Celebrate Earth Day

Teach students to love and take care of our planet as they celebrate Earth Day on April 22.

Did You Know?

1. The first Earth Day was celebrated by the United States on April 22, 1970 to promote the preservation of the environment.
2. Today, people in over 140 countries celebrate Earth Day.
3. Rain forests cover only 2% of the Earth, but they contain half of all species in the world.
4. About an acre of rain forest is destroyed every second.

Literature Selections


Just a Dream by Chris Van Allsburg: Houghton Mifflin, Co., 1990. (Picture book, 48 pg.) After thoughtlessly littering, Walter has a dream about the future, where the world is an ugly and polluted place.

The Lorax by Dr. Seuss: Random House, 1971. (Story book, 61 pg.) The Lorax speaks for the trees, pleading with the Once-lor to stop cutting them down.


A Piece of the Earth

Gaylord Nelson, founder of Earth Day, thought if people learned to appreciate and love the Earth they would work to protect it. Help students learn to value their home planet by finding wonder in a small piece of it. Ask each child to bring to class something special from the Earth, such as a seashell, leaf, etc. Have her observe it, draw it in detail, and label it. Then, under her drawing, have each child answer the following questions about her object: What do you like about it?, How is it important to the environment?, What would the world be like without it? If desired, ask students to return the objects to the Earth, where they found them, then display the pictures and writings on a bulletin board with an enlarged Earth pattern (page 63).
Earth Sun Catcher

Celebrate the beauty of our blue planet with eye-catching and sun-catching Earth ornaments. Give each child a copy of the Earth pattern (page 63). Instruct him to place waxed paper on top of the pattern and sparingly sprinkle blue, white, green, and brown crayon shavings, using the Earth pattern underneath as a guide. Carefully place another piece of waxed paper on top, and a cloth on top of that. Have an adult press the layers with a warm iron, melting them together. Once cooled, let the child cut around the crayon in a circle, punch a hole at the top, and hang with yarn in a window.

Nature Journal

Make Earth-friendly journals to record observations and thoughts about the environment, like Henry David Thoreau did at Walden Pond. From 1845 to 1847, Thoreau, a writer, philosopher, and naturalist, lived alone in a cabin near Walden Pond in Concord, Massachusetts. Every day he wrote in his journal what he observed in nature. His journal was the basis for his famous book, Walden, which helped peak people’s appreciation for nature. Have each student choose a special place outside, either at school or at home, to observe daily and write about in a journal recycled from old worksheets and newspapers. Cut a sheet of newspaper 11” x 17" and gather several extra or used worksheets that have been printed on only one side. Arrange papers so the blank sides face up, then wrap the newspaper extra or used worksheets that have been printed on only one side. Staple along the fold on the left side. Encourage students to share excerpts from their journals with classmates.

Endangered Species

In the past 200 years, more than 75 species of animals became extinct. Read the book, Will We Miss Them?: Endangered Species (by Alexandra Wright: Charlesbridge Publishing, Inc. 1991), then let students spread the word about endangered animals with these wraparound reports. Have students research and write reports about endangered or threatened animals of their choice (refer to list below for suggestions). Next, have each student use construction paper to create a head, hands, feet, and tail for his animal. Tape the head above the report, the hands and feet to the sides, and the tail to the bottom. After sharing reports, let students display them on a bulletin board, grouped according to habitat (rain forest, desert, prairie, etc.).

Pollution

The Earth is made of air, land, and water, and all three elements are polluted every day because of human actions. On the board, label three columns air, land, and water. Discuss the importance of each for life on Earth, and then brainstorm things humans do to pollute each area. Give each student an Earth pattern (page 63) and have her lightly color it with green and blue pencils. Cut a cloud shape from white paper and glue it behind the pattern to represent air. Then, using a black pencil, write pollutants on each area of the Earth, covering the Earth and cloud, to show how pollutants can destroy the beauty of our planet. Display the polluted planets with the title, Don’t Cover Our Planet with Pollution!

Air Pollution Catcher

Even if the air around you doesn’t look dirty, it may be! Let students test the air they breathe. Give each child a piece of poster board. Let her cut it into a shape of her choice, and punch a hole at the top. Next, cover the poster board cutout with petroleum jelly on the front and back. Thread a twist-tie through the hole and attach to a branch outside, so the card can blow in the wind, but will not blow away. Have students choose different locations around the school to hang their pollution detectors. Students may wish to make more cards and tie them to their peers’ car bumpers. After several days, have students retrieve their cards and observe with a magnifying lens the particles collected in the petroleum jelly.

Water Contamination

Show students that even though water may not look polluted, it can still contain contaminants. Inform students that until the 1960s many farmers and chemical companies did not believe that unseen chemicals were polluting the water. Marine biologist Rachel Carson debunked this myth with her book Silent Spring (Houghton Mifflin, 1963). It revealed that DDT, a common pesticide, was seriously harming animals and the environment. Give each small group of students six clear plastic cups, a jug of clean water, and a dropper bottle of food coloring. Have students fill the first cup with water and add a drop of food coloring. Tell students that the food coloring represents a pollutant such as DDT. Next, have students pour half of the tinted water into the second cup and finish filling the second cup with clean water. Encourage students to record observations about the color of the water. Continue pouring half the tinted water into the next cup and filling it with clean water until the last cup is full. Students should observe that the final cup is almost completely clear. Ask students if there is food coloring in the last cup (even though it cannot be seen, there is still food coloring in the last cup). Relate the experiment to chemical pollutants in the water and inform students that water plants now filter drinking water.

Silent Spring

(Houghton Mifflin, 1963)
Nature Journal
Make Earth-friendly journals to record observations and thoughts about the environment, like Henry David Thoreau did at Walden Pond. From 1845 to 1847, Thoreau, a writer, philosopher, and naturalist lived alone in a cabin near Walden Pond in Concord, Massachusetts. Every day he wrote in his journal what he observed in nature. His journal was the basis for his famous book, Walden, which helped peak people’s appreciation for nature. Have each student choose a special place outside, either at school or at home, to observe daily and write about in a journal recycled from old worksheets and newspapers. Cut a sheet of newspaper 11” x 17” and gather several extra or used worksheets that have been printed on only one side. Arrange papers so the blank sides face up, then wrap the newspaper around them for a cover. Staple along the fold on the left side. Encourage students to share excerpts from their journals with classmates.

Endangered Species
In the past 200 years, more than 75 species of animals became extinct. Read the book, Will We Miss Them?: Endangered Species (by Alexandra Wright: Charlesbridge Publishing, Inc. 1991), then let students spread the word about endangered animals with these wraparound reports. Please research and write reports about endangered or threatened animals of their choice (refer to list below for suggestions). Next, have each student use construction paper to create a head, hands, feet, and tail for his animal. Tape the head above the report, the hands and feet to the sides, and the tail to the bottom. After sharing reports, let students display them on a bulletin board, grouped according to habitat (rain forest, desert, prairie, etc.).

Earth Sun Catcher
Celebrate the beauty of our blue planet with eye-catching and sun-catching Earth ornaments. Give each child a copy of the Earth pattern (page 63). Instruct him to place waxed paper on top of the pattern and sparsely sprinkle blue, white, green and brown crayon shavings, using the Earth pattern underneath as a guide. Carefully place another piece of waxed paper on top, and a cloth on top of that. Have an adult press the layers with a warm iron, melting them together. Once cooled, let the child cut around the crayon in a circle, punch a hole at the top, and hang with yarn in a window.

Pollution
The Earth is made of air, land, and water, and all three elements are polluted every day because of human actions. On the board, label three columns air, land, and water. Discuss the importance of each for life on Earth, and then brainstorm things humans do to pollute each area. Give each student an Earth pattern (page 63) and have her lightly color it with green and blue pencils. Cut a cloud shape from white paper and glue it behind the pattern to represent air. Then, using a black pencil, write pollutants on each area of the Earth, covering the Earth and cloud, to show how pollutants can destroy the beauty of our planet. Display the polluted planets with the title, Don’t Cover Our Planet with Pollution!

Air Pollution Catcher
Even if the air around you doesn’t look dirty, it may be! Let students test the air they breathe. Give each child a piece of poster board. Let her cut it into a shape of her choice, and punch a hole at the top. Next, cover the poster board cutout with petroleum jelly on the front and back. Thread a twist-tie through the hole and attach to a branch outside, so the card can blow in the wind, but will not blow away. Have students choose different locations around the school to hang their pollution detectors. Students may wish to make more cards and tie them to their parents’ car bumpers. After several days, have students retrieve their cards and observe with a magnifying lens the particles collected in the petroleum jelly.

Water Contamination
Show students that even though water may not look polluted, it can still contain contaminants. Inform students that until the 1960s many farmers and chemical companies did not believe that unseen chemicals were polluting the water. Marine biologist Rachel Carson debunked this myth with her book Silent Spring (Houghton Mifflin, 1963). It revealed that DDT, a common pesticide, was seriously harming animals and the environment. Give each small group of students six clear plastic cups, a jug of clean water, and a dropper bottle of food coloring. Have students fill the first cup with water and add a drop of food coloring. Tell students that the food coloring represents a pollutant such as DDT. Next, have students pour half of the tinted water into the second cup and finish filling the second cup with clean water. Encourage students to record observations about the color of the water. Continue pouring half the tinted water into the next cup and filling it with clean water until the last cup is full. Students should observe that the final cup is almost completely clear. Ask students if there is food coloring in the last cup (even though it cannot be seen, there is still food coloring in the last cup). Relate the experiment to chemical pollutants in the water and inform students that water plants now filter drinking water.
Pollution Solutions

Earth-Friendly Cleaners
Keep your home environment sparkling clean without harming our environment. Harsh chemicals in commonly-used household cleaners can end up in the water, the ground, and even in our eyes and lungs. Copy the Earth-friendly cleaning recipes (page 64) for each child. Let her decorate the cards, cut them apart, and glue to used index cards for durability. Have students take the Earth-friendly cleaning recipes home to share with their families.

Teach students to reduce the amount of garbage put into landfills each year by composting. Explain that a landfill is a large hole that is filled with solid waste, such as paper, cans, food scraps, etc. Even though food and yard waste is biodegradable, often it cannot properly decompose in a landfill due to lack of moisture and air. Composting these biodegradable items reduces the amount of materials put in landfills and turns them into a rich soil that fertilizes plants.

To compost outdoors, alternate layers of soil, food scraps, leaves, and grass clippings and keep moist. Cover with a tarp in rainy weather. Mix the pile every week to aerate and circulate the materials to different areas of the pile.

A mini-composting station can be made in a clear, plastic container. Add soil to the bottom of the container, and then layer yard clippings and food waste. Continue layering, sprinkling water between layers (do not soak). Cover with plastic wrap, pricked with a pin, and let the mixture sit for several weeks. Stir the compost each week and keep moist. Let students observe the materials decomposing in the compost. If possible, keep the mini-composting station in a covered place outdoors, because the decomposing materials may have a noticeable odor. Use the compost for class planting projects, such as Sprout Necklace (below).

Composting

Sprout Necklace
Clear the air by sprouting new plants in necklaces! Inform students that when plants make their food, they replace carbon dioxide in the air (produced by animal respiration and the burning of fossil fuels) with oxygen. Carbon dioxide in the atmosphere absorbs heat—keeping our planet warm for plants and animals to live. However, too much carbon dioxide in the atmosphere can make the Earth too hot—a condition some scientists refer to as global warming. Ask each child to bring in a small clear plastic bottle, such as a film canister. Wet a piece of cotton or paper towel and place inside the bottle along with two or three easy-to-grow seeds, such as radish or marigold. Replace the cap, tie a string around the bottle, and tie the ends together to form a large loop.
Let students wear their sprout necklaces until they germinate, then plant the seeds in a flowerpot, using the compost from the Composting activity (above).

Lighten Your Load
The average American produces four pounds of trash every day. Work to reduce the amount of trash students produce at school. For one day, have students place as much of their garbage as possible in the same trash bag, including trash from lunch, paper towels from the bathroom, and any papers, pencils, etc., thrown away in class. To easily measure the weight of the trash, weigh a student volunteer first with and then without the trash bag. Have students subtract the second measurement from the first to determine the weight of the garbage. Record the weight of the garbage and the date. Then, encourage students to work on reducing their trash (see Slash the Trash below for ideas). At the end of the week, repeat the experiment and see how much garbage was reduced. If desired, weigh items that your class collects for recycling so students can see what they have saved from the landfill. Have students try the same experiments at home to encourage their families to reduce trash production.

Redesign Packaging
More than one third of U.S. garbage comes from packaging. Challenge students to redesign the packaging of several products in ways that would reduce garbage. Give pairs of students a packaged product, such as cereal, potato chips, a boxed toy, etc. Have each pair look at the product and its packaging, and determine what parts of the packaging are not necessary. Ask students to design packages for their products that use less material or recyclable material. Have each pair present their new packaging to the class. Older students may wish to write letters to the companies that package the products, informing them of their ideas. Remind students that they can also reduce the use of packaging materials by not taking a bag when items can be carried out of a store without one or by bringing reusable bags when shopping.

Reduce

Slash the Trash
Start a classroom campaign to slash the trash. Have students brainstorm ways they can reduce trash at school. For example: write on fronts and backs of paper, bring a lunch box instead of a paper bag, use pencils after the eraser is gone, etc. Write the trash reducing tips on the board as reminders. Do your part by having a week of no worksheets, giving students oral assignments, writing assignments on the board, etc. Test the class’s efforts with Lighten Your Load (above). Have children visit other classrooms, telling students how they can slash the trash!
Conservation Cops

Resources on Earth are limited and many cannot be replaced. Teach students that saving water and energy is not only good for the Earth, but is easy, too! Read the book *Dinosaurs to the Rescue* by Laurie Krasny Brown (Little Brown & Co., 1994) and if desired, provide students with facts about wasting water and electricity. For instance, one flush of a toilet uses five gallons of water (show a gallon jug for reference) and 500,000 barrels of oil would be saved each day if every household lowered the heat 6°. Brainstorm things students and their families can do at home to help conserve water and electricity. Have each child create a poster with conservation tips and Earth-friendly designs, such as the Earth pattern or the recycling symbol pattern (page 63). Ask the children to take their posters home and encourage their families to follow some of the water and energy conservation ideas.

Energy Saving Snake

Energy is wasted when heat or cool air escapes through spaces under doors and windows. Show students how they can reuse old clothes to make cute draft stoppers and save energy. Gather enough pairs of old, clean stockings and tights for half the number of students in the class. Cut off the legs and give one to each student. Let her stuff the leg with the tops of the stockings and other old clothes or clean rags. Tightly tie the open end closed with a piece of yarn and decorate to look like a snake by sewing or gluing on fabric scraps, buttons, etc.

National Parks Project

Let students act as tour guides to teach classmates about U.S. national parks. President Theodore Roosevelt helped protect 230 million acres of public land as national parks, national monuments, wildlife refuges, and national forests. In 1916, the National Park Service was established to help protect the environment in these areas for future generations to enjoy. Divide the class into several small groups and assign each a national park to research, such as Redwood National Park, Everglades National Park, or Hawaii Volcanoes National Park. Have students learn where the park is located and what kinds of natural land formations, wildlife, etc., can be seen there. Then, ask each group to act as tour guides from their park and take the class on an imaginary trip to the park. Students may wish to make props of mountains, animals, plants, etc., to enhance their presentations.
**Furniture Polish**

2 cups olive oil
1 cup lemon juice

Mix together until well blended. Use a clean, soft cloth to apply to furniture.

**All-Purpose Cleaner**

4 tablespoons baking soda
4 cups warm water

Dissolve baking soda in warm water. Apply with a sponge. Rinse with clear water.

**Window Cleaner**

3 tablespoons white vinegar
4 cups water

Combine ingredients in a spray bottle. Spray on glass or mirrors and wipe with a clean, dry cloth.

**Brass Polish**

2 tablespoons flour
2 tablespoons salt
1 tablespoon water

Mix into a thick paste. Rub with a soft cloth onto brass. Rinse with water and dry with a clean, dry cloth.

**Drain Cleaner**

1/2 cup baking soda
1 cup white vinegar

Pour baking soda down drain and follow with vinegar. Cover drain until fizzing stops. Flush drain with boiling water.

**Silver Polish**

Aluminum foil
Baking soda
Salt
Warm water

Place a sheet of aluminum foil in the bottom of a glass bowl. Sprinkle with baking soda and salt. Fill the bowl with warm water and soak silver. When clean, dry silver with a clean, dry cloth.

**Brass Polish**