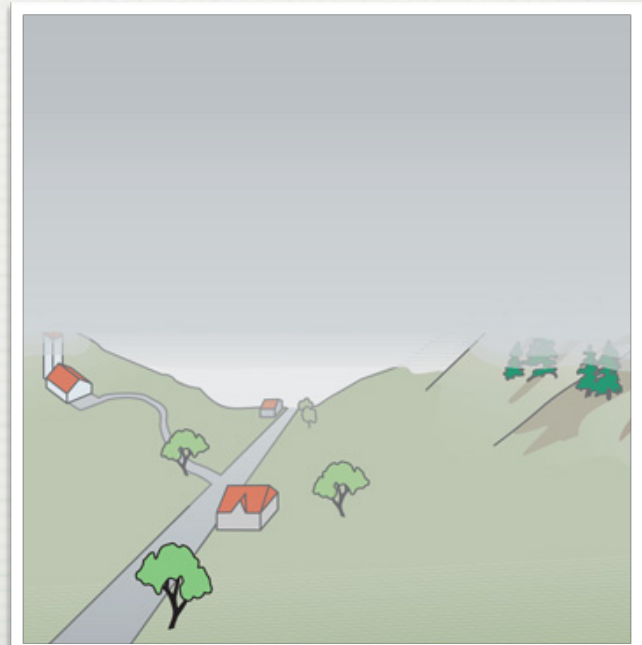




ALTOCUMMULUS CLOUDS

ATMOSPHERE AND CLOUDS

- STRATUS CLOUDS:
 - LOW LEVEL CLOUDS
 - FREQUENTLY COVERS MOST OF THE SKY AND MAY PRODUCE LIGHT PRECIPITATION

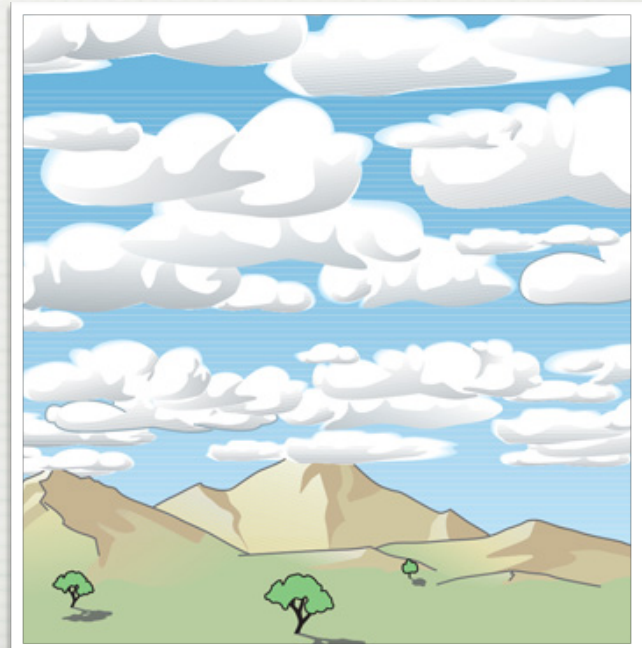




STRATUS CLOUDS

ATMOSPHERE AND CLOUDS

- STRATOCUMMULUS CLOUDS:
 - LOW LEVEL CLOUDS
 - MAY APPEAR AS
ROUNDED MASSES WITH
BREAKS OF CLEAR SKY

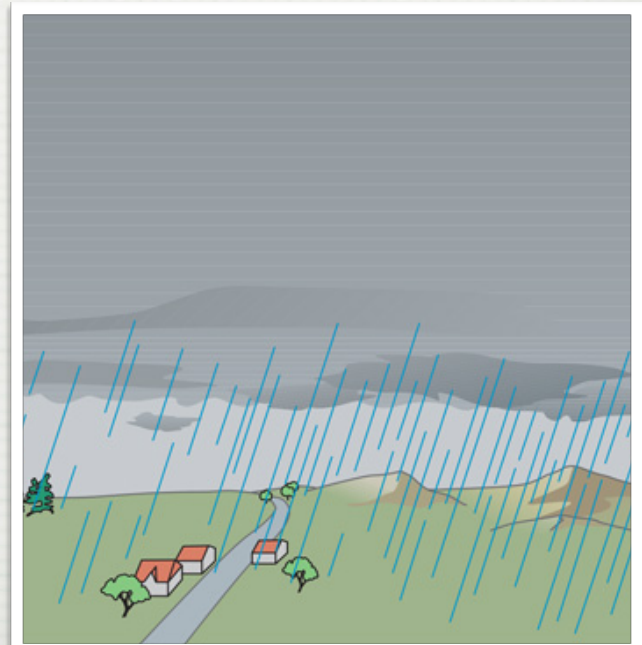




STRATOCUMULUS CLOUDS

ATMOSPHERE AND CLOUDS

- NIMBOSTRATUS CLOUDS:
 - LOW LEVEL CLOUDS
 - LOW AND DARK CLOUDS WITH NO SUN
 - ACCOMPANIED BY PRECIPITATION

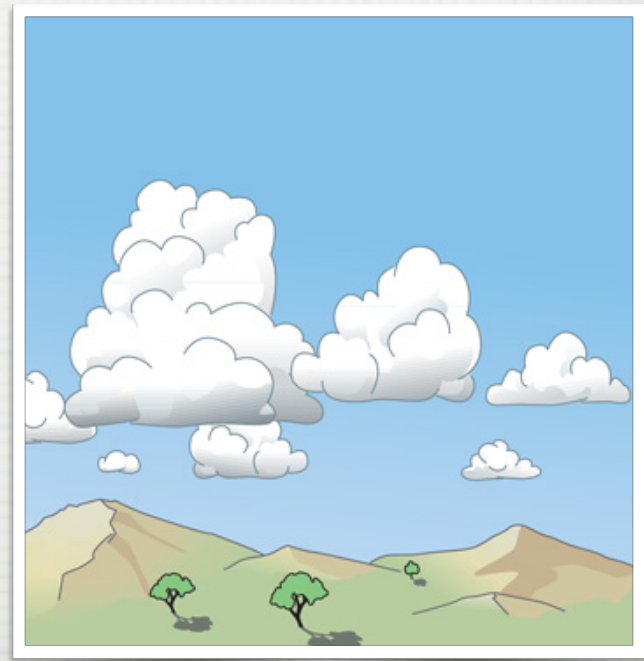




NIMBOSTRATUS CLOUDS

ATMOSPHERE AND CLOUDS

- CUMULUS CLOUDS:
 - VERTICALLY DEVELOPED
 - FORM ON CLEAR DAYS WHEN UNEQUAL SURFACE HEATING
 - APPEAR AS COTTON

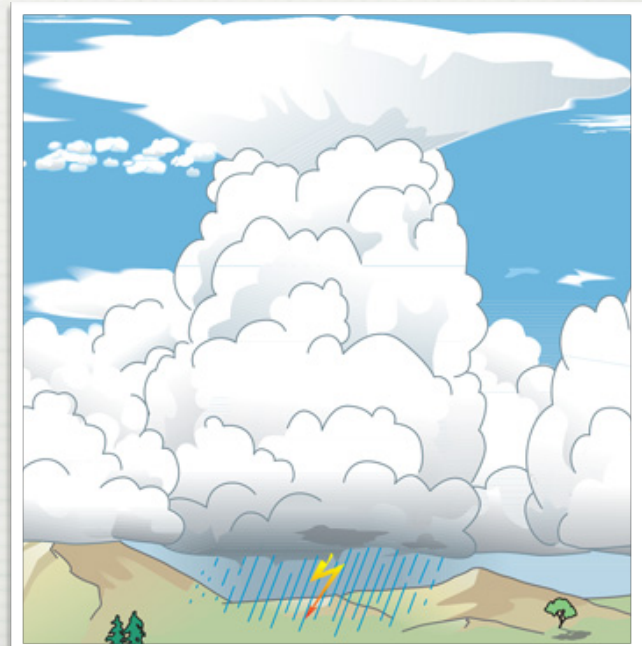




CUMULUS CLOUDS

ATMOSPHERE AND CLOUDS

- CUMULONIMBUS CLOUDS:
 - VERTICALLY DEVELOPED
 - SOURCE OF LIGHTNING, THUNDER AND HAIL
 - EXIST AS INDIVIDUAL TOWERS, OR A LINE OF TOWERS AND SPREAD OUT LIKE AN ANVIL





CUMULONIMBUS CLOUDS



CUMULONIMBUS CLOUDS



CUMULONIMBUS CLOUDS

