



### Life in the City

Canyon dwelling birds like the Peregrine are attracted to urban areas because humans build tall vertical structures that, for the birds, are similar to canyon walls. The height affords the birds, due to their excellent eyesight, a good and expansive view of their prey below.

# Nature in the City

## The Approach

Billy utilizes comprehensive sensory integration through song, dance, audience participation and a multi-dimensional backdrop to engage performance attendees in an exploration of the elements of nature in the urban environment.

Plant life, photosynthesis, water cycles, animals that share their habitats with humans, and the mechanics of pollination, are just a few of the concepts students discover during this show.

Geography, ecology, and biology are all brought into play as students relate their own lifestyles and behaviors to the quality of the natural elements and resources in their community.

## The Objective

Students will develop an awareness of the natural elements in urban areas as they delve into the components of their own habitat. A sense of stewardship for urban green spaces and waterways will be fostered.

Students will enjoy learning about scientific concepts such as biological indicators, invertebrate life cycles and more while participating in activities like animal sound imitation and hip hop dance routines!



## The Result

Now that we have had Nature in the City we have great fire drills. You have to understand that our kids live in neighborhoods where it is not safe to play outside. The vocabulary and connection to the outdoors through your program is so important, the kids now look for falcons on the towers and watch for crows during drills.

*2nd grade teacher*

### Suggested Pre-Performance Activities

1. Have students list/draw all living things in a specific area, for example their school grounds or their backyard. Go over the list with the students and try to identify what each living thing gets and gives to the chosen area of study. Does the listed creature's behavior conflict with his human neighbors. Why? What, if anything, could be done to resolve the conflict? Does the listed creature's behavior benefit his human neighbors? How? How would the loss of this creature affect his human neighbors?
2. Go to the following web site [www.gowildnyc.org](http://www.gowildnyc.org) and play the "squirrel game" called Skippy Dodge-ball.

## Nature in the City In the Classroom

### Vocabulary Words

**Climate** - the temperature and weather patterns of a given area.

**Habitat** - the environment of a particular animal or plant, the place where they live and get the things they need to live.

**Peregrine** - a falcon, bird of prey, which prefers to live at the top of high places such as cliffs and skyscrapers. With its excellent vision it dive bombs its prey, often pigeons (in both the natural and urban environments), reaching speeds of up to 200 mph.

**Skyscrapers** - very tall buildings.

**Soil** - the top layer of the Earth's crust that consists of sufficient minerals and organic material to be richly inhabited by organisms in general.

**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.

**Urban** - having city like characteristics.



### Post Performance Activities

1. Have students create an urban habitat using the simple “box project” concept. Students pick a specific habitat and include everything in that habitat that is necessary to sustain the diverse life within that habitat. They can use real objects or create models for display in the classroom.
2. Have students do a field study on their playground. Have them count the birds they see, identifying them if possible or at least classifying them by size. Are the birds acting as a flock or are they more individual in their behavior? Have them identify the ant holes and the color of the ants. Have them establish how many different species of ants are living in the playground.

### Teacher Resources

Billy B's CD entitled "Nature in the City" contains eleven original songs featuring creative lyrics mixed with car horns, bird calls, cicadas singing to their mates, and a fun parody of “Men in Black” about biological indicators of water quality. Preview and/or purchase this energetic and captivating CD at <http://billybproductions.com/>. Click on Store, Purchase CD's, then *Nature in the City*. Songs from this show can also be purchased on iTunes!

This show was commissioned by Baltimore Woods Nature Center. Excellent resource materials and lesson plans can be found on their website <http://www.baltimorewoods.org/NatureInTheCity/TeacherResources/>

# National Science Education Standards

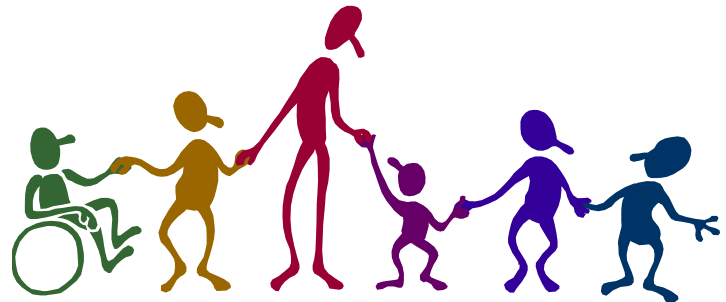
**Nature in the City** conveys connections to the following standards:

## ***Science as Inquiry***

- \_ The dispositions to use the skills, abilities, and attitudes associated with science
- \_ Understanding about scientific inquiry

## ***Life Sciences***

- \_ Characteristics of organisms
- \_ Life cycles of organisms
- \_ Organisms and environments
- \_ Structure and function in living systems
- \_ Reproduction and heredity
- \_ Populations and ecosystems
- \_ Diversity and adaptations of organisms



## ***Personal and Social Perspectives***

- \_ Types of resources
- \_ Changes in environments
- \_ Characteristics and changes in populations
- \_ Populations, resources, and environments

## ***Science and Technology***

- \_ Abilities to distinguish between natural objects and objects made by humans

National Research Council. *National Science Education*

*Standards*. Washington, D.C.: National Academy Press, 1996.