

What Is the Climate?

A real data webquest · mrsajdak.com/webquest · Data: WeatherSpark.com · © Ryan Sajdak · CC BY-NC-SA 4.0

Name _____

Date _____

Period _____

Two numbers decide a biome: **temperature** and **precipitation** (rain and snow). You will pull real climate data for Buffalo and for a city far away, graph it, and name the biome.

☐ I can find real climate data on a website.

☐ I can make a climate graph from a data table.

☐ I can use temperature and rain to name a biome.

How to work: Keep this sheet next to you. Open mrsajdak.com/webquest and tap **What Is the Climate?** Each city has its own button. Ads may pop up on WeatherSpark. Close them with the X. Do not click on them.

Part 1. Buffalo (tap the Buffalo button, about 8 minutes)

SEP 4 Analyzing and Interpreting Data

1. Find the paragraph that starts with "Climate in Buffalo."

	Which month?	The number
Hottest month		Average high: °F
Coldest month		Average low: °F
Wettest month (most precipitation)		inches

2. Scroll down to the heading **Growing Season.** Plants can grow when it does not freeze.

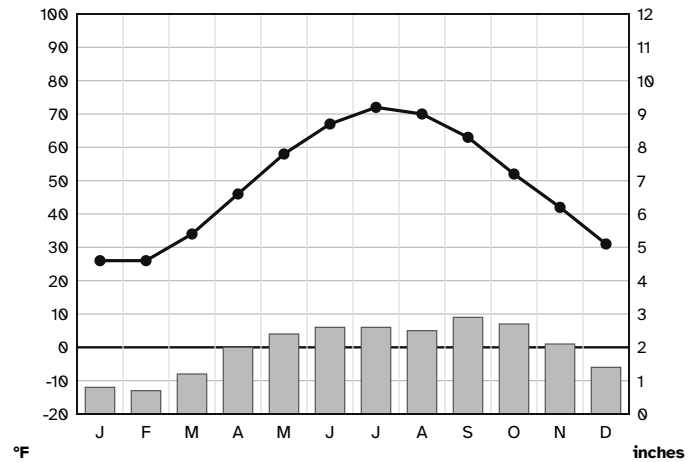
Buffalo's growing season lasts _____ days, from about _____ to about _____.

3. This is a **climate graph** of Buffalo. I made it from WeatherSpark's monthly tables. The bars are rain. The dots are the average temperature.

a. Which three months get the least rain on the graph?

b. Buffalo is not dry in winter. On WeatherSpark, scroll to the **Snowfall** heading. What is happening to the water in those months?

c. Look at the dots. How do they change from January to July?



Part 2. A city far away (about 12 minutes)

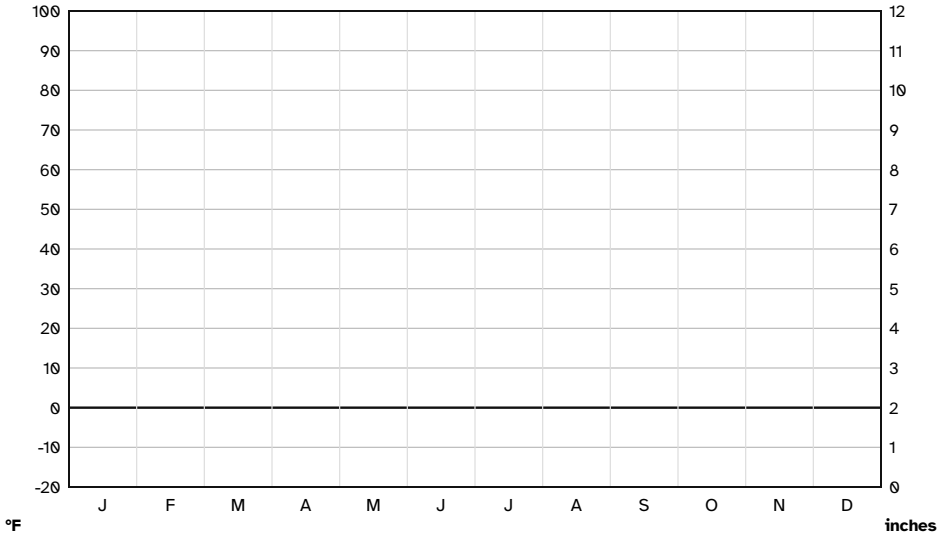
4. Pick one city. Tap its button on the webquest page. Tick the one you picked.

☐ Manaus, Brazil ☐ Tucson, Arizona ☐ Fairbanks, Alaska ☐ Nairobi, Kenya

5. Scroll down to the table with the rows **High**, **Temp.**, and **Low**. Copy the **Temp.** row. Then scroll down to the **Rainfall** heading. Copy the Rainfall row from the table under its graph. If your city has a **Snowfall** table, copy that too.

[illegible]

6. Make a climate graph for your city, like the Buffalo graph. Draw a **bar** for each month's rainfall (right side). Put a **dot** for each month's temperature (left side), then connect the dots. Each grid line is 10 °F on the left and 1 inch on the right.



City: _____

Tip: do all the bars first. Then do the dots.
A temperature below 0 °F goes under the 0 line.

Part 3. Compare and decide (about 10 minutes)

CCC Patterns

7. Use your data and WeatherSpark to fill in the table.

	Buffalo	My city
Warmest Temp. minus coldest Temp. (the year's temperature swing)	72 – 26 = °F	
Wettest month: how many inches?		
How many months get less than 1 inch of rain?		
Growing season (days). If WeatherSpark gives no dates, it never freezes there. Write "all year."		

8. What biome is your city in? Tick one.

☐ Tropical rainforest ☐ Desert ☐ Savanna ☐ Temperate deciduous forest ☐ Taiga ☐ Tundra

Prove it with **two numbers** from your data: one about temperature and one about rain.

9. Sugar maples grow all over Buffalo. Could a sugar maple live in your city? Answer in three parts.

Claim Yes or no:

Evidence Two numbers from your data:

Reasoning Why do those numbers matter to a tree?

Done early? Tap a second city. Find its hottest month, coldest month and wettest month. Which of the two cities is more different from Buffalo? Why?