A STEM in the Park Take Home Activity

STEM in the PARK™

Science, Technology, Engineering, and Mathematics

Cloud Makers

What You Need

- Cool Whip or Yogurt
- Plate and spoon

What To Do

1. For several days before the activity, have your child look up to the sky and describe how the clouds look. Perhaps they look fluffy, thin, dark, or wispy?
2. Place a large spoonful of whipped topping in the center of the plate.
3. Ask you child to spread the topping smoothly over the entire plate in one thick coat that covers the plate.
4. Now have them drag the spoon back and forth creating horizontal lines.
5. Try scraping the topping all back into a big circular mound in the middle now.

Observe...

1. The thick even layer of topping is like a stratus cloud (stratus means layer). Ask your child if they can see any of the plate through this layer. Because the layer is solid, not much light can get through these clouds, and although they are thin, they can sometime drop light drizzle from them.
2. When they drag the topping into ribbons they are denser and more like cirrus clouds (cirrus means curls of hair). Wind causes these clouds to move around in wisps and curls and watching them can show you the direction of the wind. They are not usually dense enough to cause rain.

Continued on back

Observe cont.

3. Finally when they make the mounds of topping they make a "cloud" that looks more like a cumulus cloud (cumulus means heap). Occasional fluffy mounds of cumulus clouds let plenty of light through and are seen on nice days, but when large amounts of cumulus clouds start to fill the sky, they can create a thunderhead!
4. Just as the topping looked different as it was moved from one formation to the next, these three cloud types form together to make many other "combination" clouds.

Learn...

Do we always see clouds when it rains? Yes, the clouds are made of water vapor, and when they get "heavy" enough, they burst open. Clouds are made up of tiny water droplets or ice crystals, usually a mixture of both. The water and ice scatter all light, making clouds appear white. If the clouds get thick enough or high enough all the light above does not make it through, hence the gray or dark look. Also, if there are lots of other clouds around, their shadow can add to the gray or multicolored gray appearance

Investigate...

Online Sites:

www.Weatherwizkids.com
www.Abcteach.com/clouds
www.Climatecentral.org

Suggested Books:

Little Cloud by Eric Carl
Oh say can you say, what's the weather today? By Cat in the Hat's Learning Library
The Cloud Book by Tomie dePaola

This activity is brought to you by Toledo Botanical Garden.