

## Earth Day Project Ideas: Grades 3-5

### Diary of a Recycled Product

**Instructions:** Write a creative short story or a cartoon strip about the life cycle of a product made of plastic, glass, paper, cardboard, aluminum or steel. Or write about an old computer, television or cell phone that is fixed and reused by someone who needs it. Use your imagination and think of ways the product could be reused in several ways or recycled and made into something completely different.

- Start with a brief outline, noting your beginning, middle and ending.
- Use your imagination and picture your can, bottle or whatever item you choose as an animated object.
- Include dialogue. What would your animated object say and think?
- Involve all of the senses to create vivid imagery of the settings.

As an extension, try writing two different endings: a sad ending and a happy ending. For instance, a sad ending for a plastic container could be 1,000 years of sitting in a landfill while its neighbors rot and break down around it; whereas a happy ending could involve all sorts of creative reuses in different homes and places, followed by being recycled into something new and exciting. Use the links below for inspiration and to check your facts.

#### Ideas to get you started:

A Day in the Life of a Recycled Can

[http://www.thinkgreen.com/recycle-what-detail?sec=metals&prod=aluminum-cans&tab=where\\_can\\_i\\_recycle](http://www.thinkgreen.com/recycle-what-detail?sec=metals&prod=aluminum-cans&tab=where_can_i_recycle)

Nine Lives of a Peanut Butter Jar

<http://www.epa.gov/osw/wycd/catbook/jar.htm>

Cartoon of Recycled Plastic Bag

<http://www.youtube.com/watch?v=16Fmlu8GDcc>

#### Resources for research:

ThinkGreen.com: Paper, cardboard, metal and glass recycling, step by step.

<http://www.thinkgreen.com/recycle-what-detail>

eHow: How plastic bottles, scrap metal, computers, etc. are made into new products or refurbished.

[http://www.ehow.com/topic\\_5596\\_recycling-basics.html](http://www.ehow.com/topic_5596_recycling-basics.html)

Animation clips explaining how paper, plastic, metals and glass are recycled.

[http://www.youtube.com/watch?v=gkQvN2ExjUY&feature=player\\_embedded](http://www.youtube.com/watch?v=gkQvN2ExjUY&feature=player_embedded)

HowStuffWorks: Recycling Aluminum

<http://www.youtube.com/watch?v=AOpGhAdQFEY>

HowStuffWorks: Recycling Cell Phones

[http://www.youtube.com/watch?v=sCU4o\\_Ce9PM&feature=related](http://www.youtube.com/watch?v=sCU4o_Ce9PM&feature=related)

## Plastic Bottle Eco-Planters

### Preparation:

Ask students to bring in a used, pre-washed soda or water bottle for this project. Teachers should bring in some bottles as well to supplement. Before class, print out some statistics about plastic bottles and plastic waste and recycling in general. Before, during or after making the soda bottle planters, use these stats to spark a discussion about the urgent need to "Reduce, Reuse and Recycle."

### Materials:

- 1 plastic bottle per student (2-liter or individual-size soda or water bottles—pre-washed, with caps)
- Exacto or craft knife
- sharp scissors
- potting soil
- pebbles
- seeds

### Instructions:

- Use scissors to remove label from bottle.
- Draw a line around your bottle to mark where it will be cut. Figure out an effective way to make a straight line. (One idea: Take a recycled aluminum can and rest a marker pen on top. Guide the can around the bottle as you mark a line. Another idea: Use a ruler to mark 6" points around the bottle. Curl a piece of paper or masking tape around the bottle as a guide to make a straight line.)
- Have your teacher help you cut the bottle with an Exacto knife or sharp scissors. Be careful, as the edges will be sharp.
- Cut a few slits in the bottom of the bottle (for drainage).
- Sprinkle some pebbles in the bottom (optional, if you have them), then fill halfway with soil.
- Plant seeds (only a couple if using a small bottle, more for large one).
- Gently water.
- Now put the top half of the bottle back on, gently squeezing to tuck it inside the bottom. Make a couple of vertical slits on the end of the top half if you have trouble making it fit.
- The final step: Make a pledge to reduce, reuse and recycle! Write your own personal message (like "I pledge to never, ever throw a plastic bottle in the trash" or "I pledge to only drink water out of a reusable bottle") and glue it onto a homemade cardboard tag. Cut a tag (in the shape of a flower or leaf) out of recycled cardboard. Tie it to the bottle cap or tape it onto a recycled straw or popsicle stick and insert it into the soil.
- Take your planter home and stick it in a sunny place. Put a plate underneath and remember to water lightly. Remove the lid every now and then if it gets too foggy. You'll soon see your plant sprout! Replant in your garden when ready.

Resources for discussion:

Plastic Recycling Fact Sheet – ThinkGreen.com

<http://www.thinkgreen.com/pdf/classroom/plastic-recycling-fact-sheet.pdf>

Plastic Recycling Facts – Earth911.com

<http://earth911.com/recycling/plastic/plastic-bottle-recycling-facts/>

Water Bottle Pollution – National Geographic Kids

<http://kids.nationalgeographic.com/Stories/SpaceScience/Water-bottle-pollution>

Plastic Facts & Statistics – Container Recycling Institute

<http://www.container-recycling.org/facts/plastic/>

A World of Reasons to Ditch Bottled Water

[http://www.treehugger.com/files/2007/07/reasons\\_to\\_ditch\\_bottled\\_water.php](http://www.treehugger.com/files/2007/07/reasons_to_ditch_bottled_water.php)

## **Endangered Animal Mobile**

Divide the class into different biomes. Use the same biome names used in your class curriculum (Tundra, Desert, Grassland, Tropical Rain Forest, Freshwater, Marine, etc.) Have each student choose a different endangered species from their biome.

Instructions to students: Using reference books and the Internet, research what kind of plants your animals depend on (e.g., bamboo, plankton). Draw and color a picture of your animal and also at least one plant it depends on for food. Or, print out pictures found online, but be creative and supplement by gluing on 3-D materials like real grass, straw, twigs, etc. Mount the pictures on cardboard and label each.

With help from your teacher, make group mobiles for each biome. Use string, yarn or recycled fishing twine to tie animals and plants to stabilizers like fallen tree branches and sticks. Or reuse plastic waste like 6-pack rings or egg cartons. Be creative, and figure out ways to show connections and interconnections in your biome.

Resources:

Animal Planet's Map of World Biomes

<http://animal.discovery.com/guides/mammals/habitat/map.html>

Ecoregions of the World

<http://www.nationalgeographic.com/wildworld/terrestrial.html>

World Wildlife Fund – Endangered Species Info

<http://www.worldwildlife.org/>

## Make Conservation Signs

Preparation: Round up a good supply of recycled paper and cardboard to use for signs.

Procedure: Ask students to make signs for different rooms of their homes to remind family members to conserve water and energy. Reminders could include:

- shut off television
- shut off game console
- turn off lights when leaving room
- turn off faucet while brushing teeth
- unplug phone chargers when finished charging
- turn off computer at end of day

Suggest that students decorate or illustrate signs by designing their own icons and symbols. Make sure they also research statistics and add text to explain how much energy can be saved.

Extension: Make energy conservation signs for the classroom as well. Consider having an "energy monitor" of the week who makes sure lights and machines are always turned off when leaving the room.

Discussion points:

Q: How can such small measures make a difference?

A: Making these small steps to reduce your "carbon footprint" on a daily basis really adds up. It does make a difference. Every time we use energy, we send more greenhouse gases out into the air. Every bit you can do to reduce your energy and water use will help reduce your carbon footprint. By reducing your carbon footprint, you reduce the impacts of climate change.

Q: How much energy can be saved by replacing regular lightbulbs with energy-efficient ones?

A: Compact fluorescent light bulbs (CFLs) use 75 percent less energy and last about 10 times longer than an incandescent bulb. If your families don't already use these, go home and sell them on the idea. Do your research first to tell them how much money can be saved on energy bills.

Resources:

Energy Kids / U.S. Energy Administration

<http://tonto.eia.doe.gov/kids/>

Your Carbon Footprint: Calculating, Reducing and Offsetting Your Impact

<http://www.treehugger.com/files/2008/02/carbon-footprint-green-basics.php>

Saving Energy – Energy Quest

[http://www.energyquest.ca.gov/saving\\_energy/index.html](http://www.energyquest.ca.gov/saving_energy/index.html)

Energy Hog's Interactive Games

<http://www.energyhog.org/>

Energy Star – CFL Light Bulbs

[http://www.energystar.gov/index.cfm?fuseaction=find\\_a\\_product.showProductGroup&pgw\\_code=LB](http://www.energystar.gov/index.cfm?fuseaction=find_a_product.showProductGroup&pgw_code=LB)