

# Recycling Starts with You!

**A Language Arts and  
Math Skill-Building Program**

**Includes:**

- Lessons and Student Worksheets**
- Classroom Wall Poster**

**Aligns with National Standards**

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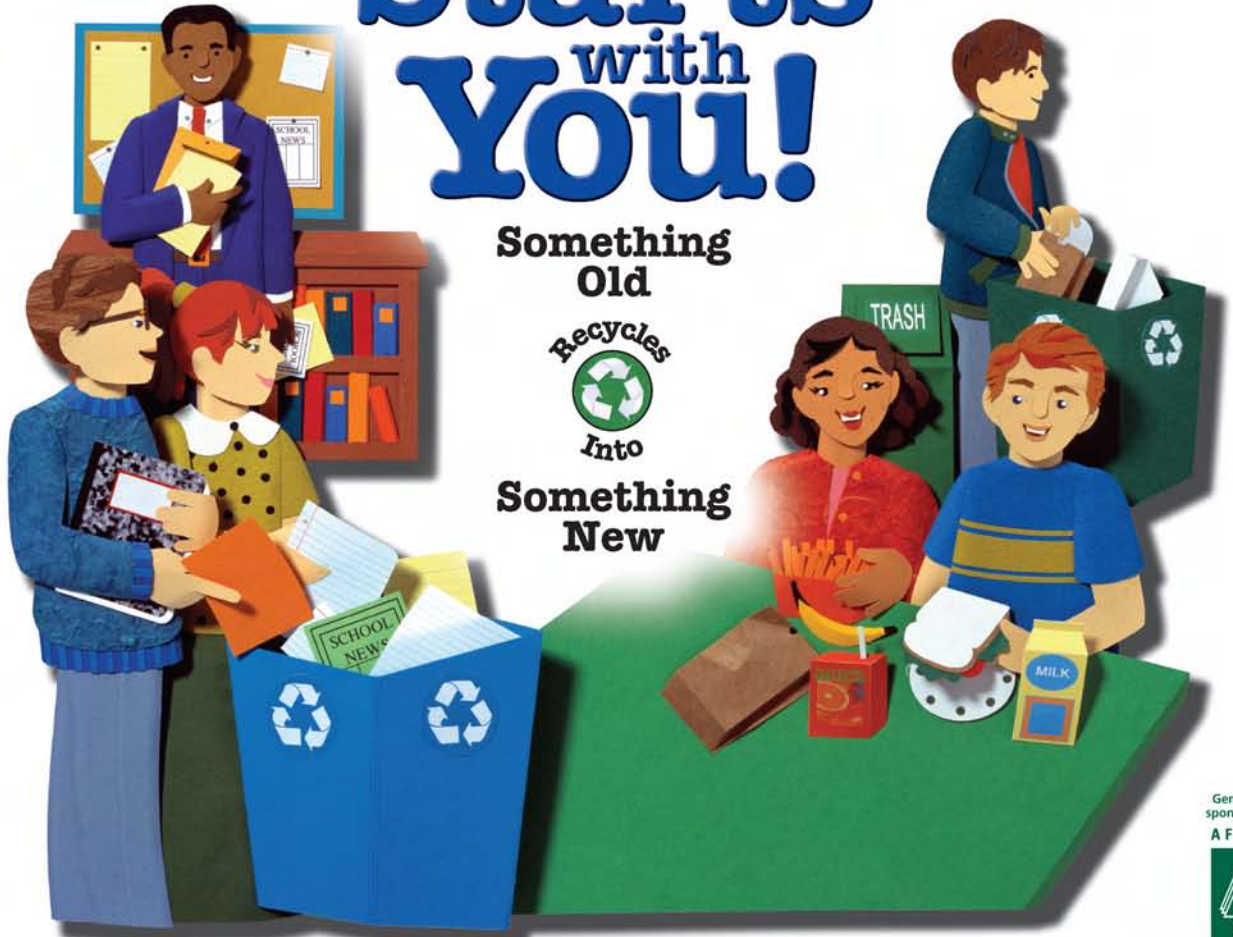
# Recycling Starts with You!

Something  
Old



Into

Something  
New



**Notebook Paper, Paper Grocery Bags,  
Corrugated Boxes, Newspapers, Magazines,  
Envelopes, and Craft Paper**

can all be recycled into

**New Paper Products**

Generously  
sponsored by  
A & P A<sup>®</sup>



# Welcome!

We hope you enjoy **Recycling Starts with You!**, a dynamic education program for students in grades 3–6. Inside you will find engaging, standards-based classroom materials that will build core *language arts* and *math skills* while raising students' awareness of the importance of paper recycling.

Everything you need is inside, including:

- *turnkey lessons*
- *student worksheets*
- a great *classroom poster*

## Recycling Awards Available for Schools!

Recycling can save your school money—and gain it recognition!

The **AF&PA School Recycling Award** annually recognizes an outstanding school program with a monetary award and national recognition.

For more information and to view previous award winners, go to [www.paperrecycles.org](http://www.paperrecycles.org) and click on the “AF&PA Recycling Awards” tab!

## Recycling Fast Facts

- In 2007, 56 percent of the paper used in the United States each year was recovered for recycling. That's an average of 360 pounds for every man, woman, and child in the country. Also weighing in at around 360 pounds: an average adult male black bear.
- Want to recycle a billion paper bags? Easy! The job would be done if each American family added just one paper bag to their recycling each week for 13 weeks.
- The amount of paper recovered for recycling in the U.S. in 2007 (54.3 million tons) was enough to fill 130 Empire State Buildings.
- Every ton of paper recovered for recycling saves 3.3 cubic yards of landfill space.
- In 2007, Pasco County Florida's 75 schools collected 1,267 tons of paper for recycling—enough to fill 25 train cars!
- With just over 1,000 students in grades 6–8, Creston Middle School in Indianapolis, IN, collected nearly 42 tons of paper in one year.

### Lesson

## 1

## Why Recycle Paper?

### Lesson Objectives:

- Students comprehend a brief history of paper, learn the definition of recycling, and discover why we recycle.
- Students learn that the topic sentence of a paragraph usually answers these questions: who, what, where, how, and why.
- Students learn that supporting sentences provide details about the main idea.

**Curriculum Area:** Language Arts

**Time Required:** 20-minute class period

### Materials Needed:

- Student Worksheet 1: “Why Recycle Paper?”
- Pencils

### Directions:

1. Lead a discussion where students identify the different types of paper that they use every day. Then ask students: *Did you ever wonder where paper comes from?*
2. Distribute worksheet to students. Review the concepts of topic sentences and supporting sentences as a class. With students needing additional support, you may want to read the story together as a group.
3. Ask the students to answer the questions on the worksheet. Review the answers as a group or collect their papers to check responses.
4. Have students discuss why recycling is important. Each student should provide one or two reasons.

**Extension Activity:** Challenge students to write a paragraph about their own experience with paper recycling. Ask them to begin with a topic sentence and include at least three supporting sentences. Provide feedback, and give them the opportunity to revise their drafts.

**Student Worksheet Answers:** 1. a; 2. b; 3. d; 4. b; 5. d

Share this program:  
a printable version is available online at  
[www.paperrecycles.org](http://www.paperrecycles.org)

## Lesson

## 2

## Paper: The Everyday Wonder

## Lesson Objectives:

- Students will learn how to record and document information by creating a log.
- Students will gain experience reading a chart.
- Students will learn which items can be recycled in their community.

**Curriculum Area:** Language Arts

**Time Required:** Two 20-minute class periods

**Materials Needed:**

- Student Worksheet 2: "Paper: The Everyday Wonder"
- Pencils
- List of materials recycled in your community from a phone book or city Web site (if you wish to provide this information)
- Library or Internet access (if you wish students to research your community's recycling program independently)

**Directions:**

1. Discuss *paper recycling* with students. What types of recycling have students been involved with?
2. Distribute worksheet to students. Ask them to read the chart on the reproducible or review it together as a class.
3. Assign the log-keeping exercise. Students should complete the log for those paper items that are used in your classroom and during the school day.
4. Provide your students with information about your community's recycling program, or challenge them to find the information using the Internet. Tell the students to circle all of the items on their log that can be recovered for recycling in your community. Then discuss those items that your school recycles, and ask students which items could be added to your school's recycling program.

**Extension Activity:** Have students take their logs home and identify those paper items that they use while at home and record them in their log. Have them circle the paper products at home that can be recycled, using their community's recycling rules.

## Lesson

## 3

## It All Adds Up!

## Lesson Objectives:

- Students express mathematical relationships using equations.
- Students critically read facts to extract pertinent data.
- Students learn fun facts about paper and recycling.

**Curriculum Area:** Math

**Time Required:** 20-minute class period

**Materials Needed:**

- Student Worksheet 3: "It All Adds Up!"
- Pencils

**Directions:**

1. Discuss with students how much paper they think one person can recycle in a year.
2. Hand out worksheet. Have students solve the problems by themselves or, if the material will be challenging for them, in groups.
3. If the students have done the work on their own, you may want to ask them to trade papers with a classmate and check each other's work.

**Extension Activity:** You can use this exercise as a springboard for discussion on how small actions made by many people can add up. Can your students think of other times when each individual is an important part of a whole? Examples may include: charitable giving, voting, or volunteering in a neighborhood community project.

**Student Worksheet Answers:** **1. a:**  $360 \times 21$  (20 students plus 1 teacher) = 7,560; **2. b;** **3. b:**  $3$  (tons)  $\times$   $3.3$  (cubic yards) = 9.9 cubic yards; **4. b:**  $9$  (schools)  $\times$   $3$  (tons) = 27 tons; **5. a:**  $2,000$  (schools)  $\times$   $3$  (tons) = 6,000 tons

## Lesson

## 4

## Make Your Ideas Heard!

## Objectives:

- Students will understand fundamental elements of a persuasive essay.
- Students learn the importance of preparation and learn prewriting techniques prior to writing a persuasive essay.

**Curriculum Area:** Language Arts

**Time Required:** Two 20-minute class periods

**Materials Needed:**

- Student Worksheet 4: "Make Your Ideas Heard!"
- Pencils and paper

**Directions:**

1. Lead a discussion with students about what they have learned so far about the benefits of recycling. What would students say to someone about why it is important to recycle in schools? What are some of the important facts that they've learned? If everyone in class were to influence one other person, what more could be accomplished?
2. Discuss with students what a *persuasive essay* is. Explain that a persuasive essay helps to get across your point of view, with the goal of getting your reader to agree with you.
3. Distribute worksheet to students. Have students complete the first two questions in class. Then, ask students to gather information (research) either in school or as a homework activity.
4. In class, have students compile the main reasoning that they would express in a persuasive essay (see step 4 of the worksheet). Next, assign students to write their own essay about why paper recycling is important and what more could be done in their school.

**Extension Activity:** Have students think of someone with whom they would like to share their message about recycling. Guide them to reshape their essay into a letter so they can send their work to a classmate, principal, teacher, community leader, or local newspaper. Encourage students to make their voice heard and express their point of view with others.

**Key Vocabulary for Lessons:**

**recover** (verb): to get something back

**recycle** (verb): to process old items such as newspapers, glass, plastic, and cans so they can be used to make new products

**Papermaking Video & Activity:**

Visit [www.paperrecycles.org/school\\_recycling/index.html](http://www.paperrecycles.org/school_recycling/index.html) for a fun activity that teaches students how to make paper.

**Further Background Information for Teachers:**• [www.paperrecycles.org](http://www.paperrecycles.org)

This site has information for teachers on paper and paper recycling and includes interactives, videos, statistics, and a step-by-step guide for developing or improving a recycling program at your school.

• [www.afandpa.org](http://www.afandpa.org)

The American Forest & Paper Association's Web site has information on how to start or improve a recycling program in your school or community.

• [www.epa.gov/students](http://www.epa.gov/students)

The EPA's student center has activities and learning tools for students and teachers.

# Why Recycle Paper?

Paper recycling has been around a long time. In fact, the first paper ever was made from used materials. Read below to find out more.

## Paper Is Everywhere

Paper is part of our everyday life. We read magazines and books printed on paper. We do homework and create artwork on paper. Paper bags hold our groceries. The cards, letters, and boxes we send and receive are paper. So is the cup that holds our favorite hot drink as well as the poster hanging on the wall. We even blow our noses on paper tissues! Did you ever wonder where paper comes from?

Paper is made at a paper mill. The first paper mills were built in China more than 2,000 years ago. Workers shredded recycled (used) rags and cloth to make paper. In 1690, William Rittenhouse built the first paper mill in the United States. American mills soon began making paper using the fiber from trees instead of old cloth. In addition to wood fiber, modern mills use recovered paper and wood chips to make paper.

Recycling has always been part of papermaking. Recycling refers to the process of using old items to make new products. When used paper is collected, it is taken to a paper mill, mixed with water, and made into a pulp. The pulp is cleaned, pressed, dried, and rolled to make new paper. The new paper is made into new products, like cereal boxes, newspapers, and construction paper.

Today, about 56 percent of the paper used in the United States is recovered for recycling. Many different types of paper used in both school and at home can be recycled. You can help by collecting paper according to the rules in your community. Recycling helps keep paper out of landfills. And that's good for the environment.



## Questions

- What is the main idea of the first paragraph?
  - Paper is part of our everyday life.
  - Books are printed on paper.
  - Recycling is good for the environment.
- "In 1690, William Rittenhouse built the first paper mill in the United States." This sentence is
  - The main idea of the second paragraph.
  - A supporting idea of the second paragraph.
- Paper can be made from
  - Wood fiber
  - Rags
  - Recovered paper
  - All of the above
- Today, about \_\_\_\_ percent of the paper used in the United States is recovered for recycling.
  - 15
  - 56
  - 65
  - 100
- What is the author's purpose in this passage?
  - To inform the reader about the history of paper
  - To inform the reader about recycling
  - To encourage the reader to recycle paper
  - All of the above

# Paper: The Everyday Wonder

How many paper products do you use in an average day that can be recycled? Here's what you can do to find out:

1. Read the chart on the right to learn about the kinds of paper products that can be recycled.
2. Below, keep a log to write down the paper products that you use during the day in school.
3. Following your community's recycling rules (check with your teacher), circle each item from your log that can be recycled.



## Paper Products You Can Recycle

Paper Product Category	Paper Products You Can Recycle
Paper Packaging for Food Items	Boxes holding cereal, breakfast bars, frozen waffles, hot-chocolate mix, dry soup, and other food products
Reading Materials	Books, newspapers, magazines, catalogues, phone books
Letters and Other Mail	Envelopes, greeting cards, letters, advertisements
Corrugated Containers	Cardboard boxes used for shipping
Bags	Brown paper bags
Craft Paper	Paper used for class work or artwork

Name: \_\_\_\_\_

Date: \_\_\_\_\_

## My School Paper Log

**Morning:**

**Afternoon:**

8:00

12:00

9:00

1:00

10:00

2:00

11:00

3:00

**Home Paper Log: Continue your paper log after school and discover all the paper products that you can recycle at home.**

# It All Adds Up!

Recycling is important. Can one person's effort really make a difference? You bet! Especially when that effort is multiplied by a whole school, city, or state. Read the fun facts below. Then use the information to solve the word problems and find out how recycling adds up.

**FACT**  
**1**

The amount of paper recycled for every man, woman, and child in the United States each year averages 360 pounds.

**FACT**  
**2**

Currently, the United States recycles 56 percent of the paper products it consumes. That adds up to more than 54 million tons of paper. The U.S. paper industry wants to increase the recovery rate to 60 percent by the year 2012, which is good for the environment.

**FACT**  
**3**

Every ton of paper that's recovered for recycling saves 3.3 cubic yards of landfill space. That is about the same size as a small refrigerator.



Photo: tom paper. © Don Hammond/Design Pics/age fotostock, inc.

## Questions

- According to the U.S. average stated in Fact #1, how much paper is recycled for a classroom of 20 students plus their teacher?
  - 7,560 pounds
  - 7,266 pounds
  - 5,500 pounds
  - 3,460 pounds
- The current amount of paper recycled in the United States equals:
  - More than 60 million tons
  - More than 54 million tons
  - 2,012 million tons
  - Nobody knows
- Imagine that you have started a recycling program at your school. You recover three tons of paper over a year. How much space would you save in the local landfill?
  - 6.6 cubic yards
  - 9.9 cubic yards
  - 12 cubic yards
  - 16 cubic yards
- A local television station runs a story about your school's new recycling program. You and your classmates are stars! Before you know it, nine other schools in your area have started similar programs. If each school is as successful as yours (see question 3), how many tons of paper will the other schools recover?
  - 9 tons
  - 27 tons
  - 30 tons
  - 50 tons
- The board of education is impressed! It duplicates your program for all 2,000 schools in your state. If each school recovers as much paper as your school did, how much paper is recycled?
  - 6,000 tons
  - 9,000 tons
  - 19,800 cubic yards
  - 19,810 cubic yards

# Make Your Ideas Heard!

Want to share with others what you've learned about paper recycling and why you think it is important that they recycle? One way to do this is by writing a **persuasive essay**. The purpose of a persuasive essay is to convince someone to agree with your point of view. It is important to know that the best persuasive writing relies on facts—not opinions—and that it's helpful to plan ahead before you start to write. Follow the steps below to plan a persuasive essay on why you think it is important to recycle.

- 1. Prewrite:** Decide what it is you are trying to persuade someone to believe.

*The subject of my persuasive essay about paper recycling in school is:*

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- 2. Plan Your Research:** In addition to what you've already learned, what else would you like to know about recycling?

*Here are three questions that I would like to explore and answer about recycling:*

Question 1: \_\_\_\_\_

Question 2: \_\_\_\_\_

Question 3: \_\_\_\_\_

- 3. Gather Information/Research:** Use the library, Internet, public documents, or personal interviews with your teacher, principal, or custodian to learn more about paper recovery in your school.

*Here are three important facts about paper recycling that I uncovered (use additional paper as needed):*

Fact 1: \_\_\_\_\_

Fact 2: \_\_\_\_\_

Fact 3: \_\_\_\_\_

- 4. Make Your Case:** You've gathered the facts; now it's time to list the reasons behind your point of view. Choose your *three* best reasons why you think someone should recycle. Also think about what you might say to someone who does not share your point of view.

*Here are three main points that I am going to make in my essay:*

Point 1: \_\_\_\_\_



Point 2: \_\_\_\_\_

Point 3: \_\_\_\_\_



**You've done your research! You are now ready to write your persuasive essay. Remember to include an introduction, body, and conclusion. Using these elements will help you to organize your thoughts and support your argument with the facts you've gathered above.**

# ALIGNMENT WITH NATIONAL STANDARDS

STANDARD	BENCHMARK	LESSON			
		1	2	3	4
<b>WRITING<sup>1</sup></b>					
 Language Arts Uses the general skills and strategies of the writing process (McREL 1)  Uses the stylistic and rhetorical aspects of writing (McREL 2)	Uses prewriting strategies to plan written work				X
	Drafting and revising	X			X
	Editing and publishing				X
	Uses descriptive language that clarifies and enhances ideas	X			X
	Uses paragraph form in writing	X			X
	Uses a variety of sentence structures in writing	X			X
Uses grammatical and mechanical conventions in written compositions (McREL 3)	All benchmarks covered	X			X
Gathers and uses information for research purposes (McREL 4)	Uses a variety of strategies to plan research	X			X
	Uses electronic media to gather information		X		X
	Uses strategies to compile information into written reports or summaries		X		X
	Uses strategies to gather and record information for research topics				X
<b>READING<sup>1</sup></b>					
Uses the general skills and strategies of the reading process (McREL 5)	Establishes a purpose for reading	X			X
	Makes, confirms, and revises simple predictions about what will be found in a text	X			
Uses reading skills and strategies to understand and interpret a variety of informational texts (McREL 7)	Summarizes and paraphrases information in texts	X			X
 Math Represents and analyzes mathematical situations and structures using algebraic symbols (NCTM: Algebra)	Expresses mathematical relationships using equations			X	
Formulates questions that can be addressed with data and collects, organizes, and displays relevant data to answer them (NCTM: Data Analysis and Probability)	Collects data using observations, surveys, and experiments			X	

1. Language Arts Standards: Mid-continent Research for Education and Learning, [www.mcrel.org](http://www.mcrel.org)

2. Math Standards: National Council of Teachers of Mathematics, [www.nctm.org](http://www.nctm.org)