Topic: Atmospheric Variables

Aim: What are the different types of clouds and precipitation?

Cloud	Appearance	"Rain Cloud"
1. Stratus	Low altitude, thin, sheet-like clouds that can cover the entire sky.	Nimbostratus
2. Cumulus	Puffy, cottony, flat-bottomed clouds that form at high and low altitudes.	Cumulonimbus (thunderstorm clouds)
3. Cirrus	High altitude, wispy, feathery clouds associated with good weather.	

Type of Precipitation	How it Forms	Temperature of Air Through Which it Falls
1. Rain	Water vapor condenses to form cloud droplets, when water droplets are large enough, they fall.	Above Freezing
2. Snow	Water vapor turns directly to ice, when ice crystals are large enough, they fall.	Below Freezing
3. Sleet	Rain freezes on its trip toward the Earth.	Below Freezing
4. Freezing Rain	Rain or melted snow freezes upon contact with a cold surface (also known as a glaze or an ice storm.)	Above Freezing
5. Hail	Frozen raindrops get continuously recycled by updrafts and downdrafts. Downdrafts allow the accumulation of water, and updrafts allow the freezing of that water to form new layers of ice. When enough layers are accumulated, the spherical hailstone becomes too heavy and falls.	Above Freezing usually fall from spring and summer thunderstorms

Precipitation is known as the "atmospheric cleanser" – it temporarily cleans the atmosphere of dust particles