BRONX EDUCATION

ELEMENTS OF SURVIVAL

Objective

For students to learn about the living and non-living components of a habitat

LEARNING OUTCOMES

Students will be able to

- Students can explain the term environment.
- Students can select the environmental elements necessary for the survival of a particular animal or plant.

Vocabulary

• environment

• shelter

Procedure

- 1. Ask the students to think about what things they have at home that are made from animals and plants. Make up a class list.
- 2. Then ask the students what is left in their homes when all the products made from animals and plants were taken away. Make up another class list. The second list should include only synthetic items made from metals, stone, plastics, and polyesters (if you have not mentioned the petroleum origin of those last items). Ask the students to consider what life would be like with only these synthetic items. Prompt their discussion by asking such questions as: What would you eat? Could you still survive? Why or why not?
- 3. Ask your students what they think the word environment means. Write down their ideas or lead them to the following definition:

An environment is all of the elements, both alive and not alive, in a living thing's surroundings.

- 4. Divide the class into five groups. To each group, assign one of the following: a lion, a giraffe, a squirrel, a sunflower, and a killer whale. (You may choose to provide pictures and references in the classroom.)
- 5. List on the chalkboard the following environmental elements: river, bees, soil, grasses, trees, sea lions, flowers, nuts, zebras, blackberry bushes, leaves, fishes, mountains, rock piles, sand, ocean, clouds, rain and sun. Then write out the Thought Questions that follow.



BRONX EDUCATION

LESSON PLAN: ELEMENTS OF SURVIVAL

Thought Questions

- 1. Does the plant/animal require food? What kind?
- 2. Does the plant/animal make its own food? If so, what ingredients does it need?
- 3. Does the plant/animal need water? Why? Where does the plant/animal get or find its water?
- 4. Ask the students to select from the list on the board those environmental elements needed to construct a natural environment for their animal or plant. In order to do this, they must try to answer the questions on the chalkboard. Refer to the chart below for feasible answers. Each group should elect a recorder who will write down the group's decisions. The recorder must ensure that his or her group agrees on the elements before writing them down. The groups must also be able to justify all their selections. Give them a time limit of 15-20 minutes.

The groups will present their results to the class in the following lesson. You may tell the students that they can draw their animal or plant in its environment so they can then show it to the rest of the class as they present their findings.

5. As a homework assignment, the students can take their questions and answers to a library to verify that they have selected the correct elements for their plant or animal.

Option

• As a challenge, you can have your students write a short essay about what their lives would be like without other living things. Could humans survive? Would life be different or the same? How?

	Does it require food?	Does it make its own food?	Does it need water?	Does it need shelter?
Killer whale	Yes – fish and sea lions	No	Yes – lives in the ocean	No
Sunflower	No	Yes – needs sun, water, and soil nutrients	Yes – depends on rain to make food	No
Giraffe	Yes – leaves and trees	No	Yes – drinks from rivers and rainwater	Yes — trees to provide shelter from sun
Squirrel	Yes – nuts and berries	No	Yes – drinks from rivers and rainwater	Yes – nests in trees
Lion	Yes – zebras	No	Yes – drinks from rivers and rainwater	Yes – tall grasses, trees, and rock piles

From the Habitat Ecology Learning Program (Grades 4 - 6)



There's a connection between... Monkeys and Math Snakes and Science Lions and Language Arts

Find the connection for your students by participating in a Bronx Zoo Education Department *professional development* program, including:

Workshops: We help teachers bring new excitement to their classrooms through staff development workshops (K–12). Workshops are available at the Bronx Zoo as well as in host zoos and school districts nationwide. A rich array of standards-based activities and materials prepare teachers to make science alive for their students. Graduate credit available.

Classroom Materials: The Bronx Zoo's award winning, inquiry-based, life science

materials are aligned with the national standards and designed to increase science literacy while enriching learning in language arts, social studies and more. Enrich your teaching repertoire with easy to use, highly motivating activities.

National Teacher Membership Program: A new web-based service offered nationwide that includes extensive resources and support for the classroom teacher. Visit the website and join today!



LEARN MORE ABOUT THESE EXCITING OPPORTUNITIES TODAY!For additional information about these programs, visit us on the Web at: www.wcs.org/education or call us at 1-800-937-5131.