

Making the Grade: Health Indicators in the Chesapeake Bay Watershed*ACTIVITY 1: INTRODUCTION TO THE CHESAPEAKE BAY TODAY*

"Stops" refer to reference points on the *Exploring the Chesapeake—Then and Now* (www.nationalgeographic.com/resources/ngo/education/chesapeake/index.html) Web site's "Now" map tour, which students can use in their research.

1. How have transportation changes on the waters of the Chesapeake affected the water quality of the bay? (Stop #3—Powerboats now account for approximately 90% of the recreational boats in the U.S. Unfortunately, they use more fuel than smaller boats or sailboats.)
2. What are some of the key challenges faced by those trying to clean up the bay? What may happen if the goals of the clean-up effort are not reached by 2010? (Stop #4—Some of the challenges include reducing pollution from sewage treatment plants and suburban areas, and the restoration of wetlands and waterside forests, which are natural pollution filters. If the states do not succeed in meeting the cleanup deadline which they set, the cleanup effort will be taken over by the Environmental Protection Agency.)
3. What is an industry that was historically central to the economy of the bay region, and remains so today? How has that industry contributed to the decline of the bay's health? (Stop #5—Agriculture has traditionally been central to the region's economy. It has damaged the bay's health by causing fertilizer runoff, leading to "algae blooms" which choke out other marine life.)
4. How has the decline in manufacturing along the bay's tributaries created new problems for the bay? (Stop #9—Factories have closed in Richmond and other bay region cities, and those cities are trying to make their economies grow in other ways. This has led to "suburban sprawl"—the uncontrolled growth of neighborhoods, shops, and offices around the old city centers. This sprawl uses up land that used to be wild, disrupts historic farming and fishing communities, and creates large amounts of watershed pollutants.)
5. How has the U.S. Navy contributed to the effort to improve the area's conditions? What remains a criticism of the armed forces? (Stop #11—The Navy has worked with the EPA to reestablish bird habitats, wetlands, and forests on Chesapeake-area military installations. But the Navy has not dealt with its fleet of rusting "ghost ships" on the James River—decommissioned vessels which are leaking deadly toxins into the watershed.)
6. What is the relationship between crabs, seagrass, and pollution? (Stop #12—Crabs rely on seagrass to hide from predators while they molt and reproduce. The bay-wide pollution which has devastated the seagrass has therefore made crabs more vulnerable and reduced their populations.)
7. What role do oysters play in the health of the bay? What role might they play in its future? (Stop #15—Oyster populations filter large amounts of bay water and help keep it clean. Overharvesting, pollution, and the arrival of troublesome parasites have combined to reduce oyster populations dramatically. The recovery of oyster populations is crucial to the environmental and economic health of the bay.)