

## Vocabulary: Pond Ecosystem



### Vocabulary

- Abiotic factor – a non-living component of the environment.
  - Examples of abiotic factors in a pond ecosystem include temperature and oxygen concentration.
- Algal bloom – a rapid growth of algae (plant-like organisms) in a body of water.
  - Algal blooms usually occur when water becomes very rich in nutrients such as phosphorus and nitrogen.
- Biotic factor – a living component of the environment.
  - Examples of biotic factors in a pond ecosystem include fish, insects, algae, plants, and bacteria.
- Concentration – the amount of a substance in a given volume.
- Eutrophication – the process in which a body of water contains excessive nutrients. The nutrients cause growth of algae and can lead to lowered levels of dissolved oxygen.
  - The word is pronounced “yoo-tra-fi-CAY-shun.”
  - The nutrients in the water cause algae to grow rapidly. When the algae die, they are decomposed by bacteria. This uses up the oxygen in the water and causes dissolved oxygen levels to go down.
  - Eutrophication can kill fish and other wildlife in the body of water.
- Mean – the average of a group of numbers.
  - To find the mean, add all the values up and then divide by the number of values.
  - For example, the mean of the set (3, 7, 2) is  $(3 + 7 + 2) \div 3$ , or 4.
- Oxygen – a colorless, odorless gas in the air we breathe.
  - Oxygen is used by plants and animals to get energy from food.
  - Air is approximately 21% oxygen, but there is less dissolved oxygen in water. In one breath, a human takes in as much oxygen as there is in 15 liters of water.
- Parts per million – a measure of concentration.
  - Parts per million (ppm) is used to measure very small concentrations.
  - For example, a dissolved oxygen concentration of 20 ppm means that there are 20 units of oxygen for every million units of water.
- Photosynthesis – a process plants use to produce food from carbon dioxide and water.
  - Oxygen is produced by photosynthesis.