
# Hello, teachers!

Welcome to the third edition of the Cuyahoga County Solid Waste District's student newsletter, "Mission: Recycle." In this edition, we invite students to explore the many ways they can become "Super Recyclers," making a positive, long-term impact on our environment. We also hope that you and your students will take part in school recycling and our special programs.

Inside this teacher supplement, we have provided a coloring page that you can copy for students and an extension activity, as well as ideas to "reuse" the newsletter for daily instruction and teacher keys for the activities found in the newsletter.

The text and activities in the newsletter and in this supplement correlate to the Ohio Department of Education Learning Standards for third and fourth grades.

We produce this student newsletter once each school year. If you would like to receive classroom copies next year, please contact Education Specialist Kathleen Rocco at 216.443.3731 or krocco@cuyahogacounty.us. You can also sign up to receive our e-newsletter for teachers, which is emailed quarterly. To sign up, go to **CuyahogaRecycles.org**, scroll to "Subscribe to our newsletter," enter your information, and click "Resources for Educators." You can subscribe to our "Talking Trash Newsletter," which includes recycling tips and tricks, at the same time.

We provide additional resources for teachers and other educators at our website. Simply go to **CuyahogaRecycles.org/teacher_resources_links** for lesson plans, professional development opportunities and helpful links about reducing, reusing, recycling, composting and other environmental topics.

As always, we welcome your comments and suggestions on all of our programs.

The Cuyahoga County Solid Waste District is the leading resource in Cuyahoga County for information, expertise and programs that support sustainable materials management and reduce the environmental impact of waste. Our six staff work to empower residents, communities and organizations to manage their waste responsibly by reducing, reusing, recycling and composting. The District is governed by a Board of Directors and is advised by a Solid Waste Policy Committee which oversees the development and implementation of the Cuyahoga County Solid Waste Management Plan.

Cuyahoga County Solid Waste District

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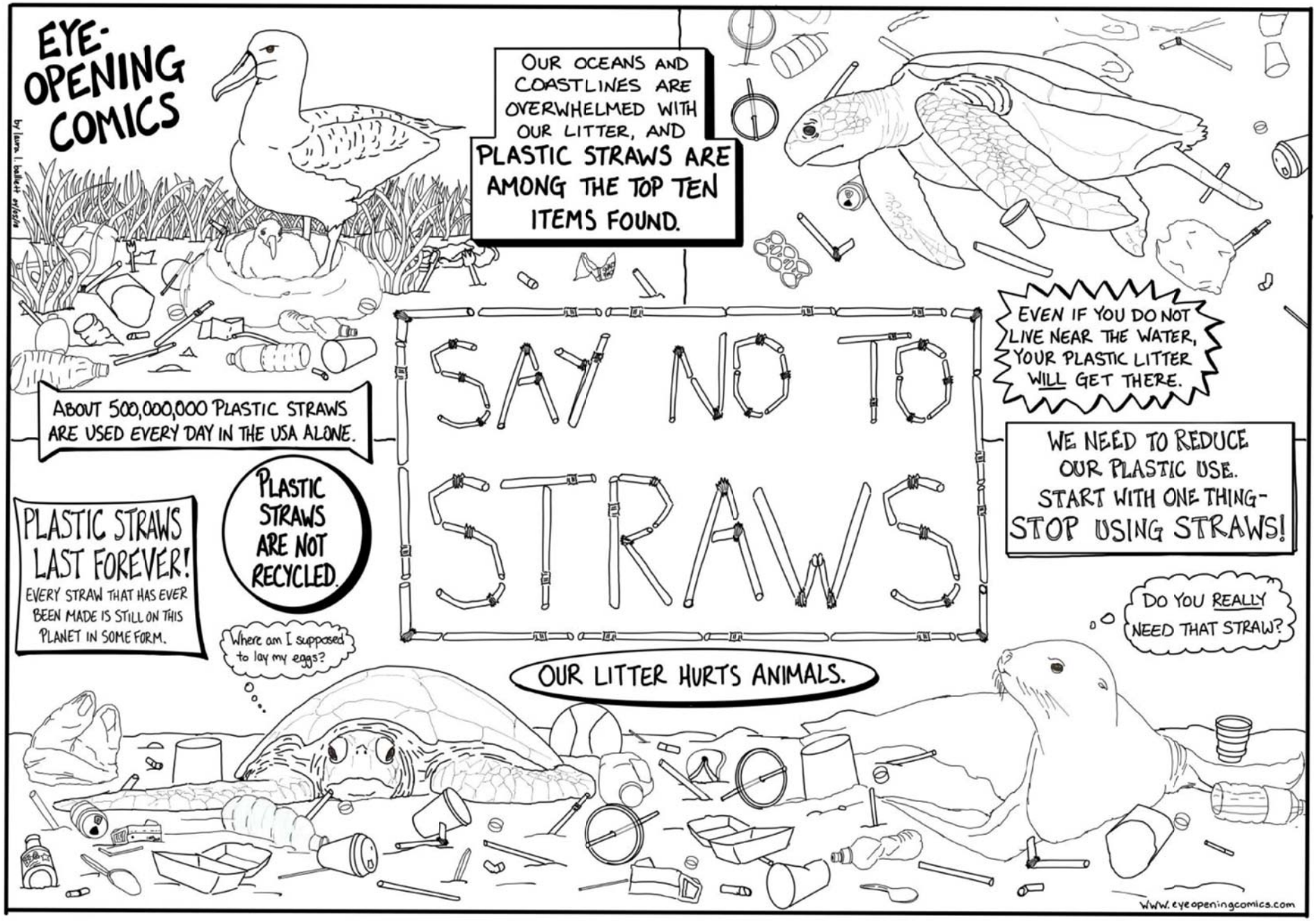
**CuyahogaRecycles.org**


EYE-OPENING COMICS
by laura l. ballenger
OUR OCEANS AND COASTLINES ARE OVERWHELMED WITH OUR LITTER, AND PLASTIC STRAWS ARE AMONG THE TOP TEN ITEMS FOUND.
SAY NO TO STRAWS
EVEN IF YOU DO NOT LIVE NEAR THE WATER, YOUR PLASTIC LITTER WILL GET THERE.
ABOUT 500,000,000 PLASTIC STRAWS ARE USED EVERY DAY IN THE USA ALONE.
WE NEED TO REDUCE OUR PLASTIC USE. START WITH ONE THING- STOP USING STRAWS!
PLASTIC STRAWS LAST FOREVER!
EVERY STRAW THAT HAS EVER BEEN MADE IS STILL ON THIS PLANET IN SOME FORM.
PLASTIC STRAWS ARE NOT RECYCLED.
Where am I supposed to lay my eggs?
DO YOU REALLY NEED THAT STRAW?
OUR LITTER HURTS ANIMALS.
www.eyeopeningcomics.com

# BURIED TREASURE?

The experiment below will help you understand how trash can decompose, or break down, in different places. To complete this experiment, you will need four apple cores, two plastic bags, three colanders, three bricks or heavy objects, a shovel or digging device, gloves, and an outdoor area with soil.

**Instructions:**

1. Place two of the apple cores inside plastic bags. Make sure the bags are sealed tightly so that no air can get in or out.
2. Place one bag inside where it can be easily observed.
3. Take the other bag outside and bury it under an inch or two of soil.
4. Place a colander over the buried bag to prevent animals from getting to the apple. Place a brick or heavy object on top of the colander.
5. Take the remaining two apple cores outside as well.
6. Bury one core an inch or two under the surface. Leave the other sitting on top of the soil.
7. Place a colander and heavy object over each apple without a bag to keep animals out.
8. Wait for a week or two, then uncover and observe the apples. Be sure to use gloves when picking up or handling the apples.
9. Answer these questions in your log:
   How much did each apple decompose (rot or break down)?
   Did some apples decompose more than others?
   If so, which ones?


**Questions:**

1. Which of the apple cores do you think would be most like a bag of trash in a landfill? Why?

   _____
   _____

2. Did the apple core that is most like a bag of trash in a landfill break down faster or slower than the other apple cores?

   _____
   _____

3. What does this tell you about landfills?

   _____

4. Which apple core broke down the fastest? Why?

   _____

5. What environmentally friendly method for getting rid of trash does this seem like?

   _____

# Reuse Ideas

## Math

- List the factors of 9, 39 and 81. What is their greatest common factor?
- If Jack's dad was born in 1977, how old was he in 1997? How old is he in 2018? How old will he be in 2019?

## English Language Arts

- Underline an exclamatory sentence in the newsletter.
- Write these words in ABC (alphabetical) order:

  straw  say  sipping  sand  super  share  school  spot  sentence

## Science

- Select the term that doesn't belong:  paper  glass  cardboard
- Write a definition of the term "natural resources."

## Social Studies

- After being sorted at a materials recovery facility, recyclables are baled and sold as commodities. What is a commodity?
- Who was President of the United States when the first Earth Day was celebrated in 1970?

## Journal Writing Prompts

- Have you volunteered recently? If so, how and where? Write a paragraph about your experience.
- Write an acrostic poem. To begin each line, use the letters in: "AMERICA RECYCLES DAY"; "EARTH DAY"; or "REDUCE, REUSE, RECYCLE."

# Teacher Keys

## Predicting Patterns (page 1)

**Correlation to Ohio Learning Standards:**

Math

Grade 3: 3.OA.8; 3.OA.9; 3.NBT.2

Grade 4: 4.OA.3; 4.OA.5; 4.NBT.4

**Answers:**

| | | | |
|---|---|---|---|
| 11, 12 | 44, 45 | 55, 56 | 77, 78 |
| 111, 123 | 444, 456 | 3,333, 3,456 | |

In the U.S., **8,301 tons of glass** are recycled each day.

## Article Text (pages 1-4)

**Correlation to Ohio Learning Standards:**

English Language Arts

Grade 3: RI.3.1; RI.3.2; RI.3.4; RI.3.7; L.3.4; L.3.6

Grade 4: RI.4.1; RI.4.2a; RI.4.4,; RI.4.7; L.4.4; L.3.6

## Recycling Resources (page 3)

**Correlation to Ohio Learning Standards:**

Social Studies: Grade 3: Geography 6

Social Studies: Grade 4: Geography 10, Economics 23

Science: Grade 3: ESS — Earth's nonliving resources

Science: Grade 4: LS — Environmental changes

**Answers:** 1. C is false; 2. B is false; 3. B is false

## Mixed-Up Modifiers (page 4)

**Correlation to Ohio Learning Standards:**

English Language Arts

Grade 3: RF.3.3; L.3.1  Grade 4: RF.4.3; L.4.1

**Answers:**

1. Today, adverb
2. each, adjective
3. carefully, adverb
4. young, adjective
5. before, adverb
6. plastic, adjective
7. reusable, adjective
8. simply, adverb
9. our, adjective
10. very, adverb