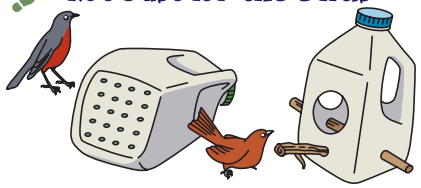
Planet Protectors Club

Calendar of Activities

Plan a year of fun for kids in K-3 while learning about reducing, reusing, and recycling waste.

September
Reuse: Not Just for the Birds



October
Discovering Nature's Packaging

November
Take-Home Recycling Kit

December
Eco-Swap

January
Follow That Bottle

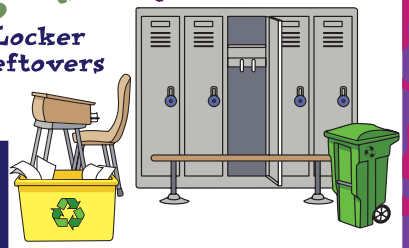
February
Love Letters to the Earth

March
Mr. Yuk Means Poison Help!

April
Handmade Recycled Paper Planters

May
Trash Art

June
Locker Leftovers



EPA

Get Ready to Learn about Reducing, Reusing, and Recycling Waste...

And Have Fun Too!

The U.S. Environmental Protection Agency (EPA) designed this 10-month Planet Protectors Club Calendar Kit as a resource for teaching the concepts of reducing, reusing, and recycling waste to children in grades K-3. The kit contains a large poster for teachers or group leaders and a smaller version for each child in the program, along with a set of stickers to track children's progress in completing the activities.

Most of the activities, with noted exceptions, are based on *The Quest for Less*, EPA's solid waste resource for teachers and kids in grades K-8. Simple, step-by-step instructions and a list of the materials needed are included for each activity. With the exception of "Handmade Recycled Paper Planters," each activity takes approximately one hour to complete. From turning trash into treasure to identifying environmentally harmful products in the home, these hands-on activities provide 10 months of fun and education.

Additional background information about topics featured in this calendar, plus more great ideas for activities you can do with your children, can be found in *The Quest for Less*. Visit EPA's Office of Solid Waste Educational Resources Web page at <www.epa.gov/epaoswer/education> to order *The Quest for Less* or for additional resources.

September

Reuse: Not Just for the Birds

For this activity, children will learn how to make useful objects from items—that might ordinarily be thrown away or put in the recycling bin—through reuse.

Materials Needed:
- Plastic milk jugs with caps
- Glue
- Scissors
- Paint and/or colored markers
- Two 1-foot-long sticks of wood per bird feeder (these can be from a nearby park or even the school grounds) per child
- Birdseed

Activity Steps:
Before You Start: Instruct children to bring in empty and clean milk jugs from home. You might also want to build the milk jug bird feeder beforehand and bring it in as an example for the children to follow.

Step 1: Introduce the concept of reuse. Explain to children that reusing items is a great way to reduce the amount of waste going to landfills because they are finding another use for the item rather than throwing it away.

Step 2: With your supervision and/or help, instruct children to cut out two large holes on different sides of the milk jug. This is where the birds will enter the feeder.

Step 3: Give each child two, 1-foot-long pieces of wood. These wooden pieces will go through the bird feeder, providing the birds with a perch to sit on. Help the children to trace a circle below each of the large holes on the milk jug to match the diameter of their sticks. Cut out the tracing and insert the wooden pieces through the new holes.

Step 4: Puncture small holes in the bottom of the jug to allow rainwater to drain.

Step 5: Using markers and/or paints, have the children decorate their feeders.

Step 6: Give children birdseed to put in their feeders. They can take the feeders home or hang them outside the school.

Step 7: After completing the activity, give each child a Planet Protectors Club globe sticker for their own calendar!

For More Information
- *Source Reduction* Teacher Fact Sheet on page 79 of *The Quest for Less*

October

Discovering Nature's Packaging

Children will circle and color items that have their own natural packaging as explained on the *Find Nature's Packaging* worksheet. Copies of the worksheet can be found in *The Quest for Less*, page 84.

Materials Needed:
- One copy of the *Find Nature's Packaging* worksheet per child
- Crayons or markers

Activity Steps:
Step 1: Talk with children about the purposes of packaging. Have them list some items that have packaging that protects products, keeps food fresh, or gives instructions for how to use the product.

Step 2: Discuss how some food products have their own natural packaging that protect the part people eat. If possible, bring in examples of items that have natural packaging (e.g., bananas, unshelled nuts, oranges) and others that do not (e.g., cheese, crackers, soda). Discuss how nature's packaging can be used in compost, which returns materials back to the Earth.

Step 3: Distribute the *Find Nature's Packaging* worksheet and pass out crayons or markers. Ask the children to circle the items that have natural packaging. Discuss why they circled the items.

Step 4: Ask the children to color the items on the worksheet.

Step 5: After completing the activity, give each child a Planet Protectors Club globe sticker for their own calendar!

For More Information
- *Source Reduction* Teacher Fact Sheet on page 79 of *The Quest for Less*
- *Composting* Teacher Fact Sheet on page 141 of *The Quest for Less*

November

Take-Home Recycling Kit

Children will assemble a take-home recycling kit, which can be used to encourage recycling at home. For background information about recycling, refer to the *Recycling Facts* handout on page 119 of *The Quest for Less*.

Materials Needed:
- One copy of the *Recycling Facts* handout per child
- Old magazines and newspapers
- Used cardboard
- Construction paper
- Markers and/or paint
- Glue
- Scissors
- Any other arts and crafts supplies available

Activity Steps:
Step 1: Explain what recycling is. Review the information on the *Recycling Facts* handouts with the children, pointing out the environmental benefits of recycling.

Step 2: Have each child cut the old cardboard boxes into four 8 ½ - by 11-inch pieces and glue different colored sheets of construction paper to each side of the cardboard. Connect each piece of cardboard with tape to form a placard that can stand on a table. Instruct the children to label each cardboard piece with one of the following recyclables: aluminum, glass, plastic, and paper.

Step 3: Have children cut out or draw the appropriate recyclable for each cardboard placard using the magazines, newspapers, markers, and paints. Ask them to write information about recycling on each placard. Optional recycling facts are included on the *Recycling Facts* handout, which might assist children in this task.

Step 4: When the children are finished decorating, ask them to take their placards home. To encourage families to recycle, ask the children to set the placards where their families keep their recyclables or their trash. Encourage the children to share the information they learned about recycling with their parents. Explain how the placards serve as friendly reminders of the importance and benefits of recycling.

Step 5: After completing the activity, give each child a Planet Protectors Club globe sticker for their own calendar!

For More Information
- *Recycling* Teacher Fact Sheet on page 101 of *The Quest for Less*
- *Recycling Facts* handout on page 119 of *The Quest for Less*

February

Love Letters to the Earth

*Note: This activity is not part of *The Quest For Less*.

For this activity, children will write letters or draw an illustration describing: 1) what they like about the Earth, 2) what they do now to reuse products or recycle, and/or 3) what they can and will do in the future to reuse products or recycle.

Materials Needed:
- Pencils and paper
- Various colors of construction paper
- Crayons or markers

Activity Steps:
Step 1: Ask children to think about the Earth. Write their thoughts on the blackboard for all to see. If children run out of ideas, ask them stimulating questions like:
- Where is your favorite place on Earth?
- What colors make you think of the Earth and why?
- What do you enjoy about nature?

Step 2: Ask the children to think about recycling and how they can reuse products. Write their thoughts on the blackboard. Some follow-up questions might include:
- What does it mean to recycle?
- Why are reuse and recycling good?
- How many people in the group recycle?
- What are some examples of items that can be reused or recycled?

Step 3: Discuss the thoughts and ideas on the blackboard. In preparation for Step 4, ask the children what they can do to protect the Earth and write some of these ideas on the blackboard.

Step 4: Give each child a piece of construction paper and markers and crayons. If they can write, ask the children to write a letter to the Earth explaining what they like about it, what they do to reduce waste and recycle, and/or what they will do in the future to reduce waste or recycle. If they are not yet proficient writers, ask the children to instead draw a picture of the Earth or a scene that includes recycling and reuse activities. Encourage children to use some of the ideas on the blackboard as they compose their letters and drawings.

Step 5: Hang the children's letters and drawings around the room or ask children to take them home to share with their parents, guardians, or other family or friends.

Step 6: After completing the activity, give each child a Planet Protectors Club globe sticker for their own calendar!

January

Follow That Bottle

Children will learn about the entire recycling cycle, which includes buying items made with recycled-content materials. For the activity, children will follow the path of the bottle in the *Follow That Bottle!* worksheet. For a copy of the *Follow That Bottle!* handout see *The Quest for Less*, page 114.

Materials Needed:
- One copy of the *Follow That Bottle!* worksheet per child
- Crayons or markers

Activity Steps:
Step 1: Using the storyline in the *Follow That Bottle!* worksheet, discuss the life of a recyclable item, such as a plastic bottle, after it is placed in the recycling bin. Explain that items such as bottles, cans, and newspapers can be made into new products—either the same kind of product or a completely different product—if they are recycled instead of thrown away.

Step 2: Read and then distribute the *Follow That Bottle!* worksheet and instruct the children to follow the bottle by coloring it with crayons as it is used, recycled, remanufactured, and made into a new product. As the children color, ask them what they think is happening in each section of the picture. Ask them, for example, if anyone has been to a factory or if they recycle at home.

Step 3: After talking about the life of the bottle, children can color the rest of the storyboard.

Step 4: After completing the activity, give each child a Planet Protectors Club globe sticker for their own calendar!

For More Information
- *Recycling* Teacher Fact Sheet on page 101 of *The Quest For Less*

December

Eco-Swap

*Note: This activity is not part of *The Quest For Less*.

Children will learn about waste reduction and reuse by creating a decorated "piggy bank" out of old egg cartons to "swap" with another child.

Materials Needed:
- One old egg carton per child
- Construction paper
- Markers or crayons
- Scissors
- Glue
- String, stickers, and other arts and crafts supplies available

Activity Steps:
Step 1: Ask each child to bring in an old, clean egg carton from home. (You should also bring in a few extras just in case a child forgets or does not eat eggs.)

Step 2: Write down all the children's names on small pieces of paper and place the names in a hat. Ask each child to pick out a name, making sure that they do not pick their own name, and have the children keep the names a secret. Each child will then create and decorate an egg carton piggy bank which will be given to the child whose name they drew from the hat.

Step 3: Before decorating the egg cartons, discuss with the children how reusing the egg cartons as piggy banks will help reduce waste. Refer to the *Source Reduction* Teacher Fact Sheet for background information.

Step 4: Have the children decorate the egg cartons with crayons, markers, stickers, and the other arts and crafts supplies that you have provided. Help the children cut slits into the lid of the carton to drop coins into.

Step 5: When all the children are finished, have them sit in a circle and one by one "swap" their piggy bank to the child whose name they drew from the hat.

Step 6: After completing the activity, give each child a Planet Protectors Club globe sticker for their own calendar!

For More Information
- *Source Reduction* Teacher Fact Sheet on page 79 of *The Quest for Less*

March

Mr. Yuk Means Poison Help!

Children will learn how to identify household products that might be harmful to them, their family, and the environment through the well-known symbol of Mr. Yuk. Harmful household products are those that contain corrosive, toxic, ignitable, or reactive ingredients and should not be stored within reach of children. Copies of the Mr. Yuk worksheet can be found in *The Quest for Less*, page 57.

Materials Needed:
- One copy of the Beware of Mr. Yuk worksheet per child
- Crayons or markers for each child

Activity Steps:
Step 1: Put an enlarged picture of Mr. Yuk on the blackboard and ask children if they have seen it before, and if so, where. Ask what they think Mr. Yuk means. Tell the children that Mr. Yuk helps them learn about which things in the home might be harmful if swallowed, spilled on the skin, splashed in the eyes, or inhaled. Point out that Mr. Yuk also has an important nationwide toll-free telephone number on his face. Instruct the children to call that number if they think a poisoning has occurred. Discuss with the children why they should stay away from harmful products, explaining how harmful products can burn their skin, hurt their eyes, give them a bad stomachache if swallowed, or even require a trip to the hospital. Also, talk with the children about what they should do if they find a "yucky" product that has spilled.

Step 2: Distribute crayons, markers, and copies of the Beware of Mr. Yuk worksheet, which shows a house with many commonly found household products. Instruct the children that they need to find the products in the picture with a Mr. Yuk face on them. Explain that if they see a Mr. Yuk face on a product, it means that the product could hurt them. Add that other products can also be harmful even if they don't have a Mr. Yuk face on them. They can find out about these and other products by calling the phone number on Mr. Yuk's face.

Step 3: Ask the children to color only the Mr. Yuk stickers they see on products in the picture. Children can work individually or in groups. Discuss why they colored the items. After the discussion, children can color the entire scene.

Step 4: After completing the activity, give each child a Planet Protectors Club globe sticker for their own calendar!

For More Information
- *Hazardous Waste* Teacher Fact Sheet on page 51 of *The Quest for Less*
- Children's Hospital of Pittsburgh Web site: www.mryuk1.com

For a free sheet of Mr. Yuk stickers, Planet Protectors Club Members can send a self-addressed and stamped #10 envelope to:

Free Mr. Yuk Stickers
Pittsburgh Poison Center
3705 Fifth Avenue
Pittsburgh, PA 15241

"Mr. Yuk" is reprinted with permission of the Children's Hospital of Pittsburgh.

April

Handmade Recycled Paper Planters

*Note: This activity takes approximately four days to complete, so make sure you allow enough time to finish the activity.

For this activity, children will make planters from old newspapers and other reusable, recyclable, or compostable items.

Materials Needed:
- Large stack of newspapers
- Scissors
- Three to five 2-gallon buckets
- Water
- Egg beaters
- Magnifying glass or microscope
- Plant seeds for each child
- Planting soil
- Drinking cups (try to reuse a cup-shaped container instead of disposable paper drinking cups. For example, you could use reusable plastic drinking cups, plastic planter molds, or small milk containers.)

Activity Steps:
Step 1: Explain the concepts of recycling and decomposition to the class and how the children can conserve natural resources by making items from recyclables instead of from scratch.

Step 2: Then discuss how paper is made from trees and how paper can also be made from recycled materials such as old newspapers, used office paper, and even fibrous materials like cotton, papyrus, or rags. Then, talk about the environmental benefits of making paper from recycled materials rather than from trees.

Step 3: To prepare the pulp for the planters, have each child cut up two full pages of newspaper into ½- to 1-inch square pieces. Ask child volunteers to fill the buckets ⅔ full with water. Then, fill the remaining ⅓ full with paper (1 part paper to 2 parts water). Let the mixture sit overnight. By the next day, the newspaper fibers will be soft and ready to pulp. ***To save time, you might want to prepare the pulp mixture ahead of time rather than have the children do it.***

Step 4: Once the pulp mixture is ready, have the children take turns pulping the fibers with the hand beater or with their hands until the paper and water look like mush. Explain how the pulping process breaks down the fibers into a form that can be bonded together again to make recycled paper. Using the magnifying glass or microscope, have children look closely at the pulp to see the loose wood fibers.

Step 5: Give each child a cup-shaped container. Instruct them to mold the pulp to the inside of the cup, squeezing out as much of the water as possible. The pulp should be ¼- to ½-inch thick on the inside of the cup.

Step 6: Let the pulp dry completely throughout the next three days.

Step 7: After the pulp has dried, take the handmade recycled cup out of the drinking cup or cup-shaped container.

Step 8: Give each child a seed and instruct them to plant it in the recycled cup using the planting soil. Discuss how much sunlight and water their plants need to grow.

Step 9: Send the children home with their planters when the seedlings have sprouted and are ready to be planted in the ground. Instruct the children to place the whole cup with the plant in it into the ground. Discuss how the planter will decompose in the soil and the plant will take root in the ground. Explain that they have just completed the recycling loop by sending the nutrients from the paper pulp back into the soil. Children in an urban setting could either plant their seedlings in a pot at home, plant them in a local park, or decorate their planters and donate the seedling to a local nursing home.

Step 10: After completing the activity, give each child a Planet Protectors Club globe sticker for their own calendar!

For More Information
- *Natural Resources* Teacher Fact Sheet on page 5 of *The Quest for Less*
- *Recycling* Teacher Fact Sheet on page 101 of *The Quest for Less*
- *Composting* Teacher Fact Sheet on page 141 of *The Quest for Less*

May

Trash Art

Children will learn how to transform trash into treasure by creating a trash mural from collected pieces of home garbage and images of disposable items from magazines.

Materials Needed:
- One copy of a parent's note for each child. For a sample *Parent's Note*, see page 61 of *The Quest for Less*
- One tarp or drop cloth
- 10 to 12 magazines (with numerous everyday product advertisements)
- Clean garbage (brought in by children), such as cereal boxes, empty soda cans, used wrapping paper, plastic juice bottles, and bottle caps*
- Art supplies (enough for the class):
  - Three to four sheets of colored construction paper per child
  - Glue
  - Tape
  - Scissors
  - Markers or crayons
  - Glitter

Note: Children should not be allowed to bring in items like glass, jagged metal, or food due to safety and sanitation issues.

Also, this activity is for children who are able to handle scissors safely.

Activity Steps:
Before You Start: Send children home with a parent's note, which explains the activity and asks them to help the children collect two pieces of clean garbage for the activity.

Step 1: Lead children in a discussion of what garbage is and where it came from. Ask them if they know how to identify garbage.

Step 2: Lay a tarp on the floor and have the children sit in a circle around it. Ask them to spread out their pieces of garbage on the tarp. Go around the room and ask each child to describe what kind of garbage they brought in. Explore how children knew the item was garbage and what its purpose was before it became garbage. Encourage the children to compare and contrast the shapes, colors, and sizes of the garbage on the tarp.

Step 3: Divide the class into pairs and distribute a magazine and scissors to each pair. Tell the children to look for pictures of objects or products that are only used once and then thrown away. Ask the children to cut out as many of these objects as they can. Go around the room to discuss what pictures were chosen and why.

Step 4: Distribute the rest of the art supplies. Instruct children to use their magazine pictures and trash objects to make a collage by gluing them onto the construction paper. Then, help the children tape their construction paper up on the classroom wall to form a colorful trash mural. Children can also bring their collages home to share with their families.

Step 5: After completing the activity, give each child a Planet Protectors Club globe sticker for their own calendar!

June

Locker Leftovers

Children will apply all that they learned about waste management throughout the year as they clean out their lockers, desks, or other personal spaces at the end of the school year.

Materials Needed:
- Contents of children's lockers/desks
- Drop cloth
- Recycling containers
- Several bins or boxes (to separate reusable items)
- Trash container
- Scale

Activity Steps:
Step 1: Label a separate bin or box for each category of reusable item (e.g., pens and pencils, notebooks and blank paper, reading books). Place these with the recycling and trash containers in a place where all children can easily access them while they're cleaning.

Step 2: Review with children all they learned about trash, reuse, and recycling throughout the year. What types of materials can be reused or recycled rather than thrown away? Discuss what types of items children expect to find as they clean out their lockers/desks, and which container each item will go into.

Step 3: Have children empty the contents of their lockers/desks onto the dropcloth. Individually, or in small groups, instruct the children to sort through their items and place each one into the appropriate container. If an item cannot be reused or recycled, then it can go into the trash container. ***Note: You should monitor where children place their items during this activity to make sure reusable or recyclable items do not end up in the trash.***

Step 4: Once the children have finished sorting the contents of their lockers/desks, sort through each container as a group and discuss how the different items can be reused or recycled.

Step 5: Weigh the different containers and determine how much trash the children threw away compared to how much they kept out of landfills. You can also weigh the entire class and see if they reused/recycled more than their combined weight.

Step 6: Make arrangements for the recyclable items to be taken to a recycling drop-off center; you might also want to arrange a tour of the facility. Items can also be taken to a Goodwill center or donated to another charity.

Step 7: After completing the activity, give each child a Planet Protectors Club globe sticker for their own calendar!

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