



The Goldfish Experiment

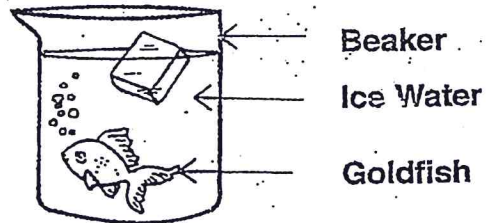
Problem: How does water temperature affect goldfish respiration?

Part I

Hypothesis: Write your own hypothesis in the space below.

Procedure:

1. Place a goldfish in a beaker with enough water to keep the fish alive.
2. Give the goldfish a few minutes to get used to the water.
3. Count the respirations of the goldfish by counting the number of times the gills open and close in 15 seconds. Use a stopwatch to measure the time.
4. Multiply that number by four to get the respirations per minute.
5. Record the number of respirations per minute in the 0 section on Table 1.
6. Add an ice cube to the water and repeat steps 2-5. Repeat with two and three ice cubes. The ice cubes will not harm the fish.



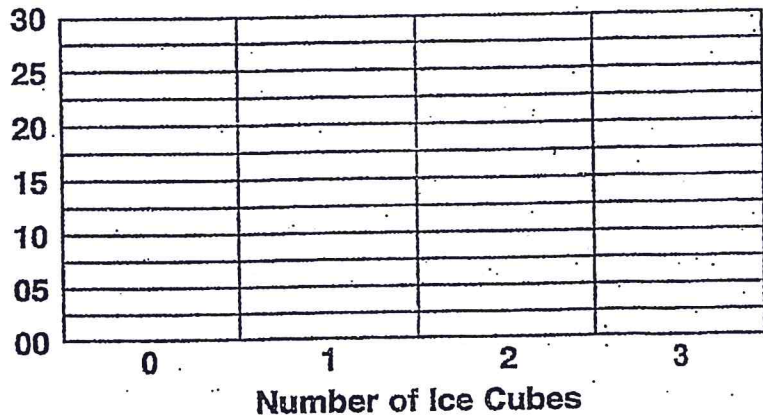
Observations: Fill in Table 1, then make a line graph on Graph 1.

Table 1—Data

# of ice cubes	Goldfish respirations per minute
0	
1	
2	
3	

R
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Graph 1—Goldfish Respirations



Conclusions:

Group # _____ Date _____ Names _____

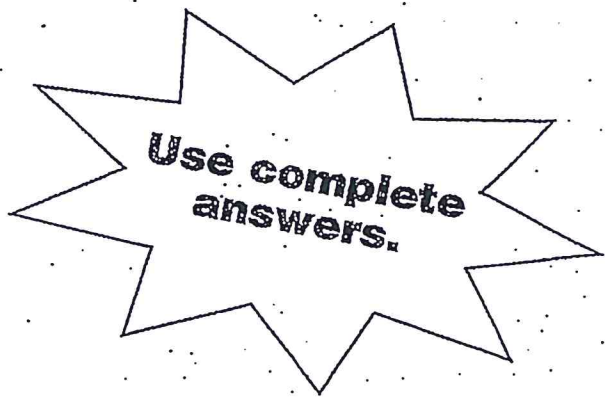
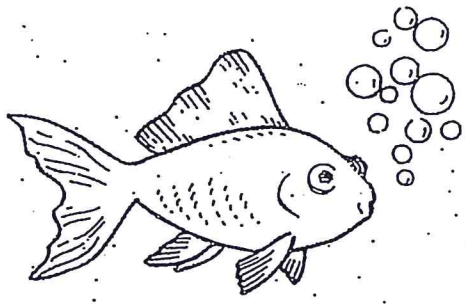


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Directions: Use the goldfish experiment sheet and other lab sheets to answer the questions.

Part II Questions:



1. What is a controlled experiment? _____

2. Is the goldfish experiment a controlled experiment? Why or why not? _____

3. What was the control and the variable in this experiment? _____

4. List the controls in the goldfish experiment. _____

5. Describe the variables in the goldfish experiment. _____
