LITTER CLEANUP: ANALYZING THE DATA

Description:

Students work together to clean up their neighborhood or schoolground environment to make it healthy for everyone who lives there.

Objective:

- Participants will understand how pollution and litter negatively affect the environment and their own health.
- Participants will recognize that they can influence the nature in their neighborhood by taking care of the environment.

Standards:

Kindergarten:
- SC.K.7.2.D - Communicate solutions that will increase the positive impact of humans on the land, water, air, and/or other living things in the local environment. NE conservation organizations and agricultural practices.

2nd Grade:
- SS 2.1.2.D - Investigate ways to be actively engaged to improve family, school, and community. For example, volunteerism, participation in school clubs and organizations, classroom jobs, following rules, bully prevention.

- SS 2.3.3.D - Describe how people adapt to their physical environment. For example, soil conservation, build levees, grow plants and raise animals.

3rd Grade:
- SS 3.1.2.D - Identify and engage in opportunities to serve the local community. For example, volunteerism, service-learning, participation in community clubs and organizations

5th Grade:
- SS 5.3.3.A - Identify examples of ecosystems and analyze issues related to the natural setting in the United States. For example, forests, deserts, grasslands, deforestation, wildfires, urban sprawl, flooding, erosion, strip mining.

Materials:

- Copies of *Litter Collection Data Sheet*
- Clipboards
- Writing Utensils
- Trash Bags
- Recycling Bags
- Gloves

Background Info:

Litter is more than just a mark on our landscape. Litter is costly to clean up, impacts our quality of life and economic development, and eventually ends up in our waterways and oceans. 2020, Keep Omaha Beautiful coordinated over 600 litter cleanups with volunteers in public parks, trails, and neighborhoods resulting in over 4,100 bags of litter (trash & recyclables) removed from our community spaces.

In 2021, Keep America Beautiful released a study on litter in America. It provides a detailed understanding of the quantity, composition, and sources of litter across the United States.
Key findings include:

- Nearly 50 billion pieces of litter along U.S. roadways and waterways
- Slightly more litter along waterways (25.9B) than roadways (23.7B)
- 152 littered items for each U.S. resident
- More than 2,000 pieces of litter per mile (both roadway and waterway)
- 90% of people surveyed believe litter is a problem in their state
- 6 billion pieces of litter more than four inches in size
- Most littered item remains cigarette butts, but this litter is down almost 70%
- 207.1M PPE items littered (facemasks, gloves, etc.)

Some other things to note about litter:

1. Litter is unhealthy for humans. It provides breeding areas for germs and pests, and can cause injury if people step or fall on it. It can also cause auto accidents.
2. Litter can also be very harmful to wildlife, causing injury and even death. Animals get caught in litter, use litter as nesting materials, and even think that it is food and eat it.
3. Litter is ugly. Littered areas influence the economy of an area – people don't want to visit or live in areas that are littered.
4. Litter frequently makes its way to storm drains and contributes to water pollution.
5. Research has shown that one of the strongest contributors to littering is the prevalence of existing litter. When an area is clean, people are much more likely to keep it clean. The opposite is also true, when people see litter on the ground, they may refrain from appropriately placing waste items in a trash can or recycling container.

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Activity:

1. Explain to the students that you will be cleaning up litter to improve the ecosystem around you. This will help both the animals and the people in your community.

2. Explain that you will be sorting the litter into 2 bags, trash and recycling.

- **Items for Recycling**:
  - Plastic bottles
  - Metal cans (such as soda cans)
  - If you will be taking your recycling to a drop-off location that accepts glass, you can also separate your glass. If you do this, glass needs to be placed in a completely separate bag from your other recyclables.

- **Items for Landfill/Trash**: Everything else. Although we can usually recycle paper, when it has been dropped as litter it is usually too damaged or dirty to be recycled so it must go in the trash bin

3. Divide students into small groups for this activity. Each group should receive a clipboard, datasheet, writing utensil, trash bag, and a recycling bag. You can have as many students per group as you would like - however, it works well to have one data recorder, one litter picker-upper, and one bag holder per group.

4. Before starting the litter cleanup students should answer the first question on their discussion page. NOTE: for younger grades, if may be more appropriate to discuss the questions as a class and not require students to write their responses.

4. As students collect litter, instruct them to tally it on their datasheet. NOTE: for younger students, it may be more appropriate to have them collect all the litter first and then do a tally as a whole class at the end of the cleanup.

5. After the litter collection activity, students should work in small groups to answer the rest of their discussion questions.

6. As a class, discuss the final question on the discussion sheet. What could students to do help reduce litter around the school?

7. Suggested Extension: Read The Wartville Wizard. Discuss what this book teaches us about pollution and litter.

Assessment:

Completed *Student Pages*