

## Part II:

Using the table below label and color the currents in the picture (red = warm, blue = cold).

Number	Name of Surface Current	Characteristic Temperature of Water Transported by Current
1	California Current	Cold
2	Canary Current	Cold
3	Gulf Stream	Warm
4	Kuroshio Current	Warm
5	East Australian Current	Warm
6	Benguela Current	Cold
7	Brazil Current	Warm
8	Peru Current	Cold
9	Antarctic Circumpolar Current	Cold



### Questions:

- The ocean currents on your map generally travel in either a **clockwise or counterclockwise** direction. Look at the ocean currents and compare the general direction followed by currents in the Northern Hemisphere with the direction of those in the Southern Hemisphere.
  - In the Northern Hemisphere the general direction is \_\_\_\_\_.
  - In the Southern Hemisphere the general direction is \_\_\_\_\_.
- What happens to the direction of an ocean current when it approaches the coast of a large landmass?
- Cold water currents tend to have a cooling affect on the continental coastlines that they border, while warm water currents tend to have a warming effect. Look at the pattern of currents in the Northern and Southern hemispheres and describe the effect the currents have on the temperature of the coastal areas they border.
  - The East coasts generally have \_\_\_\_\_ (warm or cold) water currents.
  - The West coasts generally have \_\_\_\_\_ (warm or cold) water currents.
  - The East coast climates will generally be \_\_\_\_\_ (warmer or cooler) than it's supposed to be.
  - The West coast climates will generally be \_\_\_\_\_ (warmer or cooler) than it's supposed to be.
- Look at the pattern of cold and warm water currents. What seems to determine whether a current carries warm or cold water? Explain why this is so.