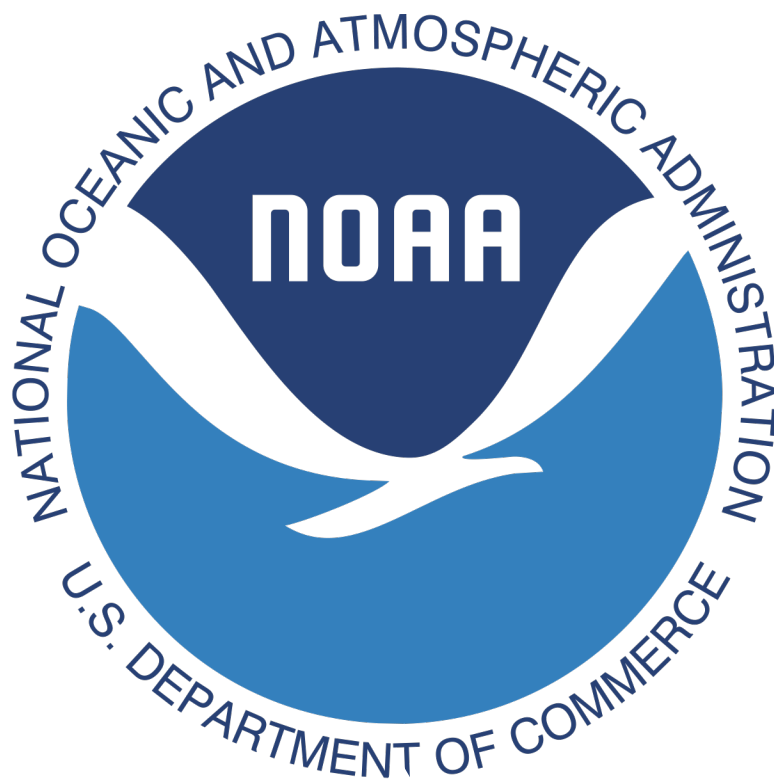


Comparing Climates

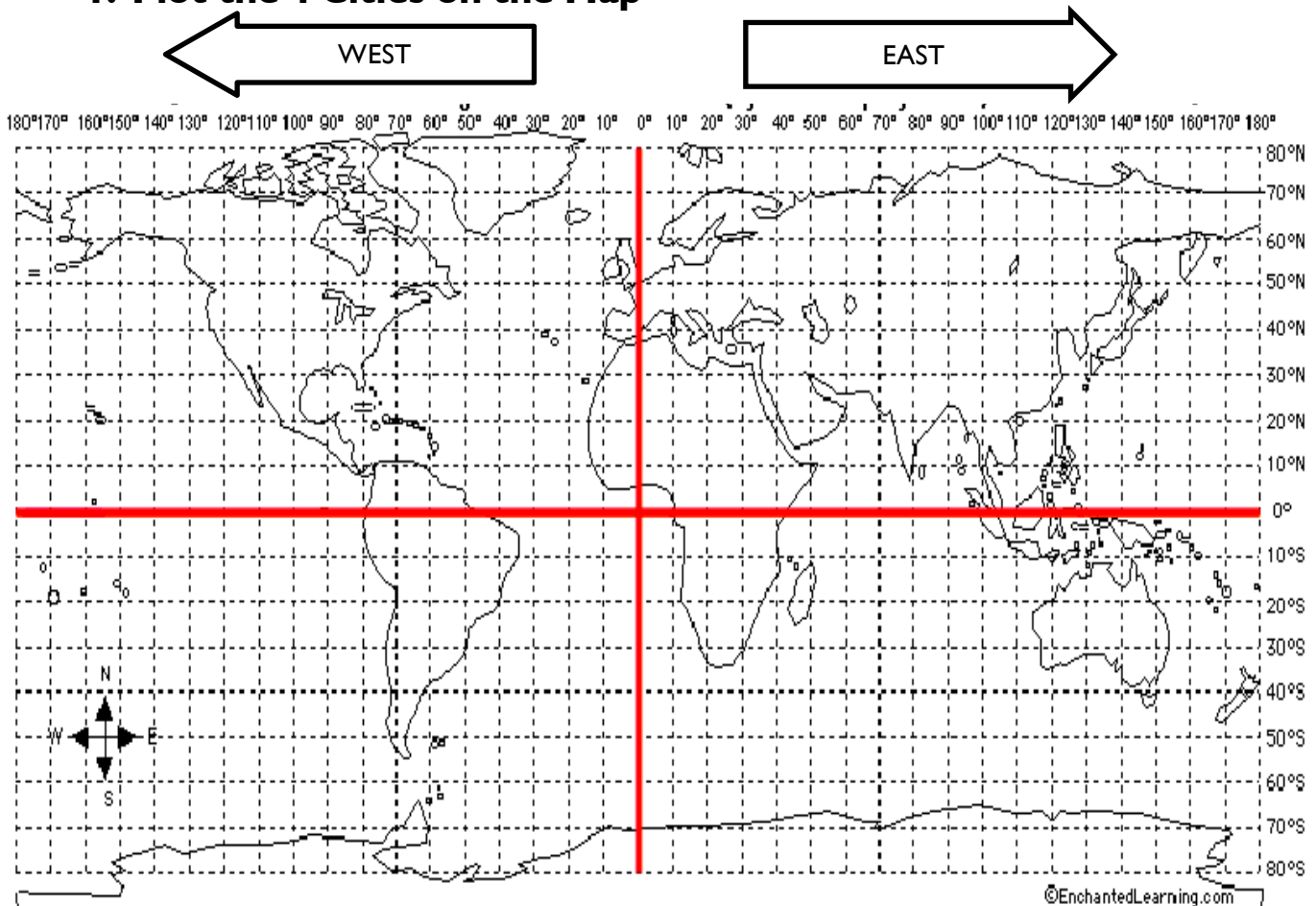


A report written by: _____

WARM UP

City	Latitude (North or South)	Longitude (East or West)
New Orleans, USA	30°N	90°W
Base Yelcho, Antarctica	70°S	70°W
Nagqu, China	30°N	100°E
Tomale, Ghana	10°N	0°

I. Plot the 4 Cities on the Map



2. Which of the 4 Cities would you expect to have the same Climate?

3. Why **will** the two Cities above **have different** Climates?

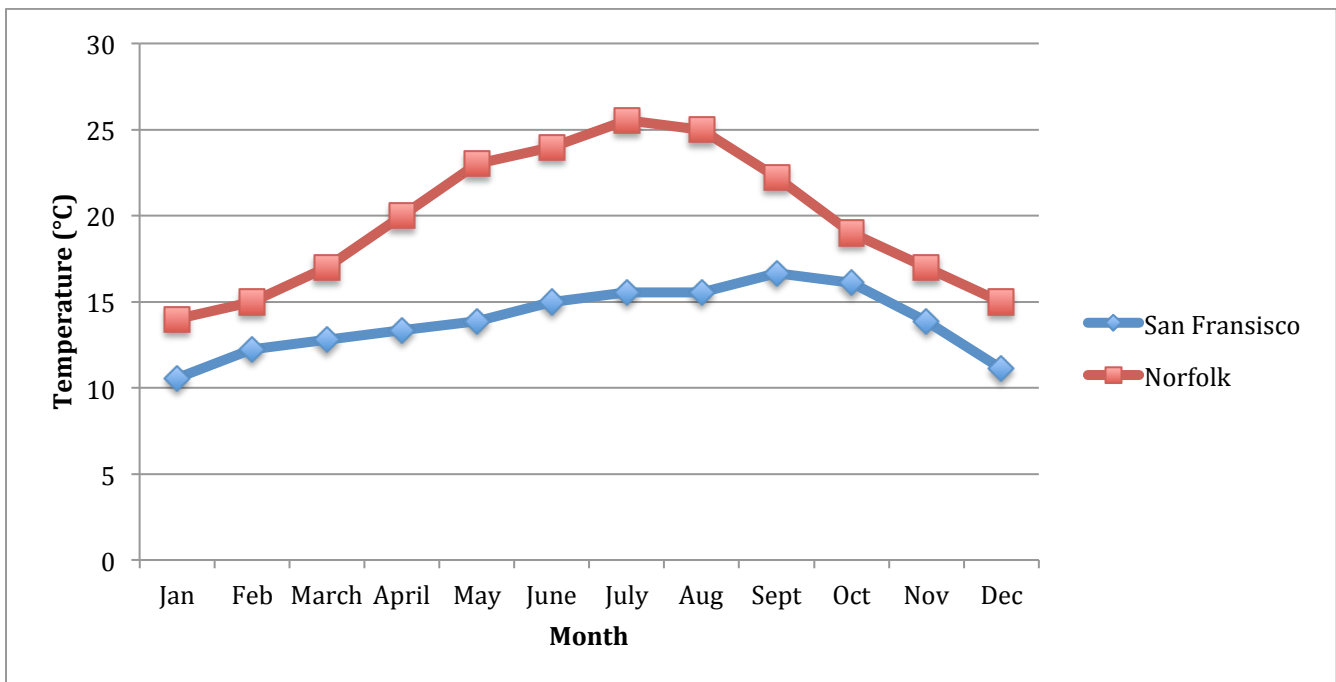
WARM UP



San Francisco, CA
Latitude 35°N



Norfolk, VA
Latitude 35°N



Based on **Latitude** should the Cities have the same or different climate? Explain why.

Which City is warmer?

San Francisco

Norfolk

Predict: Which City is near a cool current?

San Francisco

Norfolk

Predict: Which City is near a warm current?

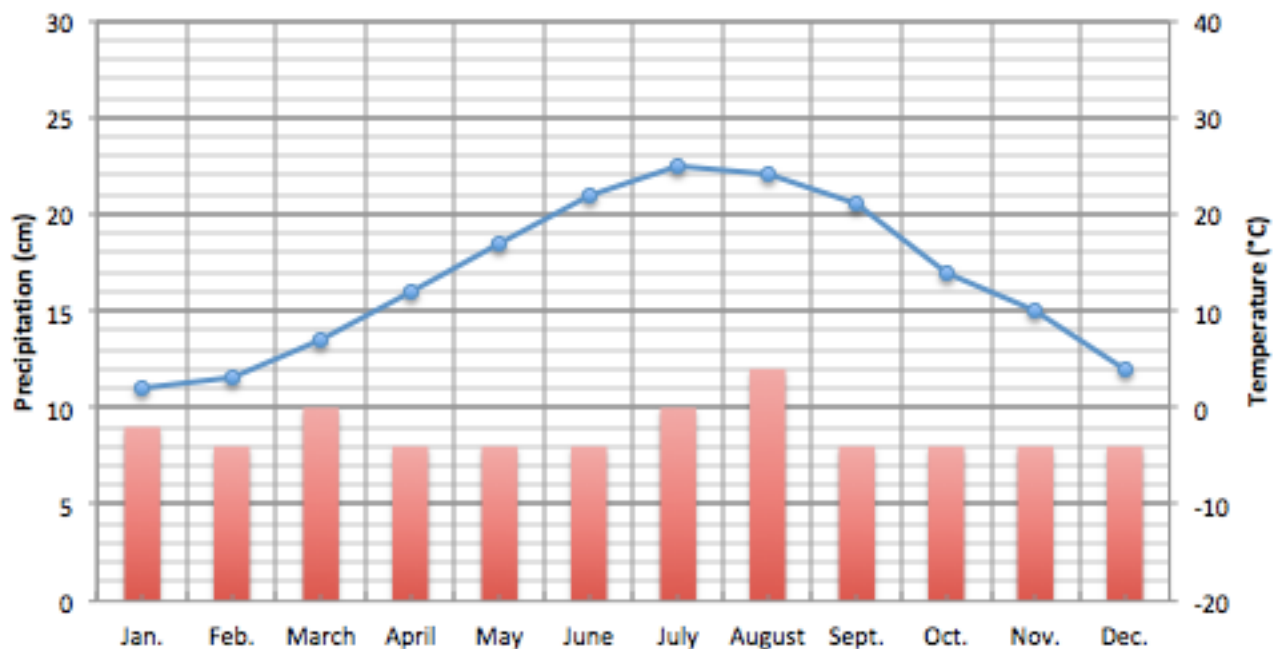
San Francisco

Norfolk

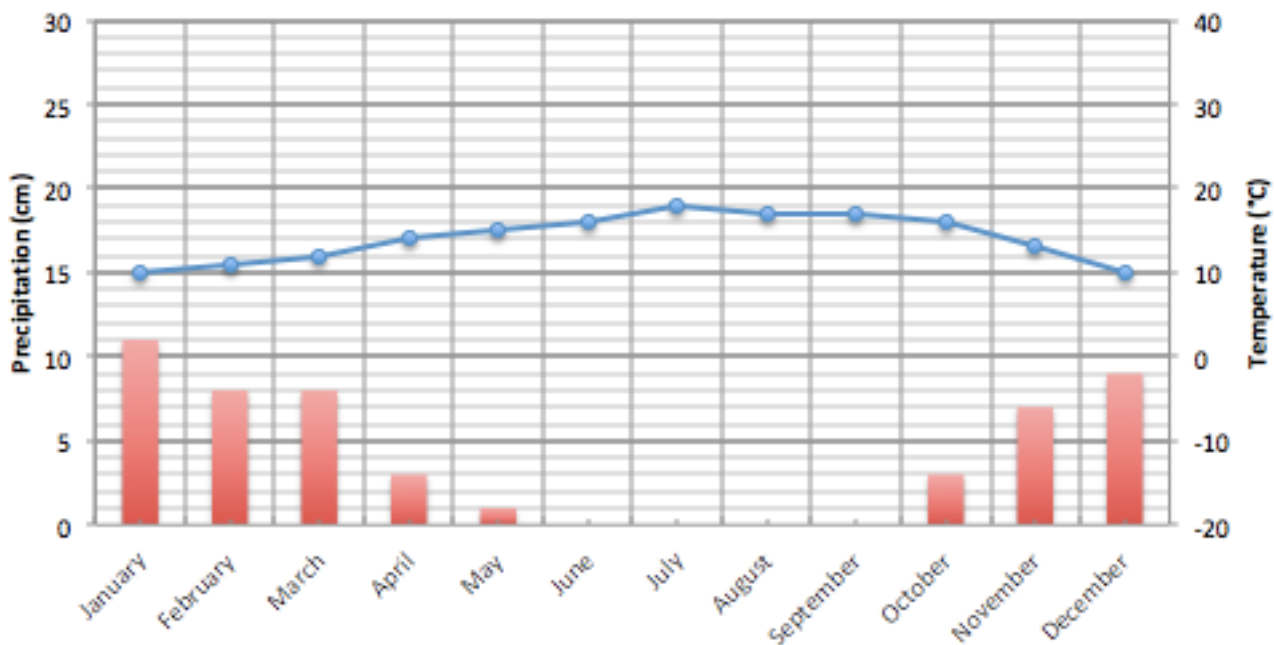
WARM UP

Comparing and Contrasting the Graphs

Ocean City, MD (35°N)



Oakland, CA (35°N)



Should Ocean City and Oakland have the same or different climates? _____

What is the lowest temperature during the year in Ocean City? _____

What is the highest temperature during the year in Ocean City? _____

What is the lowest temperature during the year in Oakland? _____

What is the highest temperature during the year in Oakland? _____

Describe the yearly precipitation of Ocean City.

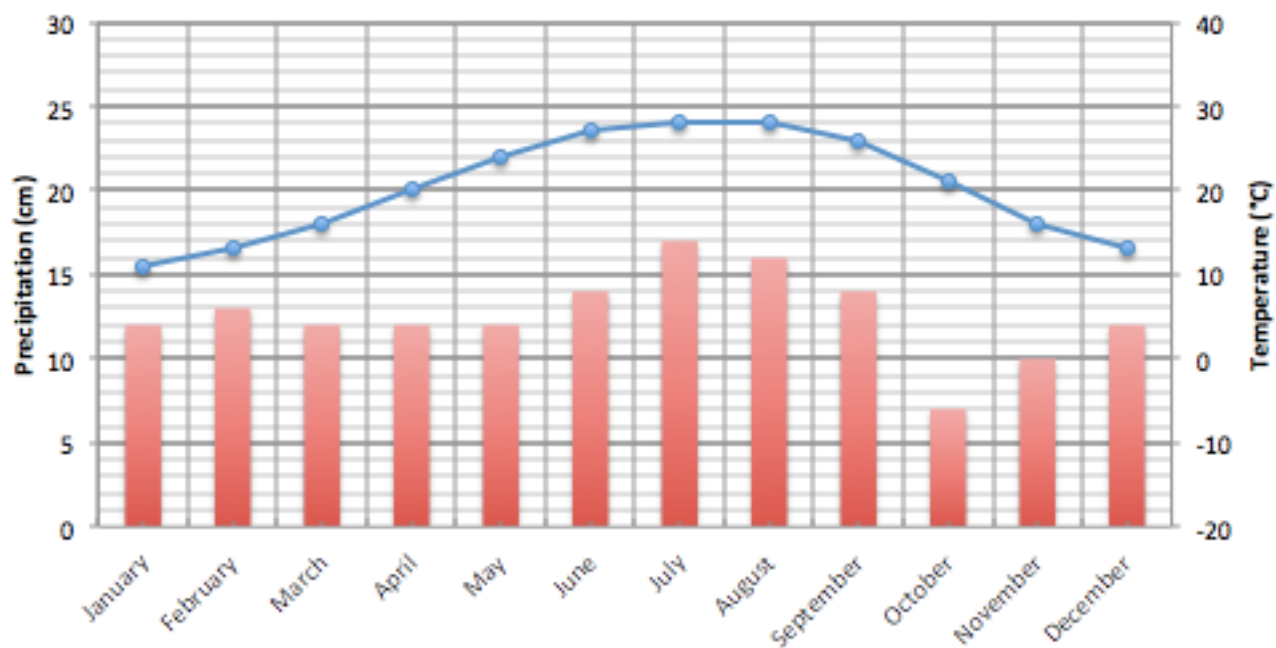
Describe the yearly precipitation of Oakland.

Compare the SUMMER months (June, July, August) of Ocean City and Oakland.
Include data.

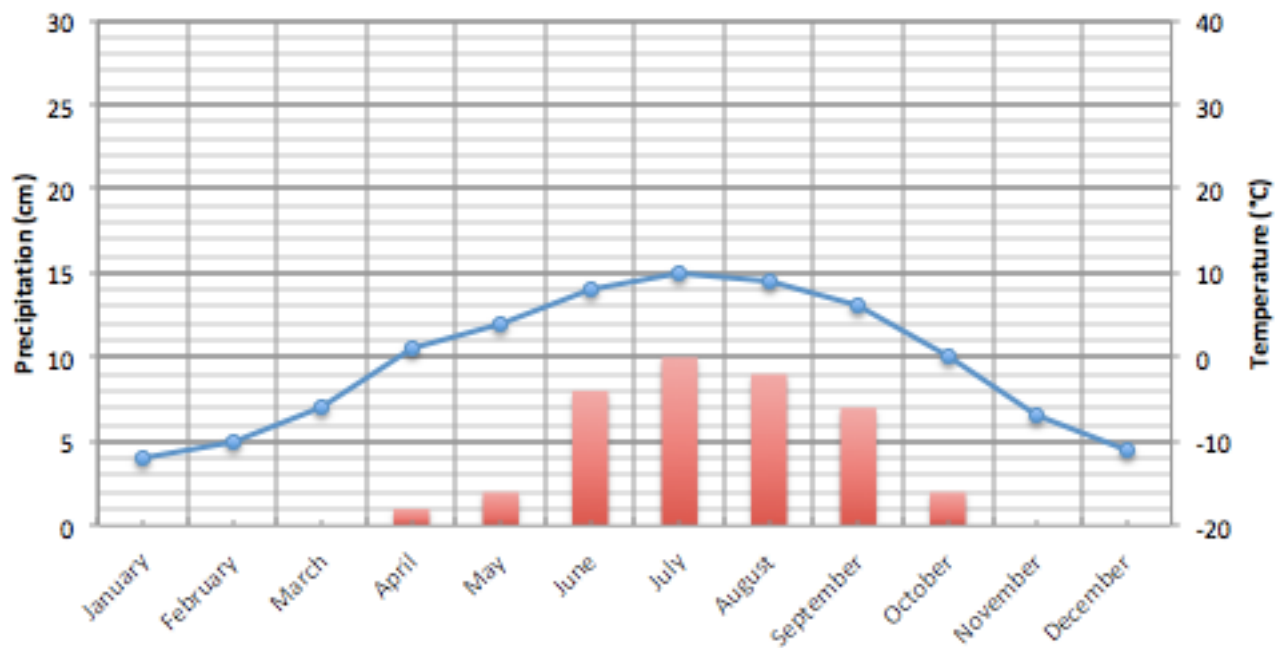
Compare the WINTER months (Dec., Jan., Feb.) of Ocean City and Oakland.
Include data.

WARM UP

New Orelans, USA (30°N)



Nagqu, China (30°N)



Use the COMPARING QUESTIONS on the last page

Compare the climates of New Orleans and Nagqu using a **MILD** comparison.

Include DATA.

Compare the climates of New Orleans and Nagqu using a **MEDIUM** comparison.

Include DATA.

Compare the climates of New Orleans and Nagqu using a **HOT** comparison.

Include DATA.

Comparing Climates

Step 1: Gather information

- Go to each posted City
- Record the name of the City and its country
- Record the latitude, longitude and altitude

Name of City	Country	Coastal City?	Mountain City?	Latitude (°N or °S)	Longitude (°E or °W)	Altitude

Step 2: Map the Cities

- Use the latitude and longitude to map each City
- Put a • dot on the map for each City
- Write the name of the City next to each dot

Step 3: Find similar climates

- **Hint:** the cities with °S latitudes are CHALLENGE cities
- Record the names of the **three Cities that should have the same climate**

Coastal City

Inland City

Mountain City

- **STOP!** Get Mr. Carroll to check your cities before you move on

Step 4: Graph the Climates

- Collect the climate data for your three cities
- Create a Climograph for each city

Step 5: Compare and contrast the COASTAL and INLAND climates

- Compare and contrast the climates of the coastal and inland cities
- Use at least 2 details using DATA from your climographs
- Use the “Comparing Climates” questions provided

- State the reason why there is a difference between the two cities
- EXPLAIN why the cities have different climates

Step 6: Compare and contrast INLAND and MOUNTAIN climates

- Compare and contrast the climates of the inland and mountain cities
- Use at least 2 details using DATA from your climographs
- Use the “Comparing Climates” questions provided

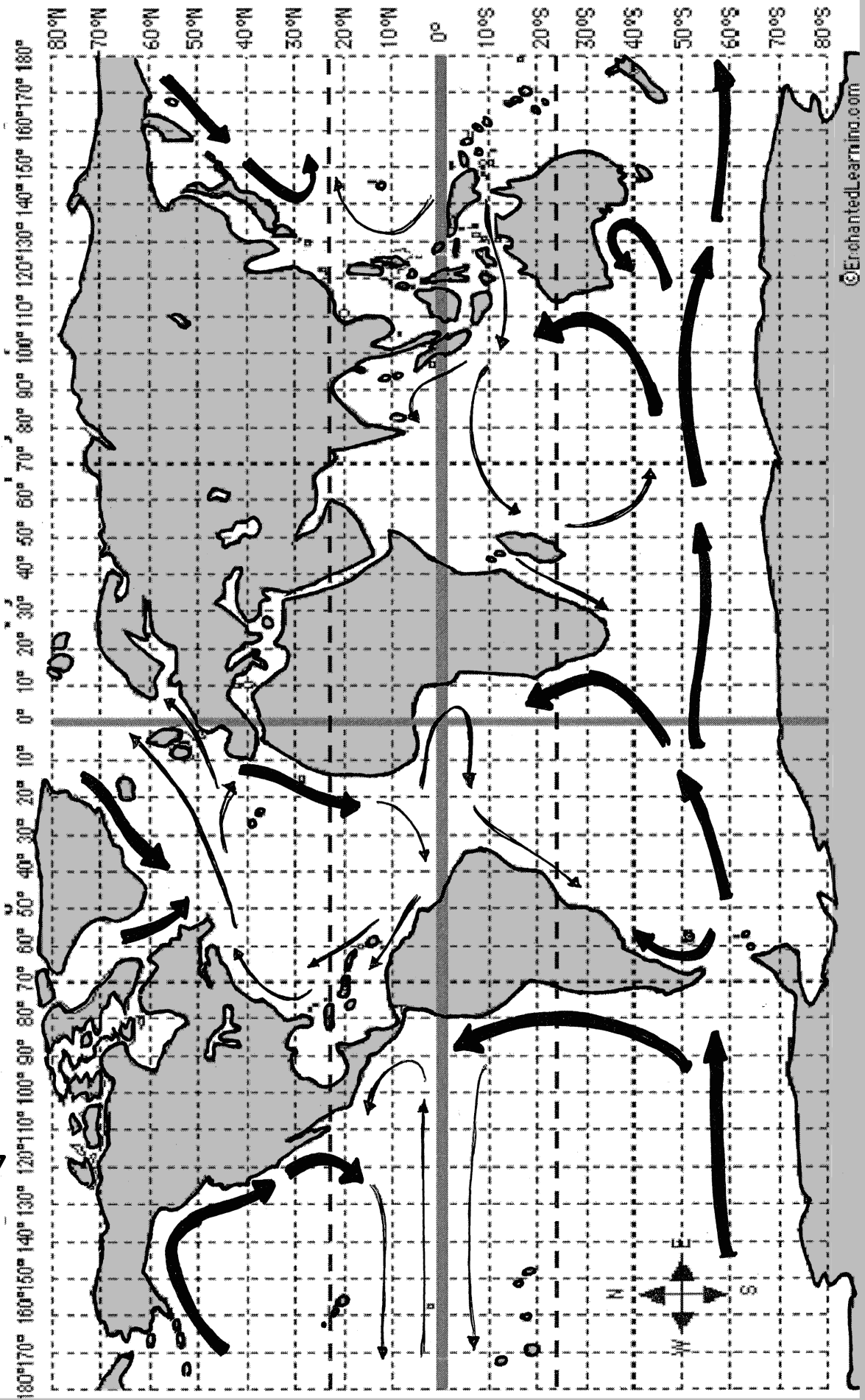
- State the reason why there is a difference between the two cities
- EXPLAIN why the cities have different climates

EAST

WEST

North

South



©EnchantedLearning.com

Cool Current

Warm Current

Name: _____

Comparing Climates

Introduction

Introduce the topic of your paper

Explain WHY all the cities should have the same temperatures.

Explain WHY all the cities should have the same precipitation patterns.

Comparing Coastal and Inland Climates

List similarities about the coastal and inland climates.

List differences about the coastal and inland climates.

The two cities *should have the same climate*. Explain why do the two cities have different climates.

Comparing Inland and Mountain Climates

List similarities about the inland and mountain climates.

List differences about the two climates.

The two cities *should have the same climate*. Explain why do the two cities have different climates.

Climate Project Rubric

- All components are present: typed report, 3 climographs, Map
- Typed report is organized into paragraphs
- Essay meets expectations required to be graded

	4	3	2	1
Mapping		Student made 0 mistakes	Student made 1-2 mistakes	Student made 3-4 mistakes
Graphing	Graphs are accurate and show excellent commitment to quality. No mistakes.	Graphs are mostly accurate but there are a few minor mistakes	One graph has significant errors OR lack of commitment to quality impedes ability to visualize data	Several graphs have significant errors
Introduction	Student correctly EXPLAINS the appropriate latitudinal patterns of temperature and precipitation of their cities	Student correctly EXPLAINS the latitudinal pattern of temperature and STATES the pattern of precipitation of their cities.	Student correctly IDENTIFIES the appropriate latitudinal pattern of temperature and precipitation of their cities.	Student incorrectly identifies the latitude pattern of EITHER temperature or precipitation
Comparing Coastal and Inland Cities	In addition to criteria for a 3, the student explains the climatic factors influencing BOTH cities	Student compares the city climates using at least 2 details with data AND correctly explains WHY the climate differences exist based one climatic factor	Student does not compare cities with sufficient or accurate data OR Student does not correctly EXPLAIN why differences exists	Student does not compare cities with sufficient or accurate data OR Student does not correctly STATE why differences exists
Comparing Inland and Mountainous Cities	In addition to criteria for a 3, the student explains the climatic factors influencing BOTH cities	Student compares the city climates using at least 2 details with data AND correctly explains WHY the climate differences exist based one climatic factor	Student does not compare cities with sufficient or accurate data OR Student does not correctly EXPLAIN why differences exists	Student does not compare cities with sufficient or accurate data OR Student does not correctly STATE why differences exists

Comparing Climates – Questions to ask yourself



MILD

Mild: Look at the seasons

1. What are the climates like during the summer?
2. What are the climates like during the winter?
3. Which climate is the warmest overall? What's the highest temperature?
4. Which climate is the coldest overall? What's the lowest temperature?



MEDIUM

Medium: Look at specific temperatures

1. How does the highest temperature of one climate compare to the high temperature of another? Are they close? Far apart?
2. How does the lowest temperature of one climate compare to the low temperature of another? Are they close? Far apart?

(0-5°C is close / More than 5° is far apart)



HOT

HOT: Look at the “shape” of the climate

1. Is the climate **extreme** (**Extreme** = more than 25°C change)? Does it change a LOT during the year? How much?
2. Is the climate **mild** (**Mild** = less than or equal to 10°C change)?