



COLLECTING CLOUDS

Cloudy Days

Oh clouds! They bring us shade, they bring us rain, snow, sleet and hail! Clouds are such an important part of the Umpqua Watershed since they bring in all the **precipitation** that helps our watershed flow.

Clouds are a large collection of tiny water or ice particles that are so small, they float in the air! Clouds move with the wind and will turn from white to gray when enough water droplets come together to block the sun light filtering through. You've probably looked up at clouds and found animals or other cool shapes, but today we are going to see what other things we can notice about the big floating marshmallows above us.



EXPERIMENT 1: Clouding your vision

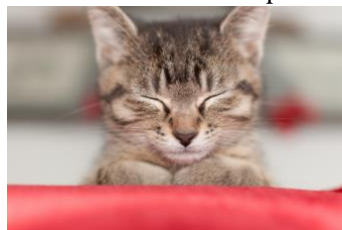
There's something really nice about just lying on the ground and watching the clouds - but how much detail have you really noticed? Even though the weather has been nice, there are still some clouds in the sky!

You will need:

- A pencil
- Your observation journal
- A timer (on your phone or watch)

Instructions:

1. Find a comfortable place to lie down or sit back to look at the clouds. Make sure you are facing away from the sun.
2. Find a cloud and set a timer for 60 seconds.
3. Really get to know your cloud! Notice every single detail - the size, the shape, the colors... get as much detail in there until the 60 seconds are up.
4. Now close your eyes! Keep them shut and don't peek for 30 seconds!!



5. Open your eyes!
6. What is different about your clouds? Is the shape the same? The size? Is it in the same place?
7. Repeat the experiment on a different cloud.



THINK ABOUT IT! Clouds are always on the move and its one of the things that make them so exciting to watch!



EXPERIMENT 2: Classify a Cloud

Just like we've been learning to identify birds and bees, let's try classify the clouds in the sky!

New Ways to Look at Clouds

Today we are going to be learning a new protocol for identifying something. This is called using a **Dichotomous Key**. Think of this key as a way to identify something based on answering a bunch of yes or no question. For example, if I wanted to know what kind of shoes you were wearing without looking, I would go through a list of questions in a shoe dichotomous key: 1) are your shoes close-toed or open-toed? 2) Do the shoes have laces? 3) Do the shoes have a zipper?... etc.

I can use a similar system to classify different kinds of clouds. There's a cloud identification chart below that you can use to start identifying clouds and their place in the sky! You can also try out the dichotomous chart by clicking [HERE!](#)



You will need:

- Your observation journal
- A pencil
- The cloud identification chart (below) or the dichotomous key handy
- A cloudy sky

Instructions:

1. Find a nice place to sit outside to look at the clouds. Make sure you're in an open space where you can see some clouds in the distance too.
2. Look up at the clouds (away from the sun) and begin using the identify guide or dichotomous key to figure out what kind of clouds you are seeing! This is a great opportunity to notice that there can be different kinds of clouds in one stretch of sky.
3. Make these comparisons at different times of day, different temperatures or before a big storm comes through.
4. Especially now, its nice to focus on the little things around us, that have always been there, we just may not have noticed.

Thanks for conducting science with me for this Home Explorer activity from Umpqua Watersheds Education Program.

Join me for new activities posted every week!

- Ms. Robyn





THE **GLOBE** PROGRAM

Cloud Identification Chart



Contrails



Short-lived



Persistent Non-Spreading



Persistent Spreading

High



Cirrus



Cirrocumulus



Cirrostratus

Mid



Altostratus



Altocumulus

CONVECTIVE CLOUDS

Cumulonimbus

Cumulus

Low



Stratus



Stratocumulus



Nimbostratus



Fog

2017

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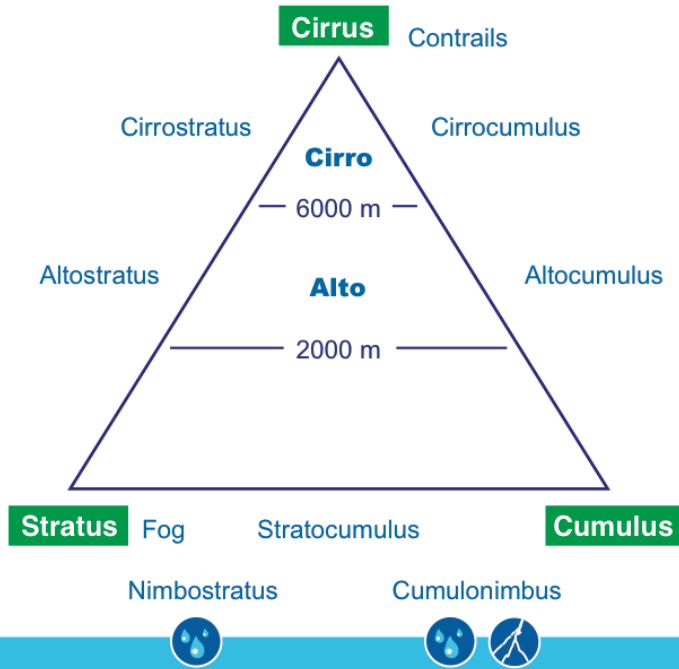
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Observation Basics



Cloud Type



Sky Color

Deep Blue Blue Light Blue

Pale Blue Milky

Sky Visibility

Unusually Clear Clear

Somewhat Hazy Very Hazy

Extremely Hazy

Cloud Cover

Few (<10%) Isolated (10-25%)

Scattered (25-50%) Broken (50-90%)

Overcast (>90%)

Cloud Opacity

Transparent

Translucent

Opaque

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