



## **Earth B.E.A.T. Eco-Stations - Short Descriptions**

### **Bugged About Water Quality**

A game of tag helps demonstrate how environmental stressors such as trash, salt, sewage and fertilizers affect water quality. Students learn how macro invertebrate populations indicate the health of a stream ecosystem.

\*Requires large outdoor space

Grades: 4th-8th

Participants: Full class

Activity sets: 1

### **Carrying Capacity**

This activity (similar to musical chairs) explores the impacts of modern development on natural resources and how students can help preserve those resources. A tarp is folded to illustrate shrinking resources and unfolded as students suggest ways to preserve these resources.

\*Indoor or outdoor.

Grades 4-8: A chronological exploration of the growth of development of Rockland County and the subsequent demands on resources.

Grades K-3: Focuses specifically on water as a natural resource.

Participants: Half to Full class

Activity Sets: 2 sets (we have only one radio)

### **Color me Natural**

Students explore their school grounds and seek to match different colored paint chips with the colors of the natural world around them - trees, flowers, ground cover, bugs, and, possibly, animals. They discuss the important role color plays in an ecosystem.

\*Outdoor only

Grades: K-5

Participants: Half class

Sets: 2

### **Decomposition Line Up**

Students are handed images of items that decompose at different rates. The students then work together to arrange themselves in order of the time it takes for each of the items to break down.

\*Indoor or Outdoor

Grades: K-5

Participants: Half to Full class (if students work in pairs)

Sets: 1

### **Environmental Chutes and Ladders**

This activity engages students in a board game based on Chutes and Ladders that illustrates ways each of us can conserve natural resources.

\*Best done indoors (Can be paired with another activity)

Grades: K-3

Participants: Half class (4 players per board)

Sets: 4 large boards

### **Energy Bike**

Students pedal a bicycle to feel the difference in the energy required to light up incandescent versus compact fluorescent or LED light bulbs. They discuss why saving energy is important to the health of the environment and to mediating climate change.

\*Indoor or outdoor.

\*This activity must be facilitated by a KRB Educator. There is a \$120 fee for this activity.

Grades: 3-8

Participants: Half class

\*One Bike

### **Environmental Jeopardy**

This game of Jeopardy is designed to teach students about living a more sustainable lifestyle. Students are encouraged to engage in collaborative decision-making to select and answer questions.

\*Indoor activity-Power Point presentation. Nice wind-down after high energy activity.

Grades: 4-8

Participants: Half to Full class

Sets: As many sets as you would like.

### **Enviroscape Model**

The Enviroscape is an interactive, tabletop, watershed model that engages students in demonstrating how different land use activities affect the quality of our water.

\*Ideally indoors.

This activity is facilitated by a KRB Educator. There is a \$120 fee for this activity.

Grades: 4-8

Participants: Half class

Sets: 2

### **Everybody Lives Downstream From Someone**

This activity guides students acting in roles as wildlife and pollutants through a narrated script that illustrates some of the ways human activity can affect species in and along our waterways. Students acting as Agents of Conservation demonstrate how we can reduce these pollutants.

\*Can be done indoors or outdoors.

Grades: K-4

Participants: Half to Full class (Three facilitators needed)

Sets: One set

### **Garbage Relay**

Students participate in a relay race with the objective of depositing different types of recyclables, compostables and trash into the proper receptacle. They discuss the many ways they can reduce, reuse, and recycle.

\*Can be done indoors or outdoors. (We provide the trash)

Grades: K-8

Participants: Half to Full class (Best with a full class)

Sets: 2

### **How to Turn Kitchen Scraps into Black Gold**

Students are introduced to the world of composting and participate in a hands-on demonstration of vermicomposting, as they meet red wiggler worms in their scrap-laden home. Master Gardener facilitators will cover the do's and don'ts of feeding the worms, how to handle them and the uses of the "black gold" that they produce. Students learn the ecological importance of composting to reduce waste and conserve energy. Prepare to get a little dirty and learn a ton!

\*Indoor or outdoor.

\*This activity is facilitated by Cornell University Cooperative Extension Master Gardeners. There is a \$120 fee.

Grades: K-3

Participants: Full class

### **Hudson River Riddles**

Students learn about local waterway inhabitants through a game of riddles. Teams compete to match the correct photograph with each riddle. The facilitator incorporates how fish, birds and plants all depend on the river for survival in an interdependent ecosystem.

\*Works well indoors or outdoors. Great as a wind-down activity.

Grades: 3-8

Participants: Half to Full class

Sets: 2

### **Just Passing Through**

In this activity, students play the parts of vegetation and raindrops. Bottle caps represent leaves and pebbles. Through a guided simulation, the students learn how vegetation is necessary for soil to absorb and filter water and percolate deep into the ground.

\*Great activity to do outside on a slight slope.

Grades: K-4

Participants: Half to Full class

Sets: 1

### **Litter Wizard**

This storytelling activity is great for younger students. A (animated) facilitator reads/paraphrases a story about a wizard who gets upset with the amount of litter he sees around town. The wizard casts a spell that sends litter back to whomever dropped it and it gets stuck to them! A group discussion follows on the effects of litter and steps for prevention and removal, e.g. Great American Cleanup.

\*Great indoor wind-down activity; can be read outside as well.

Grades: K-3

Participants: Half to Full class

Sets: 2

### **Locavore Special**

Students take an imaginary trip to the supermarket in early April. After purchasing their fruits and vegetables, they discover the season in which these items are grown and harvested in our region. In exploring this, students learn how far some of our food must travel to get to us and the true cost and benefits of purchasing locally grown produce.

\*Indoor activity.

Grades: 3-8

Participants: Half class

Sets: 2

### **Making Water Sense**

A relay race to mock toilets engages students in a lesson on water usage in our homes and the ways they can reduce consumption of this precious, finite resource.

\*Can be done indoors or outdoors

Grades: 2nd-8th

Participants: Full Class

Sets: 1

### **Meet a Tree**

Students are paired up and "introduced" to a tree. The student meeting a tree is led to the tree with their eyes closed. When meeting the tree, they feel, smell and measure (hug) the tree they are being introduced to. They return to the group circle, open their eyes and try to locate the tree they just met. Each group then switches roles. The final section of the activity includes using a child friendly field guide to identify a few tree species.

\*Outdoor activity.

Grades: K-5

Participants: Half to Full class

Sets: 2

### **Nature Bingo**

Students play a bingo game featuring beautiful photographs of plants and animals in our region. In the process of playing the game, students discuss the characteristics and habitats of local species.

\*Indoors; Power Point presentation.

Grades: K-8

Participants: Half to Full class

Sets: 2

### **Nature Exploration**

Students explore the natural environment around their school yard. They learn there are no “weeds”, just plants we with which we have lost touch. They learn many of the plants we call weeds have played an important role in our past, e.g. as food, dyes or medicine. (Plant identification cards available)

\*Outdoor activity.

Grades: K-8

Participants: Half class

Sets: 2 sets of cards

### **Pyramid of Life**

In this activity, each student is given the role of a plant or animal in a food chain. As one animal consumes another in the chain, they acquire not only energy, but accumulated pesticides that were applied to the plants/producers in the group. This is simulated by passing patches of felt up the food chain.

\*Can be done indoors or outdoors.

Grades: K-8

Participants: Half to Full class

Sets: 2

### **Sound Map**

Students sit outside in a designated space and listen to the sounds in the environment with their eyes closed. After opening their eyes, they mark the origin of these sounds on a basic map of the area. This activity can be matched with other outdoor nature awareness activities, such as Color Me Natural or with a breathing/yoga activity.

\*Outdoor activity. Excellent activity to follow high energy choices like Garbage Relay or Survival Tag. Requires a relatively quiet area.

Grades: K-8

Participants: Half class

Sets: As many as needed

### **Superbowl Surge**

Using tokens to represent waste that is flushed down a toilet, students simulate a super surge of activity during half-time and discover what happens when the system is overwhelmed and waste overflows from treatment facilities. Includes discussion of overflows caused by grease, wipes and other “flushables” that clog the system.

\*Indoor or Outdoor activity.

Grades: 3-8

Participants: Half class

Sets: 1

### **Survival Tag**

In this high energy game, students take on the roles of coyotes and rabbits (native to our area) simulating the predator/prey balance in an ecological system. Students explore how human activity and natural resources play a role in the balance as well.

\*Outdoors; needs large space.

Participants: Full class

Grades: K-8

Sets: 2

### **Tops and Bottoms**

Students begin this activity by pairing the parts of a plant that grow above and below the soil. Examples include carrots, beets, broccoli, celery, and lettuce. They then listen to a trickster story involving a bear, and a rabbit who manages to always get the most desired part of the plant. Students discuss the role and value of different parts of a plant.

\*Indoor or outdoor.

Grades: K-3

Participants: Half to Full class

Sets: 1

### **Web of Life**

Using a ball of string and photographs of a variety of local plants and animals, students make the natural connections in an ecosystem and explore how humans can affect the health of ecosystems.

\*Indoors or Outdoors

Grades: 3-8

Participants: Half class

Sets: 2

### **What Animal Am I?**

In this activity, a photograph of an animal native to Rockland County is attached to the back of each student. Students walk around a designated space asking each other a series of questions (provided) to try and figure out which animal they represent. (With a group of very young, one student with a photograph on his/her back can stand in front and ask questions of the group.)

\*Indoor or outdoor

Grades: K-5

Participants: Half class

Sets: 2