

Refillable Water Bottle Project

Snapshot

When a school building has easy access to stations for refilling durable water bottles, students and staff are more likely to use them.



Objective: Students and staff will understand that disposable water bottles contribute to trash, litter, and the depletion of natural resources. They will have increased access to locations that allow them to easily refill reusable water bottles in their school building.

Age Groups: K-12th and adults

Setting: School building

Project Duration: Two-day kick-off event plus ongoing usage

Materials:

- Supplies for new water bottle-filling stations
- Posterboard
- Copy paper
- Markers
- Tape

(Continued next page.)

Why This Project Matters:

Every year in the U.S., billions of plastic beverage containers are sold. Most of these bottles end up landfilled, incinerated, or littered. One of the most purchased beverages is bottled water. Disposable plastic water bottles are a huge and growing waste problem, as is plastic pollution in general.

Project Summary:

This project makes it easy for students and staff to refill reusable water bottles during the school day by outfitting the school building with bottle-friendly water-filling stations.

Implementation:

There are two phases to this project: the filler installations and the kick-off campaign.

Several options exist for the filler installation. The least expensive option is to purchase several large, insulated water jugs and place them in designated areas (cafeteria, gymnasium, etc.). These also work well for special events. The moderately expensive option is to purchase and retrofit “gooseneck” spouts on existing water fountains. The costliest, but most effective, option is to purchase and install sensor-activated bottle-filling fountains. Since this option can be expensive, identifying a funding source such as a local government agency or foundation would be helpful.



Water jug



“Gooseneck” spout



Bottle-filling fountain

The kick-off campaign is a prize drawing designed to be conducted during recess or lunch periods to minimize classroom intrusion. The goal is to motivate students and staff to routinely refill their personal reusable water bottles at the new stations.

Getting started:

1. Identify a school or schools with limited access to sinks or water fountains that accommodate the filling of reusable bottles. The cafeteria and gym are key locations for bottle-filling access.
2. Meet with the principal and custodian of each school to discuss which type of bottle-filling stations (insulated jugs, “gooseneck” spout retrofits, or sensor-activated bottle-filling fountains) would best fit each building.
3. Meet with school district maintenance or plumbing staff to determine the feasibility of desired installation locations within each building (for “gooseneck” spout retrofits or sensor-activated bottle-filling fountains).
4. Once the filler decision has been made, establish a timeline for purchasing and installing the equipment. Negotiate this timeline with each principal and custodian, and with district maintenance staff if needed. Secure funding for the equipment and for any installation labor costs. Order the equipment.
5. Coordinate with each principal to schedule dates for the kick-off (to be held after the installations are complete). Select two dates, one week apart. Tabling for a prize drawing (during recess periods at elementary schools and lunch periods at secondary schools) will be the focus, supplemented by posters and announcements.
6. Have a student group create posters to be displayed above or near the new water bottle-filling stations to draw attention to them. Include researched facts on bottled water and plastic waste.
7. Write announcements that encourage students to bring their reusable water bottles to school during the kick-off weeks (see sample below). Assign a student group or staff member to read them over the PA system on the day prior to and the day of the two selected dates.
8. Create a family letter announcing the project and new equipment and ask school office staff to distribute it to families before the campaign (see sample below).
9. Create grade-level appropriate materials in preparation for the prize drawing. (See more details on each grade-level drawing under *Kick-off Tabling Event, Days 1&2.*)

Elementary drawing: Design and print stickers for students to adhere to their reusable water bottles. Stickers should have spaces for students to make a checkmark every time they refill their bottle.



Materials:

(continued)

- Reusable water bottles and other items for student prizes
- Pens/pencils
- Water bottle stickers
- Access to internet
- Access to printer
- 2 shades of copy paper for making prize entry slips
- 2 boxes for collecting prize entry slips

Extensions:

- A student group can survey their peers before and after the project, asking questions like: “Do you drink bottled water? If yes, why? Do you recycle your bottle? Reuse it? Do you bring a refillable water bottle to school?” Results can be reported to the school verbally or presented in graph form.

(Continued next page.)

Middle school drawing: Print half-sheet copies of the school map for students to mark where all the water bottle-filling stations are located. On the other side, include a line for students to write one thing they do/will start doing to conserve water and/or reduce waste, as well as lines to write their name, grade, and homeroom (see sample below). (These scavenger hunts will serve as their entry slips for the prize drawing.)

High school drawing: Create an activity instruction sheet (including example photos) to display at a table. The activity will be for students to take photos of themselves filling their water bottles at the new filling stations and then post these photos to the school's social media site. (The post will serve as their drawing entry.)

10. Purchase or request donations for prizes (movie tickets, recycled products, etc.) for students who complete the sticker, scavenger hunt, or selfie activity.
11. Purchase reusable water bottles for a giveaway drawing for students that do not already own one.
12. Make age-level appropriate entry slips for the prize drawings that have lines for students to write their name, grade, and homeroom. Use one color paper for the bottle prize drawing (for all grade-levels) and another color paper for the sticker prize drawing (elementary).
13. Make instructional signage for each prize drawing entry collection box.
14. Compile and organize supplies for the two kick-off tabling days: water bottle stickers, scavenger hunts or photo challenge signage, pens/pencils, entry slips, entry collection boxes, posters, tape, and prizes.

Kick-Off Tabling Event, Day 1:

Elementary school: Have students bring their reusable bottles to the designated table during recess to receive their sticker. Project sponsors (student and/or adult) may then introduce the activity, explaining how to make a checkmark on the lines on the sticker each time they refill their bottle.

Instruct students to bring the same bottle (with attached sticker) back to the table the following week to show their checkmarks and be entered into the prize drawing. Alternatively, students who do not own a reusable water bottle may register to win one by filling out an entry slip and placing it in the designated collection box.



Extensions: (continued)

- Students can create a display to showcase the waste of disposable water bottles. On one side of the case, set a single reusable water bottle. On the other side, stack several disposable water bottles (as many as you can collect and fit). Include facts about the environmental benefits of reusable bottles.

(Continued next page.)



Middle school: At the designated table in the cafeteria, give students the printed school map scavenger hunt and ask them to mark where the new bottle-filler fountains/stations are located. Make sure they also fill out the back (where they will make a pledge to take an action of conserving water or reducing waste) before putting their entry into the prize drawing box. Students who do not own a reusable water bottle can register to win one by filling out a separate entry slip and placing it in the appropriate collection box.

High school: Explain the activity to students who approach a designated table in the cafeteria, showing them the instruction sheet and reminding them about sharing their water bottle-filling selfie on school social media to qualify for the drawing. Their post is their drawing entry. Students who do not own a reusable water bottle can register to win one by filling out a separate entry slip and placing it in the designated collection box.

Kick-Off Tabling Event, Day 2 (one week later):

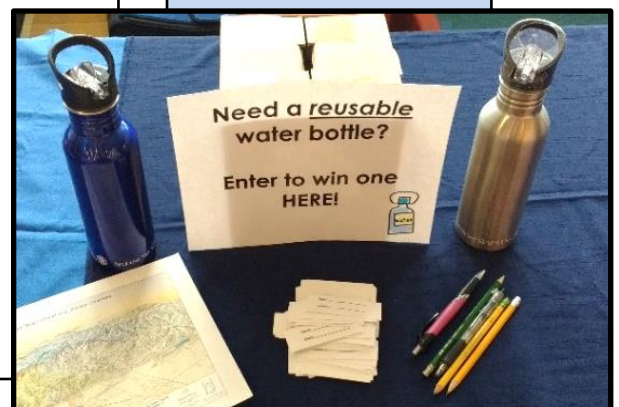
Elementary school: When students return to the table with their stickered water bottles and have made the correct number of checkmarks for refills (equivalent to the number of school days between tabling events), they may enter the prize drawing by filling out an entry slip and placing it in the designated collection box. Continue taking entries for the reusable water bottle drawing as well, placing these in their own box. At the end of the event, randomly choose winners from each collection box and leave prizes with the school office staff to be delivered to the winners (with attached entry slips for easy identification).

Middle school: Facilitate Day 2 the same as Day 1, making sure students who enter are doing so for the first time. At the end of the event, randomly choose winners from each collection box and leave prizes with the school office staff to be delivered to the winners (with attached entry slips for easy identification).

High school: Facilitate Day 2 the same as Day 1, making sure students who enter are doing so for the first time. At the end of the event, randomly choose winners from the water bottle collection box and from the school social media site. Leave prizes with the school office staff to be delivered to the winners.

Extensions:
(continued)

- Create and distribute age-appropriate water-themed coloring pages and activity sheets (word searches, mazes, etc.) to elementary students. These will reinforce the project's water conservation and waste-reduction messages. (See printable coloring pages at the end of this chapter.)



Assessment:

Check for student awareness of the new equipment by surveying students before and after the kick-off campaign about where someone can refill a reusable water bottle in the school. Quiz them as to why this is better for the environment than buying disposable water bottles.

If an automatic bottle-filler fountain with a counter was installed, watch the digital counter to see how many times the unit has been used. Otherwise, assess success by checking in with the custodian about one month after the installation. Ask: “Can you provide usage information for the new equipment? How well was this project received by students, parents, and staff? What feedback have you received?”

Related Activities:

Waste-Free Lunch 2: School Contest – Chapter 2

Waste-Free Lunch 3: Durables in the Cafeteria – Chapter 2

Take a Bite Out of Food Waste – Chapter 4

Making Cloth Napkins – Chapter 13



Key to highlights:

- ❖ Update facts below from a reputable source before sharing with the school community.
- ❖ Enter specific information pertaining to your event.

Reusables Rule at Our School!

Reusable Water Bottle Project

Name: _____

Grade: _____



Write your water-saving and/or waste reduction action(s) here:

Turn in this sheet at the [facilitator name] table to enter the prize drawing for a FREE [prize]!

Don't forget to do the Water Bottle Filler Scavenger Hunt on the back!

Funded by:

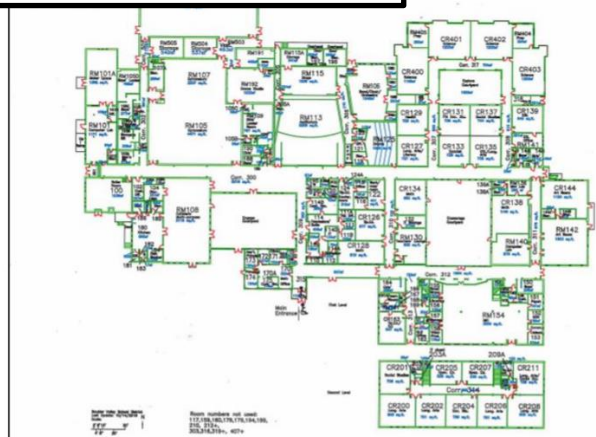
[Funder logo(s) here]

[School name] Middle School Scavenger Hunt

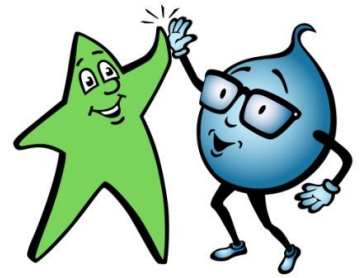
Place an 'X' on the map where the [number] new Water Bottle Filler stations are located.

Turn in this sheet at the [facilitator name] table to enter the prize drawing for a FREE [prize]!

Don't forget to include your water-saving action on the back!



Sample Family Letter



Dear Families,

Americans buy approximately 500 million disposable bottles of water every week. ***Not only is tap water cheaper and held to a higher safety standard than bottled water, but 80% of plastic bottles end up in the landfill, wasting precious resources!*** How much does bottled water really cost us?

- It takes approximately 3 liters of water and ¼ liter of oil to package a 1-liter bottle of water.
- Bottled water consumes approximately 2,000 times more energy than tap water. In 2006, producing bottles for American consumption required the equivalent of more than 17 million barrels of oil, not including the energy for transportation.
- Nearly ¼ of all bottled water crosses national borders to reach consumers, travelling by boat, truck, and train, using fossil fuels for transportation.
- Bottled water costs 10,000 times more than tap water in the US, and more by volume than gasoline or soda. Over 90% of the cost of bottled water is in the bottle, lid, and label.



[Funders/participants] have teamed up to help students at [school or district] refill reusable water bottles with fresh, clean tap water instead of using disposables bottles.

[Number] [state-of-the-art bottle-filler fountains] are now installed throughout the school. This will make it easier for students to refill their own reusable bottles.

[Facilitators] will be at **[school]** on **[date(s)]** to celebrate this project. Students can visit our table to learn where their water comes from and how they can reduce waste by refilling at the tap. We will also have some great prizes to give away!

Be sure to check out the new bottle-filler stations next time you are visiting the school. This is the latest way that **[funders/participants]** and **[school]** are leading us to a Zero Waste future!

Funded by:

[Funder Logo(s)]

Sample Announcements

Please read these announcements on the following dates:



[Date before Day 1 event]:

- Americans buy 500 million disposable bottles of water every week! That's enough bottles to circle the globe 5 times! Only 20% of these water bottles get recycled—the other 80% end up as litter or in a landfill!
- It's easy for anyone at our school to refill reusable water bottles with tap water instead. [Your region] gets its water from [natural water systems of your local watershed]. This water is cleaned and available to you at the tap (for free) right here at school! Have you seen the water bottle-filler stations? They make it easy to refill your own bottle instead of spending money on bottled water.
- Visit the [facilitators] table tomorrow, [Date of Day 1 event], at [designated time period]. If you don't own a reusable water bottle, you can enter a drawing to win one! If you participate in the water bottle-filler activity, you can enter the drawing to win [designated prize]!

[Date of Day 1 event]:

- Buying plastic water bottles uses a lot more natural resources than refilling reusable bottles. Did you know that it takes 3 liters of water just to make a 1-liter plastic bottle?
- Help conserve water by refilling a reusable water bottle from our awesome water bottle-filler stations! Be sure to visit the [facilitators] table today at [designated time period] to enter the drawings for a chance to win prizes!

[Date before Day 2 event]:

- Did you know that in one year it takes 17 million barrels of oil just to make plastic water bottles for Americans to use once and throw away? That doesn't even include the fossil fuels needed to transport them! Fossil fuels are nonrenewable—once we use them, they're gone! Why waste fossil fuels on packaging and transporting bottled water when we can get free, clean water from the tap?
- At our school, we can save energy, make less waste, and help the environment by refilling water bottles with tap water. We hope you have been using the water bottle-filler stations.
- [Facilitators] will be here again tomorrow, [Date of Day 2 event], at [designated time period], so stop by to [show your completed water bottle activity sticker] [to complete your water bottle activity], and you can enter your name to win a [designated prize]! If you don't already have a reusable water bottle, you can also enter to win one!

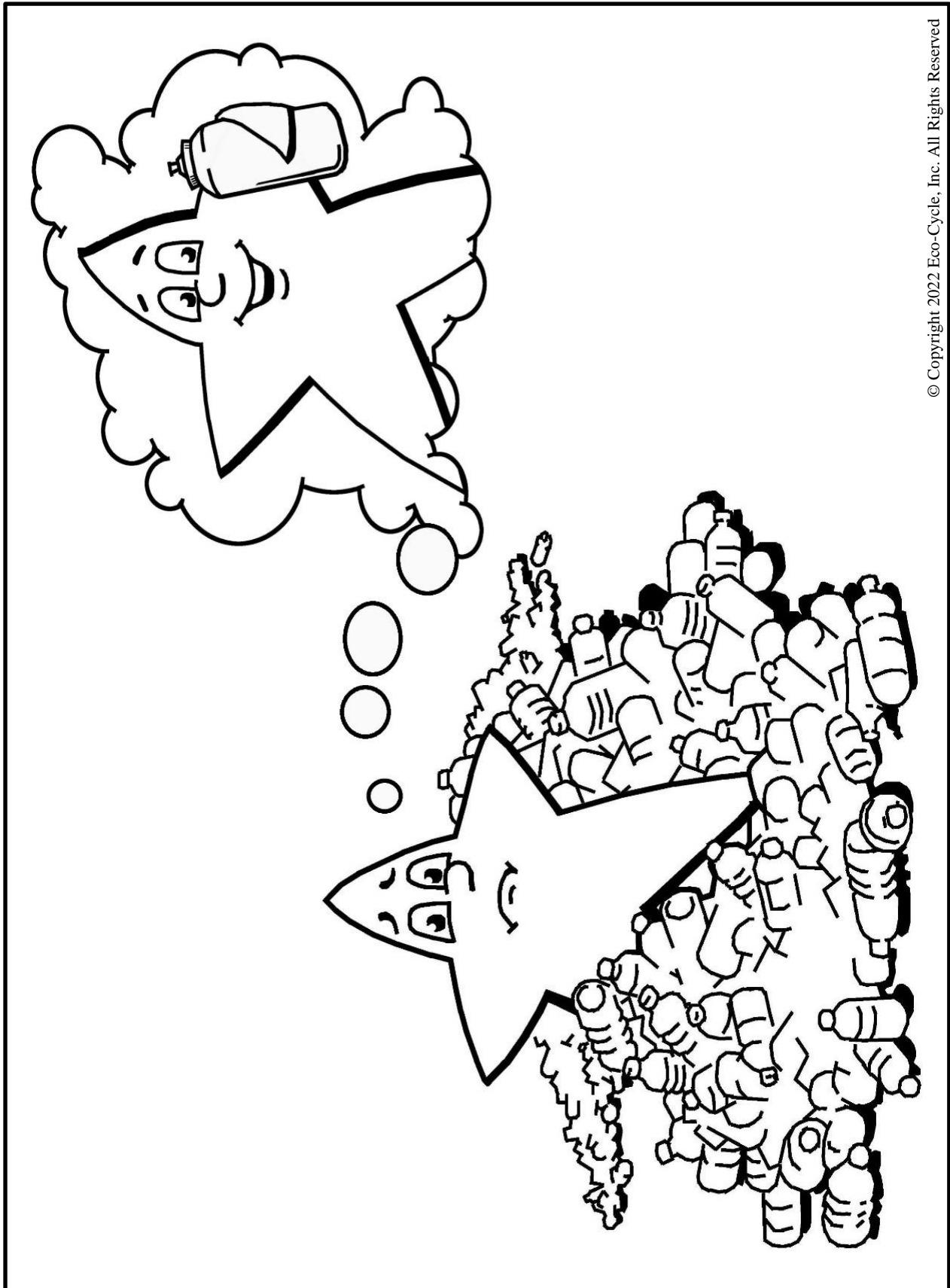
[Date of Day 2 event]:

- Remember to get your water at the tap today! Tap water is tested more often and held to higher safety standards than bottled water. By reusing water bottles instead of buying disposable ones, we can make less garbage and protect our earth.
- Be sure to visit the [facilitators] table today at [designated time period] [with your water bottle sticker] to enter the drawings to win great prizes. If you don't already have a reusable water bottle, you might win one!

Funded by:

[Funder Logo(s)]

Printable Coloring Pages



Draw yourself and your reusable water bottle.

