Types of Precipitation

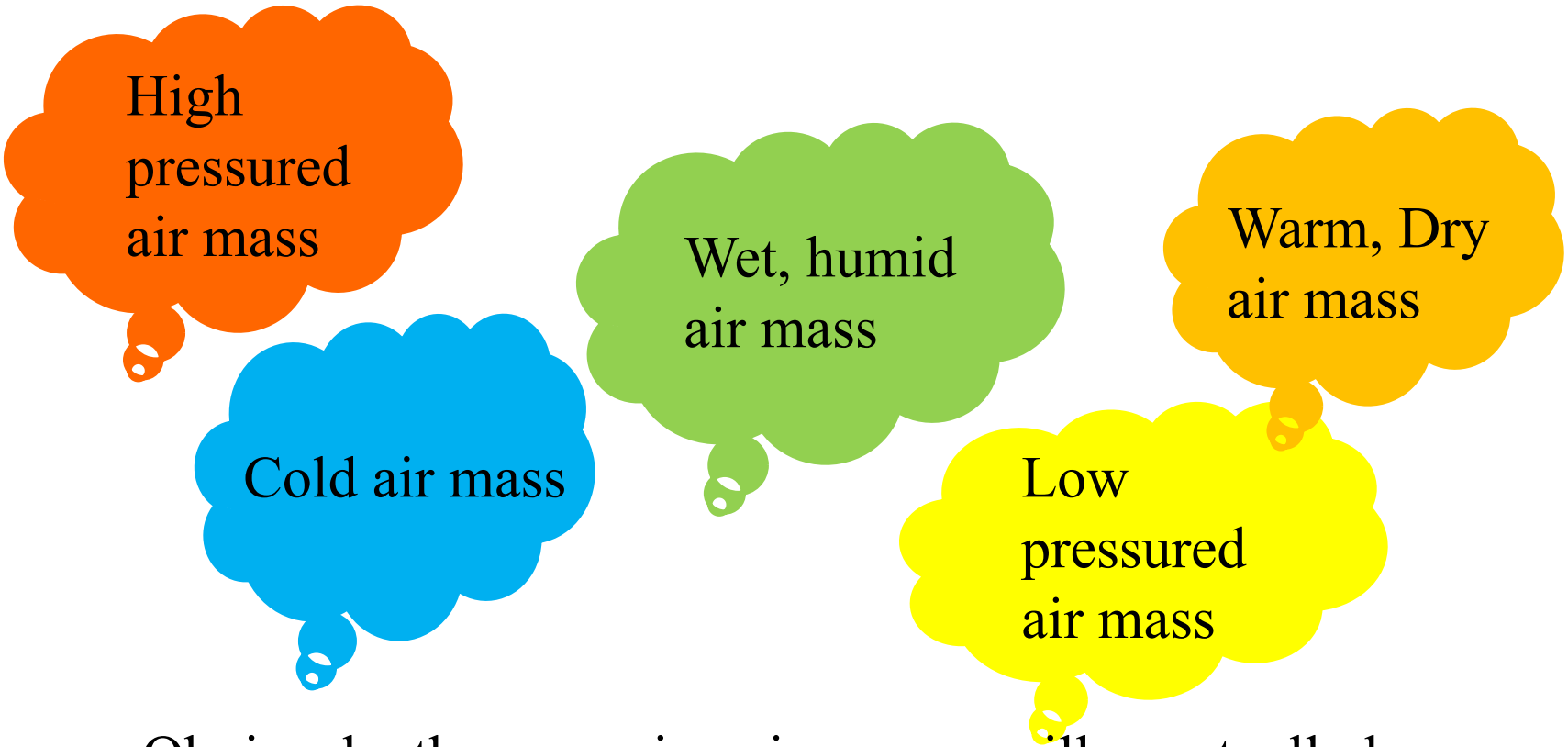
Rain

Sleet

Snow

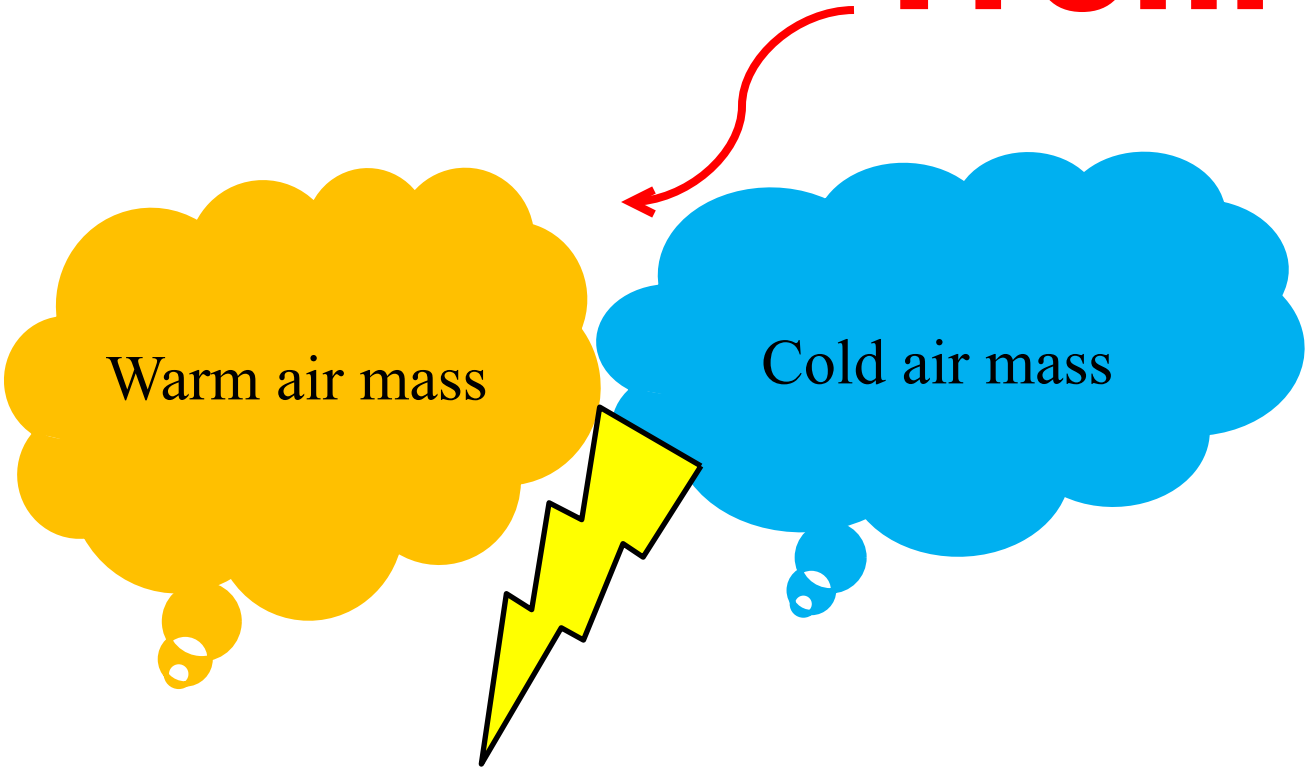
Hail

Precipitation Starts With Different Air Masses Being Pushed Around by Global Winds



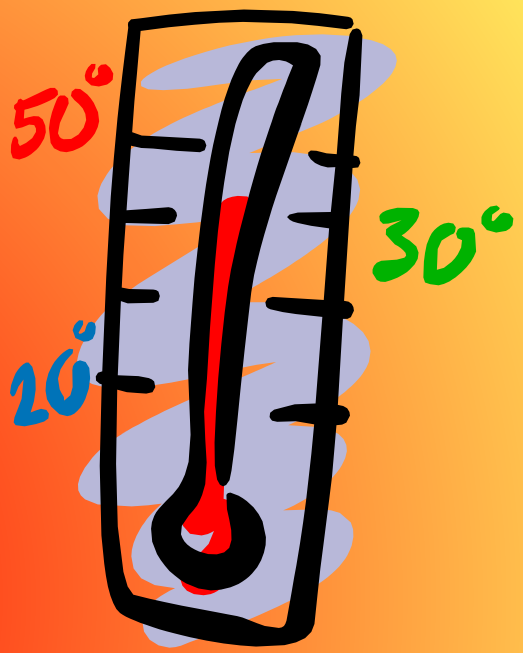
Obviously, these moving air masses will eventually bump into one another.

When 2 or more different air masses meet, the place where they bump is called… **Front**



A storm, usually with precipitation, occurs at this front.

The type of precipitation that falls from the clouds to the surface of the Earth depends on ONE main thing…



TEMPERATURE

*The temperature of the **clouds** vs. the temperature of the **surface air**.*

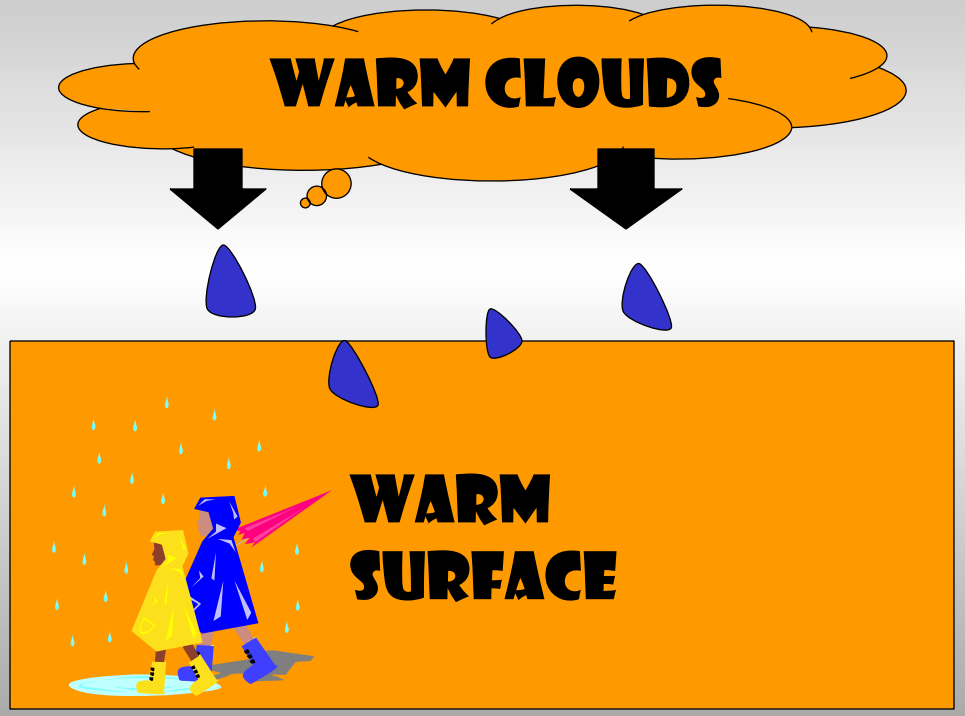
RAIN

Rain occurs when precipitation falls from the clouds as liquid water.

During a rain storm, the temperature is warm in the clouds and…

warm at ground level so...

precipitation is in melted, liquid form.



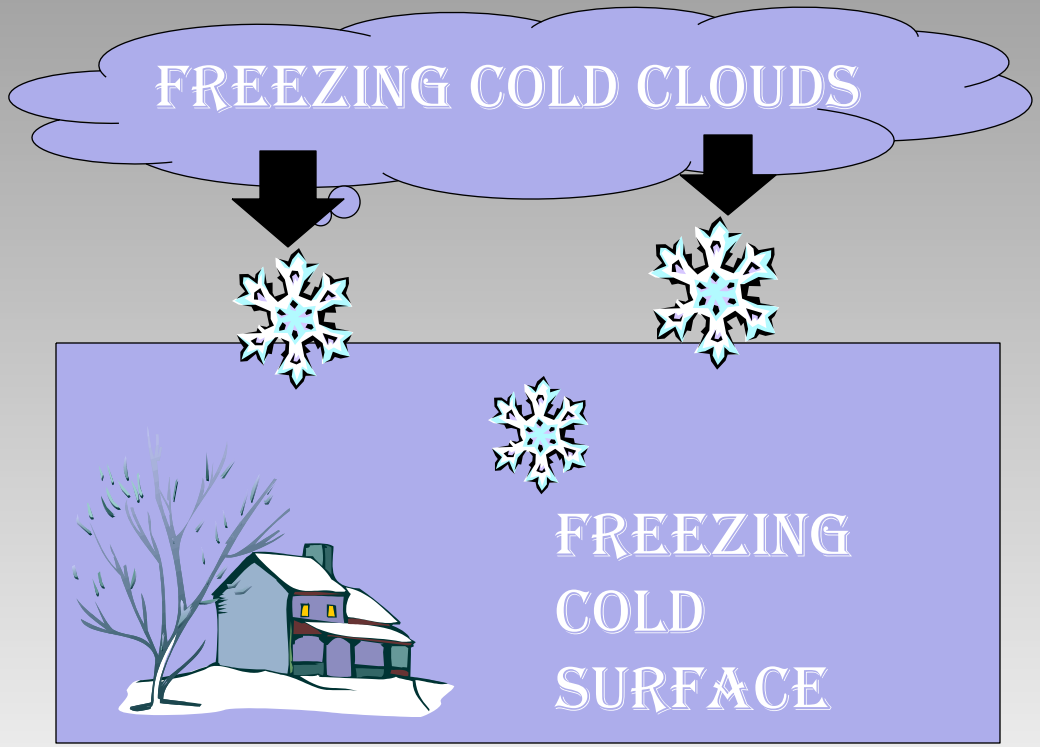
SNOW

SNOW OCCURS WHEN PRECIPITATION FALLS FROM THE CLOUDS AS COLD, FLAKY SOLIDS.

DURING A SNOW STORM, THE TEMPERATURE IN THE CLOUDS IS VERY COLD WHICH FREEZES THE RAIN INTO ICE CRYSTALS AND...

IT IS ALSO COLD AT GROUND LEVEL SO...

PRECIPITATION IS FROZEN SOLID IN THE CLOUDS AND STAYS FROZEN BY THE COLD SURFACE.



Sleet

Sleet occurs when precipitation falls from the clouds to the ground as half water/half ice.

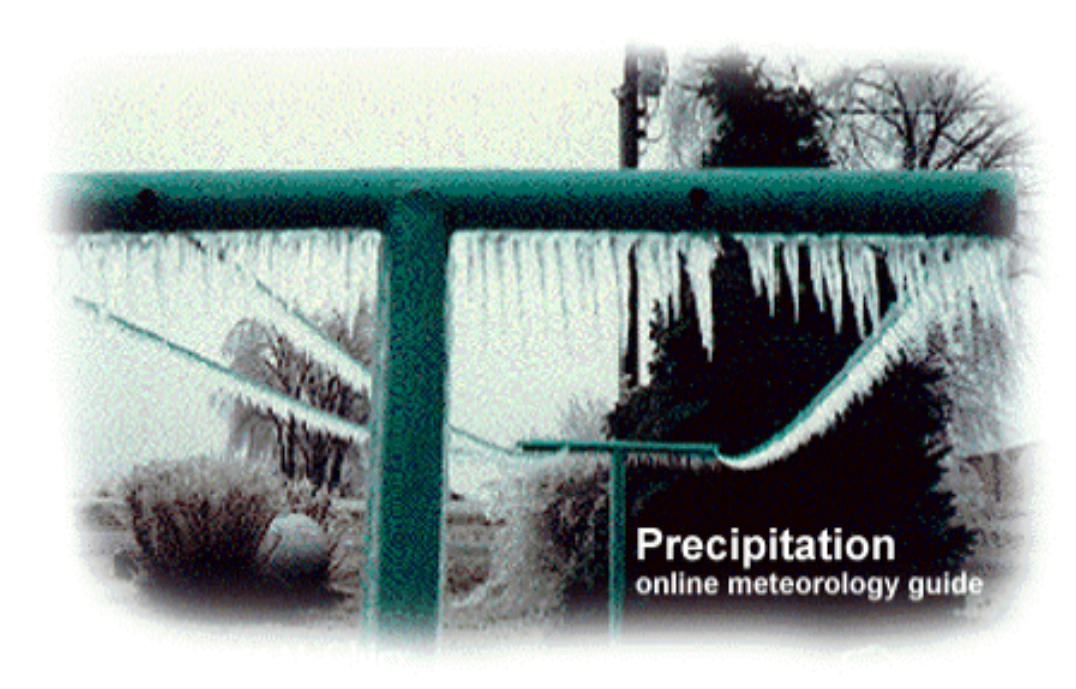
During a sleet storm, the temperature of the clouds is warm, so the precipitation begins to fall as...

liquid rain.

But, the air around the surface is very cold, so it begins to freeze the liquid into a slushy solid.

This slushy solid, which is half frozen, falls to the ground as sleet.

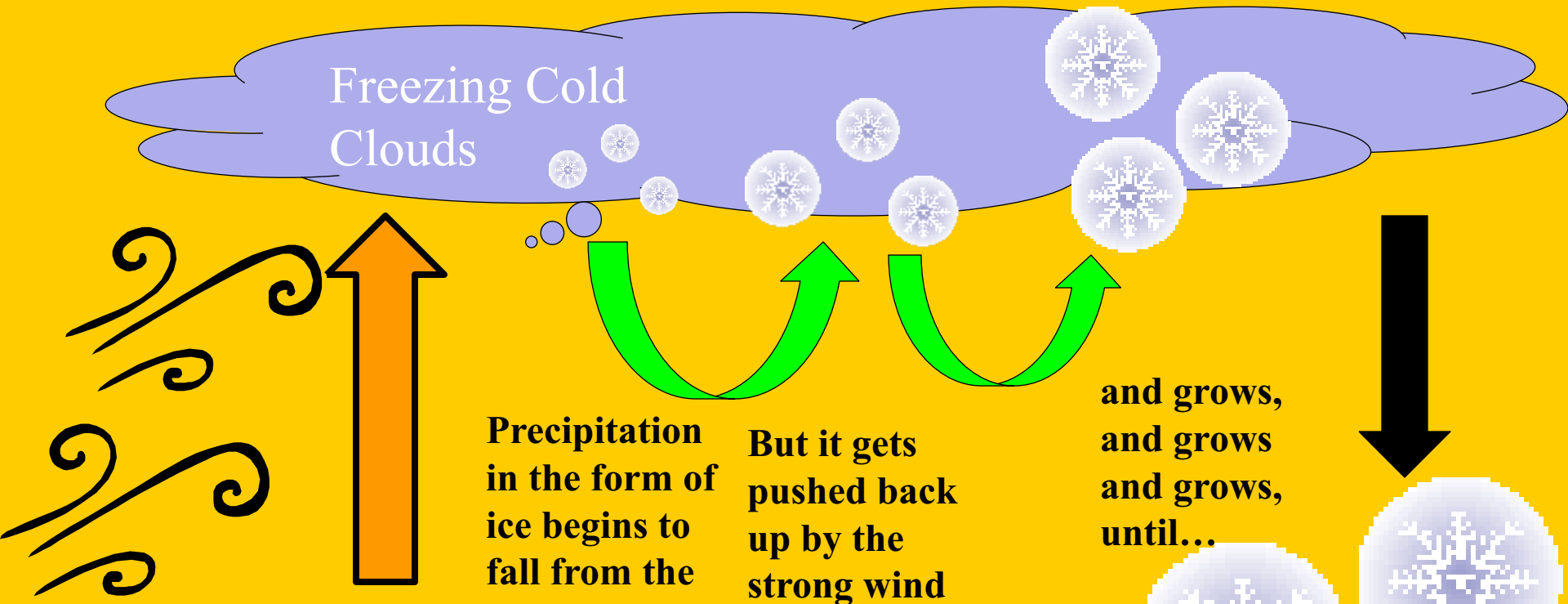
Sleet storms are sometimes called ice storms.



Because the surface temperature is very cold during a sleet storm and everything usually gets covered in ice.

Hail is precipitation that falls from the clouds to the surface as balls of ice.

HAIL



A hail storm begins with warm surface temperatures. Very strong, warm wind currents push upward toward the cold clouds.

Precipitation in the form of ice begins to fall from the clouds.

But it gets pushed back up by the strong wind back into the clouds where it joins with more ice and grows…

and grows, and grows and grows, until…

The hail stones become so heavy, the wind can't hold them up in the clouds and they fall to the warm surface.

If the upward wind currents are normal, hail stones will usually be as big as marbles.

But if the wind currents are very strong (over 100 miles per hour), the hail stones can stay up in the cold clouds for a long time and grow very large.

These large hailstones cause lots of damage to cars, homes, crops and people.

THE LARGEST RECORDED HAIL STONE WAS 17 INCHES AROUND!!! GUESS HOW THEY PRESERVED IT...

FROZEN!!!