



What Weather?

There are ten main types of clouds, found up to twelve kilometres high in the troposphere. The clouds are named using combinations of Latin words which describe their shape, size and how high or low they are found in the troposphere.

Cirrus = hair-like
Nimbus = bringing rain

Cumulus = heaped
Stratus = layered

Alto = height

How do clouds form?

Air contains water vapour (gas). As air cools down, the water vapour condenses to form water droplets.

Clouds tend to form and stay in air that moves upwards. As air rises in an updraft, it decreases in pressure, cools down and expands. The water vapour condenses to form clouds more easily at colder temperatures.

Different types of clouds are formed depending on how the temperature changes with height and atmospheric turbulence.

Clouds that bring light rain or drizzle tend to form where the air moves weakly upwards over a large area of sky. Steady or heavy-rain clouds form in the sky where the updraft is much faster.

Clouds look grey just before rainy weather because they are more tightly packed with water droplets, and less sunlight can pass through. As clouds grow taller, they appear more grey, particularly at their base.

More Information

Scientific American Ask the Experts 12 September 2002
Turbulence Within Clouds Brings Rain.

http://www.scientificamerican.com/print_version.cfm?articleID=0008C89D-9B6C-1D7F-90FB809EC5880000

Scientific American Ask the Experts 24 January 2000
Why do clouds turn grey before it rains?.

http://www.sciam.com/print_version.cfm?articleID=000350D0-D08A-1C71-9EB7809EC588F2D7

Scientific American Ask the Experts 25 June 2001
How do water droplets in clouds adhere?

http://www.sciam.com/print_version.cfm?articleID=0003A4FA-CEF2-1C71-9EB7809EC588F2D7

Bureau of Meteorology

<http://www.bom.gov.au/info/clouds/>

http://www.bom.gov.au/lam/Students_Teachers/animations/cloudzstart.shtml

Bad Meteorology.

<http://www.ems.psu.edu/~fraser/Bad/BadClouds.html>

New Scientist The Last Word - Weather

<http://www.newscientist.com/lastword/results.jsp?category=Weather>