Taking it to the Streets!
Urban Trash Educational Toolkit

Urban Litter Scavenger Hunt

Impacts of Street Trash

Objective

Students will be able to illustrate the types of human-made trash that occur in our urban spaces and explore how these items can affect the human and non-human world.

Introduction

Trash in the environment can harm habitats, transport chemical pollutants, threaten wildlife, and interfere with human uses of open natural spaces. In addition to degrading the habitats and ecosystem services that humans use, mismanaged trash can directly interfere with navigation, hinder industries (commercial and recreational fishing, tourism, etc.), and threaten health and safety. Using a scavenger hunt style game, students will think critically about the impacts and effects of trash on their local surroundings, natural spaces, and communities.

Next Generation Science Standards

Science & Engineering Practices
- Planning and carrying out investigations

Crosscutting Concepts
- Cause and effect

Disciplinary Core Ideas
- LS2.(A-D): Ecosystems: Interactions, energy, and dynamics
- ESS3.C: Human impacts on Earth systems
- ETS2.B: Influence of science, engineering, and technology on society and the natural world

Supplies

- Small buckets or bags to collect litter
- Gloves
- Small clipboards with pencils
- Printed copies of the scavenger hunt checklist
- Optional - allow students to take pictures of items using a camera or smartphone

Procedure

1. Intro. Discuss with students how trash comes from people. Ask students how man-made trash can affect different aspects of the environment (e.g., wildlife entanglement, habitat degradation, polluted water, air, soil, etc.) as well as different aspects of human communities (e.g., health, safety, business, happiness, etc.). Explain that they will be finding and picking up trash in their area based on varying impacts.

2. Set up. Choose your study site. This can be your school campus, neighborhood streets, local park, closest waterway, or other nearby open spaces. Split students into teams and set a time limit to find as many items on the scavenger hunt list as they can. Explain that only litter should be used for the clues, but that not every trash item should be picked up (e.g., heavy or large items, unsanitary items, dangerous/sharp items, etc.) but if the item satisfies a scavenger clue, students can take a picture (optional).

3. Hunt! Conduct a cleanup of your area while completing the scavenger hunt list (**Appendix A**). Students will actively search for trash items that could cause the impacts on the scavenger hunt list. Students should try to find a trash item for each scavenger clue if applicable. More than one trash item can be attributed to a single clue but students should aim to have at least one per clue.

4. Discussion. Go down the scavenger hunt list and discuss what students found under each clue. Some discussion questions could be:

- Were you able to find items that satisfied every clue?
- Which kinds of items were most common?
- What trash items could have counted for multiple clues? Which clues had the most items?
- How many impacts were caused from trash in your area?
- Can you think of any other impacts caused from this trash that is not listed on the scavenger hunt list?
- Does the trash in your area have more impact on humans or wildlife? Or both?
- How do human actions change the human and non-human environment? Are these changes helpful or harmful?
- How many impacts did we prevent today by picking up these trash items?
- What are some other solutions to preventing these impacts?
- Will regular cleanups solve the problem? Why or why not?
- What are some steps we can take to prevent the pollution in the first place?

5. Assessment.

- Have students choose one of the items they found on their scavenger hunt and tell the story of its journey through the environment, including the potential impacts it may have.
- Choose one debris item or impact clue and create outreach campaigns or Public Service Announcements designed to prevent that item or impact.

6. Extension.
- Have students contribute their findings to a citizen science app like [Debris Tracker](#) or [CleanSwell](#).

Appendix A. Urban Litter Scavenger Hunt

Urban Litter Scavenger Hunt

❏   Something that could damage habitat:

_____

❏   Something compostable: _____

❏   Something that an animal could eat by mistake:

_____

❏   Something that could leach chemicals into the environment:

_____

❏   Something recyclable: _____

❏   Something that an animal could get tangled in:

_____

❏   Something that could impair navigation:

_____

❏   Something that would cost a lot of money to remove:

_____

❏   Something that would take a lot of effort to remove:

_____

❏   Something that makes you angry: _____

❏   Something that isn't safe: _____

❏   Something that is unhealthy: _____

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Urban Litter Scavenger Hunt

❏ Something near a trash/recycle bin:

_____

❏ Something that could have easily been thrown away:

_____

❏ Something that could have been replaced by a reusable

alternative: _____

❏ Something that could pollute waterways:

_____

❏ Something that could pollute the air:

_____

❏ Something that makes you sad: _____

❏ Something that your community could do without:

_____

❏ Something not recyclable: _____

❏ Something that is still in good condition:

_____

❏ Something that could negatively affect a nearby business:

_____