

Study Guide For Teachers

Billy B. the Science Song and Dance Man

in **Ways of the Bay**

presented by
Young Audiences
(866) 500-9265

www.yanj.org
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ABOUT THE PROGRAM

Using song and dance, Billy B. teaches children the concept and geography of watersheds in *Ways of the Bay*. Children will listen to, sing with, and in some cases dance with Billy B. while he performs his original songs, dances and poems about bays and watersheds. Billy B. uses a multi-layered back-drop to give visual examples of the importance of watersheds and the health of our bays.

LEARNING GOALS

1. To define the concept of a watershed and inform students about the specific watershed in which they live.
2. To present in an entertaining but educational manner the problems that bays are having due to daily living, industrial waste and fallout as well as recreational uses of bays and their tributaries.
3. To instill in students a sense of wonder about bays and their impact on all of us who live in watersheds.
4. To inform the students about the practical everyday things each of us can do to help to preserve their watershed and keep it healthy for future generations.

BACKGROUND INFORMATION FOR STUDENTS

Billy's introductory song illustrates how water running off a roof into a drain spout will eventually end up in the local watershed. All of the water from the streets that flows into storm drains or ditches also eventually flows into the closest creek or river. Through song, Billy B. emphasizes that there can be millions of people living within the watershed of a typical bay. Billy also introduces the concepts of excess algae, runoff, oxygen loss in the water, estuary, brackish water, nutrients, decomposers and plankton. Billy ends his program by talking about a bay's airshed and energy conservation and how we can all help to keep the bay healthy by saving energy and planting trees. He gives the students many easy-to-do ideas on how to "Save on Fuel." Volunteers then dance the "Save the Fuel: and These Trees" dances.

AFTER THE PROGRAM

1. Have the students write a play about living in the bay's watershed that illustrates the affect we have on the bay and the ways to keep it healthy.
2. Students can start a "litter brigade" that makes sure storm drains and sewers in their neighborhoods and around their school are clear of debris that will end up in the bay.
3. Have students list and discuss the many things they can do each day to conserve energy.
4. Show the children a specified amount of water, then have students estimate the amount of water that is wasted by the millions of people living in the watershed during normal daily activities, such as brushing teeth and washing cars.
5. Students can investigate the different water conservation methods available and then also estimate the amount of water saved using these methods.

VOCABULARY WORDS

Erosion

Nutrient loading

Brackish water

Airshed

Oxygen

Estuary

Habitat

Algae

Conservation

Runoff

Phytoplankton

Anoxia

Decomposition

Watershed

Zooplankton

Filtration

Sewage

BEFORE THE PROGRAM

1. Have your students look at a map that includes their closest bay and watershed. Have them identify the town or city they live or go to school in, and then identify the whole watershed region, the bay and all the rivers and tributaries that drain into it.
2. Have the students draw a picture of the bay and its tributaries. Label the tributaries by name.
3. Have the students identify and list the number of ways that people use their bays.
4. Have the students investigate and identify the number of different animals, birds and fish that live in their bay's habitat.

ARTIST INFORMATION

A veteran performer, Bill B. Brennan has performed for the National Geographic Society and the National Wildlife Federation as well at the White House, The Kennedy Center, The Smithsonian and in front of 200,00 people during the 20th National Earth Day. Billy B. has recorded several albums of original songs and he has also written the scripts and songs for television, videos and film performances.

RESOURCES

Blackistone, Mick. Just Passing Through: Poems. Annapolis, Md.: Blue Crab Press, 1990

Blackistone, Mick. The Day they Left the Bay. Washington, D.C.: Acropolis Books, 1988.

Blackistone, Mick. The Buffalo and the River. Annapolis, Md.: Blue Crab Press, 1990.

Pringle, Laurence. Estuaries Where Rivers Meet the Sea. New York: Macmillan, 1973.

Sharpe, Susan. Waterman's Boy. New York: Bradburu/Simon and Schuster, 1990.