

# Clouds, Clouds, Everywhere

## Vocabulary & Definitions



[spark.ucar.edu](http://spark.ucar.edu)

**Atmosphere** - A layer of gases surrounding a planet



[fantom-xp.com](http://fantom-xp.com)

**Condense** - The change of water vapor to liquid water, as when fog or dew form



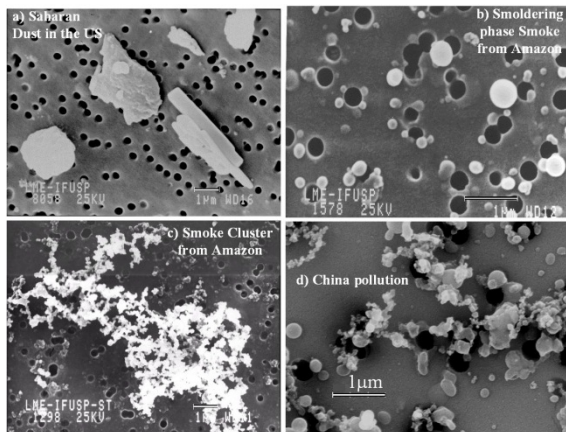
[praisephotography.com](http://praisephotography.com)

**Vapor** - A substance diffused or suspended in the air, especially one normally liquid or solid: "dense clouds of smoke and toxic vapor"



[pcpro.co.uk](http://pcpro.co.uk)

**Clouds** - A visible collection of tiny water droplets or, at colder temperatures, ice crystals floating in the air above the surface. Clouds offer important clues to understanding and forecasting the weather



[alg.umbc.edu](http://alg.umbc.edu)

**Particles** - A minute portion of matter

## Cloud types



### **Cirrus:**

These are the highest clouds in the sky, so tell the children to paint these clouds in the top section of their paper. They look like "whispy feathers". Some people think they look like "a horse's tail". That's what their name **Cirrus** means, "**horse's tail**". Cirrus clouds usually mean good weather.



### **Cumulus:**

These clouds are closer to the ground than the cirrus clouds, so tell the children to paint them in the space "under" the cirrus clouds. They look very full and billowy, much like "cotton or cauliflower". Little cumulus clouds mean good weather. Some cumulus clouds grow very large ...and that may mean a thunderstorm is coming.



### **Stratus:**

These clouds are very close to the ground. Tell the children to paint them in the space "on the bottom" of the blue paper. These clouds sometimes block out the sunshine and all the blue in the sky. Stratus means "**Layers**". Stratus clouds often mean that rain is likely.

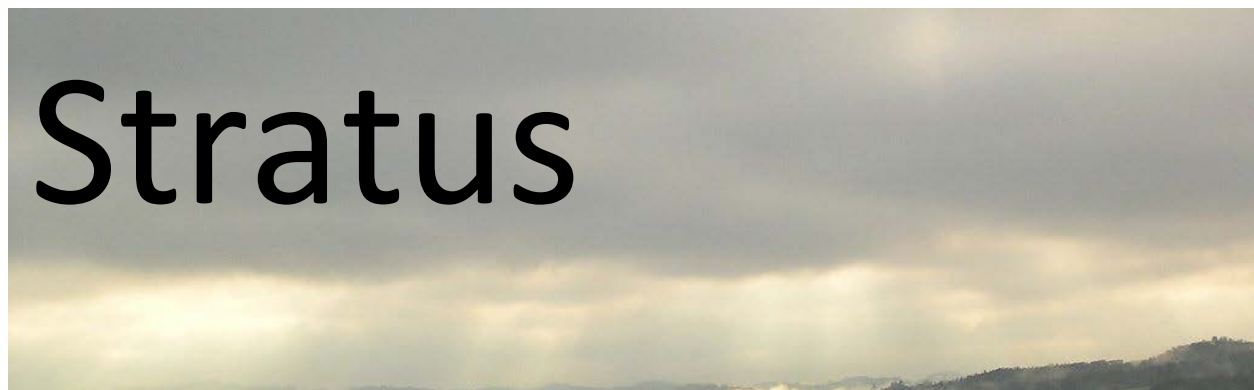
Reference materials: <http://www.weatherwizkids.com/weather-clouds.htm>

# Clouds, Clouds, Everywhere



[en.wikipedia.org](https://en.wikipedia.org)

**Cirrus Clouds** - High (3+ miles above the Earth), curly, wispy, feathery white clouds made of ice and usually found on fair days.



[nickpiesco.com](https://nickpiesco.com)

**Stratus Clouds** - Layered grey clouds that block the sun, sometimes covering the whole sky and may bring rain or snow.

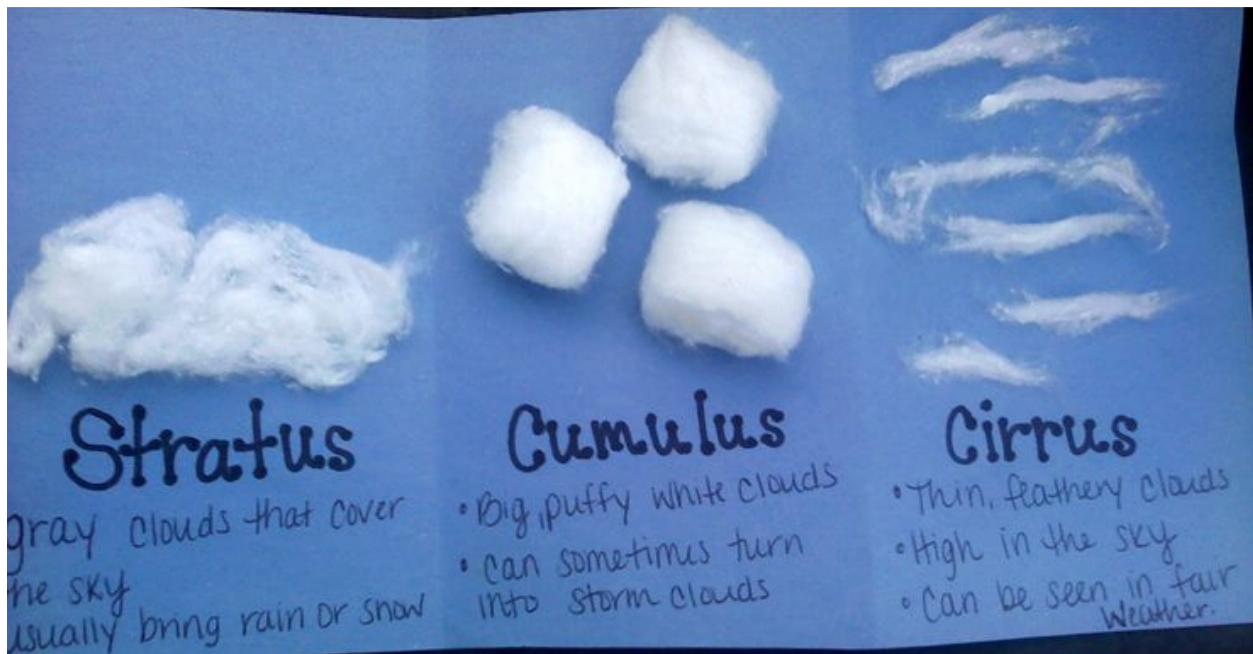


[sr.wikipedia.org](https://sr.wikipedia.org)

**Cumulus Clouds** - Low hanging (less than 1 mile), white, puffy clouds which change shape very quickly and are found on warm, sunny days.

## Cotton Ball Clouds

k-3rd



Activity: Now we are going to make models of cloud types we commonly see. Use a handout describing the cloud types, and distribute this handout to each table to review when building cotton cloud model.

Materials: Large Cotton Balls, glue, cardstock/chapboard, blue construction paper, markers.

First, instruct students to prepare the SKY: glue the blue construction paper to the cardstock or chapboard- this will reinforce the paper to handle the weight of the glue and the cotton. The next step will be to divide the paper top to bottom into 3 sections: the top of the paper will be for Cirrus clouds, the middle section is for Cumulus clouds, the bottom is for Stratus clouds. Distribute markers and help students label the 3 sections.

Then, distribute 2 cotton balls for the Cirrus clouds, these are the highest clouds. Cirrus clouds are wispy so they should pull the cotton balls apart into strands of wispy cotton and do their best to glue them down. Next, distribute 3 cotton balls for Cumulus Clouds. Students will create 1 cloud form with all 3 balls of cotton. For the lowest section, explain that Stratus clouds are the lowest and are layered. Have the students try to unwrap the cotton balls (approx. 4/student) and layer their clouds.

## Follow-up Activities

### Activity #1: Construct a Cloud Key

<http://teacher.scholastic.com/lessonrepro/reproducibles/profbooks/cloudkey.pdf>

### Activity # 2: Track weather patterns in a weather journal

To get the most out of this activity, have student record the daily observations in a notebook. At the end of a month or season, the student can create a graph or tally chart of the different types of weather that was examined. Consider extending this activity even further by encouraging students to orchestrate a nightly weather report, discussing the day's weather and making predictions for the following day.

Directions:

1. Make Cloud Key from Activity
  - #1. <http://teacher.scholastic.com/lessonrepro/reproducibles/profbooks/cloudkey.pdf>
2. Show students how to use the key. Move the wheel until the cloud you want appears then read the name and weather information in the box.
3. Have students make a table with five headings:
  - Date/Time
  - Cloud Type
  - A.M. Weather
  - P.M. Predicted
  - Weather
  - Actual P.M. Weather/Time

*Invite students to fill in the chart every morning for a week, comparing their predictions*
4. Observe the weather outside and record it
5. If you had time before class, look up the weather the next couple days or print out weather reports for the past few days and discuss what these clouds were like or are going to be like.
 

<http://teacher.scholastic.com/lessonrepro/reproducibles/profbooks/cloudkey.pdf>

### Follow-up 3: Shaving Cream Clouds:

This activity can be a little messy, it's helpful to use a plastic table cloth or give each child a plastic/waterproof placemat to work on.

1. Talk about the characteristics of different cloud types. Explain that the clouds do not always look the same.
2. On each child's workspace, spray a little puddle of shaving cream. Explain that they may use their fingers to paint clouds. Model on the chalkboard with shaving cream, different variations of cloud shapes and designs.