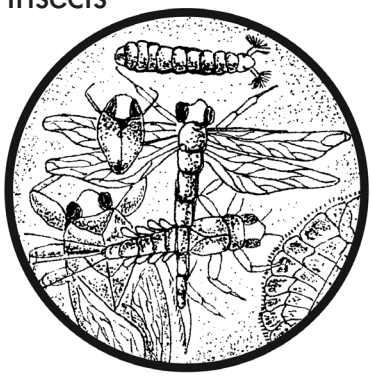
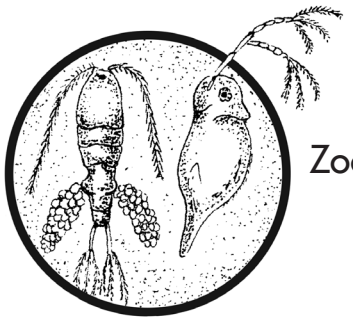
Handout 3—*The Aquatic Food Web*

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 Insects

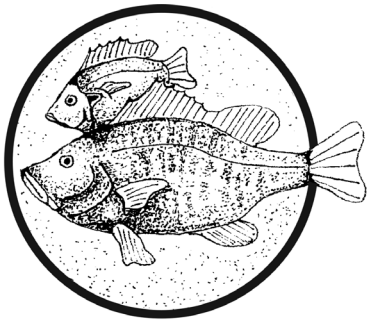




Zooplankton

Phytoplankton

Scavengers



Fish

Decomposers

Aquatic Plants

Nitrogen
Phosphorus

Nutrients

Sunlight

Use the word bank to complete the following paragraphs.

WORD BANK				
Decomposers	Sun	Primary consumers	Nutrients	Food web
Photosynthesis	Food	Secondary consumers	Primary Producers	Water
Tertiary consumers	Omnivores	Carbon dioxide	Detritivores	Respiration

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.