Name\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Date\_\_\_\_\_\_\_\_\_

Cloud Types Webquest

READ this entire assignment before beginning the Webquest. Why read first? On a webquest it is important to know what you are looking to find before you begin looking!!!

Complete each section by typing right into this document. Save the file to your student shared folder or storage device and when completed upload into Edmodo.

Use the following websites to complete this assignment. **ALL** questions are **COMPLETELY** answered in **THESE** websites. If you feel compelled to spend time searching other sites please provide references. **ABSOLUTELY NO WIKIPEDIA!!!**

<http://usatoday30.usatoday.com/weather/wcloud0.htm>

[**http://www.crh.noaa.gov/lmk/?n=cloud\_classification**](http://www.crh.noaa.gov/lmk/?n=cloud_classification)

[**http://ga.water.usgs.gov/edu/watercyclecondensation.html**](http://ga.water.usgs.gov/edu/watercyclecondensation.html)

[**http://www.srh.noaa.gov/srh/jetstream/clouds/cloudwise/types.html**](http://www.srh.noaa.gov/srh/jetstream/clouds/cloudwise/types.html)

[**http://www.srh.noaa.gov/srh/jetstream/clouds/cloudwise/index.html**](http://www.srh.noaa.gov/srh/jetstream/clouds/cloudwise/index.html)

[**http://www.srh.weather.gov/jetstream/synoptic/sfc\_plot\_symbols.htm**](http://www.srh.weather.gov/jetstream/synoptic/sfc_plot_symbols.htm)

**Each topic is worth 25 points.**

**TOPIC 1: How do clouds form?**

1. Describe how a cloud forms. Be sure to mention: *warm air, water vapor, condensation nuclei, condensation, dew-point temperature and the change in temperature of the air*. If you are uncertain read the paragraph *Why do clouds form and why does it rain?* at the USGS site listed above.

**Topic 2a: What do clouds look like?**

Give a brief description of each type of cloud listed below.

|  |  |
| --- | --- |
| Cloud Type | Description of appearance |
| Cirro-form |  |
| Nimbo-form |  |
| Cumulo-form |  |
| Strato-form |  |
| Contrails |  |

**TOPIC 2B: What do clouds look like? Altitude is important!**

*Clouds are categorized and named based on the altitudes where they form and the presence of precipitation. Use the NOAA site to complete the following:*

1. High-level clouds occur above 20,000 feet. These clouds are named using the prefix \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.
2. Three types of high-level clouds are \_\_\_\_\_\_\_, \_\_\_\_\_\_\_ and \_\_\_\_\_\_\_.
3. Mid-level clouds occur between 6,500 and 20,000 feet and are named using the prefix \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.
4. Two main types of mid-level clouds are \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ and \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.
5. Low-level clouds occur below 6,500 feet and are named using the Latin prefix \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ or \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.
6. Stratus clouds develop \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ while cumulus clouds develop \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.
7. What type of human activity leads to the formation of contrails?

**TOPIC 3: What can I learn from observing each type of cloud?**

Use the Sky Watcher chart at the National Weather Service website to complete the following table.

|  |  |  |
| --- | --- | --- |
| Symbol | Cloud Type (Name) | Weather Forecast |
|  |  |  |
|  |  |  |
|  |  |  |
|  |  |  |
|  |  |  |
|  |  |  |

**Topic 4: Cloud Cover and nighttime temperature**

Imagine two different kinds of nights. The first has a sky covered by clouds. The second has absolutely no clouds in the sky. If daytime weather conditions were identical how would nighttime temperatures differ for these two nights? Include a description of weather-related processes at work when you explain the reasoning for your answer.

**Additional References**