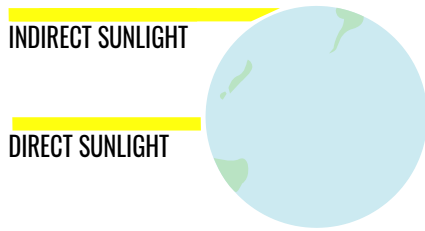


Weather Theory



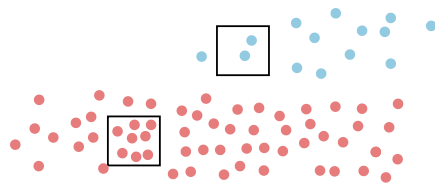
Throughout the year, sunlight strikes the equatorial region more directly than it does the polar regions. Per square foot, the equatorial region receives more sunlight, and gets hotter.

Similar to a boiling pot of water, this creates air currents. As air near the equator heats up, it begins to rise.

As the air rises, pressure and temperature drop. Eventually, that air is cooled and begins to sink again.

Distinct cells begin to form. These cells circulate heat.

As air moves towards areas of low pressure, and away from areas of high pressure, it is deflected to the right (in the northern hemisphere) by the coriolis effect.



As air rises, pressure and temperature decrease

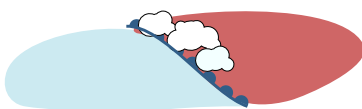
AIR MASSES FORM OVER UNIFORM GEOGRAPHIC AREAS

- Polar seas
- Large deserts
- Tundra
- Tropical oceans

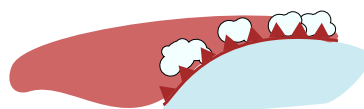
An airmass is a large region of air with similar temperature and moisture content

FRONTS ARE FORMED WHEN AIRMASSSES COLLIDE

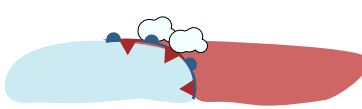
Fronts often lead to precipitation and reduced visibility because one air mass is displaced by another, causing vertical movement.



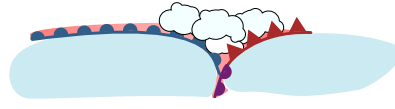
COLD FRONT



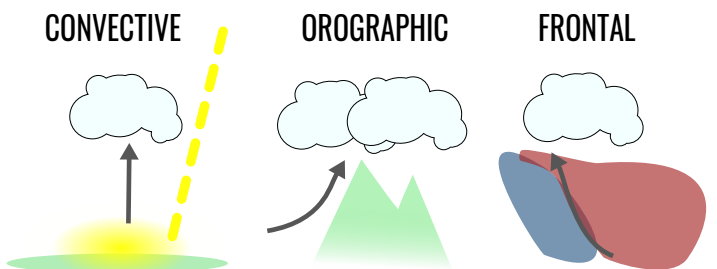
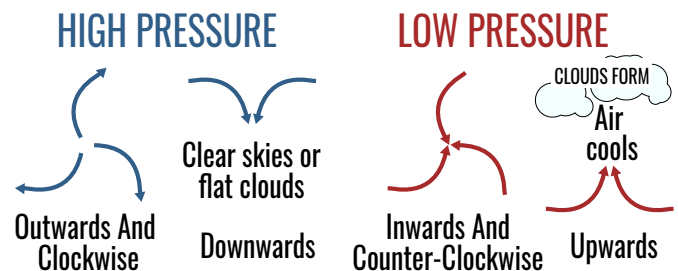
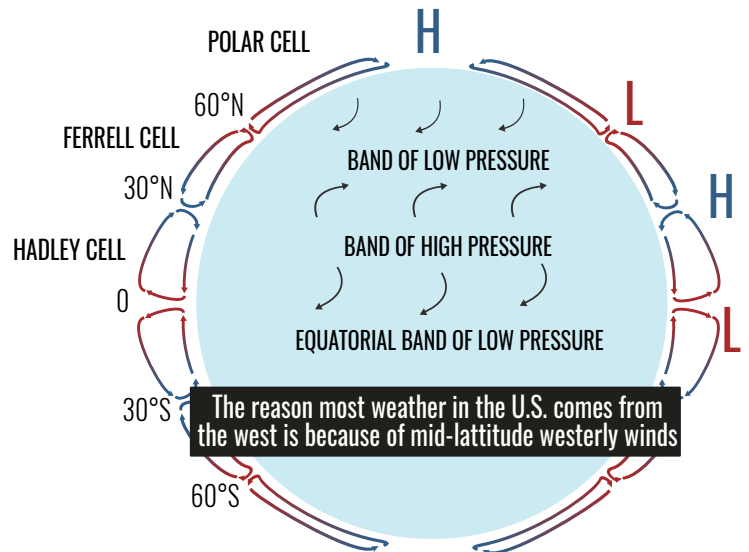
WARM FRONT



STATIONARY FRONT



OCCCLUDED FRONT



CLOUDS FORM WITH LIFTING ACTION AND SUFFICIENT MOISTURE