

Unit Plan: Weather vs. Climate

Lesson: What's the Climate?

Time Required: 90 minutes

Submitted by: Karen McCabe

Recommended Grade Level: 8

Discipline: Earth and Space Science

Topic: Climate

Required Materials:

1. Computers with internet access for each group
2. Copies of "What's the Climate?" handout

Internet Resources

NOAA JetStream - Climate: <http://www.srh.noaa.gov/jetstream/global/climate.htm>

Image: United States Annual Mean Daily Average Temperature:

<http://www.ncdc.noaa.gov/img/about/cdrom/climatls1/info/temp.gif>

Image: United States Annual Mean Total Precipitation:

<http://www.ncdc.noaa.gov/img/about/cdrom/climatls1/info/prec.gif>

National Science Education Standards Addressed

Earth and Space Science

- Structure of the Earth system
- Global patterns of atmospheric movement influence local weather.

Abilities Necessary to Do Scientific Inquiry

- Use appropriate tools and techniques to gather, analyze and interpret data.
- Develop descriptions, explanations, predictions, and models using evidence.
- Think critically and logically to make the relationships between evidence and explanations.

Learning Objective

Students will use the Internet to gather climatic data for specific regions and rank them based on personal preference.

Recommended Ward's Science Materials

[Atmospheric Convection Apparatus](#)

[Item No. 807012](#)

**Note: This lab activity was submitted to Ward's Science by a third party educator for the sole purpose of sharing content and ideas with other educators. Ward's Science is not affiliated with the author of this lesson plan. All product recommendations made by Ward's Science are suggestions for completion or extension of the activity or topics addressed, but are not required to complete the activity.*

Procedure

1. Students will work in groups to research the climate of their own area and four different US Cities.
2. Students will complete all parts of the "What's the Climate?" handout.
3. Student data will be used to complete the final component of the instructional unit.
4. "What's the Climate?" handout will be collected and graded.

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Name: _____

Date: _____

Day: _____ Period: _____

What's the Climate?

Part I.

Directions: Go to this NOAA (National Oceanic and Atmospheric Agency) Web site <http://www.srh.noaa.gov/jetstream/global/climate.htm> to complete the chart below:

CATEGORY & NAME	LATITUDE	CLIMATE FEATURE
A: Tropical	15°-25°	Average temperatures=64°F Annual precipitation=59"
B:		
C:		
D:		
E:		
H:		

Use the climate map on this webpage to find the state you live in and record the climate category:

MY STATE: _____

Find three states that have different climates and record below:

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STATE: _____ CLIMATE CATEGORY: _____

STATE: _____ CLIMATE CATEGORY: _____

STATE: _____ CLIMATE CATEGORY: _____

Part 2:

1. Go to: <http://www.ncdc.noaa.gov/img/about/cdrom/climatls1/info/temp.gif> to find the Annual Mean Daily Temperature for the cities in the chart below. Record the Annual Mean Daily Temperatures on the data chart.
2. Go to: <http://www.ncdc.noaa.gov/img/about/cdrom/climatls1/info/prec.gif> to find the Annual Mean Total Precipitation for the cities. Record the Annual Mean Total Precipitation on the data chart.
3. When you have recorded the temperature and precipitation for each city, think about which city you would like to visit and rate each city according to your preference.

City	Annual Mean Daily Temperature	Annual Mean Total Precipitation	Rating #1 Choice, #2 Choice #3 Choice, #4 Choice
Your City, State:			
Galveston, Texas			
Burlington, Vermont			
San Francisco, California			
Miami, Florida			

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Resources

This unit plan was adapted and modified from a NOAA resource I found at the following:

http://oceanservice.noaa.gov/education/lessons/which_location.html

Weather Eye: http://weathereye.kgan.com/cadet/climate/climate_vs.html

A Student's Guide to Climate Change

<http://www.epa.gov/climatechange/kids/>

NOAA JetStream - Climate: <http://www.srh.noaa.gov/jetstream/global/climate.htm>

United States Annual Mean Daily Average Temperature:

<http://www.ncdc.noaa.gov/img/about/cdrom/climatls1/info/temp.gif>

United States Annual Mean Total Precipitation:

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