

# Dissolved Oxygen (Lab)

Name:

Date:

The dynamics of plants and animals obtaining energy is complex and intertwined. For aquatic organisms much depends on the temperature of the water as this makes food sources in the food web available. If you live near a lake you may have noticed a large amount of algae in the water during the summer.

1. Make a guess as to why this might be:

The amount of oxygen dissolved in the water enables organisms to be more or less active.

Review the aquatic food web at [http://waterontheweb.org/under/lakeecology/11\\_foodweb.html](http://waterontheweb.org/under/lakeecology/11_foodweb.html) .

Describe the food and energy web in a lake and make a sketch:

Describe the reactants and products of:

Photosynthesis:

Respiration:

Below are a few terms to understand before we proceed. Using the link below define each:

[http://waterontheweb.org/under/lakeecology/08\\_dissolvedoxygen.html](http://waterontheweb.org/under/lakeecology/08_dissolvedoxygen.html)

2. Stratification
3. Dissolved Oxygen
4. Eutrophic

5. Thermocline

Use the link below to answer the following questions. These ones are a bit more challenging so be descriptive!

<http://waterontheweb.org/under/waterquality/oxygen.html>

- 6. What units is dissolved oxygen measures in?
- 7. What are acceptable DO levels for highly sensitive fish like salmon and trout?
- 8. What factors **increase** the amount of oxygen dissolved in water?
- 9. What factors **decrease** the amount of oxygen dissolved in water?
- 10. Describe how fish are “squeezed” in the summer.

11. Describe what percent saturation is using the graph below:

