

# *Caring for Our Environment*



**Universal Design for Learning Project**

**Reading Unit: Caring for Our Environment**

Learning about Pollutions and Ways to Improve Our  
Community Environment

Grade 2

Mt. Healthy Elementary School  
Bartholomew County School Corporation

Grade 2 Team: **Susan Fry**, Carol Walters, and Teri Miller

## *Message to the Reader*

This is a short, 2-week, reading unit that pulls in Science and Health issues on the environment. We used the Health and Science texts to expand on the concepts introduced in our literary readings. This unit culminated with their annual Science Fair Projects.

Teri Miller, Carol Walters, and I, Susan Fry, have collaborated under the inclusion model for the last 7 years at the second grade level. Each year we work together to try to improve or update our plans. This year with the help of the UDL team, we were able to use much more technology than before. Mt. Healthy is an open concept, full inclusion school. We are a smaller rural school with a family atmosphere. Once the technology was put to use by one teacher, the interest quickly spread.

Our individual groups were ability-grouped for the first part of reading. Our plans differ a bit according to the students' level. The second week we divided the grade randomly, then taught the same section to each of the three groups. The Science Fair was on a day during the second week. We hope each year they all walk away with an awareness of their responsibility for keeping the environment clean and healthy.

# *Standards and Benchmarks*

## *Indiana State Standards*

Reading Standards: 2.1, 2.2.1, 2.2.4, 2.2.5, 2.2.7, 2.2.8

Writing Standards: 2.4.1, 2.4.4, 2.4.5

Science Standard: 2.4.4

Social Studies Standard: 2.3.7

## *Resource Help*

Indiana Learning Standards:

<http://www.doe.state.in.us/standards/>

ISTE - National Educational Technology Standards:

<http://www.cnets.iste.org>



## *What Should Students Know?*

*Some students will know* how to research and extend their ideas on recycling and reusing materials. They will create new ideas for their projects with unique purposes. Some students may only be able to copy ideas and learn a few facts about pollution.

*Most students will know* how to expand the new vocabulary they have learned into responses and paragraph writings. They will be able to connect this vocabulary and knowledge to the current world around them in order to improve their environment from air, water, land, and noise pollution. Most students will be able to list ways to make their environment more beautiful. They will be able to come up with ways to make their environment safe from all 4 types of pollution.

*All students will know* and understand the term “environment”. They will know at least 2 different types of pollution, and how to reduce that pollution. They will know and understand the term “recycle”. They will know how to “reuse” materials to make something functional for their final projects. All students will be able to write about this project and its use. A letter to the Mayor will be sent from students of both second grade classes on how to improve the City of Columbus. They will have an idea of how to keep their environment cleaner and safer.

# Teacher Library

For this unit there was a mix of literature, technology, and texts. More could be found, however the following are sources used for this unit only.

## Week 1

### Books:

Scott -Foresman Reading Series, Grade 2, Unit 6, Teacher Edition pp. 446 - 477.

### Technology:

Word Book- Computer Research Program

Write:Out Loud-Text to Speech Computer Program

Google: <http://www.google.com>

[Trash+treasures .com](http://Trash+treasures.com)

## Week 2

### Books:

Macmillan, McGraw- Hill Health Series, Grade 2, Chapter 10.

Macmillan, McGraw- Hill Science Series, Grade 2, Chapter 4, Lesson 8.

Cooney, Barbara; Miss Rumphius, Puffin Books, 1982.

Dr. Seuss; The Lorax

### Technology

Write:Out Loud -Text to Speech Program

Destination Reading <http://www.riverdeep.net>

SMART Board

<http://technology.usd259.org/resources/whiteboards/smartlessons.htm>

# Learner Activities

## Week 1

Day 1 Compare and contrast the text structures of periodicals verses literature text. Read Wicker School Takes Action from the Scott Foresman text. Question students on how pollution affects our environment and area community. List ideas on how to make our community better. Model a sample letter to the Mayor of Columbus. Later children will write their own letters.

Day 2 Listen to the background tape from the Scott Foresman series on improvements to an area park. Work in groups to read City Green. This is another story form the reading series. Compare the polluted lot in the story before and after the neighbors worked it into a garden. How did this change the character of "Old Man Hammer"? Discuss how trash and pollutants directly and indirectly affect us.

Day 3 Reread City Green in pairs. What do we do with our trash? Introduce the terms 'reduce', 'recycle', and 'reuse'. Take students to the computer lab to look up facts on recycling. Use a "Top Ten" fact sheet to look up facts on the World Book computer program. Then look up how to use various forms of trash on Trash+treasures.com. They can write down ideas for recycling or reusing trash.

Day 4 Take the facts that they wrote and write a paragraph on recycling products. Some students may wish to use Write: Out Loud for their written papers. Share ideas in class. Review for test.

Day 5 The test given on this day will be over vocabulary, written response to knowledge, and comprehension of the stories read. Essay and vocabulary questions are teacher-created. Also the Scott Foresman test from the series is added.

## Week 2

Week 2 was done differently than the first. We randomly broke up the second grade into three heterogeneous groups. Each of us took a lesson and taught it to each group. On the fourth day was the Science Fair. The fifth day we tested the students. This week we used the Health and Science texts and related them back to the story from the Reading series in the first week. Afternoon centers extended the learning.

Fry: Macmillan, McGraw-Hill Health Series, Chapter 10, pages 2-9. We read over each page that discussed land, air, water, and noise pollution. We then talked over how each kind of pollution effects our environment and how to reduce and make our surroundings healthier. Use the SMART Board to project a true and false sheet. Students will go on the board to correct the false statements. Then they listed ways to reduce each type of pollution. When there was time, we searched “pollution” at:  
<http://technology.usd259.org/resource/whiteboards/smartlessons.htm>.

Walters: Macmillan, McGraw-Hill Health Series, Chapter 10, pages 10-16. Read and discuss saving our resources. Introduce the terms “renewable resources” and “non-renewable resources”. Define and use correctly the terms “reuse,” “recycle,” and “reduce” as they pertain to the environment. Do a sorting game and paper with plastic, glass, paper, cardboard, and food peelings.

Miller: Macmillan, McGraw-Hill Science Series, Chapter 4, Lesson 8. Read the Science lesson together on caring for Earth’s habitats. Teach how air pollution can affect the water and the land. Review the different types of air pollution and their poisonous effect on the environment and on us as humans. Teach how the waste and using our natural resources are eroding our planet. Chart the different types of pollutions and their poisons.

Test Day: Students were tested with teacher-created materials added to portions of the Health and Science series tests. Teacher-created portions again included vocabulary, true and false statements, and essay question.

Science Fair Day Each student was to do a Science Fair Project on reusing or recycling common trash into something useful. They were to write at least one paragraph about their project. It was to include what they used, the purpose in what they made, and how they thought it improved their environment. Projects were evaluated on creativity, thoroughness, skill, and clarity of the written paper. Students who needed to use Write:Out Loud were able to do so.



Dream castles for dolls were made to inspire the imagination.



Birdfeeders from two litter bottles, rockets into space, and even old televisions were put to use.



## Afternoon Centers

These were used to enhance the students' knowledge. There were four centers established. Each center offered something different, offering life, literary, and reading extensions.

Center 1 Miss Rumphius by Barbara Cooney was read aloud to the children. They were then asked to write about how they would make the world a more beautiful place. Again, Write:Out Loud was used for students who wished to use it.

Center 2 Making compost was the activity here. Children were given step-by-step instructions on how to make compost from garbage at home. The process was given out on paper for the children to try with their parents.

Center 3 The SMART Board was used to give a whole group instruction on a phonics lesson for the skill of the week, using Destination Reading. This was done as a small group activity.

Center 4 Dr. Seuss' The Lorax was read aloud. Children were asked to assess how close our planet's environment is coming to the one at the end of The Lorax. They were asked to write or draw a picture comparing the two environments. They listed ways to make changes in the story to prevent the negative outcome.

# Assessment

## Week 1

The week's assessment was partially teacher made and text offered. We used the vocabulary and comprehension portions of the Scott Foresman test for the main selection in reading. More vocabulary was given in the form of fill in the blank. Essay questions were offered over the main points that were discussed.

## Week 2

Macmillan McGraw-Hill Health and Science texts were used this week. Portions of those tests were incorporated with our extended vocabulary assessments. True and false questions that were directly from a lesson were added. Essay questions are a standard part of any test.

## Outcomes of the Assessments

All students had gained knowledge in their views of pollution and how to improve the environment. Some students were able to extend into creative ideas for recycling and reusing. The vocabulary for the Health and Science was more difficult than the reading series words. The Science Fair projects revealed their creative side and were more adequate forms of assessment than the written tests.

## Modifications: Planning for Academic Diversity

### Learning Barrier

### Possible Solutions

### Web Solutions

Student cannot read at grade level.

Destination Reading

[www.riverdeep.com](http://www.riverdeep.com)

Difficulty comprehending materials.

Text-to-speech technology

Difficulty with handwriting

Write:Out Loud

Difficulty with calculating activities

Needs help with conducting research

Peer research

[Google.com](http://Google.com)  
[World Book](http://World Book)

Student's main language is not English

Needs more of a challenge

Independent Web searches

[Google.com](http://Google.com)  
[World Book](http://World Book)