

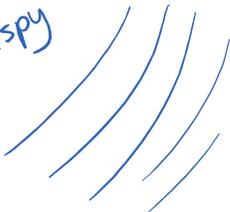
## How clouds form:

- When air is cooled to its dewpoint (or when air reaches saturation - too much water vapour for that temperature) so water vapour condenses into droplets
- air can be cooled through lifting or nightfall.
- since cooler air can hold less water vapour, the vapour will condense onto dust or salt particles (condensation nuclei) in the atmosphere forming clouds or fog.

## Types of Clouds

① Cirrus (Ci) - above 6km up; composed of ice crystals; thin, white, feathery in appearance; usually with fair weather, however can indicate a warm front with eventual rain.

wispy



② Cumulus (Cu) - white fluffy cottonballs; show vertical motion or thermal uplift of the air; condensation level at the flat bottom of cumulus clouds



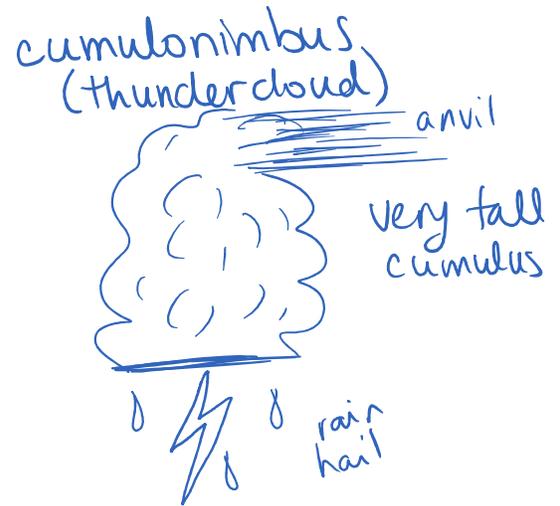
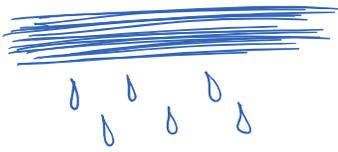
- sometimes tops are all the way to 18km up, top of troposphere.

③ Stratus (St) - Latin for "layer" or "blanket"; featureless low, cover entire sky;

③ Stratus - Latin for "layer" or blanket, featureless, low, cover entire sky; gray, dull weather.

Rainclouds - Nimbus - Latin for "rain"

nimbostratus  
(stratus that are raining)



Further classification by height of cloud base:

- Cirro - high cloud (base 6km or higher)
  - alto - mid-level (base 1.8km to 6km up)
  - strato - low clouds (base lower than 1.8km)
- examples: altocumulus, cirrostratus, ...

Weather Map Symbols

- |  |                             |  |   |
|--|-----------------------------|--|---|
|  | cumulus                     |  | cumulus with more height (towering cumulus) |
|  | cumulonimbus (thundercloud) |  | stratus                                     |
|  | stratocumulus               |  | cirrus                                      |
|  |                             |  | denser cirrus                               |

Cloud ID Pictures (Abbreviations Cu, St, Ci, Nb, combinations) NbSt

1. Cu	13	25
2.	:	:
:	:	:
:	:	:
:	:	:
12	24	35