Cellular Respiration Simulation

Name:	

You will be examining photosynthesis in an aquatic plant using dissolved oxygen.

Go to the cell energy simulation at Biology Simulations.

I. Background

How does cellular respiration affect oxygen levels?

II. Temperature

Experimental Question: How does temperature affect oxygen consumption?

1. Write your hypothesis.

Hypothesis:	

2. Set the fish number to 5 and the plant number to 0. Leave the other variables at the default values (100% light intensity, white light).
3. Set the temperature to 15 degrees.
4. Click Run Simulation and record the starting and ending dissolved oxygen (DO) values.
5. Repeat steps 3 and 4 for 20, 25, 30, and 35 degrees.
6. Calculate and record the DO difference.

Temperature (C)	**DO Start**	**DO End**	**DO Difference**
15			
20			
25			
30			
35			

7. Insert a graph (use Sheets or another spreadsheet program) displaying how temperature affects changes in DO.

8. Write a sentence conclusion.

9. Write a paragraph explaining your conclusion in terms of the process of photosynthesis.