

Name: _____ Per: ____ Date: ____ E.N. ____

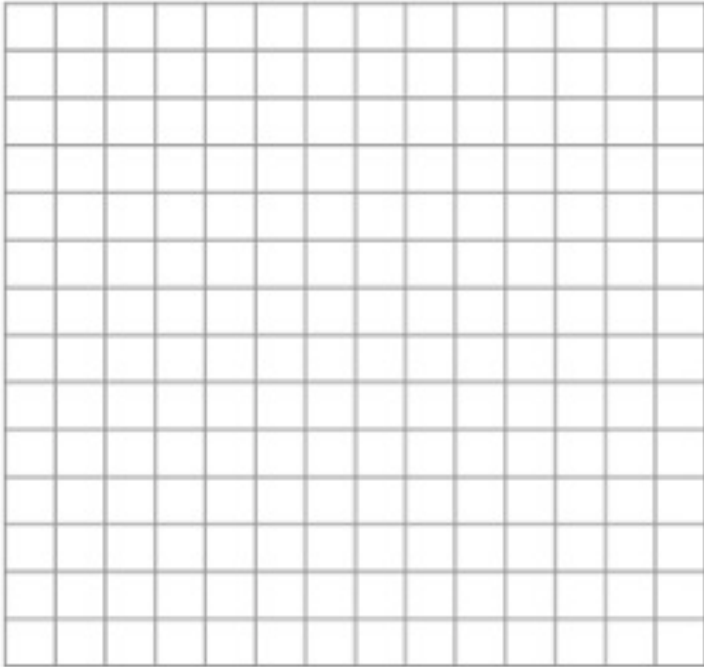
Ocean Currents of the World and Their Affect on Climate

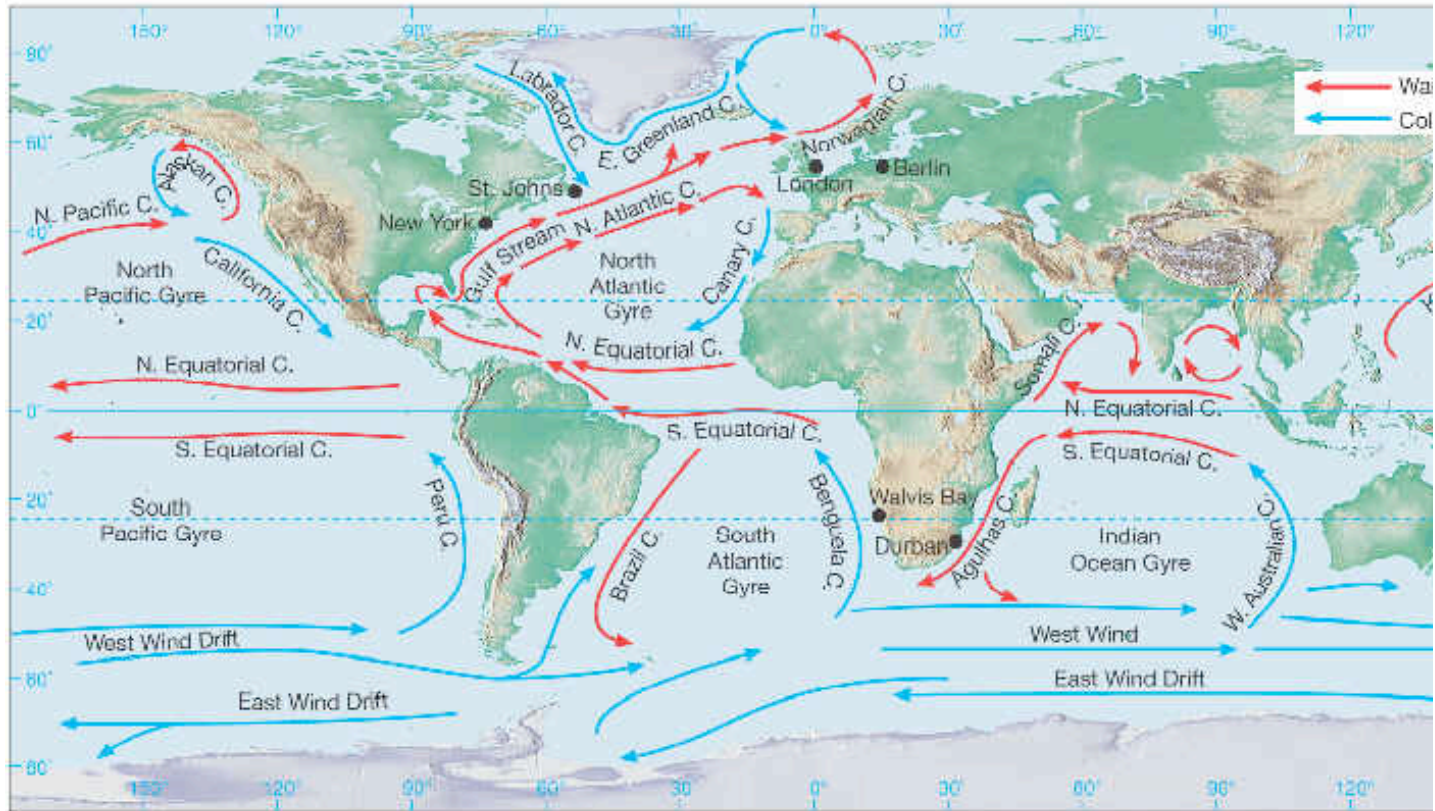
The following graphing problem will illustrate how dramatically ocean currents can affect the climate.

Hebron 58°N, is a small city on the NE coast of Labrador. Westmanna, even further north at 63°N, is on a small island just off the southern coast of Iceland. They have many things in common. In one important respect, however, conditions are different. Hebron's coast is washed by the cold Labrador Current. Westmanna is washed by the warm Gulf Stream.

Make a trend graph the following data and see the Map of the currents on the backside.

Name	Hebron, Labrador	Westmanna, Icelend
Location	58°N, 63°W	63°N, 20° W
Altitude	49 ft	43 ft
Ocean Current	Labrador Current	Gulf Stream
Jan	-6	35
Feb	-5	35
Mar	6	36
April	18	40
May	32	45
June	40	50
July	47	53
Aug	48	52
Sep	41	47
Oct	31	42
Nov	19	37
Dec	4	35
Jan	-6	35

	Hebron Year's avg. temp Year's temp range Winter low temperature Summer high temperatures	Westmanna Year's avg. temp Year's temp range Winter low temperature Summer high temperatures
---	---	--



Post Lab Questions

1. Do warm currents flow towards or away from the equator? Do cold currents flow towards or away from the equator?
2. How many degrees higher is the year's average temperature in Westmanna than in Hebron?
3. How do you explain this great difference in average temperature of two cities so much alike in latitude, altitude, and location?
4. Which city has a larger temperature range? How does the graph show this?
5. Why is Westmanna so much warmer than Hebron in the winter?
6. Why is Hebron cooler in the summer than Westmanna?
7. Summarize the differences between the climates of Hebron and Westmanna with respect to :