

KEEP OKLAHOMA BEAUTIFUL

Environmental Education Program

Litter & Recycling



Elementary: 3rd-6th Grade (Ages 8-12)

VOCABULARY WORDS

Habitat – the place where an animal lives and finds everything it needs like food, water, and shelter

Litter – trash that is left on the ground or thrown outside instead of put in a trash can or recycling bin where it belongs

Nature – the outdoors world of plants, animals, water, and soil that we share with all living things

Pollution – anything that makes our air, water, or land dirty and unsafe for people and animals

Recycling – turning old materials like paper, plastic, and cans into something new instead of throwing them away

The 3 R's – three things we can all do to help the Earth:

- **Reduce** — use less stuff
- **Reuse** — use things again instead of throwing them away
- **Recycle** — turn old things into new things

Trash – things we throw away that we no longer need; trash belongs in a trash can, never on the ground

Wildlife – the birds, bugs, and animals that live outside in nature

Waste – materials that are thrown away or no longer useful; reducing waste means making less trash in the first place



VOCABULARY WORDS

Compost – a mixture of broken-down food scraps and yard waste that turns into rich soil

Conservation – the careful protection of nature, wildlife, and natural resources so they are healthy for future generations

Decompose – the process of breaking down into smaller and smaller pieces over time

Landfill – a large area of land where trash is buried

Marine debris – litter that ends up in rivers, lakes, and oceans where it harms fish, birds, and other water animals

Biodegradable – able to be broken down naturally by bacteria and other living things (examples: banana peels & toilet paper)

Non-biodegradable – unable to break down naturally; materials like plastic, glass, and styrofoam are non-biodegradable and can stay in the environment for hundreds of years

Single-use – made to be used only once and then thrown away; single-use plastics like straws, bags, and water bottles are major sources of litter

Stormwater – rainwater that flows over the ground picking up litter and pollution before emptying into streams, rivers, and lakes



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What Is Litter and Where Does it Go?

By grades 3-6 students are ready to understand not just that litter is bad but why. They are able to trace the journey of a piece of trash from someone's hand to its impact on wildlife, waterways, and communities. *Litter* doesn't stay where it lands. Wind carries it. Rain washes it into storm drains and from there into streams, rivers, and lakes. A plastic wrapper dropped in a parking lot in Oklahoma City can end up in the Arkansas River, then the Mississippi River, and eventually the Gulf of Mexico – harming wildlife along the entire journey.

Oklahoma generates significant amounts of litter annually. Cigarette butts, food wrappers, plastic bottles, and plastic bags are among the most common litter items found during cleanups across the state. These items are hazardous to wildlife, costly to clean up, and persistent in the environment. Plastic items in particular can take hundreds of years to decompose, breaking into smaller and smaller pieces called microplastics that enter waterways and food chains.

Understanding Waste: From Landfill to Recycling

When we throw something away it goes to a *landfill*. *Landfills* take up enormous amounts of space, can contaminate nearby groundwater, and produce methane gas as organic materials decompose. Oklahoma has numerous active landfills and as population grows, the pressure on landfill capacity increases.

Recycling diverts materials from landfills by turning them into new products. For example, plastic bottles can become clothing fibers, park benches, or new containers. Recycling saves energy, reduces the need for new raw materials, and keeps usable materials out of landfills and waterways.

Composting is nature's recycling because it turns food scraps and yard waste into rich soil that gardens and farms can use instead of ending up in a landfill.



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Single-Use Plastics and Non-Biodegradable Waste

One of the most important concepts for this age group to understand is the difference between *biodegradable* and *non-biodegradable* materials. A banana peel left outside will decompose in a few weeks. A plastic bag up to 1,000 years. A styrofoam cup potentially never fully decomposes.

Single-use plastics are among the most common and most harmful litter items. Plastic straws, bags, water bottles, and food packaging make up a significant portion of litter found in Oklahoma. Understanding why these items are particularly problematic helps students make more conscious choices and advocate for change in their schools and communities.

Stormwater: How Litter Travels

Stormwater is one of the most important concepts for understanding how litter becomes a broader environmental problem. When it rains, water flows across parking lots, roads, and lawns picking up litter, oil, fertilizers, and other pollutants before entering storm drains. In most communities storm drains empty directly into local streams and rivers. This means litter on the ground becomes water pollution with the next rainfall.

Tips for Teaching Litter & Recycling at Ages 8-12

1. Use data – kids this age respond well to striking facts like decomposition timelines and how much litter is produced annually
2. Trace the journey – physically map where a piece of litter goes from the ground to the nearest waterway
3. Connect to recycling systems — visit or research your local recycling facility
4. Empower action – a school litter cleanup, a recycling audit, or a campaign to add recycling bins are all achievable projects at this level



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Discussion Prompts

Before Learning – Getting Curious

1. Have you ever noticed litter near a stream, pond, or drainage ditch?
How do you think it got there?
2. How long do you think a plastic water bottle lasts in the environment? What about a banana peel?
3. Does your school or organization recycle? If so, what materials?
If not, why do you think that is?
4. Where do you think trash goes after the garbage truck takes it?
5. What single-use plastic items do you use most often? Could any of them be replaced with something reusable?

After Learning – Going Deeper

1. Where do you think that litter came from? How did it get there?
2. What happens to litter when it rains at your school or building?
Where does the water go?
3. How does litter connect to the health of wildlife like the scissortail flycatcher?
4. What is one change your school or organization could make to reduce litter or increase recycling?
5. Who would you need to talk to in order to make that change happen?



A Discussion and Activity Guide for 3-6 Educators

Time to take a trip outside! Gather your students and head out to investigate litter at your school or in your community. Use this sheet to track what you discover along the way. **All you need is a pencil, your group, and your detective skills!**

LITTER INVESTIGATION!

PART 1: OUR INVESTIGATION (Group)

1. Where did your group investigate? (circle one)

School grounds / Playground / Parking lot / Nearby sidewalk or street / Other: _____

2. What date and time did you investigate?

Date: _____ **Time:** _____

3. What was the weather like?

PART 2: WHAT WE FOUND (Group)

Count and record the litter you found by category:

Type of Litter	Food Wrappers	Plastic bottles or caps	Paper	Plastic bags	Cigarette butts	Cans	Other
How Many Did We Find?							

Total pieces of litter: _____

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LITTER INVESTIGATION!

What was the most common type of litter you found?

Where was most of the litter located — near doors, near the parking lot, near drains?

PART 3: THINKING LIKE A SCIENTIST *(Group)*

Why do you think there was litter in this area?

Where might this litter go when it rains?

Which piece of litter do you think is most harmful to wildlife? Why?

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LITTER INVESTIGATION!

PART 4: OUR RECOMMENDATION (Group)

What is one change your school or organization could make to reduce litter in this area?

Who should you tell about what you found?

PART 5: MY REFLECTION (Individual - Small Paper Reflection)

Name: _____

What surprised you most about what your group found?

What is one thing you will do differently after this investigation?

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