

Clouds

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What are clouds?

A cloud is made of tiny water droplets that we can see in the sky. These droplets form together to create clouds.

There are millions of tons of water in a cloud.

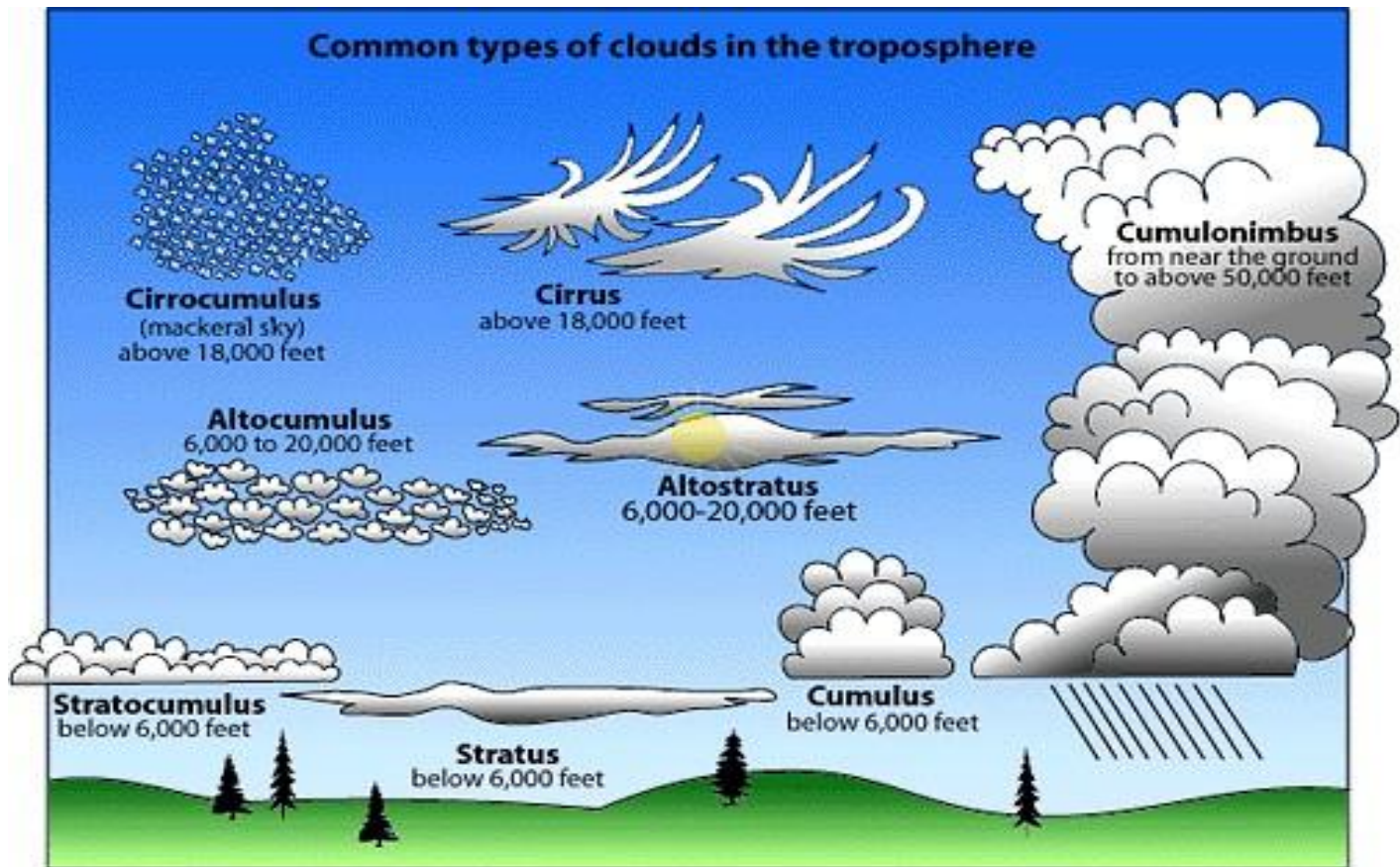
Clouds form when water on Earth **evaporates** and **condenses** up in the sky to reform water.

Fun Fact:

Clouds are white because the water droplets in it are so spread out that light is able to pass through it, and gray clouds have too many water droplets for the light to get through.



Where are clouds?



Here are the different kinds of clouds and where they are in the troposphere. The **troposphere** is the region of the sky extending from the Earth's surface to about 3-7 miles in the sky.

The clouds closer to the ground are made up of water droplets. The higher in the sky the cloud is it is made of ice crystals.

Fun Fact:

Snowflakes are made when ice crystals stick together.

Types of Clouds

Cumulus Clouds



Cumulus clouds look puffy like cotton balls or whipped cream.

They are usually known as “fair-weather clouds.”

However, they can become thunderstorm clouds and then they are called Cumulonimbus.

Fun fact:

“The word cumulus means pile or heap.”

Stratus Clouds



Stratus clouds look like blankets across the sky.

They are gray in color.

They make a light drizzle or mist or rain.

Fun Fact:

“The word stratus means layer.

Cirrus Clouds



Cirrus clouds look thin and wispy. Instead of having water droplets, cirrus clouds have ice crystals. White cirrus clouds mean clear skies. Gray cirrus clouds mean rain or snow.

Fun Fact:

“The word cirrus means a curl or ringlet in some one’s hair.”

Our Solar System and Clouds

There are a few other planets in our solar system that have clouds, but they are not made of water droplets.

Venus has **sulfur dioxide** in its clouds.



Jupiter and Saturn's clouds are made up of **ammonia**.

Fun Fact:

Scientists have found that Jupiter and Saturn have formed water ice crystals in some clouds.

Glossary:

Evaporation: where water becomes a gas because it is hot.

Condensation: where gas turns back into water because it is cold.

Sulfur Dioxide: a gas that smells like rotten eggs.

Ammonia: a gas that smells bad and is usually used in cleaning.

Questions:

What is inside of a cloud?

How does a gray cloud differ from a white cloud?

What is the name of a type of cloud?

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Common Core State Standards

CCSS.ELA-LITERACY.RL.1.1

Ask and answer questions about key details in a text.

CCSS.ELA-LITERACY.RI.1.5

Know and use various text features (e.g., headings, tables of contents, glossaries, electronic menus, icons) to locate key facts or information in a text.

CCSS.ELA-LITERACY.RI.1.7

Use the illustrations and details in a text to describe its key ideas.

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