

What Makes Weather?

Why is Weather Different in Different Places?

Environmental conditions play an important role in weather. Things like an ocean or mountain range nearby can affect how the Atmosphere, Hydrosphere, and Geosphere interact over your home.



Photo Credit: NWS



Credit: National Center for Interactive Learning/SSI

Meteorologists use two terms to describe the temperature of an air mass: polar (cold) or tropical (warm). They use two terms to describe an air mass's humidity: continental (dry) or maritime (moist).

Example: The South

Summers in the South are hot and sticky because air masses in the atmosphere carry warm, moist air from the Gulf of Mexico to the Southeastern U.S. These conditions are what make severe storms such as tornadoes more likely to develop.



Credit: Patrick Rodriguez

Example: The Pacific Northwest

The mountains directly east of Seattle contribute to that famous Pacific Northwest rain. Moist air moves into the area from the Pacific Ocean and collides with the Cascade Mountains. The mountains force the air up where it cools and releases its moisture in the form of rain.

1 2 3

High-level Clouds are white and thin-looking. At sunrise or sunset, they can be very colorful. They are most often made of ice crystals.



1 Cirrus



2 Cirrocumulus

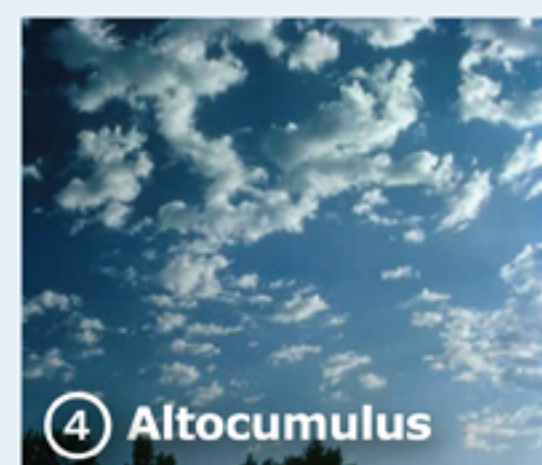


3 Cirrostratus

Cloud Viewer

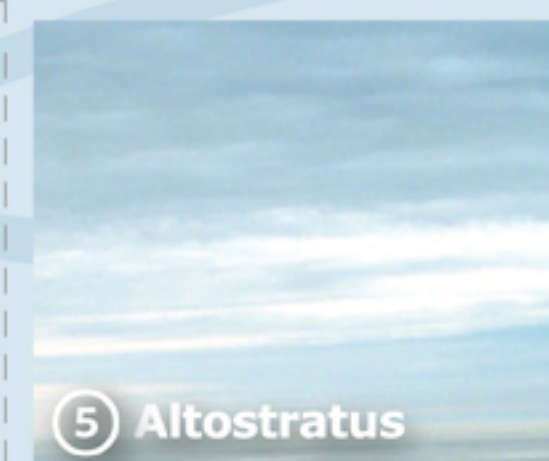
4 5 6

Mid-level Clouds are made mostly of water droplets. When temperatures are very low, the water droplets can turn to ice crystals.

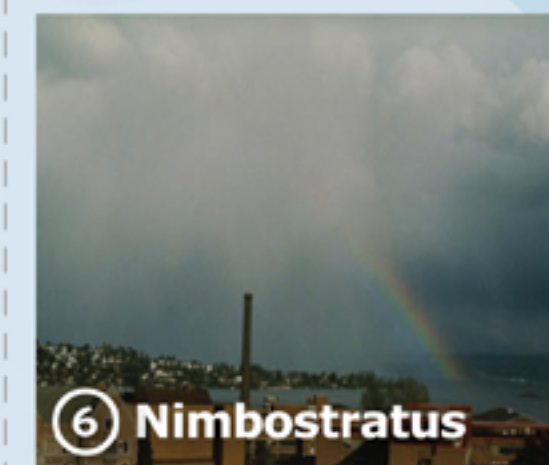


4 Altocumulus

Take a picture of the clouds outside with your phone, and hold it up over this text to determine what the cloud cover outside is today!



5 Altostratus



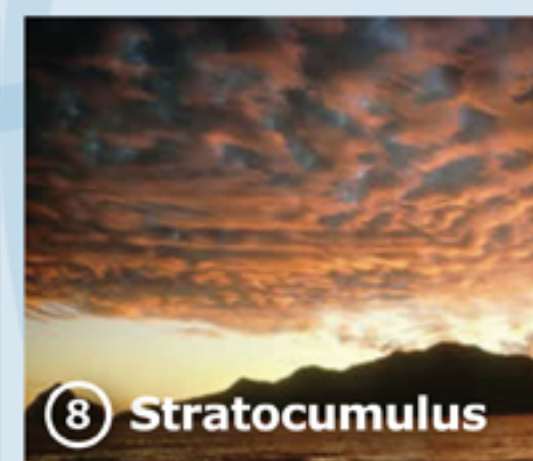
6 Nimbostratus

7 8 9 10

Low-level Clouds are made of water droplets. Cumulonimbus clouds (9) can rise rapidly causing water droplets to turn to ice.



7 Cumulus



8 Stratocumulus



9 Cumulonimbus



10 Stratus

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