

Weather Quest

A WebQuest for 6th Grade (Weather)

Designed by

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Introduction

What is the weather like today? What will it be like tomorrow? What was it like years ago? We are going to investigate and chart weather. We are going to learn how to measure weather with our own handmade weather instrument. Come on! Let's find out what weather is all about!

The Task

Your task will be to investigate weather through the internet, create a concept map and give a written summary explaining what weather is. You will choose a weather measuring instrument to build, explain and demonstrate. You will chart the weather in your area for five days. Your chart will have the following weather conditions listed and completed:

- wind direction
- wind speed
- humidity
- air pressure
- temperature
- rain

You will compare your weather conditions with past weather conditions.

Be prepared to present your findings and showcase your weather instrument you've built.

The Process

To accomplish your task, follow the steps below.

1. First you'll be assigned to a team of 3 students.
2. You will work together to research information on weather. Assign jobs for each team member to work on.
3. Create a **concept map** in Inspiration or Kidspiration to organize your information. Specifically, be sure to include:
 - what causes our changing weather
 - what is air pressure, humidity, temperature, winds and precipitation and the measurements used for each.

Use the websites below for your research.

<http://www.usatoday.com/weather/tg/wglobale/wglobale.htm>

<http://www.usatoday.com/weather/basics/measurements.htm>

<http://teacher.scholastic.com/activities/wwatch/reporters/central/whatis.htm>

[Precipitation \(Weather\)](#)

<http://teacher.scholastic.com/researchtools/researchstarters/weather/index.htm>

4. Write or type a final report of your findings. Your report should be one to two pages in length. If type written it should be double spaced.
5. Your team will choose one weather instrument to build. You may choose from an anemometer, barometer, or wind vane.

Use the websites below to find out more about each instrument and how to build it.

<http://teacher.scholastic.com/activities/wwatch/reporters/lab/anemometer/what.htm>

<http://teacher.scholastic.com/activities/wwatch/reporters/lab/barometer/what.htm>

<http://teacher.scholastic.com/activities/wwatch/reporters/lab/windvane/what.htm>

6. Open the Weather Reporters Data Sheet and print it out. Record the weather for your area for five days on your printout.

[Scholastic Weather Reporters- Data Sheet](#)

Use the following websites for finding your areas weather data.

<http://www.wunderground.com/US/AL/>

<http://weather.noaa.gov/weather/current/KMOB.html>

7. Once you have completed your Data Sheet go to

<http://www.usatoday.com/weather/climate/usa/wusaclim.htm>

Look up the weather almanac for your city and find the average temperature and precipitation for the month that you have recorded on your data sheet. Compare your average temperature and precipitation (rainfall) to the average on the almanac for that month.

On the back of your data sheet, list the almanac's average and your average temperature and precipitation. Does your average fall in the month's average of the almanac? Are your averages higher, lower, or the same?

You can find information on calculating your averages

at:

http://www.keyskillssupport.net/resources/workbased/online/resource_sheets/N03.pdf

If you need the use of a calculator go to:

<http://www.calculator.org/jcalcfaq.html>

8. Be prepared to give a presentation on your weather report discuss your average compared to the almanac. Showcase your weather instrument, with an explanation and demonstration of it.

Evaluation

All work will be evaluated as a group effort. Each team member will receive the same grade as the members in their team.

	Beginning 1	Developing 2	Accomplished 3	Exemplary 4	Score
The team cooperated well and participated in the presentation.	Cooperation is limited or non-existent. Presentation was poor or non-existent.	Cooperation exists but work completed by minority of group. Presentation was minimal.	Students work together though some more than others. All team members presented though some more than others.	Cooperation is ongoing and smooth. Individuals contribute equally. All team members participated equally in the presentation.	
The team created a concept map with the required information.	Students did not create concept map, or if created, no information provided for subtopics.	Students create a concept map with few subtopics and/or not enough information.	Students create a concept map with most descriptions and/or branches included.	Students correctly create and label a concept map with subtopics and branches.	
Weather report completed with required information.	Few or no weather characteristics are stated and described. No organization.	Students identify and describe weather characteristics with some missing and/or little information. Very little organization.	Students identify and describe weather characteristics. Some organization.	Students identify and describe weather characteristics in an organized, clear and concise manner.	

<p>The team completed the required weather chart correctly.</p> <p>Comparison of averages listed and explained.</p>	<p>Much data is missing. Recorded information does not reflect data sought.</p>	<p>Students have difficulty noticing or choosing which data to observe and record; recorded information is disorganized with many mistakes.</p>	<p>Students identify and record most features; organize recorded information accurately with few mistakes.</p>	<p>Students identify and record key features; organize recorded information accurately.</p>	
<p>Team constructed, explained and demonstrated weather instrument.</p>	<p>Students are disorganized require high degree of assistance from teacher to understand and complete instrument; inaccurately describe purpose of parts and how they work.</p>	<p>Students often require assistance from teacher or peers to understand and complete instrument; inaccurately describe purpose of most parts and how they work</p>	<p>Students construct/obtain proper equipment, set up instrument with little or some assistance; describe purpose of parts with moderate success and how they work with some success.</p>	<p>Students construct/obtain proper equipment and set up instrument, correcting problems as they arise; accurately describe purpose of parts and how they work.</p>	

Conclusion

I hope you have learned a little more about weather after completing your Weather Quest. It is hoped that now, when you watch or read a weather report, you may have a renewed interest in what is being reported.

Has this project made you more interested in learning about weather or weather forecasting? If so, you may want to check out the following links to learn more.

<http://www.fi.edu/weather/todo/todo.html>

<http://www.usatoday.com/weather/wearadar.htm>

<http://www.nssl.noaa.gov/edu/>

<http://www.wxdude.com/topics.html>

Credits & References

<http://teacher.scholastic.com>

<http://www.usatoday.com/weather/wfront.htm>

<http://www.fi.edu/weather/>

<http://weather.noaa.gov/>

<http://www.nssl.noaa.gov/edu/>

<http://www.wunderground.com>

[The WebQuest Page](#)

