



Children's Museum of Oak Ridge

Kids Go Green! “Eco-Friendly Projects”

Living things like people, plants, and animals make their home on our planet. How can you make your home or school a better place for us to live? You can by doing an eco-friendly project. Pick one of these six projects to help the earth be healthy! Teachers/leaders, please report back to the Children's Museum of Oak Ridge as to which eco-friendly project your class/group decided to complete.

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Project #1. Clean and Green

Some of the chemicals in household products can harm people, animals, and plants. They pollute the air, water, and soil when they are sprayed, go down the drain, or are thrown away. How can you keep your home or school clean without harming the environment? Make natural cleaning products! Here are some you can try:

Glass Cleaner:

- 1/2 cup of white vinegar
- 1 quart (4 cups) water
- A spray bottle

Mix the vinegar and water in the spray bottle. Spray the glass with the mixture. Wipe off the dirt with a rag or a newspaper.

Bathroom Cleaner:

- Baking Soda
- Water

Sprinkle baking soda on the sink, bathtub, or in the toilet bowl. Use a wet rag or toilet bowl brush to scour away dirt and stains.

Warning: Don't use this cleanser on things that scratch easily!

Furniture Polish:

- 1 ounce of lemon juice
- 2 ounces of cooking oil
- a plastic bottle

Mix the lemon juice and the olive oil in a plastic bottle. Pour a little bit on the furniture and polish with a clean, soft cloth.

Project #2. Project Recycle

Start a recycling center in your home or at school.

You will need:

- 4 big boxes or baskets. 1 will be for: aluminum/metal, 1 for paper, 1 for plastic, and 1 for glass.
- A sign for each box or basket. Attach each sign to a box or basket.

Check with an adult to get a list of items that are recycled in your community. Here is a checklist to help you begin.

Aluminum

_____ soda cans
_____ aluminum foil
_____ pie plates
_____ frozen food trays

Other Metal

_____ soup cans
_____ dog or cat food cans
_____ tuna fish cans

Plastic

- _____ milk containers
- _____ margarine tubs
- _____ water containers
- _____ vitamin bottles

Paper

- _____ newspapers
- _____ junk mail
- _____ magazines
- _____ grocery bags

Glass

- _____ tomato sauce jars
- _____ jelly or jam jars
- _____ juice bottles
- _____ oil or vinegar bottles

Project #3. Stop a Draft

Help seal up your house or classroom. Keep cold air out and warm air inside by making draft stoppers. Draft stoppers help to close up the spaces and cracks under doors and along windowsills so energy is saved.

You will need:

- A few large pieces of cloth or old towels
- Yarn or twine
- Buttons, ribbons, lace, bells, etc.

Twist the cloth or towel into a tube-like shape. Tie it with the yarn or twine.

You can make your draft stopper look like an animal. Use buttons for the eyes or even for a nose, or just decorate it.

Place your draft stopper against a crack in the bottom of the door or against a windowsill. You have become an energy saver!

Project #4. Cooking with the Sun

You can use the sun's energy to cook your food in the outdoors. By doing this, you are saving wood or fuel. In some places in the United States, there is very little dead wood left on the forest floor.

Try making the solar bowl cooker below so you can toast some marshmallows the next time you go on a school field trip or camping trip!

You will need:

- A large mixing bowl
- A roll of aluminum foil
- Marshmallows
- Long, pointed stick or long fork

1. Line the inside of the mixing bowl with aluminum foil. The foil should cover the inside of the bowl with the shiny side facing up.
2. Put your solar cooker in a bright, sunny place outside.
3. Now you must look for the hottest place in your cooker. Place your hand over the bowl until you feel heat. This is where you should hold your marshmallow.
4. Put a marshmallow at the end of your long, pointed stick or fork. Happy toasting!

Project #5. Recipe for a Mini-world

A terrarium is a small, enclosed world made up of living things, soil, water, and air. Its covering lets in light. The earth we live on is like a huge terrarium. Plants and animals need soil, water, air, and light in order to survive in both a terrarium and on the earth. If any of these things are missing or are damaged by pollution, the plants and animals will suffer. Make your own terrarium or class terrarium.

You will need:

- A clear, wide-mouthed jar (like a peanut butter jar)
- 2 handfuls of small rocks or sand.
- 2 handfuls of soil
- 1 handful of dead leaves
- some moss (look for it in a forest or vacant lot)
- several small ferns or plants from a forest, a vacant lot, or a plant store (DO NOT pick protected plants or over pick an unit. ASK permission to gather materials if you are not on your own property, and ask an adult to help with plant selections.)

Follow these steps to make your terrarium:

1. Cover the bottom of the jar with the sand. Then cover the sand with the same amount of soil. Spread it out on top of the sand. Next, place the dead leaves on top of the soil.
2. Using a pencil, tongs, or a chopstick, make holes in the covering. Then plant your plants. Use the moss to fill in around the plants after you have tapped the soil down gently.
3. Water your mini-world with a squeeze bottle or sprinkle water with your hands. Do not put in too much water--the covering should not be soaked.
4. Place the lid on your jar. Keep the lid closed. Your mini-world should now have everything it needs. Place the jar in a place that had good light, but not in the direct sun.

Each day watch for changes in your terrarium.

Project #6. Earth's Caretakers

As a class adopt a special outdoor place in your community or school for two or three months. Pick a place where there are always people around. Make sure you have permission to work in the area you have chosen. Remember to wear work gloves and have the right tools for the job. Here are five ideas:

Help the Street Trees on Your Block

Loosen the soil in each tree pit (the square where the tree is planted). This will allow more water and air to get to the roots. Do this a few times during the spring, summer, or fall.

Plant Flowers

Spring is a great time to grow flowers in your neighborhood for everyone to enjoy. Plant them around street trees, at a school, or at a nursing home. Go back to water them and pull out any weeds every week or two weeks.

Arbor Day: Plant A Tree Project"

Have the class work in small groups over the next few weeks to identify areas in the community or school yard that would be improved by planting a tree or trees. After the students have identified possible sites, have the group discussion about the feasibility of each site. Have students decide which site or sites should be planted. With proper supervision teams can work on different sites; it will up to your class to decide. Now, if necessary, have the students compose a letter to the appropriate people, agencies, or organization for permission to plant. After the students have received permission to plant, help them detail plans for their tree-planting project. You might contact Arbor Day Foundation, a local forester, UT

Extension agent, Children's Museum of Oak Ridge Garden Manager, UT Extension agent, or local nurseries may help with planning and carrying out planting.

Composting - "Making Soil"

Composting helps a garden produce food naturally by turning food trash into treasures!

Materials: Plastic bin with lid or an outdoor compost bin, newspaper, water, soil, food wastes, 1 pound of red wiggler earthworms (Contact your county Extension office or local bait shop or search online for sources of earthworms).

Procedures: 1. Drill small holes (about the width of a toothpick) around the base of the container about 1 inch from the bottom. Space the holes about one per inch. These holes allow air flow to and from the soil.

2. Next, add bedding to the bottom of the bin. Bedding can be made by shredding newspaper into inch-wide strips. Wet the strips by dipping them into water. Fill about 6 inches of the bottom of the bin with wet newspaper bedding.

3. Sprinkle a 1-inch layer of soil (organic mix) over the bedding, and sprinkle it with water to make the soil damp.

4. Then bury food scraps under the soil.

5. Now add your earthworms, and they will go to work!

Do a Litter Pick Up "Keep Tennessee Clean and Green"

The campaign group Keep Britain Tidy found from a recent survey that fast food eaters, chewing gum chompers, and cigarette smokers are mainly to blame for the litter that is on our streets. Ask your students how they think this problem can be remedied - what would they do if there wasn't a trash bin around for them to put their food rubbish in, for example?

Students need to understand the damage litter can do to wildlife and the environment, apart from looking awful and spoiling our streets, beaches, and countryside. For instance, rubbish thrown into rivers and streams can kill swans and ducks and pollute the water for fish and other animals. Organize a school grounds or community litter pickup and try to recycle the items that were picked up!

Obviously, great care should be taken when clearing and picking litter; gloves should be worn and sensible precautions should be taken; however, it needn't be a boring, dirty business! A school or community litter pickup could also spawn a fun craft project, with clean 'finds' turned into arty sculptures and 'makes'.