



Enrichment Activities-

Southern Environmental Center

The Southern Environmental Center offers many hands-on activities to help your students understand the importance of reducing, reusing, and recycling. They will also be challenged to consider their own role in protecting the planet.

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.

Lesson plans for use in your classroom:

Power Up: Be an Energy Detective

Recycled Art

Within These Walls: Reduce, Reuse, Recycle

Look At All That Water

A visit to the Southern Environmental Center using the lesson plans provided meets the following objectives from the Alabama Course of Study:

First Grade:

Science:

- Identify ways to conserve Earth's resources
LESSON: Power Up: Be an Energy Detective
LESSON: Recycled Art
LESSON: Within These Walls: Reduce, Reuse, Recycle
LESSON: Look at All That Water!

- Describe uses of recycled materials

LESSON: Recycled Art

Social Studies:

- Label human-made and natural resources in Alabama.

LESSON:

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

LESSON: Power Up: Be an Energy Detective

LESSON: Within These Walls: Reduce, Reuse, Recycle

LESSON: Look at All That Water!

Third Grade:

- Describe ways to sustain natural resources, including recycling, reusing, conserving, and protecting the environment.

LESSON: Power Up: Be an Energy Detective

LESSON: Recycled Art

LESSON: Within These Walls: Reduce, Reuse, Recycle

LESSON: Look at All That Water!

Fourth Grade:

Science:

- Describe how electrical circuits can be used to produce light, heat, sound, and magnetic fields. (Identifying ways to use and conserve electrical energy)

LESSON: Power Up: Be an Energy Detective

Power Up : Be an Energy Detective

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

First Grade Science:

- Identify ways to conserve Earth's resources.

First Grade Social Studies:

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

Third Grade Science:

- Describe ways to sustain natural resources, including recycling, reusing, conserving, and protecting the environment.

Fourth Grade Science:

- Describe how electrical circuits can be used to produce light, heat, sound, and magnetic fields. (Identifying ways to use and conserve electrical energy)

What you will need:

- Small individual notebooks for students to use while being “energy detectives”.
- Poster-size paper and marker(s)

Begin a discussion about electricity. What is it? When/why is it used? What is its source? What can we do to reduce the amount of electricity we use? Why would reducing the amount of electricity use benefit people individually and as a global community?

Record key points of the discussion on anchor charts. These will serve as reminders of things to observe at home in order to be an “Energy Detective”

Have students generate ideas about how they can save energy in their own homes. Record these ideas. Show children a few ways to check for energy waste at home:

- They can check for energy leaks by holding a ribbon up to the crack of a door or window to see if there is airflow.
- Have students feel the heat difference between incandescent and low-lumen light bulbs. *(This is an activity that will be demonstrated at the Southern Environmental Center.)*

Tell students that they will now become “Energy Detectives”. Distribute the small notebooks. Have the students record ideas (from the anchor chart) about conserving electricity.

Instruct students to take the notebooks home in order to see if their families are working to conserve energy. Tell them to talk to the people in their home about ways that they might conserve energy further.

After students have had the opportunity to be detectives, bring the class back together to share what they found. Expand and add to the list made previously.

You might find other ideas for literature, videos, and websites to support this activity in the classroom resources section of the website.

Recycled Art

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



First Grade *Science*:

- Identify ways to conserve Earth's resources.
- Describe uses of recycled materials.

Third Grade *Science*:

- Describe ways to sustain natural resources, including recycling, reusing, conserving, and protecting the environment.

What you will need:

- Pictures of recycled art by professional artists
- Pictures of recycled art done by students
- Materials often found in “trash” that can be used in student artwork
- Art materials such as glue, markers, butcher paper

Display pictures of recycled art produced by professional artists. Ask students to observe and identify the objects used in the artwork. Talk about why the artists might have chosen to use discarded or found objects. Have students generate ideas about why this might be important to our environment.

Ask students what they might create using “trash”. Show artwork created by students.

Provide students with an abundance of clean items that might have been discarded by others as well as art materials that can help them to reuse these items to create beautiful works of art. Display these in the classroom...and beyond! *You might find other ideas for literature, videos, and websites to support this activity in the classroom resources section of the website.*

Within These Walls: Reduce, Reuse, Recycle

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



First Grade Science:

- Identify ways to conserve Earth's resources.

First Grade Social Studies:

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

Third Grade Science:

- Describe ways to sustain natural resources, including recycling, reusing, conserving, and protecting the environment.

What you will need:

- Protective gloves
- Classroom garbage can and its contents
- Plastic sheet (such as a painting tarp)
- Three containers (one each for “reduce, reuse, recycle”)
- Scale (such as a bathroom scale)
- Poster-size paper and marker

Gather students in an area of the classroom where there is room to spread the plastic sheet.

Place the trashcan (with its contents) on the scale. Discuss this measurement with the students, and record the measurement and date on the poster-size paper. (This will be revisited throughout the next few days.)

Spread the contents of the trashcan onto the plastic tarp. (You might want to prepare for this activity by making sure students know not to put wet trash in the classroom trashcan.) Talk to the students about the amount of garbage, the impact of solid waste on the planet.

Put out the three containers labeled “reduce”, “reuse”, and “recycle”. Work with students to sort each item of trash into one of the containers if possible. If an item cannot be reduced, reused, or recycled, return it to the trashcan.

After the trash has been sorted, check the weight of the trashcan and its contents. Record this on the poster.

You can repeat this process for several days. Once you have recorded data on the weight of the trashcan, it can be used to make comparisons and conclusions. For example: On what day was there the biggest change in the before and after weight of the trash? The initial weight of the trash across the span of days can be graphed using a bar graph, and students can look for any patterns that have emerged.

You might find other ideas for literature, videos, and websites to support this activity in the classroom resources section of the website.

Look at All That Water!

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

First Grade Science:

- Identify ways to conserve Earth's resources.

First Grade Social Studies:

- Identify ways to take personal action to protect the environment

Third Grade Science:

- Describe ways to sustain natural resources, including recycling, reusing, conserving, and protecting the environment.

What You Will Need:

- Five one-gallon plastic milk jugs of water filled with water

Display the five water-filled milk jugs.

Ask students how many gallons of water they think it takes each time a toilet is flushed. Push forward 4 gallons of water and discuss that this is the average for older toilets. Explain that there are more efficient toilets. Show the children 2 gallons of water and explain that newer, more efficient toilets use less than 2 gallons on average. Discuss the advantages of the more efficient toilets.

Return the gallons of water to the display of five. Ask students how many gallons of water would be used if the faucet were left running while brushing teeth. Let students guess. Tell them that it would take all five gallons of water if they left their faucet running and brushed their teeth for the amount of time dentists recommend. Discuss ways to reduce the amount of water used while brushing teeth.

Ask students how much water it would take to have a 5-minute shower. Have them make predictions. Discuss that it would take 25 gallons of water. Discuss the fact that this would be five times more than the water on display.

Have students predict the average amount of water each person uses every day to brush teeth, flush the toilet, take a bath, and drink. Explain that the average is 100 gallons of water! Have students determine how many of the displayed gallons it would take to equal 100 gallons of water.

Discuss ways to conserve water.

Do not pour out the water. Use it to water classroom plants and/or provide water for class pets.

You might find other ideas for literature, videos, and websites to support this activity in the classroom resources section of the website.