Daily Routine

- Sit in your appropriate seat quietly
- Have all necessary materials out
- All back packs on the floor
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Bell Work

- Compare and contrast warm fronts and cold fronts.

- What type of weather is associated with a high pressure and low pressure systems?

Earth Science Announcements

District Common Assessment Dec 15

Course Final Dec 18th -19th

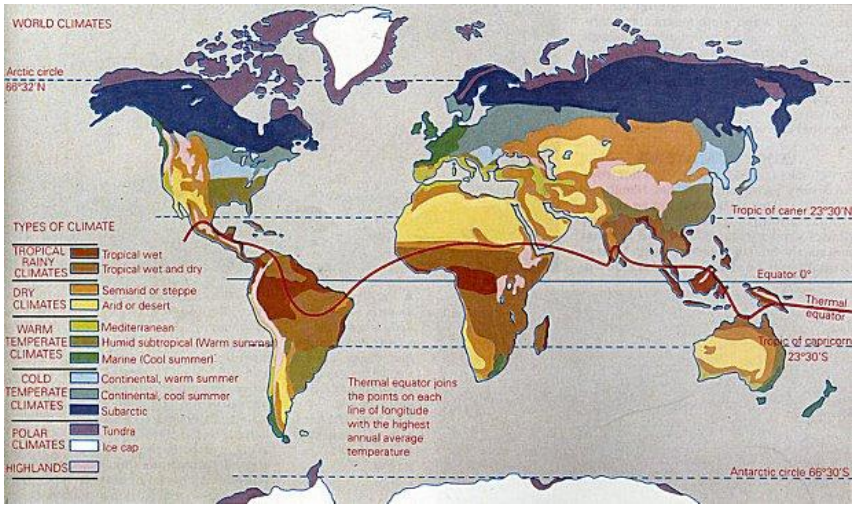
Climate

Is climate change real?

I will be able to…

What is climate?

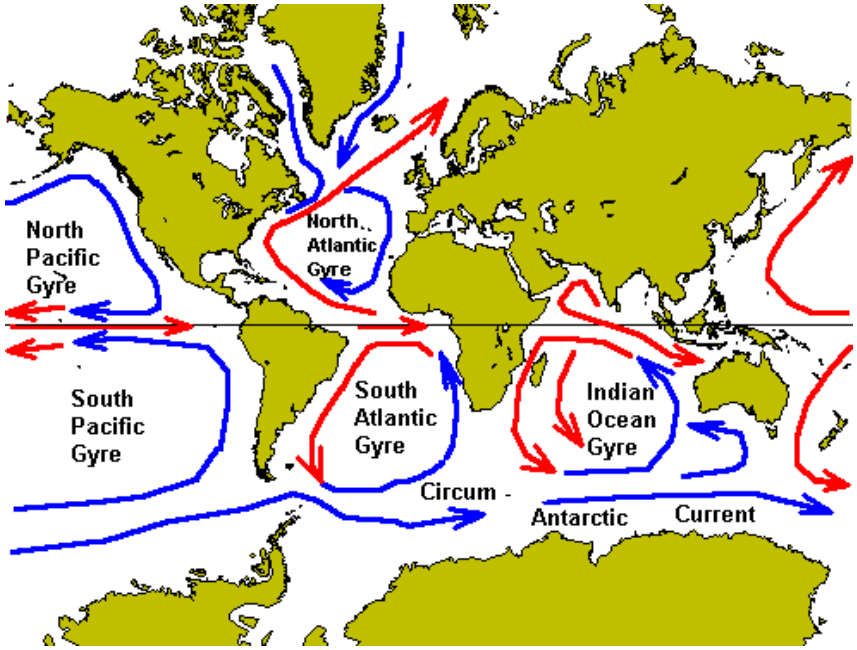
- The study of atmospheric condition averages over a long period of time
- Takes over 30 years to define a climate
- Includes temperature, precipitation amounts, and humidity
- Includes all spheres on Earth



Factors Affecting Climate

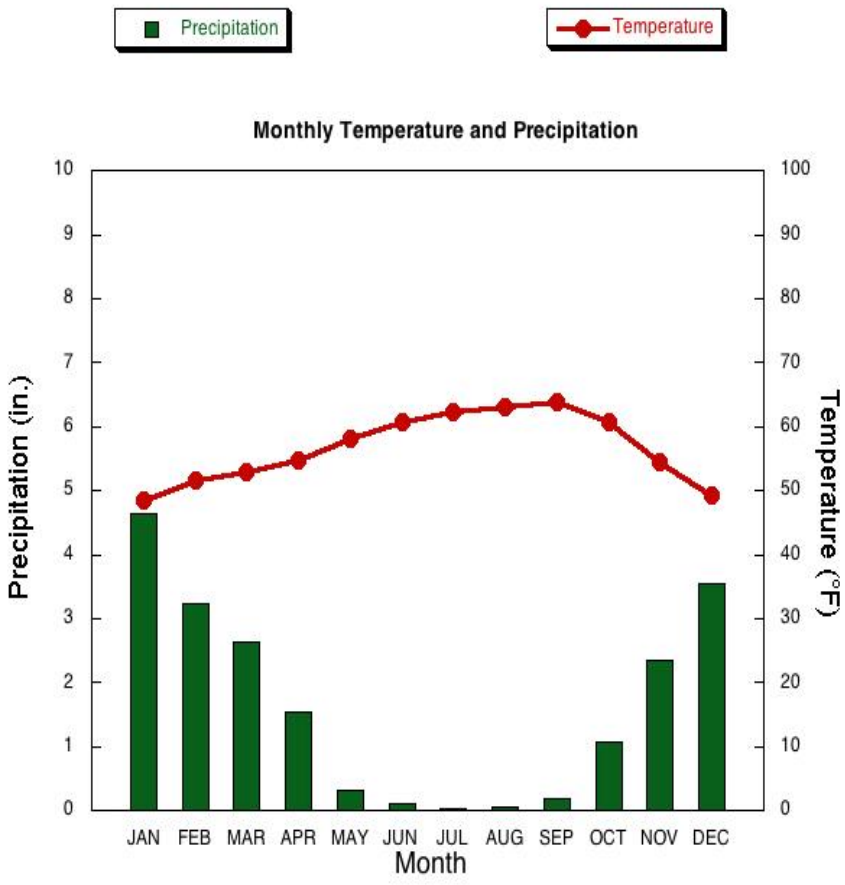
1. Ocean Currents

- Water temperatures can heat or cool land
- Water temperatures can create humid or dry conditions on land
- Currents transports heat or coldness to different areas of the world (poles)
- Example: Gulf Stream and California Undercurrent



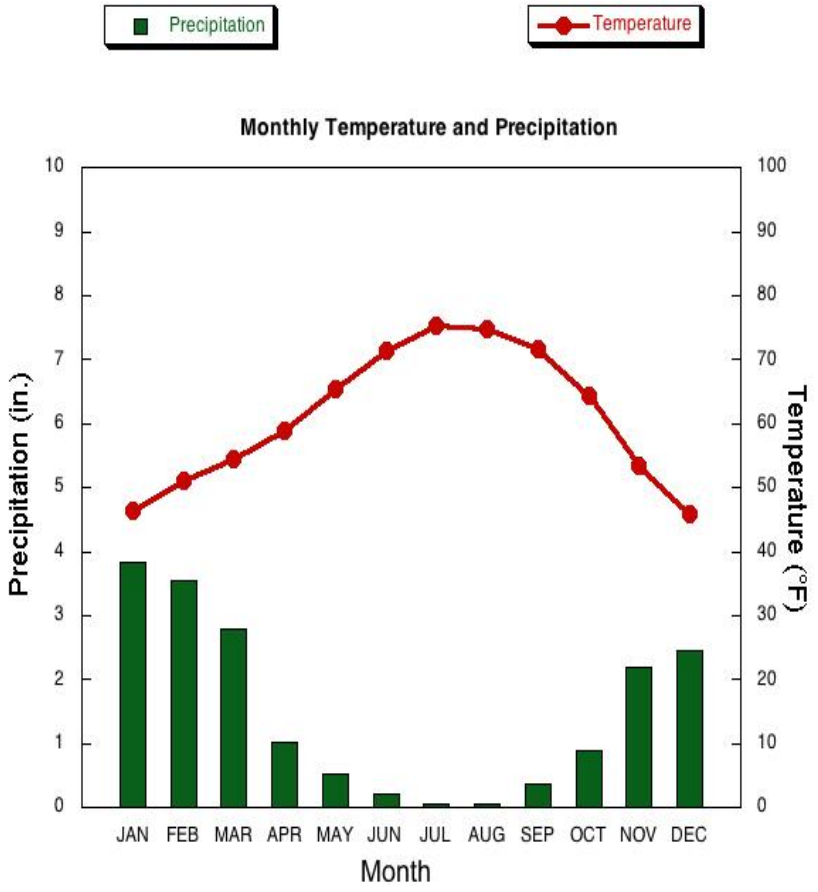
Large Bodies of Water Effect Climate

- Coastal regions like that of the bay area experience a cooler, more humid climate
- For example, San Francisco has a cool climate year round, never getting extremely hot or extremely cold
- Why?
- Because the Pacific Ocean keeps the temperatures moderate all year long, therefore, San Francisco even in the summer stays cool!

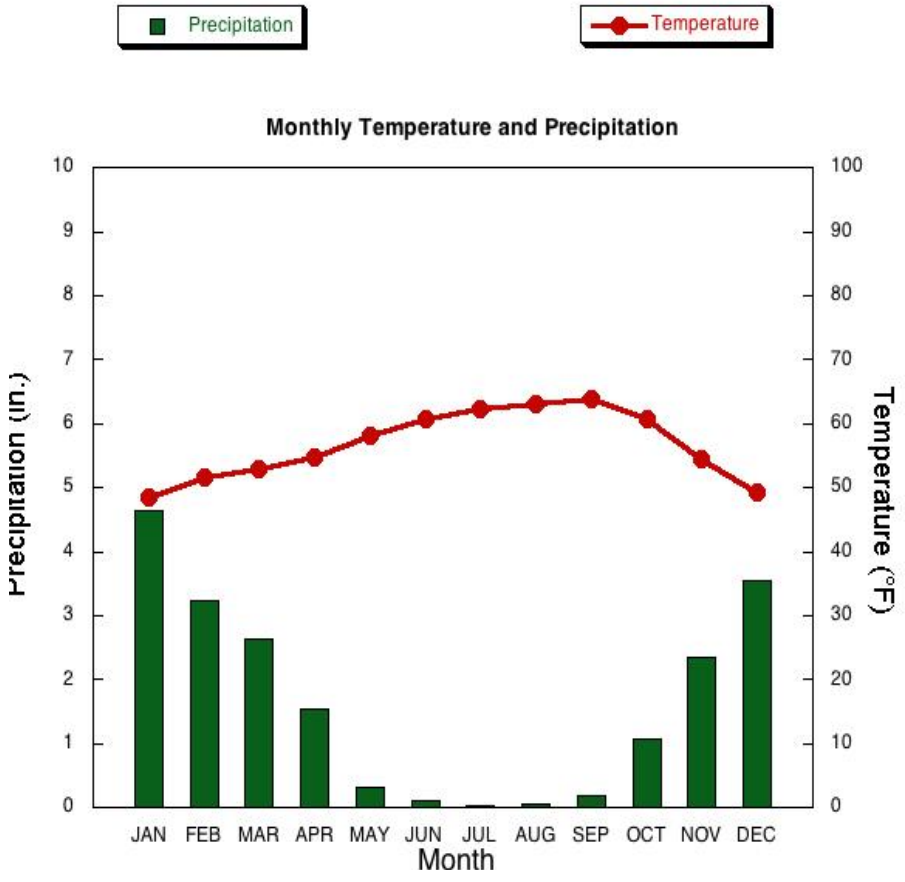


Climate Graphs

How does the ocean effect San Francisco's climate



Sacramento

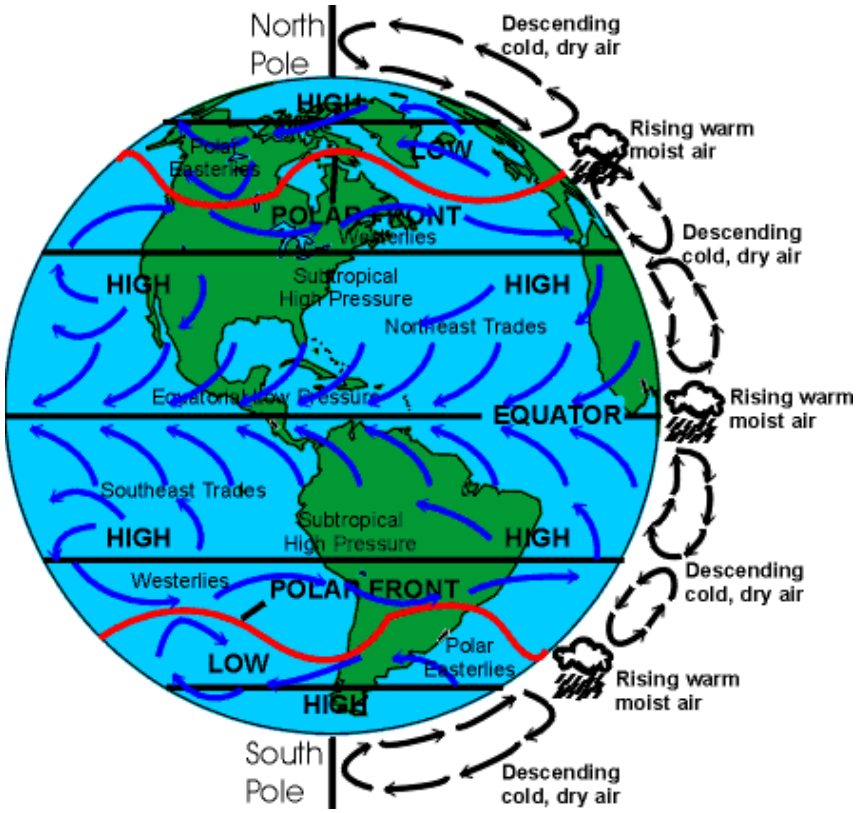


San Francisco

Factors Affecting Climate

2. Global Winds

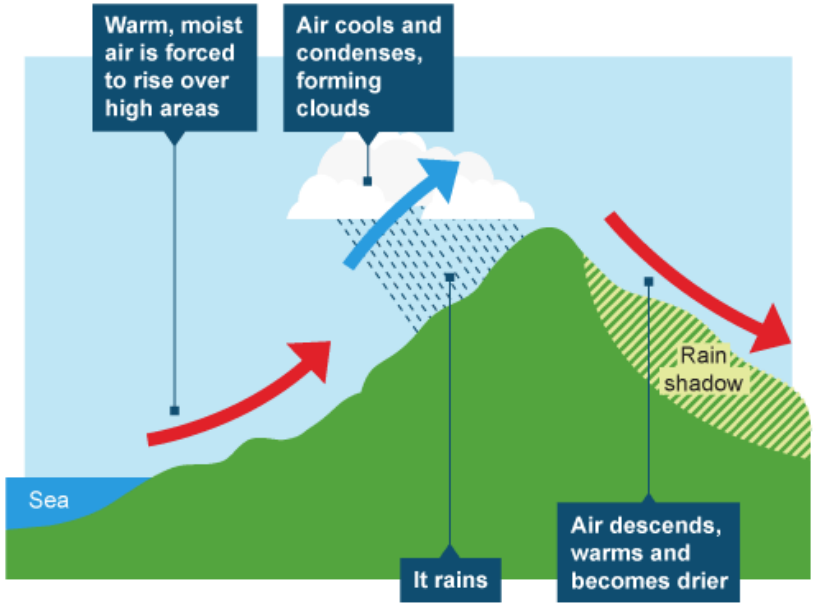
- Caused by uneven heating and convection
- Brings in moisture to coastal areas
- Transports dry air inland areas



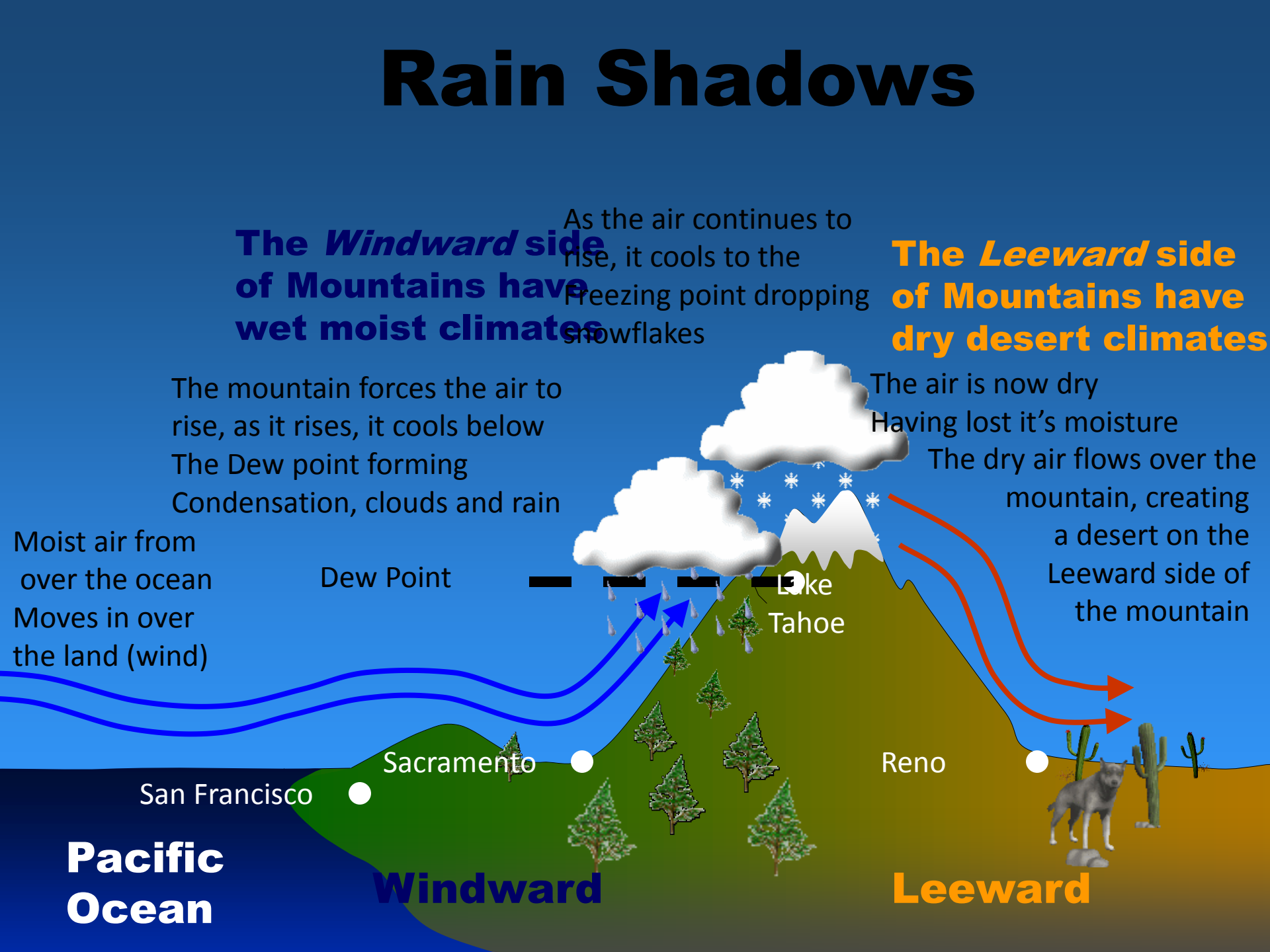
Factors Affecting Climate

3. Altitude/Relief

- Higher elevations = colder temperatures
- Higher elevations get more precipitation due to orographic lifting
- Water moisture condenses because of colder temps



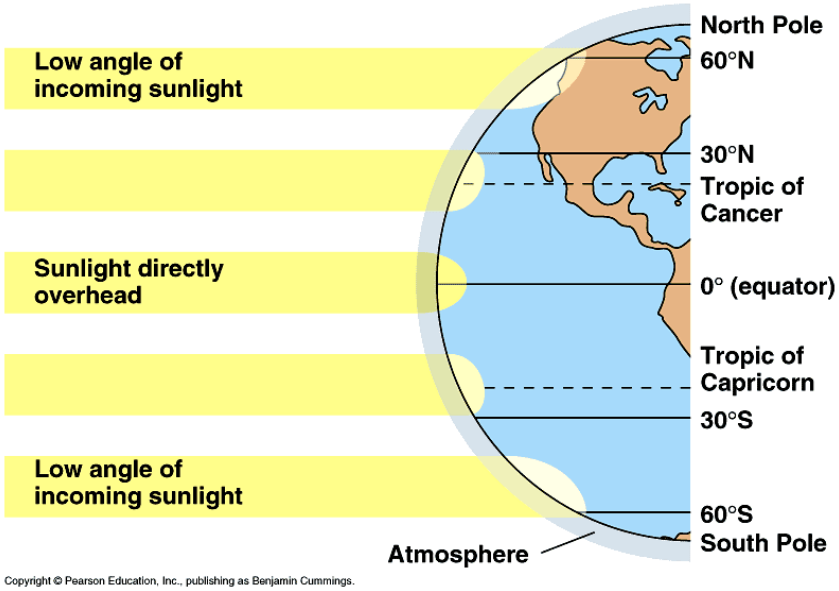
Rain Shadows



Factors Affecting Climate

4. Latitude

- Affected by Earth's axis tilt which creates seasons
- Close to equator = more direct intense sunlight
- Poles = less direct diffused sunlight
- About 12 hour days around equator
- Variable as you get away from the equator



Daily Routine

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Bell Work

- What are the four factors that affect climate for an area?

- Choose one of the four factors and explain how it impacts climate?

Earth Science Announcements

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Climate

Is climate change real?

I will be able to…

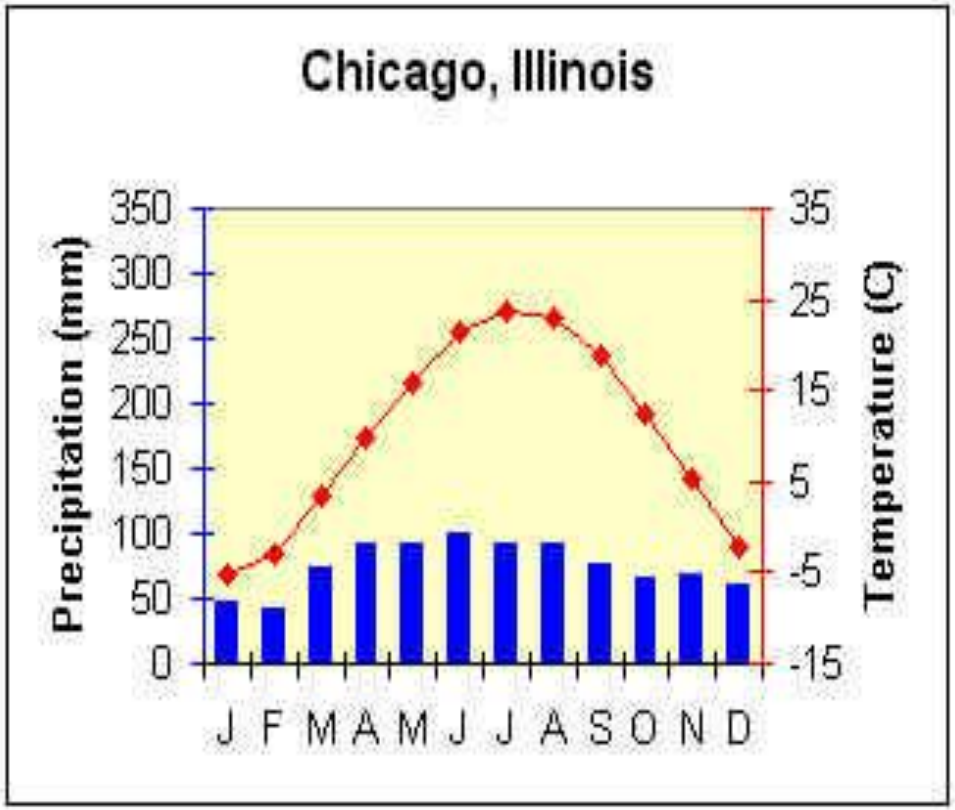
Finish Yesterday's Climate Graph Lab

- Complete the graphs
- Answer all questions
- Make sure to answer the last question…question 9…in three thorough sentences on another sheet of pap

Continental Climates

- Cities which are located in the middle of continents experience freezing winters and hot summers
- Therefore, cities like Chicago experience dramatic temperature fluctuations over the coarse of a year:

  Hot summers and Cold winters



Continental Climate

- Observe the behavior of temperatures as they cross over the North American Continent
- How do temperatures increase or decrease as they cross a continent???