

Clouds

Are you excited to become cloud experts? After completing this Trail Walk you will become an expert. Please make sure to read and follow all directions carefully.



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Have fun looking at clouds~!



CLOUDS



We would like to welcome you all to Manchester College to investigate clouds! We want to start off by reading a story called Cloud Dance by Thomas Locker! While we are reading this story we want you to pay close attention to the clouds described in the book.



Now that we are through reading Cloud Dance does anyone have any questions? Those are great questions now let's go find out the answers by touring the campus and investigating clouds!





Stop #1



Clouds

Walk to the Mall area in front of the library.

Lie down in the grass and look at the clouds.

OBSERVE!

What did you see? (shape , size, color)

How do you think clouds are made?



Stop #2

Cloud Making



Walk to the Science Center and go behind the building

Follow the steps and directions very carefully.

1. Take a 2-liter plastic bottle and have Miss Heisler or Mr. Adams pour warm water into the bottle.
2. Place the cap back on your bottle

What is happening?

3. Squeeze and release the bottle. You'll notice that nothing is happening. The squeeze will represent the warming that occurs in the atmosphere and the release represents the cooling. Why is nothing happening? Think about it?

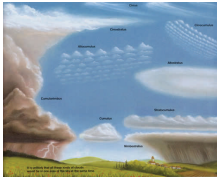
4. Take the cap off the bottle and Miss. Heisler or Mr. Adams will light match and drop it in the bottle. Quickly put your cap back on to trap the smoke inside.

5. Begin slowly squeezing the bottle hard and then release.

What happens this time?

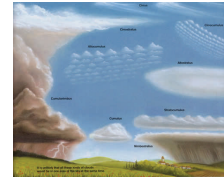
What are the three ingredients to make a cloud?

1. _____
2. _____
3. _____



Stop #3

Cloud Types



Walk to the front of Schwalm Hall.

Sit in the grass in front of Schwalm to learn about different cloud types and make your own cloud poster.

Directions:

1. Get three small 8.5 x 11" pieces of construction paper from Mr. Adams or Miss Heisler.
2. Pick up 20 cotton balls to start out with and if you need me let an adult know.
3. Finally, pick up a few crayons and a bottle of glue

Cirrus Clouds

Cirrus clouds are _____ and _____.

How to make cirrus cloud:

1. For cirrus clouds take a sheet of blue paper and two cotton balls. Break the cotton ball into several pieces and stretch each piece very thin. Glue these to the upper part of the paper (sky) and draw a scene that would take place on a day that has cirrus clouds in the sky.

Cumulus Clouds

Cumulus Clouds are _____ and _____.

How to make cumulus clouds:

2. For cumulus clouds, take a sheet of blue construction paper and ten cotton balls. Group the cotton balls on the upper part of the paper (sky) and glue them in place. Draw a scene that would take place on a day that has cumulus clouds in the sky.

Stratus Clouds

Stratus Clouds are _____ and _____.

How to make stratus clouds:

3. Pull two cotton balls in a straight line and glue it from one end of the paper to the other. Stratus clouds occur low in the sky. Draw a scene that would take place on a day that has stratus clouds

What is your favorite type of cloud?

Congratulations!

**You have just finished the
Science Trail on Clouds!**

**This is a website where you can
complete cloud activities at home!**

[http://users.manchester.edu/student/rsadams/
WebQuest325/index.htm](http://users.manchester.edu/student/rsadams/WebQuest325/index.htm)

Teacher Page

Big Idea: How clouds are formed

Overall Goal: Student will identify and described how clouds are formed

Standard (s): 2.2.3—Chart or graph weather observations such as cloud cover, cloud types, and types of precipitation on a daily basis over a period of weeks.

Children’s Literature Book: Cloud Dance by Thomas Locker

Stop One:

Objective: Given the different cloud types, students will observe types of clouds for five minutes.

Assessment: Students will write three sentences based types of clouds they see in the sky.

Stop Two:

Objective: Given the procedures for completing the cloud experiment, students will follow all steps.

Assessment: Students must follow the step by step procedure they should be able to answer the questions in the workbook.

Stop Three:

Objective: Given clouds types, students will classify three different forms of clouds.

Assessment: Students will receive cotton balls and construction paper to make cloud posters. Students must use cotton balls to make the correct form of clouds (stratus, cirrus, cumulus) and glue them in the correct area of the construction paper. (Horizon line will be labeled on sheet of construction paper.)

Material for 5 students

- 15—pieces of 8.5 x11 inch construction paper
- 5—bottles of glue
- Wide selection of crayons
- 100—cotton balls (20 per student)
- 5—2-liter bottles
- 1—box of matches
- 2 gallons of HOT water
- 2—funnels
- 5—pencils