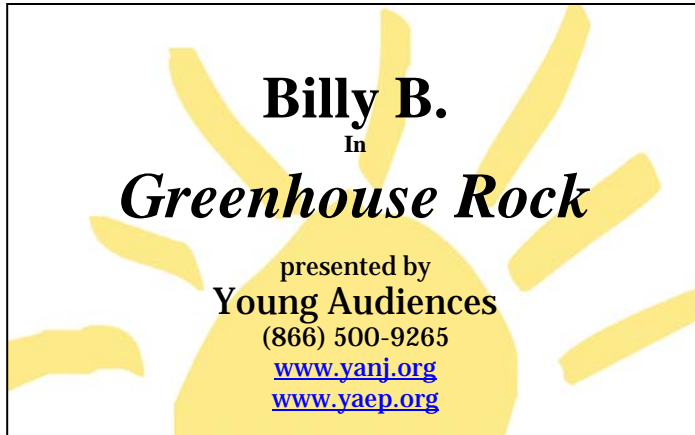


Study Guide For Teachers



ABOUT THE PROGRAM

A favorite with junior high school and middle school audiences, Billy B/s rib-tickling parodies of popular songs and dances bring to life such important topics as rain forest depletion, photosynthesis, and the greenhouse effect. Billy opens the program with a comic imitation of a "holier than thou" environmental folk singer. He then introduces the concept of using famous rock song parodies to explain and discuss environmental issues. Billy B. precedes the parodying of popular songs with, for example, a monologue dealing with CFC's, the ozone and biological indicators of general environmental health. Using this style Billy covers a range of environ- mental subjects.

LEARNING GOALS

- To familiarize students with the science and, to some extent, the politics of contemporary environmental issues.
- To introduce and explain the concept of biological indicators reflecting the state of the environment.
- To show the students how these serious subjects can be considered in a straightforward and even comical light while also giving them personal options for corrective actions.

AFTER THE PROGRAM

1. Have your class conduct a "green audit" of your school by asking them to assess environmentally conscious practice: In your classroom- For example, how much paper is used in your classroom? What other supplies do you use daily? Do you recycle the paper/supplies when possible? Do you shut off lights when not in use? In your school- is trash recycled? Does your school have energy efficient heating and lighting systems? Energy efficient windows? Do the school's grounds include thoughtful planting of trees, plants, or even vegetables while also encouraging safe wildlife such as birds?

2. If the "green audit" of your school indicates that your class/school is not as environmentally conscious as it should be, discuss with your class ways to encourage or initiate more environmentally responsive practice i.e. What action can students, them- selves, take to improve environmental practice? What actions can teachers, maintenance staff, the principal, the Board of Education take? Students may wish to research and propose an environmental action plan for the school.

3. Have your students investigate what environmental dilemmas exist within their local community, region and state. What steps are being taken to solve those problems?

4. Help students discover places in their community/region that illustrate a high level of environmental consciousness- i.e. a local nature pre- serve, wetland, recycling or waste treatment plant. Have students visit, study and report on those places.

RESOURCES

Chandler, Gary and Graham, Kevin. Kids Who Make A Difference. New York: Twenty First Century Books, 1996.

Johnson, Rebecca L. The Greenhouse Effect. Minneapolis: Lerner Publications Co., 1990.

Pringle, Laurence. Global Warming: Assessing the Greenhouse Threat. New York: Arcade Publishing, 1990.

Pringle, Laurence. Rain of Troubles: The Science and Politics of Acid Rain. New York; MacMillan Publishing Co., 1988.

Simon, Seymour. Earth Words. New York: Harper Collins, 1995.

ARTIST INFORMATION

A veteran performer, Billy B. has performed for the National Geographic Society and the National Wildlife Federation, as well as at the White House, the Kennedy Center, the Smithsonian and in front of 200,000 people during the 20th National Earth Day. Billy B. has recorded several albums of original songs and has also written the script and music and performed for television, video and film.

VOCABULARY WORDS

Ecosystem- a community (all living plants and animals) and the nonliving environment where they are found function together as an ecosystem. The rain forest is an ecosystem.

Biodiversity- describes the variety of life forms (plant and animal) and their roles in the ecology, or workings, of an ecosystem. It is the key to the maintenance of the world as we know it.

Biome- a large community of animals and plants that live together in a region determined by its environment. Biomes include tropical rain forests, deserts, coral reefs, and the arctic tundra.

Biosphere- The name given to the layer of Earth's surface (including land, air, and water) that supports life.

CFC's- a group of chemicals (CFC stands for chlorofluorocarbon) once commonly used in refrigerators and air conditioners. Many scientists think it is mainly CFC's that are responsible for the reduction of the ozone layer in the atmosphere.

Global warming- a theory that the Earth is gradually becoming warmer because of an increase in the greenhouse effect.

Greenhouse effect- the process by which gases in the atmosphere trap heat at the surface of Earth. Sunlight passes through the atmosphere and warms Earth. Earth radiates this energy back into the air in the form of heat waves. Some of the heat waves are prevented from escaping into space by carbon dioxide, water vapor, and ozone in the atmosphere. These "greenhouse gases" act like the glass in a greenhouse, allowing light from the sun to go through but trapping the heat inside. An increase in the amount of carbon dioxide in the atmosphere over the last century has led some scientists to predict a warning effect on Earth's climate over decade or centuries.

Ozone Layer- Ozone is a form of oxygen that is mostly found in a layer of the upper atmosphere. The ozone layer protects life on Earth by filtering out UV (ultraviolet) and other kinds of harmful radiation.

Water Cycle- on earth, water from the ocean and other bodies of water becomes heated from the sun, evaporates, rises as a gas (water vapor), is cooled in the atmosphere, condenses into clouds or fog, comes down as rain or snow onto the earth's surface and goes deep into ground water, re-supplies the water table, and finally flows back into bodies of water, to happen all over again. **Species-** a group of plants or animals that have certain common features that set them apart from others. The male and female of a species of animal can mate together to produce young that will resemble the parents.

Extinction- when a certain group of animals or people no longer exist, having died out completely.