



CLOUDY

With a Chance of Charm

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Cloudy

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OVERVIEW

Have you ever looked up into the sky and imagined the clouds as an animal, a person, or a flower? Have you ever wondered what a cloud is made of?

A cloud is formed when water vapor condenses into water droplets. These water droplets attach to particles in the air such as dust, pollen, or smoke. When billions of these water droplets join together, they form a cloud. Clouds come in various shapes and sizes, each unique in their own way.

Today we will discuss 5 different types of clouds, but there are many more types. To learn more about types of clouds check out [National Oceanic and Atmospheric Administration](#) or [University Corporation for Atmospheric Research Center for Science Education](#).

Cumulus- have flat bases and are often described as “fluffy,” “puffy,” or “cotton-like” in appearance

Cumulonimbus- dense, towering vertical cloud, forming from water vapor carried by powerful upward air currents. If observed during a storm, these clouds may be referred to as thunderheads. Cumulonimbus can form alone, in clusters, or along cold storm systems

Cirrus- cloud generally characterized by thin, wispy strands

Altostratus- middle altitude cloud genus belonging to the stratiform physical category characterized by a generally uniform gray to bluish-green sheet or layer.

Stratus- low-level clouds characterized by horizontal layering with a uniform base



ACTIVITY

SUGGESTED MATERIALS

Large canning jar with lid

Hairspray

Hot water

Ice cube



STEPS

Step 1: Fill large canning jar with a cup of warm water and stir/swirl the water.

Step 2: Place the canning jar's lid upside down and place two or three ice cubes on the lid. Wait 20 seconds.

Step 3: Remove the lid and quickly spray the water with hairspray. Then place the lid back on top with the ice cubes still on the lid.

Step 4: When you see a good amount of condensation forming, remove the lid and watch as the cloud escapes from the jar.

Pay attention to the warm water you placed in the jar.

Some of it will become warm water vapor and rise to the top where it comes in contact with cold air from the ice cubes.

Water vapor will condense when it is cooled. In order for the cloud to form, it has to have something to condense onto. In nature, that could be dust, pollen, air pollution, etc.

In this activity, when we remove the lid the water vapor condenses onto the hairspray particles. Thus, our cloud is formed.

Visit <https://bit.ly/3dpUd0f> for picture examples of the vocabulary we discussed in today's lesson.

Resource: [University Corporation for Atmospheric Research Center for Science Education](#)

