

Clouds & Particles

More

1. What happens in clouds?

Solution Worksheet 1

1.

1. air is lifted up
2. the air gets colder
3. the air gets saturated
4. water vapor condensates to water droplets
5. clouds appear
6. water droplets collide, join together and grow bigger
7. the droplets fall out of the cloud as rain

2.

Cumulus clouds above land in summer in daytime:

Because the sun heats the ground more quickly than the sea, the surface temperature on land is warmer than the sea. This leads to that air rises above land.

Water evaporates from the ocean and makes the air above the sea moist. The air rising above land creates a low pressure which again causes that air above the sea moves into the coast and the land (onshore wind).

Thus, moist air is transported from the sea to the land and when it comes above the warm land surface it is lifted up. When lifted up it cools, gets saturated – and clouds form over land.

The process of uplift of hot air (resulting in vertical circulation of air) is known as convection.