

## Enrichment Activities

### Birmingham-Southern Hugh Kaul Ecoscape

The Birmingham-Southern College Hugh Kaul EcoScape is an outdoor classroom that showcases local artwork and demonstrates organic gardening techniques. The EcoScape is an example of how classrooms, schools, and communities can create outdoor learning spaces and areas of natural beauty in any setting.

The most successful field trips visits where students have been prepared for their visit and are challenged to reflect on the visit after they return to the classroom. Below you will find activities that can be completed before or after your visit. These plans can be used across grade levels, but specific Alabama Course of Study objectives are listed for each plan.

1. How Does Your Garden Grow?
2. Edible Plants
3. Regions of Alabama
4. Hiding in Plain Sight
5. Treasure Maps

A visit to the BSC Hugh Kaul Ecoscape meets the following objectives from the Alabama Course of Study:

#### **Kindergarten:**

##### *Science:*

- Compare size, shape, structure, and basic needs of living things.

LESSON: Edible Plants

LESSON: How Does Your Garden Grow

##### *Social Studies:*

- Identify vocabulary related to location and direction.

LESSON: Regions of Alabama

LESSON: Treasure Maps

- Identify representations of Earth using technology, maps, and globes.

LESSON: Regions of Alabama

LESSON: Treasure Maps

## **First Grade:**

### *Science:*

- Describe survival traits of living things, including color, shape, size, texture, and covering.

LESSON: Hiding in Plain Sight

- Identify components of Earth's surface, including soil, rocks, and water.

### *Social Studies:*

- Label human-made and natural resources in Alabama

LESSON: Edible Plants

LESSON: Regions of Alabama

- Identify ways to take personal action to protect the environment.

LESSON: Regions of Alabama

## **Second Grade:**

### *Social Studies:*

- Identify geological features as mountains, valleys, plains, deserts, lakes, rivers, and oceans

LESSON: Regions of Alabama

## **Third Grade:**

### *Social Studies:*

- Describe physical characteristics, including landforms, bodies of water, soil, and vegetation of various places on Earth

LESSON: Edible Plants

LESSON: Regions of Alabama

## **Fourth Grade**

### *Science:*

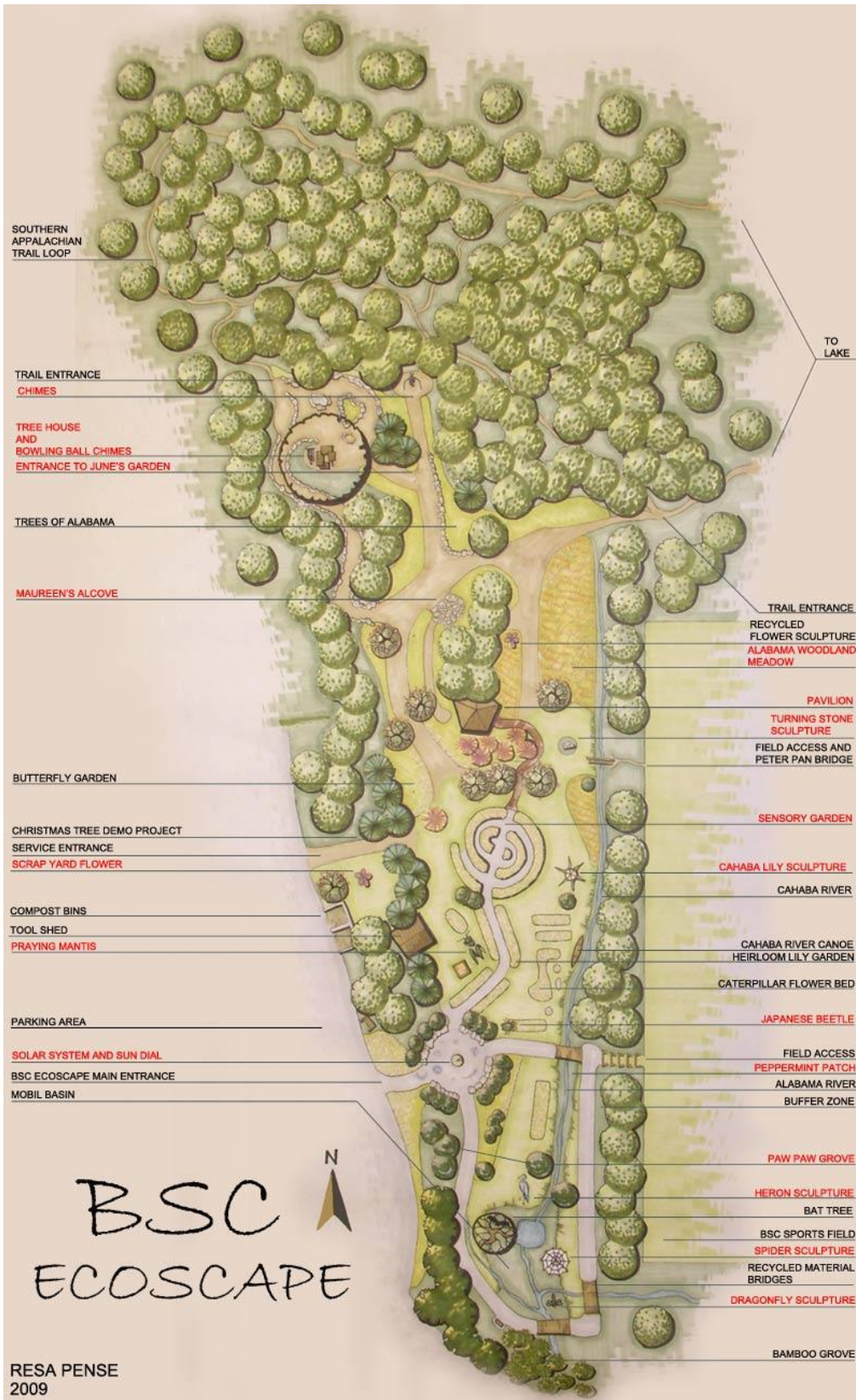
- Describe the interdependence of plants and animals.

LESSON: Edible Plants

### *Social Studies:*

- Describe the relationship of the five geographic regions of Alabama to the movement of Alabama settlers during the early nineteenth century.

LESSON: Regions of Alabama



3 Developed by Birmingham-Southern College and [www.trekbermingham.com](http://www.trekbermingham.com)



## How Does Your Garden Grow?

This activity can be used with any age group, but it specifically relates to the following Alabama Course of Study objectives:

Kindergarten *Science*:

- Compare size, shape, structure, and basic needs of living things.

This activity is intended to allow students to observe different structures of seeds and plants as well as the things plants need in order to grow. They will have the opportunity to observe a variety of plants at the EcoScape.

What you will need:

- At least three containers for planting (You will need three if you do this as a whole-class activity. You will need three for each child if you plan to do this as an individual activity.)
- Soil
- Bean Seeds, grass seeds, onion bulbs
- Water, sunshine, and time
- Magnifying glass (optional)
- Record-keeping sheets (See below)

Show children the three types of seeds (bean seed, grass seed, and onion bulb.)

Discuss the differences in the three kinds of seeds. (You might record the students' thoughts.) Ask students what types of plants will grow from the seeds. Discuss what the seeds will need in order to sprout and what they will need to do in order to nurture the plants.

Plant the seeds. Have students observe the pots each day and record what they see. The record-keeping sheet below could be used for that. Students can write or draw to record what they see.

At least once per week, have students gather to discuss the changes they have observed.

## How Does Your Garden Grow?

When I look at the seeds, I see:



Bean	Grass	Bulb

Each day when I look at the pots this is what I see:

Bean	Grass	Bulb

## Edible Plants

This activity can be used with any age group, but it specifically relates to the following Alabama Course of Study objectives:



Kindergarten *Science*:

- Compare size, shape, structure, and basic needs of living things.

First Grade *Social Studies*:

- Label human-made and natural resources in Alabama

Third Grade *Social Studies*:

- Describe physical characteristics, including landforms, bodies of water, soil, and vegetation of various places on Earth

Fourth Grade *Science*:

- Describe the interdependence of plants and animals

Some of The EcoScape plant beds contain edible plants. Students know that we eat many plants, but the plants they encounter in the EcoScape may be unfamiliar. This lesson reinforces the idea that plants help to sustain us, and it introduces students to plants they might not have known are edible.

What you will need:

- Hand sanitizer and napkins (for students to use while trying different edible plants)
- Information on any food allergies that students may have
- Various edible plants – Choose plants with which the children are familiar (apples, celery, spinach, potatoes, sunflower seeds, pumpkin seeds, etc.) as well as foods with which the children may be unfamiliar (wild asparagus, raw or bold clover leaves, chicory flowers, dandelion, etc.)

Start a discussion about the different parts of a plant we can eat. (Fruit, Leaves, Seeds, Stem, and Roots) Make a category list of these parts of a plant.

Show children the foods with which they are familiar and guide them to categorize these foods on the category list.

Show children the plants they may not know are edible. Guide them to categorize these foods.

Have a food tasting. Let the children discuss their preferences. As a follow-up activity to this, you might create bar graphs to show which plants students liked.

*Example of Category list*

Fruit: tomato, pepper,

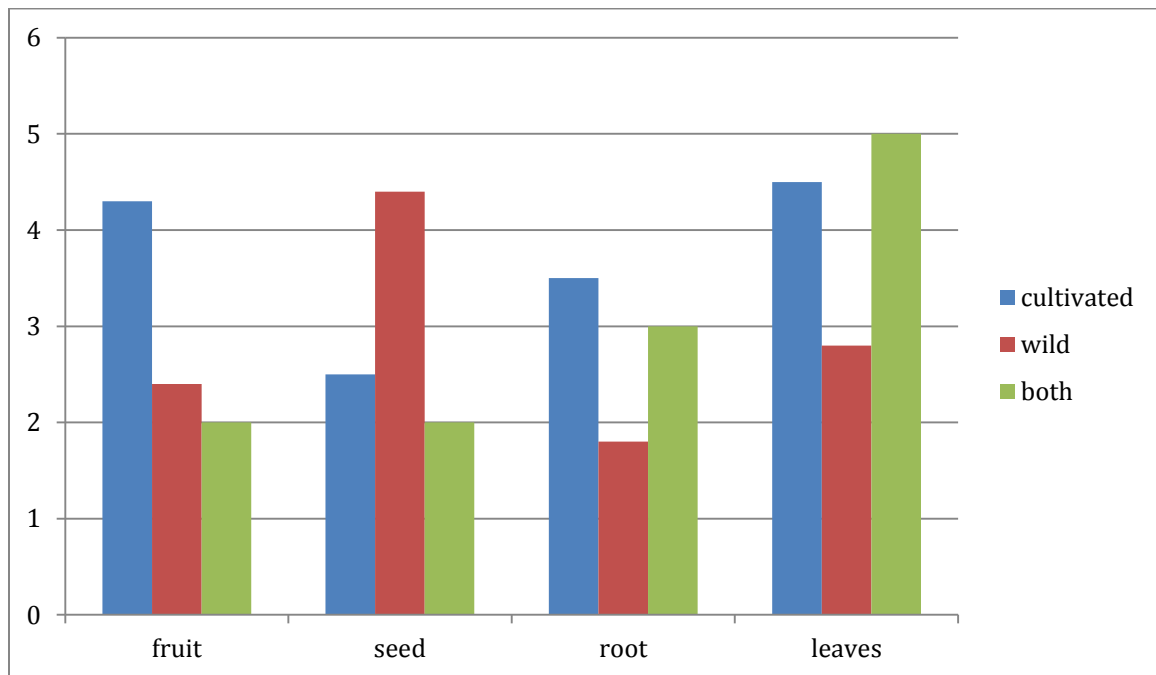
Leaves: lettuce, cabbage

Seeds: sunflowers, corn, peas

Stem: potatoes(tubers are underground stems), celery, asparagus

Roots: carrots, radish, beet

Flower Buds: broccoli, cauliflower, artichoke





## Regions of Alabama

This activity can be used with any age group, but it specifically relates to the following Alabama Course of Study objectives:

### Kindergarten *Social Studies*

- Identify vocabulary related to location and direction.
- Identify representations of Earth using technology, maps, and globes.

### First Grade *Social Studies*

- Label human-made and natural resources in Alabama
- Identify ways to take personal action to protect the environment.

### Second Grade *Social Studies*

- Identify geological features as mountains, valleys, plains, deserts, lakes, rivers, and oceans

### Third Grade *Social Studies*

- Describe physical characteristics, including landforms, bodies of water, soil, and vegetation of various places on Earth

### Fourth Grade *Social Studies*

- Describe the relationship of the five geographic regions of Alabama

The landscape design of the EcoScape is designed to mimic the geographical land regions of Alabama. At the southern edge of the EcoScape, children will see a representation of the Mobile basin. The EcoScape continues to the north with the Appalachian Mountains. This lesson will familiarize students with different areas of the state.

## What you will need:

- A map of the regions of Alabama (as can be found at <http://kids.britannica.com/comptons/art-143229?articleTypeId=31> )
- Resources for research (books, magazines, websites)
- Materials for students to use in order to present their research (poster paper, markers, brochure software such as Microsoft Publisher, etc)

Assign groups of students to research specific regions of Alabama.

Provide resources for student research (Alabama Virtual Library is a good source for this.)

Have each group prepare a presentation to show the rest of the class what they learned. (This could be a poster, a brochure, a newscast, etc.)



## Hiding in Plain Sight

This activity can be used with any age group, but it specifically relates to the following Alabama Course of Study objectives:



First Grade *Science*

- Describe survival traits of living things, including color, shape, size, texture, and covering.

While at the Ecoscape, children might see a variety of animals. There are more that they will hear but not see, and there are some that will see them, but the children will never know they are there without careful observation. This activity introduces the idea of animal camouflage.

### What you will need:

- several boxes of colored tooth picks (red, green, brown, yellow, blue, etc.)
- A outdoor grassy space to spread the toothpicks
- plastic zip bags
- a bar graph and crayons for each child to record their findings  
(*see a sample bar graph sheet below*)

Before the children arrive, scatter the boxes of toothpicks over a large area of grassy land.

Tell children that they are going on a “toothpick hunt”. Explain that they are going to go outside and be given 5 minutes to collect as many toothpicks that they can find. Distribute the bags and have the hunt.

Once back in the classroom, have students sort their toothpicks by color. Have students record their findings on using a bar graph. (see sample below).

Have a class discussion about their findings. Ask questions like: Which color did you find the most? Which color did you find the least? Why do you think the \_\_\_\_\_ toothpicks were easier/harder to find? How does this relate to animals? (This discussion can be very rich and cover the topic of animal camouflage.)

Red	Green	Brown	Yellow	Blue

## Treasure Maps

This activity can be used with any age group, but it specifically relates to the following Alabama Course of Study objectives:



Kindergarten *Social Studies*:

- Identify vocabulary related to location and direction.
- Identify representations of Earth using technology, maps, and globes. (making a simple map)

While this meets a kindergarten social studies objective, map reading and map-making require many skills that are developmental in nature. Very young children are not able to shift perspectives and “see” that a map is a representation of an area as seen from above. It is even more difficult for them to draw a map for this reason. This lesson allows children to view a map, to stand in the midst of the area and contemplate the map, and to reproduce the map themselves.

What you will need:

- tape (masking, duct etc)
- map of the BSC Ecoscape:  
<http://www.bsc.edu/sec/ecoscape/bscecoscape.cfm>
- paper, pencils, and other instruments to allow children to make their own maps

If your students are unfamiliar with vocabulary related to direction (north, south, east, west), begin by taping introducing these ideas. Find the cardinal orientation of your classroom. Make a compass simple compass rose on the classroom floor of the room. Discuss the directions with your students. Allow them to move around the room at your direction. This can be done as a group (“Everyone move to the north part of the classroom”) or as individuals (“Ciera, could you show us where eastern part of the classroom?”). If your students are advanced, you could introduce northwest, southeast, etc.

Show children a map of the BSC Ecoscape. Discuss the aspects of the map. On their visit to the EcoScape, provide each student with a map, and discuss their movements using vocabulary learned earlier. (“What will we see if we move north of where we are right now?”) If your students are less advanced, you might want to prepare a simpler map of the EcoScape than the one referenced above.

When student return to the classroom, provide a map of only the outline of the EcoScape. Have them add what they remember seeing by placing it on the map. They might discuss with the class their favorite aspects of the EcoScape using directions. (“My favorite sculpture is found east of the Sensory Garden.”)

