Title: How Trash Becomes Litter
Grades: 2
Time 30minutes
Subjects: Science, Health, Language Arts

Objectives

- Explain the need to reduce the amount of trash they generate, and describe ways in which they can make changes in their actions to support waste reduction.
- Measure and compare the weight of common objects using non-standard units of measure.
- Collect, record, organize, and interpret data using a variety of graphic representations.
- Analyze collected data and draw logical conclusions.
- Use written and graphic representations to communicate their ideas and inform their audience about their actions to reduce waste.

Standards
Technology Standard 3: Understand the relationship among science, technology, society and the individual.

- Benchmark # 3: Know that man-made materials, products, and systems can affect the environment adversely, yet there are things that can be done to circumvent this process (e.g., disposing of waste properly).

Science Standard 10: Understand force and motion.

- Benchmark # 3: Know that the position of an object can be described by locating it relative to another object or the background.
- Benchmark # 5: Know things move in many different ways (e.g., straight line, circular motion).

Science Standard 12: Understand the nature of scientific inquiry.

- Benchmark # 1: Know learning can come from careful observation and simple experiments.

Health Standard 2: Know environmental and external factors that affect individual and community health.

- Benchmark # 1: Know the sources and causes of pollution in the community.

Language Arts Standard 2: Use stylistic and rhetorical aspects of writing.

- Benchmark # 1: Use descriptive words to convey basic ideas.
- Benchmark # 2: Use declarative and interrogative sentences in written compositions.

Language Arts Standard 6: Use reading skills and strategies to understand and interpret a variety of literary text.

- Benchmark # 1: Use reading skills and strategies to understand a variety of familiar literary passages and texts (e.g., picture books, predictable books,…).
- Benchmark # 5: Relate stories to personal experiences.

Materials

- Copy of "The Day the Trash Came Out to Play" by David Beadle
- Copies of picture cards provided below
- Grade appropriate writing paper

153 Washington Street | Fourth Floor | Walpole | MA | 02032 | 1.888.668.2298

- Pencils
- Scissors
- Bulletin board similar to the sample shown in PDF below
- Push pins

Overview: Litter is an environmental issue than spans the globe. Since a significant number of human activities produce some type of waste, and many individuals feel no sense of ownership for the trash they generate, or the places in which they leave their trash behind, the potential for littering is considerable. The Keep America Beautiful organization has studied this issue at length and identified four types of general locations where litter will most likely accumulate. These include:

- Outdoor venues, such as concerts, fairs, and special events that attract large crowds.
- Highways, including on and off ramps.
- High traffic locations with convenience stores, fast food restaurants, parks and picnic areas, and businesses that host food vendors.
- "Transition points" where people gather temporarily, such as train and bus stations, entrances to public buildings and elevators.

While recognizing there is no definitive description of a potential litter candidate or site, some of the most likely sources and origins of litter have been identified. These include:

- Individuals who discard waste on the ground rather than in trash receptacles.
- Drivers who toss trash out their vehicles or neglect to cover loads in truck beds.
- Business owners who neglect to properly maintain and cover dumpsters.
- Owners of recreational and commercial sites (marinas, loading docks, construction and demolition sites) who fail to provide adequate storage and disposal facilities.
- Homeowners who fail to cover trash and recycling bins before collection and collectors who neglect to secure trash during collection.

Regardless of where trash is left, when it is inappropriately disposed of it becomes litter. At that point nature's forces, wind and weather, move litter from place to place. It finds its way into highways and waterways, backyards and playgrounds, just about anywhere on Earth.

Kid's Speak: Litter is trash that has not been properly recycled or thrown away. People sometimes throw trash on the sidewalk, street or out a car window instead of putting it into a garbage can or litterbag. Sometimes it blows out of trucks or away from construction sites. Sometimes animals rip open trash bags left out for trash collectors. When people leave trash behind, not taking responsibility for it, it becomes litter and a problem for everyone.

Litter doesn't stay where it is dropped. Wind and water move it from place to place. It can be found on the ground, in bushes and trees, and in ponds, rivers, and streams. It can be found almost anywhere on Earth. It can pollute our drinking water, harm plants, animals and their habitats, cause accidents and cost a lot of money to clean up. If everyone reduced the amount of trash they made, reused the things they could use, recycled what they couldn't use and carefully threw away what was left, then litter would not be as much of a problem.

Eco-Fact: Litter can blow out of a truck bed without the driver knowing.

153 Washington Street | Fourth Floor | Walpole | MA | 02032 | 1.888.668.2298

Procedures:

Before Conducting the Lesson:

- Read the story "The Day the Trash Came Out to Play" by David Beadle. Ask students what happens when the candy wrapper is thrown on the ground. How does this one simple act snowball into a real problem? What would the world be like if everyone threw their trash on the ground?
- Review the term litter and explain to students how trash becomes litter. Litter is any trash that has been improperly dumped or thrown away. When people leave their trash unattended and not take responsibility for it, then it becomes litter.
- Explain to students some of the various ways trash becomes litter and some of the locations where litter typically collects. (See the Overview for specific examples.)
- Create a bulletin board similar to the sample shown in the PDF below.

Conducting the Lesson:

- Use the **Picture Cards provided**, to develop the bulletin board. Select one of the cards and describe the scene to the students. Ask students to decide if the card shows an example of everyday Trash, that can still be recycled or disposed of properly, or if it has become Litter. Have students explain their rationale. Post the card on the board under the correct heading. Repeat the activity three more times, each time discussing with students the reasons behind the decision. Cards selected should provide examples for each side of the chart.
- Divide the students into pairs. Provide each pair with copies of the cards. Have students cut the cards out and sort them into two groups, Trash or Litter. Students should be able to justify their classification of each card.
- Discuss with students some actions people can take so that trash does not become litter. Some of the ideas students may suggest include:
    - Taking litter home when you leave parks, gardens, beaches,…
    - Use a litterbag in the car instead of throwing trash out a window.
    - Pack trash free snacks and lunches.
    - Do not overfill trashcans and dumpsters.
    - Cover trash cans tightly.
    - Always pick up your pet's droppings.
    - Pick up any trash dropped on the ground.
    - Don't put out trash the night before a pick up, so animals and weather won't spread it around.
    - Cover up the back of a truck when moving things from one place to another.
    - Recycle anything that can be recycled.

After Conducting the Lesson:

- Each student will select one of the picture cards, and glue the card to the top of a piece of grade appropriate writing paper. Below the picture card the student will label the scene as Waste or Litter and write a sentence describing it. Student work should be posted to the appropriate side of the bulletin board.

Adaptations:

- This lesson can be done as a whole group lesson, posting each card to the appropriate side of the bulletin board.

Extensions:

- Use *Litter From Lunchtime* lesson found on the GEF website as a follow up to this lesson.

153 Washington Street | Fourth Floor | Walpole | MA | 02032 | 1.888.668.2298