Name_____ per____

[57] Oceans and Climate **DUE Tuesday 3/21**

[58] The Causes of Climate

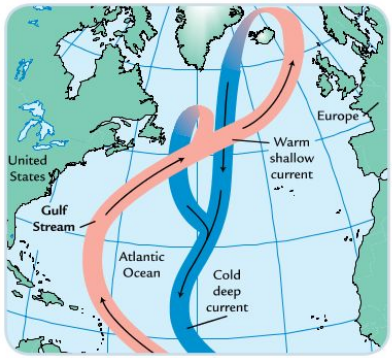
**Learning Target**: I can explain the causes of patterns of atmospheric and oceanic movement and the effects on weather and climate.

Please answer the questions in complete sentences with detail. Use your background knowledge and the information in [57] and [58]

1. What effect does the sun have in the heating of the oceans and land? What are the general patterns that we see on the earth?

2. Oceans can store large amounts of heat. How does this affect climate? Use the diagram below as evidence (see page E-36 in the textbook for the color image).

OCEAN CURRENTS: THE NORTHERN ATLANTIC OCEAN



3. Look at the diagram below. Describe the likely effect of the California Current on the climate of California.

*The California Current is a cold water current that flows from north to south along the coast of California.*

## Weather and Climate: global weather patterns

| **4** Highly Proficient | **3** Proficient | **2** Close to Proficient | **1** Developing |
|---|---|---|---|
| **Need at least 2**<br>❑ My answers are detailed.<br>❑ My answers use evidence <u>beyond</u> the diagrams on the page.<br>❑ The characteristics of water are used as evidence. (think about [55])<br>❑ I can discuss another part of the world where climate is affected by ocean currents.(this will take some research on your part) | ❑ I can explain the general effect the sun has on the surface of the Earth <u>with detail</u>.<br>❑ I can explain the effect of the ocean currents on climate <u>with detail</u>.<br>❑ My work is neat. | ❑ I can describe the general effect the sun has on the surface of the Earth.<br>❑ I can describe the general effect of ocean currents on climate.<br>❑ My answers need more detail.<br>❑ Some of my information may be incorrect.<br>❑ My work is incomplete.<br>❑ My work is rough draft quality. | ❑ I show little to no understanding of global weather patterns. |