

You Seek, I'll Hide [ME]

Adapted from Smithsonian Institute Ocean Portal

Grades: K-2

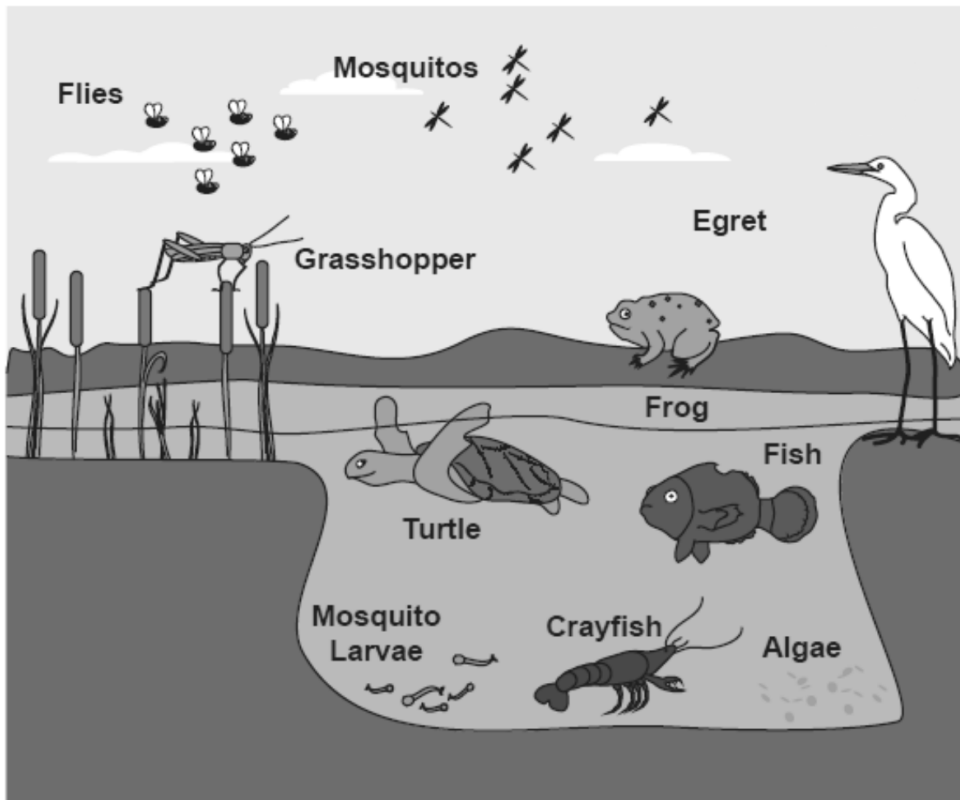
Time: 45 minutes to 1 hour

Goal: To understand a basic aquatic food chain and feeding habits of several known species.

Objectives:

Students will be able to: define a food chain, a food web, and predator-prey interactions; give examples of local species; and understand diurnal and nocturnal feeding in aquatic ecosystems.

Directions: Use the lines to try to make at least 3 food chains by connecting the swamp organisms below with arrows. See the example for help.



Example: sunlight → algae → mosquito larvae → fish

1. _____
2. _____
3. _____

WATER

Key Words:

Food Chain
Prey
Ecosystem

Food web
Diurnal
Habitat

Predator
Nocturnal

Background Information:

Adapted from Wisegeek

Animal behavior within an ecosystem varies depending on whether a species is considered to be prey or predator. As a prey species, their behavior coincides with being always aware of their surroundings, on the lookout for something that can harm them, and scurrying about, with movements that are quick and short. As a predatory species, their behavior can be slow and methodical or lie in wait, ready to pounce. These types of behaviors can also be altered by feeding habits and avoidance of predation and many species have adapted these behaviors to their specific habitats and ecosystems.

Species that demonstrate a majority of their normal activity (e.g. building homes or nests, finding mates, feeding) during the daylight hours are known as diurnal. This gives species with poorer darkness vision an opportunity to utilize the sun for their everyday activities. Their time to rest or not be visible is at night. They will try to utilize the darkness, along with other adaptations, such as color, to camouflage themselves to their habitat.

Nocturnal species, by contrast, are more active at night. They tend to have much better eyesight in darkness and will utilize this adaptation to seek out food and mates. Some species cannot expose their bodies to the heat of the sun during the day, which is the case for some reptiles, so they tend to venture out when the night air is cooler. Nocturnal species have also adapted a much better sense of hearing and some use a form of sonar or echolocation to find their prey in the darkness.

Any human disturbances to these natural day and night rhythms can cause serious harm to these species. If they are forced out of their burrows or nests by deforestation practices or construction noise, if they are fed by humans at different times of the day than they are used to feeding, or if they become stressed by the ongoing activities of humans within their habitats, they are more likely to become more vulnerable to predation. Humans, then, must learn to balance their own productivity, construction, and other activities with the natural rhythms and activities of the ecosystems they are interacting with.