Handout 3 — The Aquatic Food Web

A food chain links an organism to one source of food whereas a food web links organisms to many of its food sources. Draw arrows between the sun, plants, and animals to show the flow of food or energy and the different paths it can take through the food web.
Aquatic food webs for surface water ecosystems begin with the ______________________, the source of light. Certain wavelengths of light are absorbed by _____________________________________________________________________ (also called autotrophs). Through a process called ________________________________, primary producers use this light to convert __________________________ and __________________________ into carbohydrates and oxygen. The primary producers will use a portion of the carbohydrates and oxygen during ________________________________—the process in which carbohydrates and oxygen are converted into carbon dioxide, water, and energy. Primary producers can grow and reproduce if energy and certain nutrients are available.

Animals must also respire so they can create energy to move, grow, etc. Since animals cannot produce their own __________________________ like the primary producers, they must consume (eat) their food. Animals that eat primary producers are called __________________________________ (herbivores, or plant eaters). Animals that eat primary consumers are called ___________________________________ (carnivores, or meat eaters). The secondary consumer group may contain more than one level of carnivore; therefore, a food web may have __________________________________________—animals that eat secondary consumers. In addition, a food web may also contain ______________________________—animals that eat plants and meat.

Animals that eat dead organic materials are called __________________________________ (scavengers). They are an important part of the food web because they help in decomposition by shredding and eating dead organic materials. ____________________________ (bacteria and fungi) are the final link in the ____________________________,; they break down dead material and release ____________________________ that can be used by primary producers.