



Name _____

Date _____

What Happened to the Chesapeake Bay Filtering System?

“Look at this,” said Maggie as she paged through the old book. “It says that when Captain John Smith explored the Chesapeake Bay there were millions and millions of oysters. Ships had to steer clear of the huge oyster beds.”

“There aren’t oyster beds like that anymore,” said Maggie’s friend, Nick. The two of them were sitting on the banks of the Miles River watching the waters that flow into the Chesapeake Bay. It was one of the fresh fall days when there was a crisp in the air, and the trees that hugged the shore looked like they had dawned colored cloaks. Nick had said that it was a perfect day to sketch his next painting of the Bay. He was busy with the charcoal pencils he used to get the shading of the water, trees, and sky just right. Maggie had found a book about John Smith in the house and was quickly fascinated by the differences between the Chesapeake Bay of John Smith and the Chesapeake Bay of Nick Hargrave. She had been skimming through the book as Nick sketched.

“Are there fewer oyster beds?” asked Maggie.

Nick put down his pencil. “My grandfather told me that in 1973 there were over 15 million bushels of oysters taken from the Bay.”

“Wow,” whistled Maggie. “I bet you’re going to tell me that there were only seven and a half million bushels of oysters taken last year.”

“Wrong,” said Nick. “You’re way off. Guess again.”

Maggie thought for a minute. “One million?” she asked.

“No, only 53,000 bushels,” said Nick. “And believe me, that’s hard for the people who depend on the money they make from harvesting oysters.”

“It must be.” Maggie thought for a minute. “After what I read about oysters, I imagine that fewer oysters mean more problems for the Bay habitat, too.”

“Even though I lived with oyster shells all around my whole life, I never realized how important oysters are to the health of the Bay until our teacher got us involved in taking care of an oyster garden. That’s when I found out that oysters are the filtering system for the Bay. An oyster can filter about 5 liters of water each hour. That means that algae and nutrients in the brackish Bay water are “cleaned” through an oyster’s system.”

“I bet the Bay water does not get filtered as much now,” said Maggie.

Nick nodded. “My grandfather says that when oysters were plentiful they probably filtered excess nutrients from the Bay every three or four days.”

“Wow, that’s a big filtering system! I imagine oysters did other good things, too,” whistled Maggie.

“Yes,” nodded Nick. “He says that the oyster reefs, which are thousands of oysters laying on the bottom of the Bay, made lots of nooks, crannies, and small caves for other Bay animals to use as a protective habitat.”

“I imagine that fewer oysters also mean problems with the food chain,” noted Maggie.

“You got it,” said Nick. “Shore birds can’t find a ready meal of oysters anymore.”

“But you said something about an oyster garden. What’s that?” asked Maggie.

“Come on. I’ll show you,” said Nick as he put his sketchbook and pencils into his backpack.

Science and Solutions

Nick talked about an oyster garden. Make a prediction what this might be.

Read Nick's notes about the steps used to help oysters.



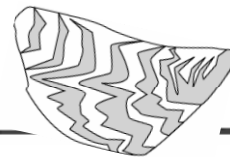
August – Pick up young oysters called spat. Put them in special cages in the water.

August/September – This is a time of growth. Be sure to keep the cages clean.

October/November – Watch the oysters. Collect data.

December through February – Dormant oysters are fine in cold water, even in water that is frozen. They are not OK in frozen air.

March – Plant the oysters on a special reef.



Imagine yourself helping at an oyster garden. What would you like to do? Write an imaginary paragraph telling about your experience.

Science As Inquiry

Good scientists try to understand WHY something happens. Think about oysters in the Chesapeake Bay. Then think about other animals that are disappearing. Form your hypothesis. Why do you think oysters are disappearing? Try to write two reasons.

- 1.
- 2.