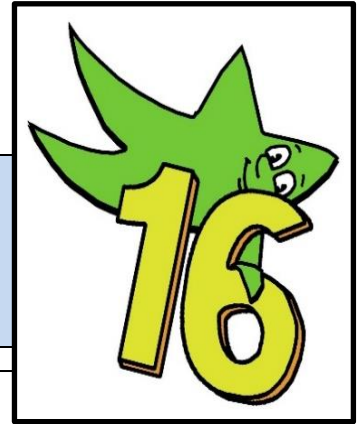


# Lessening Litter



eco-cycle

## Snapshot

While learning about the impacts of litter on our environment through exploration and expression, students can actively educate themselves, their peers, and the greater community.

<https://bit.ly/eco-cycle-zero-waste-schools-guide>

**Objective:** Students will understand the threats that litter causes to the natural world and learn ways to reduce and prevent it.

**Age Groups:** K-12<sup>th</sup> grade

**Setting:** Classroom, school environment, greater community

**Project Duration:** Varies by activity

**Materials:** Varies by activity

## Why This Project Matters:

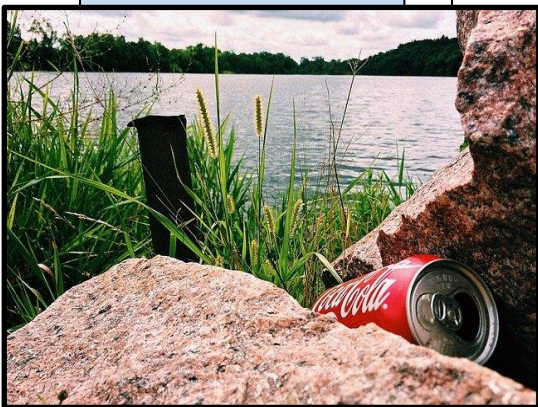
The presence of litter in both natural and developed areas continues to increase harm to wildlife and people, as well as decreasing the aesthetics of those areas. It has also been found that litter begets litter. Educating youth about the effects that litter has on the environment, and instilling habits of proper disposal, will allow them to connect more to their immediate surroundings and will motivate them to lead in their community by setting an example.

## Project Summary:

Discussions, community service projects, and interactive games can be woven together to create a meaningful, lasting experience for students and staff about the behaviors and attitudes surrounding litter and its impacts on our environment.

## Implementation:

1. Begin by leading a discussion about litter:
  - What do we already know about litter?
  - Where have you seen it (school grounds, neighborhood, campgrounds, hiking trails, city streets, highways, etc.)?
  - Who has ever witnessed someone littering? How did you respond?
  - How do you feel when you see litter?
  - Who has ever picked up litter?
  - Has anyone ever littered themselves?
  - Is there anything that is OK to litter?
  - Is all litter created on purpose, or is some accidental?
  - What behaviors and values about litter have we learned from our friends and family members?
2. Research and share a few facts about litter by having students research, read facts aloud and/or write facts on the board. Make time for discussion around the reactions to these facts.



3. Choose age-appropriate photos of animals harmed by litter to share with students (do an internet image search for 'animals harmed by litter'). Discuss reactions to the photos.
4. Discuss with students what natural resources are used to make the items that are often found as litter (plastic from oil, metal from rocks or ore, paper from trees, glass from sand). Talk about the benefits to the environment when these items are reused or recycled instead of being scattered throughout the environment.
5. The following activities engage and teach students about the importance of reducing litter. Choose (or have students choose) one or more activities, or create an outline of activities to do throughout the school year.

- **Scavenger Hunt**—Divide the group into teams of 3-4 students. Use the list below (or create your own) of commonly littered items and make a copy for each team. Distribute pencils, clipboards, disposable gloves, and reused plastic grocery bags for collecting the items. Once all teams are fully equipped for the scavenger hunt, set a time limit, establish geographical boundaries, and describe items that are not safe for them to collect (broken glass, syringes, etc.). If desired, provide a treat or classroom reward as a prize to the winning team, or everyone for participating. (Extra points may be given for additional items not on the list.)

Litter to collect:

- juice pouches/boxes
- paper cups with plastic lids
- plastic straws
- plastic cups
- plastic bags
- candy wrappers
- lollipop sticks
- aluminum cans
- metal bottle caps
- plastic bottle caps
- something broken
- something flat
- something red
- something made from paper
- something made from plastic
- something made from metal
- something made from glass (only unbroken!)



**Extensions:**

- Lead a discussion on specific ways litter is created (intentionally and accidentally) and actions that can be taken to prevent litter (zipping backpacks, buttoning pockets, closing trash can lids, etc.).
- Create a pledge for students to sign that lists litter-preventing habits that they can incorporate into their everyday actions.
- Have students brainstorm other ways to increase litter education and decrease littering behavior in their community.
- Repeat the litter sweep, sort, and graph 6 months after original sweep. Compare results.

- Litter Sweep, Sort, and Graph**—Supply students with gloves and reused plastic grocery bags for collecting littered items. Set geographical boundaries and a time limit, as well as instruction on what is too dangerous to pick up (broken glass, syringes, etc.). Once the litter sweep has finished, bring items to a table covered in newspaper. Sort items by material type (paper, plastic, metal, glass, other) and record numbers under each category. Then sort items by recyclable, compostable, or trash and record those numbers. Discuss results, make bar graphs or pie charts of the data, and display throughout the school.
- Sculpture Contest**—Take collected items from Scavenger Hunt or Litter Sweep and have students create sculptures out of the materials. These can be put on display throughout the school as visual reminders of their school community's contribution to the litter problem and to increase awareness about preventing further littering.
- Map It**—Have students mark on a school map where all outdoor trash and recycling receptacles are located, then document where most of the litter is found. Meet with the principal and head custodian to discuss the relocation or addition of trash and recycling receptacles. (This can be extended to the greater community, such as a park or other public gathering place where litter is often found, meeting with city officials in charge of those places to discuss options.)
- Write Stories**—Encourage students to write a story about the journey a piece of litter takes from the store (as a new item) to where it ends up in the environment. This could be an actual item they found during the litter sweep or an imaginary one. Students may write individual stories or collaborate to write a story together. A fun way to write a collaborative story is to have one student write the first line and pass it to the next student. The receiving student writes the second line and folds the paper back to hide the first line. When the third student receives it, they can now only see the second line, so they add a third line, fold back the second line, pass it to the next student, and so on.





- **Read Stories**—Read aloud short stories or picture books about litter. Students can play characters in the books by wearing costumes from teachers’ closets or thrift stores. Some examples are: *The Wartville Wizard* by Don Madden, *Our Park* by Mercer Mayer, *Lady Lulu Liked to Litter* by Nancy Loewen, *Trash Trouble* by Larry Dane Brimmer, and *How Spider Stopped the Litterbugs* by Robert Kraus.



- **How Long Does Litter Last?**—Using the board, list the time intervals found in the right column of the chart below. In a separate list, mix the order of the litter items found in the left column. Have students match up litter items with the time range they think each would remain in the environment before decomposing. After all guesses have been made, rearrange items to their correct positions and discuss why each item might take that amount of time to decompose, as well as other influencing factors (made from organic material such as wool or cotton, thickness, fragility, weight, exposure to wind or water, etc.).

Orange/Banana peel	up to 2 years
Wool socks	1-5 years
Cigarette butts	1-5 years
Paper	1-5 years
Plastic bags	10-20 years
Leather	up to 50 years
Steel cans	50 years
Aluminum cans	80-100 years
Plastic multi-pack rings	100 years
Glass bottle	1 million years
Plastic bottles	forever
Styrofoam	forever



- **Great Pacific Garbage Patch**—With older students, facilitate an internet research session on the gigantic pile of floating plastic litter in the middle of the Pacific Ocean. Collect data and other information and decide how to distribute it (P.A. or video announcements, posters in the hallways, etc.).



- **Poster-Making**—Have students add to the anti-litter campaign by creating posters with statistics, drawings, photos, and messages about picking up and preventing litter.

**Assessment:**

Have students write letters to another class, an adult in their life, or city/county official explaining what they have learned about litter. Letters should include what they recently found out about the litter issue in their community, one reason why litter is a problem for the environment, and suggestions for preventing litter in the future.

**Related Activities:**

Refillable Water Bottle Project – Chapter 3  
Conducting a Waste Audit – Chapter 30

