



## ACTIVITY 3

### ACTIVITY OVERVIEW

#### SAV's: Submerged Aquatic Vegetation

##### **Activity Description**

Students will consider the importance of SAV's to the health of the Chesapeake Bay and assess the impact of their disappearance.

##### **Materials**

Student worksheet

##### **Teacher Background**

See the Student Reading on page 80.

## STUDENT READING

# SAV's Submerged Aquatic Vegetation

**SAV = submerged aquatic vegetation = plants that grow under water**

SAV's serve as a source of food and shelter for many animals in the Chesapeake Bay. SAV's root on the bottom of the Bay in shallow water where sunlight can reach to the bottom. The root systems that are at the bottom of the Bay hold soil and sediments in place and lessen the impact of the waves. Weed beds and sea grass are among the most essential habitats in the Chesapeake Bay.

Pretend you are a small fish. You need to eat and find shelter from larger fish that will prey on smaller fish. Smaller fish will eat insects that live in the grasses. You will also hide in the grasses to find shelter and camouflage yourself in the natural environment. The blue crab is also often found in the submerged plants hiding from predators while they are shedding their shell. The smaller fish eventually get eaten by the large fish, who, in return, are eaten by osprey, herons, and eagles. Ducks, geese, and other birds eat plants as their primary food source. By pretending you are a part of the food chain, you can easily see how all of these species are interdependent and need each other for survival.

Hundreds of years ago the bottom of the Chesapeake Bay had an abundance of SAV's. The bed grass covered hundreds of thousands of acres. Today only a fraction of these habitats exist. Many scientists have come to the conclusion that these SAV's have disappeared due to human activity. Construction sites and farm fields near the Bay expose soil that runs off with rainwater into the Bay as sediment, clouding the water in the Bay. The cloudy water makes it difficult for the plants to grow. Nutrients from fertilizers we use in our yards or on our farms and pollution from our cars' exhaust feed small plants called algae. Algae grow at the top of water and prevent sunlight from getting to the plants at the bottom of the Bay.

Recently, many people have become concerned about these submerged weed beds, and action is being taken to save these habitats. In some areas of the Bay the SAV's are coming back, but restoring these grasses is a slow process. In future years, hopefully, efforts to restore them will be successful, and more SAV's can provide Bay animals with the habitat needed to survive.

Name \_\_\_\_\_ Date \_\_\_\_\_

## STUDENT WORKSHEET

# SAV's Submerged Aquatic Vegetation

**Directions:** After reading the article about SAV's, answer each question in a complete sentence.

1. Explain why SAV's are important to the Chesapeake Bay.

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2. Why have SAV's disappeared in the Chesapeake Bay?

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3. Why are many scientists working hard to figure out ways to restore these submerged grass beds? Why would this be important to a waterman?

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4. In the reading, it said that small crabs use the grass beds to hide while they are shedding their shells. Small fish use the grass beds to hide from the larger fish. What would happen if the small fish and crabs did not have any grass beds?

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