

# CLIMOGRAPH worksheet

## VOCABULARY

**climograph** – A graph that shows the annual (yearly) cycle of temperature and precipitation for a geographical location.

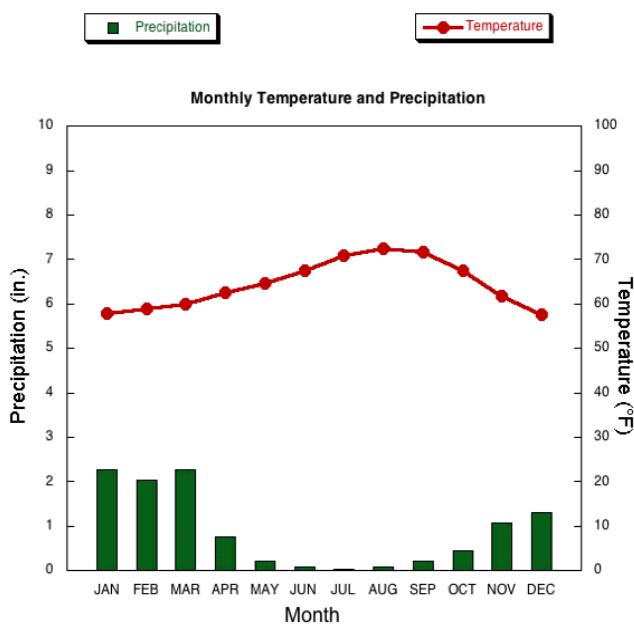
**climate** – The average weather conditions prevailing in an area over a long period of time.

**weather** - The state of the atmosphere at a place and time with regard to temperature, cloudiness, dryness, sunshine, wind, rain, etc.

**DIRECTIONS:** Use the following *climographs* to answer each of the related questions.

### Annual Climatology: San Diego, CA (SAN)

Elev: 13 ft Lat: 32° 44'N Long: 117° 10'W



### Annual Climatology: \_\_\_\_\_ , \_\_\_\_\_

Elev: 597 ft Lat: 41° 52'N Long: 87° 37'W

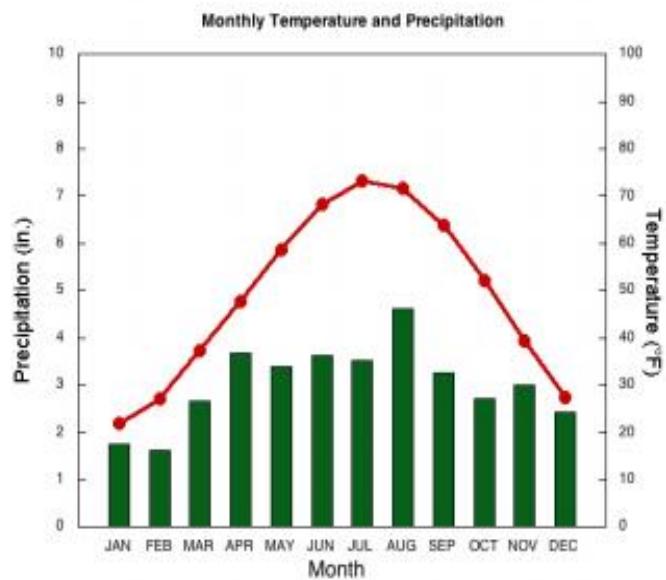


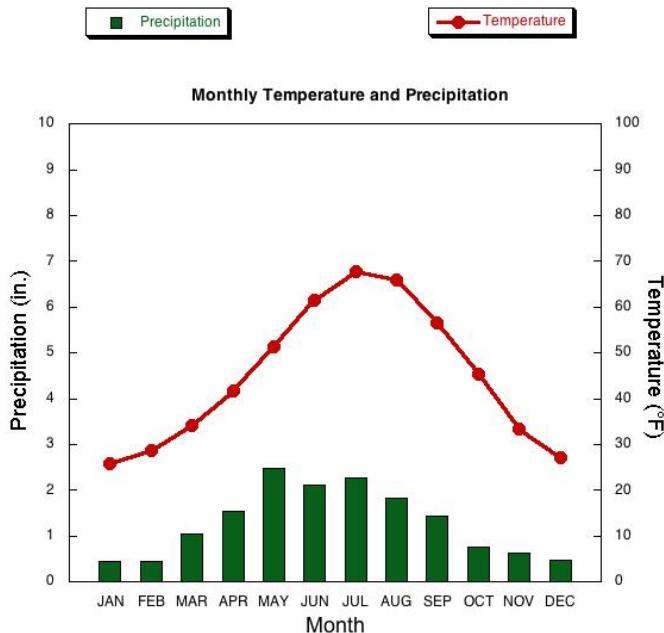
Figure 1: Average Temperatures and Precipitation 1971-2000. (NCDC Data)

- 1) The data used for the *climograph* of San Diego, CA. was collected over how many years?
- 2) Approximately how many inches of *precipitation* does San Diego get in January?
- 3) In which month would you be least likely to need an umbrella in San Diego?
- 4) Approximately how many inches of *precipitation* fall in San Diego during an entire year?
- 5) Which month has the highest average temperature in the “mystery city”?
- 6) What is the average temperature in the “mystery city” during its hottest month?
- 7) What is the average temperature in the “mystery city” during its coldest month?
- 8) What is the temperature difference between the hottest month and the coldest month in the “mystery city”?
- 9) What is the temperature difference between the hottest and coldest months in San Diego?
- 10) Does it ever snow in the “mystery city”? Explain your answer using information from the *climograph*.

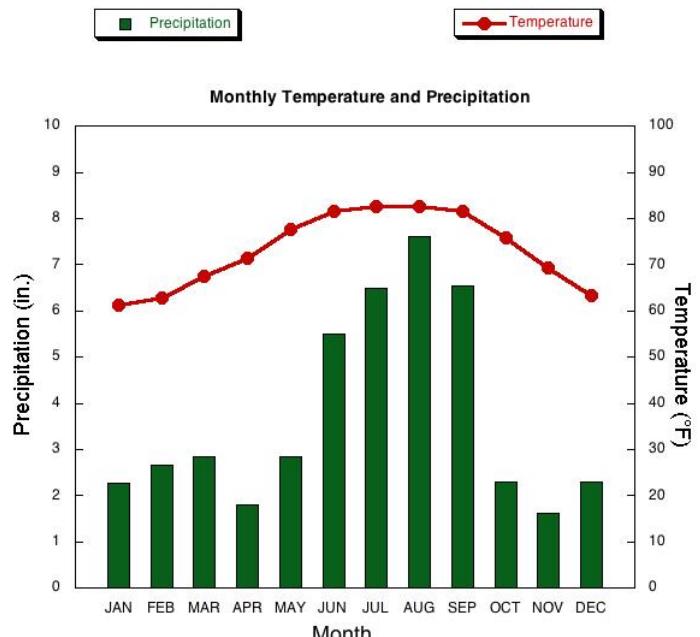
**Use your atlas and the listed coordinates to identify the “mystery city” on this page.**

**DIRECTIONS:** Use the following *climographs* to answer each of the related questions

**Annual Climatology:** \_\_\_\_\_, \_\_\_\_\_  
 Elev: 6062 ft Lat: 41°8' N Long: 104°48' W



**Annual Climatology:** \_\_\_\_\_, \_\_\_\_\_  
 Elev: 48 ft Lat: 27°56' N Long: 82°27' W



**Use your atlas and the listed coordinates to identify each of these cities.**

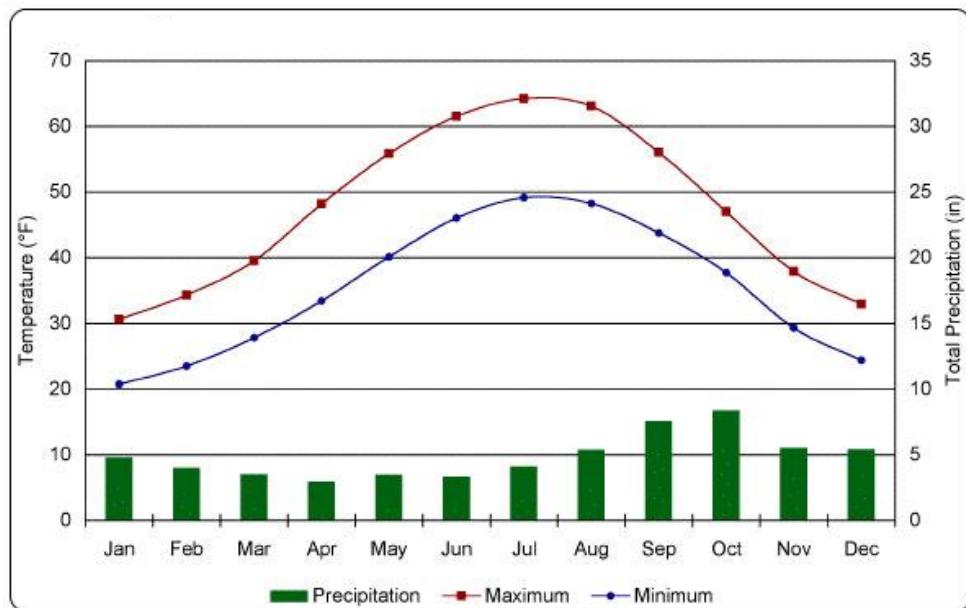
- 1) Which city has the most *precipitation* during the year?
- 2) How many inches of *precipitation* fall in this city during an average year?
- 3) For the city on the right, list the type of clothes would you want to have in your closet to wear year 'round.
- 4) Explain what type of clothes you would NOT waste your money buying if you planned on living in the city represented by the *climograph* on the right.
- 5) In which city would you expect it to rain during your 4<sup>th</sup> of July barbecue?
- 6) In which city would your dreams of having a “snowy, white Christmas” most likely come true?
- 7) Explain your answer to question #6 using the specific information from the *climograph*.
- 8) After studying the climates of these four cities – San Diego, Chicago, Cheyenne and Tampa – explain which city you would most like to move to and the reasons why.

**DIRECTIONS:** Use the following *climographs* to answer each of the related questions

**Use your atlas and the listed coordinates to identify each of these cities.**

Annual Climatology: \_\_\_\_\_, \_\_\_\_\_

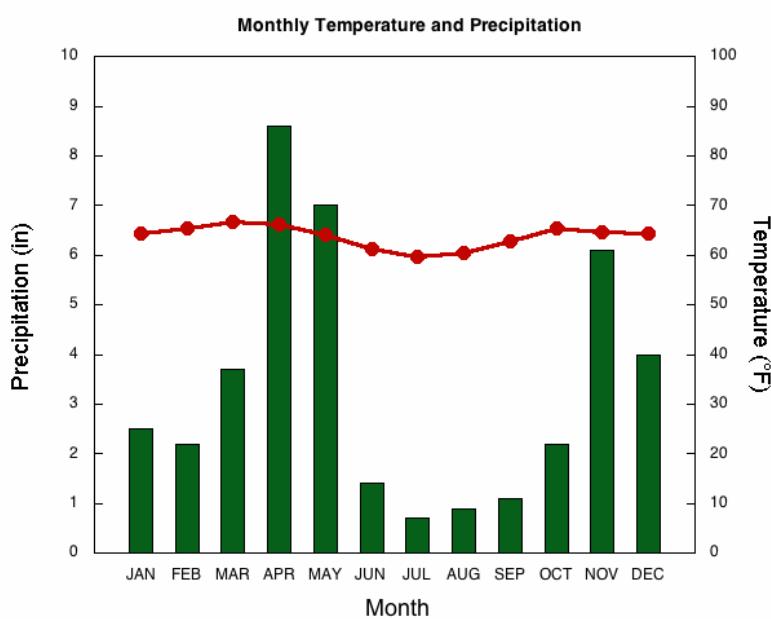
Elev: 56 ft Lat: 58°26' N Long: 134°13' W



- 1) Explain how this *climograph* is different from all the others you have looked at.

Annual Climatology: \_\_\_\_\_, \_\_\_\_\_

Elev: 5450 ft Lat: 1°17' S Long: 36°49' E



- 3) Which one of these cities has the most *precipitation* in the month of December?

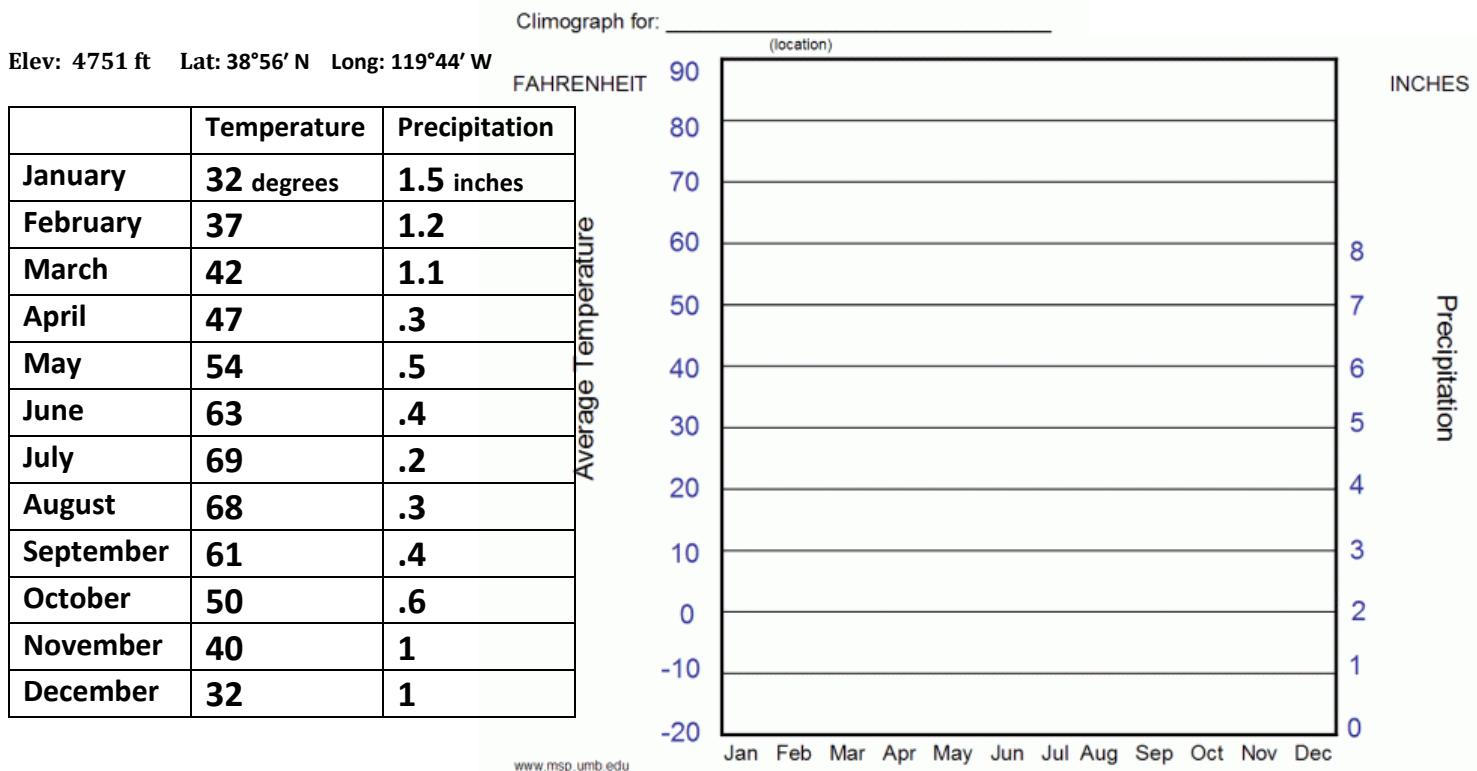
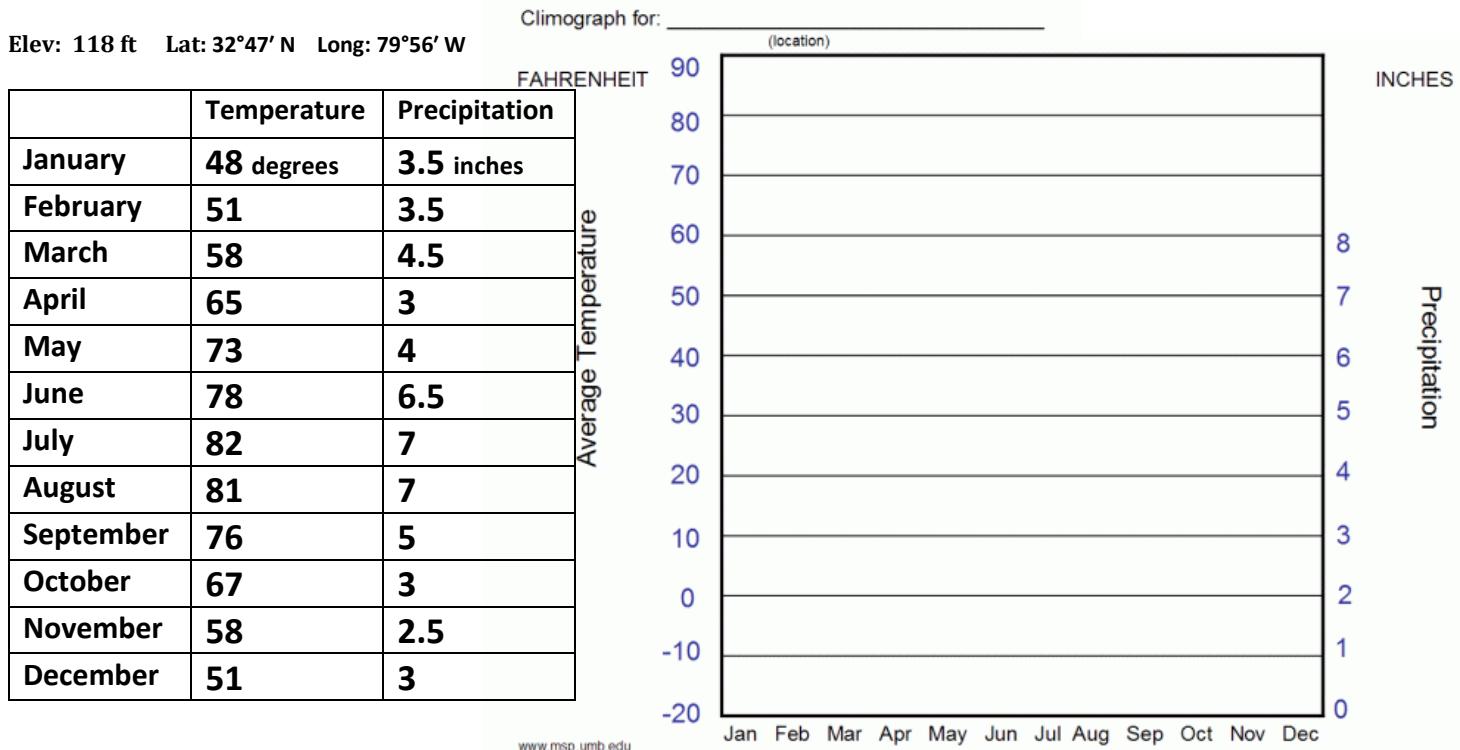
- 4) Which one of these cities is in the *tropics*?

- 5) Give **two (2)** specific reasons why you know this city is located the *tropics*.

- 6) During which season (winter, spring, summer or fall) would it be the **best time** to plant crops in this climate? Explain your answer.

## **CREATE YOUR OWN CLIMOGRAPHS!**

**Directions:** Use the statistics on *precipitation* and temperature in each table to create a *climograph* for each city in the blank graph. Use the examples of *climographs* on the first three pages for help setting up yours!.



Below, create a climograph for your *PLACE* on Earth! Label the left side for “inches of *precipitation*” and the right side for “degrees Fahrenheit”. On the bottom of the graph, mark each of the twelve months in order. Once your graph is created, fill in the statistics for *precipitation* and temperature listed below to create a climograph for the Carson Valley.

temperature / precipitation			temperature / precipitation		
January	32	1.5	July	69	.2
February	37	1.2	August	68	.3
March	42	1.1	September	61	.4
April	47	.3	October	50	.6
May	54	.5	November	40	.9
June	63	.4	December	32	1.0



1. What is the **total** average annual (in a year) *precipitation* for the Carson Valley?
2. Describe any patterns in temperature and rainfall you notice. Do you think there a connection between temperature and *precipitation*? What *physical feature* do you think impacts the amount of *precipitation* the Carson Valley receives?
3. Look on the *precipitation* thematic map you created. Is there an area of the Southeast *quadrant* that has a similar annual *precipitation* to the Carson Valley? Identify a country, a city in that country with its approximate *coordinates* that has similar annual *precipitation* to the Carson Valley.
  - A) country:
  - B) city:
  - C) city's coordinates: