

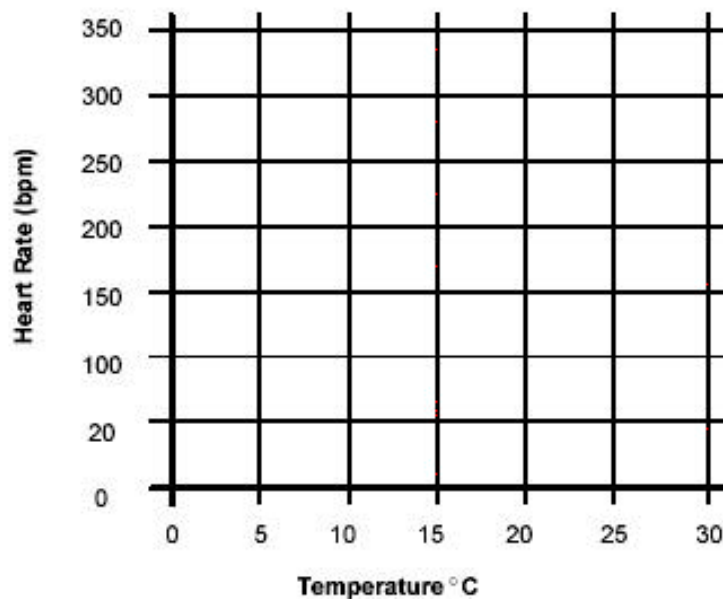
Lab 17:

The Influence of Temperature on Heart Rate in *Daphnia*

(Be sure to measure the heart rate at at least 3 temperatures other than room temperature.)

<i>Daphnia</i> Heart Rate Values at Room Temperature	
Temperature (°C)	Heart Rate (bpm)
23	

<i>Daphnia</i> Heart Rate Values at Various Temperatures	
Temperature (°C)	Heart Rate (bpm)



Analysis (Answer on the Back of This Sheet):

- 1- List and describe as many behavioral adjustments as you can think of that would help an ectotherm regulate its body temperature.
- 2- Describe what would happen to the diameter of the blood vessels during exposure to cold temperatures in endotherms, and why this change would occur.
- 3- What relationship would you expect to see between cold temperature and metabolic rate in an ectotherm? Would this also be the case for an endotherm? Why or why not?

**An ectotherm is an organism that regulates its body temperature by exchanging heat with its surroundings.

**An endotherm is an organism that generates heat in order to maintain its body temperature (generally so that their body temperature remains greater than the surrounding environment.)