

Clouds and the Water Cycle

Clouds can be both frightening and entertaining. Thunderclouds are big, dark and sometimes scary. Summer clouds are large and fluffy and may look like a duck, an elephant or a train. They look like they are made from cotton candy.

Have you ever walked to the bus stop on a foggy morning? Did you feel the cool mist on your face? Believe it or not you were walking through a cloud. Fog is actually a cloud on the ground. Fog and clouds are both made of water.

Clouds are formed through the process of the water cycle. The water cycle begins when the sun heats up rivers, streams, oceans or any other source of water on Earth's surface. The water molecules change from a liquid to a gas and begin to rise into the air; this process is known as evaporation.

Evaporated water is called water vapor. Water vapor is also known as steam. A boiling pot of water produces steam (water vapor). Water vapor rises in the atmosphere. The higher the water vapor travels, the colder it gets (this is why there is snow on the tallest mountains-it is cold up there!) When water vapor gets cold, it will begin to turn back into drops of liquid. The process of water vapor turning back into a liquid is called condensation. The drops of water begin to stick together. Clouds are drops of water that are stuck together.

When the clouds are full of water, and the drops of water begin to get heavy, it will begin to rain or it may even snow if it is really cold. The process of water or ice falling from a cloud is known as precipitation.

The water cycle will then start all over again: evaporation, condensation, precipitation.

The water cycle also produces three main types of clouds:

- Cirrus clouds- thin, faint clouds. They are very high in the sky and are made of ice. They usually can be seen a day before it will rain or snow. Cirrus is Latin for "curl of hair".
- Stratus- dark clouds that are low in the sky. Stratus clouds can bring rain, snow, and sleet. Stratus means to "spread out".
- Cumulus- large, fluffy clouds, on sunny days with no rain or snow. Cumulus clouds can form into thunderclouds known as cumulonimbus clouds. Cumulus means to "pile up".

Words to know: evaporation, condensation, precipitation, cirrus, stratus and cumulus.

Meets NC Standard Course of Study 5th Grade Goals 3.01 and 3.03

Activity: Water Cycle in a Bag

Materials:

- Ziploc bag – sandwich size or larger
- ½ cup of water
- Tape
- Sunny window
- Notebook/Pencil

Procedure:

- Pour water in Ziploc bag
- Seal bag securely
- Tape bag to sunny window
- Record changes you notice in the bag.

Interesting Weather Facts:

- Dirty snow melts faster than clean snow.
- The speed of a raindrop is 17 miles per hour
- Niagara Falls was completely frozen in the winter of 1932!

Source: www.funfactz.com

Next Month's Topic

Skeleton and Bones