Cloud Fun

Purpose

- To help students identify cumulus clouds and observe the weather conditions on days that they see cumulus clouds.

Overview

Each student will be given the opportunity to create their own cumulus cloud out of white paper and mount it on blue paper. Students will also complete the *Cloud Fun Student Activity Sheet* that includes a description of the cloud and what the weather was like on the day the cloud was observed.

Student Outcomes

Students will learn about a cumulus cloud's shape and appearance, how to verbally describe cumulus clouds, and what the weather is generally like when these clouds appear in the sky.

Science Content Standard A: Science as Inquiry

- Abilities necessary to do scientific inquiry

Science Content Standard D: Earth and Space Science

- Changes in earth and sky

Time

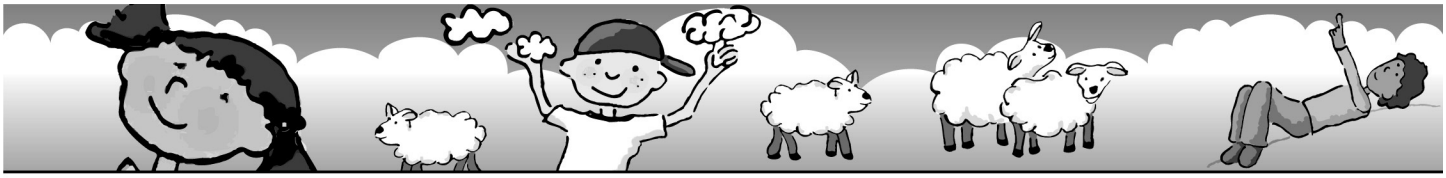
- One 30-45 minute time period

Level

Primary (most appropriate for grades K-4)

Materials

- Elementary GLOBE book: *Do You Know That Clouds Have Names?*
- GLOBE Cloud Chart
- Chart paper
- Newspaper (for protection of the activity tabletop)
- Sheets of white construction paper
- Larger pieces of blue construction paper
- Glue or glue sticks
- Markers or pencils
- Template or stencils if needed
- *Cloud Fun Student Activity Sheet*



Preparation

- Read the Elementary GLOBE book *Do You Know That Clouds Have Names?* – either read it to the class or have students read it to themselves. The book can be downloaded from www.globe.gov/elementaryglobe.
- Organize table(s) with the art materials listed above.
- Make a chart with the title: "Cumulus Clouds Look..." placed on a bulletin board.

Teacher's Notes

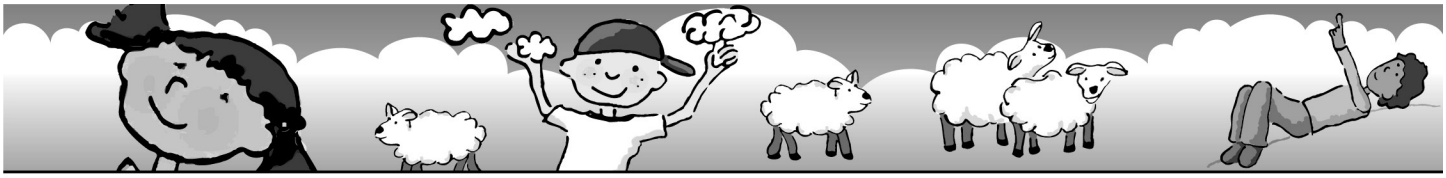
Clouds take many different forms. There are three main groups of clouds: cumulus, stratus, and cirrus. They can be easily remembered by the descriptions given to them. Cumulus clouds are heaped and puffy. They have also been described as looking like cotton balls and/or cauliflower. Stratus clouds are long and stretch themselves across the sky in gray, lengthy, horizontal layers. Cirrus clouds are seen high in the sky and are very thin. They are often referred to as "horse tails" in the sky. Clouds affect our weather and climate. Refer to the *Atmosphere Investigation* chapter of the *GLOBE Teacher's Guide* for more information on clouds (www.globe.gov).

What To Do and How To Do It

1. Pick a day that has cumulus clouds in the sky.
2. Explain to the students that they will be going outside to observe cumulus clouds in the sky.
3. Go outside and look at the clouds, by standing up, sitting down, and laying on the ground. Encourage students to think of words that describe the cloud's appearance. Also talk about what kind of weather they are observing with their five senses.
4. Go back inside and show your students the *GLOBE Cloud Chart* and the Elementary GLOBE book *Do You Know That Clouds Have Names?* Help them identify cumulus clouds and how they look different from the other clouds. Together think of some words to describe how a cumulus cloud looks: big, fluffy, like a cotton ball, like cotton candy, etc.
5. Have the students report to the group the words that would describe the clouds as the teacher records their findings on a piece of chart paper titled: "Cumulus Clouds Look..."
6. After the chart has been completed, give each student a piece of white construction paper. Ask him/her to tear it into a large free-form cloud based on his/her observations of the clouds outside. Glue the cloud onto blue paper.
7. After the children have completed their cloud formations, gather again as a large group. This time have them describe what kind of weather they were experiencing while they were outside observing the clouds. Help them categorize their thoughts by referring to their five senses. What did they feel, see, taste, hear, or smell that pertains to the weather when they were outside. Was it hot, cold, windy, cloudy, breezy, cool, wet, gray, etc. Make a list of these words on a chart and title it "Weather Words."
8. Next, have each student complete the *Cloud Fun Student Activity Sheet*, using the charts by the class as references. Attach the completed activity sheets to their cloud and display in the classroom. This activity could also be assembled into a class book for your classroom's reading center or for a bulletin board.

Adaptations for Younger and Older Students

If tearing the paper is too difficult have the children trace around a cloud template and then cut out their shape. Depending on the age of the students, a cardboard cloud template to trace around will work well, or make a cloud stencil so children can trace on the inside to make their creation.



Further Investigations

- **Cloud Word Wall:** Generate a list of words students might use to describe clouds. This list should include adjectives that describe the appearance of different cloud types. Also include words that apply to the different senses. Your students can help you generate the list. Keep the list up on the wall while you are doing the Elementary GLOBE cloud activities so students can refer to it; it will help them think of words to use on their student activity sheets.
- **Other Cloud Types:** Do the same activity, and this time pick another cloud form to observe and create, maybe a stratus cloud that would require using gray paper.
- **Cloud Journal:** Have students keep a cloud journal for a week. Have them go outside every day and observe the clouds. Next have them draw the kinds of clouds they saw and report on what the weather was for that day. Review the results at the end of the week. Was there a pattern to the kinds of clouds they observed? Were there any connections between the weather and the kinds of clouds they observed? Did they need to use different colors to record the cloud pictures?
- **GLOBE Cloud Protocol:** Start making cloud observations as a class to submit to GLOBE. See the *GLOBE Teacher's Guide* (www.globe.gov) for more information on the Cloud Protocol.

NAME:_____

Cloud Fun Student Activity Sheet

I found a cumulus cloud!

Date _____

My cumulus cloud looks _____

_____

The weather was _____

_____

on the day I observed my cumulus cloud.

Draw a picture of your cloud and what the weather was like when you observed it.