



Small Steps® Toward Big Changes

A Collection of High School (grades 9-12) Level Activities from Marcal

Message from the Marcal® brand:

Marcal is a small, earth-friendly, paper goods company that has been a friend to trees since 1950. At Marcal, we make paper products responsibly. Marcal was one of the pioneers of the manufacturing process that makes it possible to reuse paper to make high-quality paper napkins, towels, bath tissue, and facial tissue, rather than cutting down new trees.

At Marcal, we believe that products should be earth friendly, budget friendly, and work great. Marcal® Small Steps® products make it easy to help make a difference in our environment because Small Steps® is made from 100% recycled paper. It is a "Small, Easy Step to a Greener Earth™."

Marcal offers the following Small Steps® classroom resources to inspire your students to take an active role to lead environmentally healthier and more sustainable lives. Through the Small Steps® standards-based activities, you and your students can learn how you can be partners in preserving and protecting your environment.

The activities included here are recommended for grades 9 through 12. The activities meet national standards in Science, English/Language Arts, Mathematics, Social Studies, Visual Arts, and Character Education. All pages can be photocopied in black and white for use with students.

Small Steps®: Standards Connections	Page 2
Educator's Resources	Page 3
Educator's Instructions.	Pages 4-6
Lesson One: Three R's	Pages 7-8
Lesson Two: Why Recycling Matters	Pages 9-11
Lesson Three: Recycling Survey	Pages 12-13
Lesson Four: My 3 R's Action Plan	Page 14
Lesson Five: Power of Persuasion	Page 15

We hope you and your students enjoy this lesson. We'd love your feedback. Please email us at lessonplans@marcalpaper.com or visit us online at www.marcalsteps.com.



Standards Connections

Each lesson aligns to the following National Science Education Standards as defined by the National Committee on Science Education Standards and Assessment and National Research Council.

Activity	National Science Education Standards
Three R's	NS.9-12.1 Science as Inquiry
	NS.9-12.5 Science and Technology
	NS.9-12.6 Personal and Social Perspectives
	NS.9-12.7 History and Nature of Science
Why Recycling Matters	NS.9-12.1 Science as Inquiry
	NS.9-12.5 Science and Technology
	NS.9-12.6 Personal and Social Perspectives
	NS.9-12.7 History and Nature of Science
Recycling Survey	NS.9-12.1 Science as Inquiry
	NS.9-12.6 Personal and Social Perspectives
	NS.9-12.7 History and Nature of Science
My 3 R's Action Plan	NS.9-12.1 Science as Inquiry
	NS.9-12.6 Personal and Social Perspectives
	NS.9-12.7 History and Nature of Science
Power of Persuasion	NS.9-12.6 Personal and Social Perspectives
	NS.9-12.7 History and Nature of Science

Resources

Web Sites

- Kids Recycle! Waste Reduction:
www.kidsrecycle.org/reduction.php
An online resource for examining ways to reduce waste in homes and at school.
- Zero Waste Alliance:
www.zerowaste.org
A non-profit organization dedicated to developing, promoting and applying zero-waste strategies.
- **We Can Solve It**
<http://www.wecansolveit.org/>
A project of The Alliance for Climate Protection—a nonprofit, nonpartisan effort whose goal is to build a movement that creates the political will to solve the climate crisis



Books

- *An Inconvenient Truth* by Al Gore
- *Down-to-Earth Guide To Global Warming* by Laurie David and Cambria Gordon
- *Opposing Viewpoints Series: Garbage & Recycling* by Helen Cothran
- *Paper or Plastic: Searching for Solutions to an Overpackaged World* by Daniel Imhoff
- *The Teen Guide to Global Action: How to Connect With Others (Near & Far) to Create Social Change* by Barbara A. Lewis

Educator's Instructions

The collection of activities can be used together in the sequence they are provided, as part of a week-long or month-long curricular unit. Alternatively, each activity can be used as a stand-alone lesson to supplement your own curriculum.

LESSON 1: THREE R'S

Use this lesson to help students identify, define, and discuss the concepts of REDUCE, REUSE, and RECYCLE.

Duration: Two 45-minute class periods, plus homework

Materials: Copies of the Three R's activity sheet, pencils or pens

Procedures: Distribute the Three R's activity sheet. Introduce the words REDUCE, REUSE, and RECYCLE. Give students time to complete the first section. Lead a discussion on each word and what these words mean. Suggest that these three words are actions that they can do to help protect the environment.

As a class, read and discuss the information about the Three R's.

Have students work individually, in pairs, or in small groups to complete the activity sheet. Students may need to conduct research or create charts for homework. Gather the class together to discuss.

Extension: Show examples of items that can be reduced, reused, and recycled. Have students categorize items into trash that can be reduced, reused, and recycled.

Assessment: Assess students on their ability to define each term, the accuracy of their charts, and their clarity in providing examples of the recycling process.

LESSON 2: WHY RECYCLING MATTERS

Use this lesson to help students discover the benefits of recycling.

Duration: Homework, plus one 45-minute class period

Materials: Copies of the WHY RECYCLING MATTERS activity sheet, pencils or pens

Procedures: Distribute the WHY RECYCLING MATTERS activity sheet. Assign students to complete the activity sheet for homework. Once all the reports are complete, gather the class to share and discuss results. Combine the results.

Extension: Encourage students to extend the activity to research the impact of purchasing products that are made of recycled materials.

Assessment: Assess students on their ability to identify and explain the benefits of recycling.

Educator's Instructions, *continued*

LESSON 3: RECYCLING SURVEY

Use this lesson to help students consider their own use of items that create waste and the opportunities they have to reduce, reuse, and recycle.

Duration: Homework, plus one 45-minute class period

Materials: Copies of the RECYCLING SURVEY activity sheet, pencils or pens

Procedures: Distribute the survey. Assign students to complete the survey for homework. Once all the surveys are complete, gather the class to share and discuss results. Combine the results.

Extension: Encourage students to extend the survey to research the items that can be reduced, reused, or recycled at their workplace or the workplace of a family member.

Assessment: Assess students on their ability to identify the school's needs and suggest solutions.

LESSON 4: MY 3 R'S ACTION PLAN

Use this lesson to help students consider the impact of waste on their community.

Duration: Twenty minutes for assignment discussion, one class period for brainstorming, plus several days for research and completion

Materials: Copies of the MY 3 R's ACTION PLAN activity sheet, pencils or pens, a computer, reference materials for research

Procedures: Distribute the MY 3 R's ACTION PLAN activity sheet. Explain how students might brainstorm ideas. Suggest research they may conduct to investigate the possibilities of implementing their ideas.

Assign students to work individually or in pairs. Once all the forms are complete, gather the class to share and discuss ideas.

Extension: Encourage students to use the results to come up with a reduce, reuse, and recycle action plan. Invite a local official to visit the class. Have the class share their ideas with the official and pitch their solution ideas.

Assessment: Assess students on their ability to identify the community's needs and suggest solutions.

Educator's Instructions, *continued*

LESSON 5: POWER OF PERSUASION

Use this lesson to help students express how and why others should reduce, reuse, and recycle waste.

Duration: Two 30-minute class periods, plus time for research

Materials: Copies of the POWER OF PERSUASION activity sheet, pencils or pens, a computer, reference resources for research

Procedures: Ask students how they might go about persuading someone to take action to improve the environment by reducing, reusing, and recycling waste. Brainstorm a list of groups who should consider changing their ways. This might include the school, the city, or even manufacturers of products that students buy. For example, is the packaging of their favorite snack recyclable? Is the notebook paper they write on made of recycled paper?

Distribute the POWER OF PERSUASION activity sheet. Explain that students will be writing essays that state their position on reducing, reusing, and recycling and sending it to a group they believe should begin reducing waste, reusing materials, or recycling. Review the outline. As a class, discuss how the outline will be completed and then used to write an essay.

Have students work individually to develop their outlines. Provide time for them to conduct research during class or as homework. Sign off on student outlines before they begin to write the essay. Give students an opportunity to write and finalize their essays.

Extension: Have students use their essays as a starting point to organize a student-run campaign for "3 R Change" in their community. Students would spearhead a movement. They could create and submit a petition to the targeted school, community leaders, or manufacturers.

Assessment: Assess students on the completeness of their essays and how they supported their ideas about reducing, reusing, and recycling.

Three R's

Part 1 Directions: Answer the questions in the space provided. Use another sheet of paper if you need more room.

Do you know what the "3 R's" are? Reduce, Reuse, and Recycle. What do these words mean to you? Write your answer in the space provided.

REDUCE

REUSE

RECYCLE

(continued)

Read the following. Discuss.

Every single item people use can be traced back to a natural resource. For example, paper napkins are produced from trees and a plastic zipper is produced from petroleum (oil). When people reduce what they use, they help to conserve natural resources and prevent pollution.

Reusing an item may mean using something more than once for its intended purpose or creating a new use for the item. Extending an item's life means that people are keeping the item out of a landfill, generating less waste, and avoiding the consumption of natural resources.

Recycling is a process that makes new products out of used materials. Sometimes the materials make the same kind of items (glass bottles are remade into new glass bottles) or totally different items (newspapers to make paper towels). Recycling in order to make new items keeps trash out of landfills, reduces the use of natural materials, and uses less overall energy needed to make an item.

Part 2 Directions: Work with a partner to research the recycling process. On another sheet of paper, make a chart that illustrates the steps involved. Be prepared to provide examples of how something you use every day might go through this process.

Why Recycling Matters

Americans throw out 210 million tons of waste each year. According to the U.S. Environmental Protection Agency, approximately 35% of municipal solid waste is made up of paper and paperboard products. Paper makes up the largest portion of municipal waste.

The good news is that paper is also one of the most recovered materials. Over 40% of the paper that would normally end up in a landfill can be recycled.

Did you know that you could take some small steps to make a big difference in helping the environment and the world?

The Natural Resources Defense Council has found that if every household in the United States bought just one 4-pack of 260-sheet recycled bath tissue, instead of the typical tissue made from virgin fiber, consumers would:

- eliminate 60,600 pounds of chlorine pollution
- preserve 356 million gallons (1.35 billion liters) of fresh water
- save nearly 1 million trees

Directions: There are many benefits to recycling and using recycled products. Six are listed on the following pages. Research each benefit. Write a paragraph summarizing your findings about how recycling helps the earth. Provide examples. Consider other benefits. Write about those, too.

1. Recycling Saves Energy

(continued)

2. Recycling Saves Natural Resources

3. Recycling Saves Money

4. Recycling Saves Space for Waste Disposal

(continued)

5. Recycling Preserves Air, Water, and Wildlife

6. Recycling Creates Jobs

Other Benefits of Recycling

Recycling Survey

Directions: Complete this survey. Share and compare your answers with your class.

1. Put X's by the items that go into your garbage at home.

<input type="checkbox"/>	cans (aluminum and/or tin)
<input type="checkbox"/>	glass bottles
<input type="checkbox"/>	paper (computer, drawing, or notebook)
<input type="checkbox"/>	cardboard
<input type="checkbox"/>	plastic containers
<input type="checkbox"/>	newspapers
<input type="checkbox"/>	sandwich bags (paper or plastic)
<input type="checkbox"/>	drink cartons
<input type="checkbox"/>	batteries
<input type="checkbox"/>	catalogs and magazines
<input type="checkbox"/>	computer ink cartridges

2. Which items (of those listed above) could be recycled—by you or someone else in your home? List them below.

3. Does your home have a place to recycle any of these items?

_____ Yes _____ No _____ I don't know

4. Where does your garbage go once it leaves your home?

(continued)

5. List the advantages and disadvantages of recycling in your home.

Advantages:

Disadvantages:

6. List five items commonly used in your home that produce "instant garbage." Think of items that may be packaged in such a way that you throw away the wrapper or container as soon as the item is opened. Think of items that you throw away after using only one time (i.e., a newspaper).

Can you think of any ways to reuse or recycle these items?

Instant Garbage	How to Reduce, Reuse, or Recycle
1.	1.
2.	2.
3.	3.
4.	4.
5.	5.

7. How does reducing the use of, reusing, or recycling things help the environment?

My 3 R's Action Plan

Directions: Think about the waste you generate. Come up with at least four activities you can do to reduce, reuse, and recycle. Describe your plan using the chart below.

Activity	Description	Target date	Impact
1			
2			
3			
4			

Power of Persuasion

In a persuasive essay, a writer takes a position FOR or AGAINST an issue and writes to convince the reader to believe or do something.

Directions: Consider how your school, your community, or even the manufacturers of the products you buy might make changes to reduce waste, reuse resources, or recycle materials. Choose one or more of your ideas about how to reduce, reuse, and recycle. Write a persuasive essay to convince a school board, a community leader, or the president of a company to accept your point of view. Don't forget that in order to convince the reader you need more than opinion—you need facts or examples to back your opinion. So, be sure to do the research!

Persuasive writing follows a particular format. Use the following outline to help you write your essay.

Persuasive Essay Outline

I. Introduction:

1. "Hook" your readers with a compelling statement.
2. Provide some background information.
3. State your thesis or idea.

II. Make your first argument or reason to support your position:

1. Write a topic sentence explaining your point.
2. Use facts to back your point.

III. Make a second argument or reason to support your position:

1. Write a topic sentence explaining your point.
2. Use facts to back your point.

IV. Make a third argument or reason to support your position:

1. Write a topic sentence explaining your point.
2. Use facts to back your point.

V. Acknowledge the opposing point of view and have a rebuttal to it.

1. State an opposing point to your argument.
2. Write a rebuttal to the opposing point.
3. Back your rebuttal.

VI. Conclusion:

1. Write a summary of your main points or reasons.
2. Restate your thesis statement.
3. Make a personal comment or write a call to action.