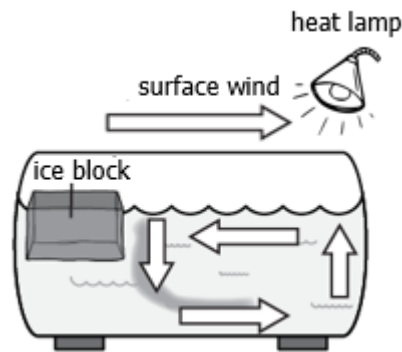




1. **A student performs an activity in which a large tank is filled with salt water. An ice block is placed at one end and a heat lamp at the other end. The student adds a drop of color dye in the water near the ice block. The color dye sinks near the ice block and rises near the heat lamp, as shown by the arrows. The student observes a light surface wind on the top of the tank.**



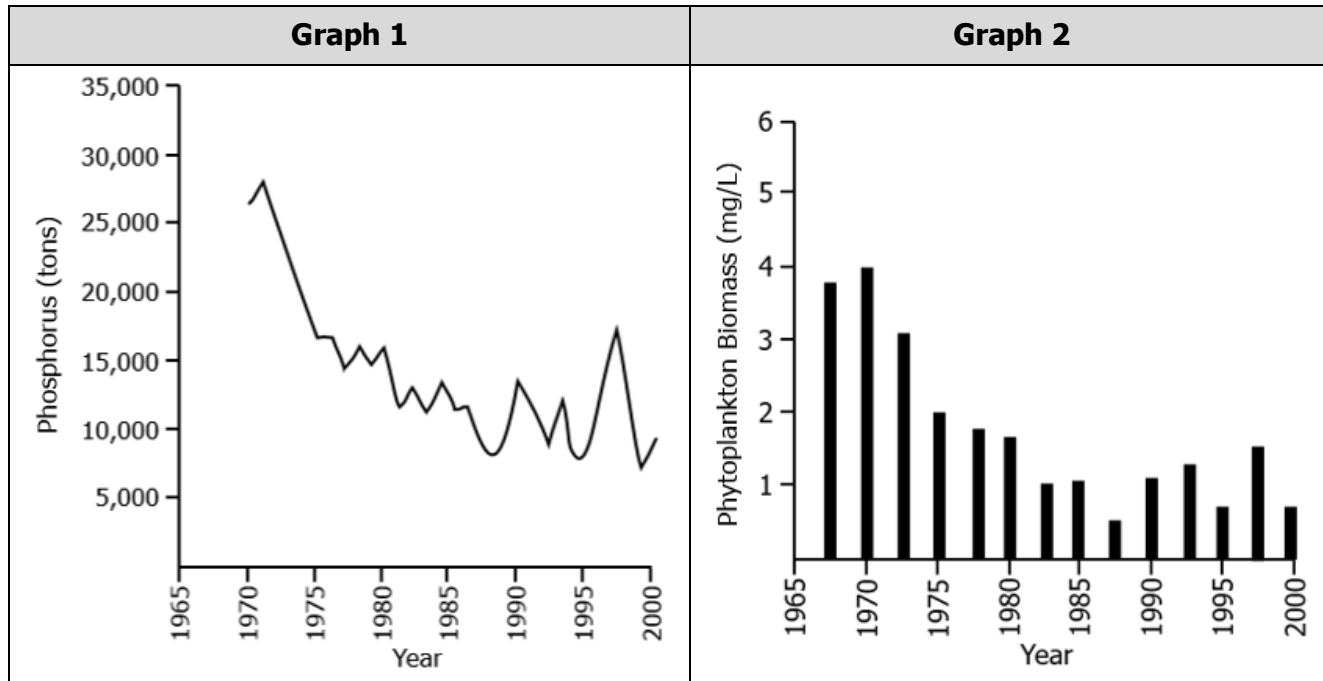
**Which conclusion can be made about ocean currents from the activity?**

- A** Surface wind changes the density of water in the ocean, causing ocean currents to sink.
  - B** Heat from Earth's interior creates pockets of warm air, causing ocean currents to circulate.
  - C** Ice found near Earth's poles adds more salt to the ocean, forming ocean currents.
  - D** Energy from the atmosphere causes convection of water, forming ocean currents.
2. **Giraffes are known for their characteristic long necks. A student hypothesizes that the giraffe evolved from a population of mammals that displayed genetic variation in neck lengths.**

**If the student's hypothesis is correct, what *most likely* occurred within the population of mammals over time to evolve to the modern-day giraffe?**

- A** The longer-necked mammals were slower runners than the shorter-necked mammals.
- B** The shorter-necked mammals had stronger teeth than the longer-necked mammals.
- C** The shorter-necked mammals reproduced less.
- D** The longer-necked mammals became extinct.

3. **Graph 1 shows the content of phosphorus in an estuary from 1965 to 2000, and Graph 2 shows the average phytoplankton biomass in the same location from 1965 to 2000.**



**Which argument do the graphs support?**

- A** Phosphorus is required for the growth of phytoplankton.
  - B** Phytoplankton cannot withstand high levels of phosphorus present in the estuary.
  - C** Phosphorus harms the growth of phytoplankton in the estuary.
  - D** Phytoplankton growth does not depend on the amount of phosphorus.
4. **After a match is burned, the part of the match that burned turns black and will not burn again. Why will the match burn only the first time?**
- A** A chemical reaction occurs, giving the part of the match that burned a different flammability.
  - B** A chemical reaction occurs, giving the part of the match that burned a different melting point.
  - C** A chemical reaction does not occur, but the fire gives the match a different density.
  - D** A chemical reaction does not occur, but the fire gives the match a different solubility.