Recycling

By: Lisa Pereira

Spring 2012

Dr. Angela M. Lopez-Velasquez
Unit Introduction

1. Recycling

2. Grade 3, Elementary

3. Target Group: *Mainstream class with integrated ELL students.

4. Source of written reading material:
   a. Earth Day by Margaret McNamara
   b. The Great Trash Bash by Loreen Leedy
   c. Where Does The Garbage Go by Paul Showers


6. Learning Goals:
   a. Explain advantages and disadvantages of renewable and nonrenewable energy sources that can be used for making electricity, fueling cars or heating homes.

   b. Describe ways people use earth materials, such as fossil fuels, trees, water, soils and rocks as natural resources to improve their lives.

   c. Describe how earth materials can be conserved by reducing the quantities used, and by reusing and recycling materials rather than discarding them.
Lesson 1
### Lesson 1 – Introduction to Recycling – KWL Chart

<table>
<thead>
<tr>
<th>Domain/Topic</th>
<th>Bridging/Mainstream Level 5</th>
<th>Expanding Level 4</th>
<th>Developing Level 3</th>
<th>Emerging Level 2</th>
<th>Starting Level 1</th>
</tr>
</thead>
<tbody>
<tr>
<td>Listening, Reading</td>
<td>Students will read silently while listening to the story being read aloud.</td>
<td>The students will be able to listen to the story read and read the story aloud with minimal mistakes.</td>
<td>Students will be able to listen to the story read, follow along on the overhead projector and read some sentences on their own.</td>
<td>Students will be able to listen to the story read and follow along on the overhead projector.</td>
<td>Students will be able to listen to the story read at the listening center, while having a copy of the book in front of them to follow along.</td>
</tr>
<tr>
<td>Writing</td>
<td>Write a paragraph 3-5 sentences about something you learned about recycling.</td>
<td>Draw a picture and write three sentences about something you learned about recycling.</td>
<td>Draw a picture and write two sentences relating to something you learned about recycling.</td>
<td>Draw a picture that is related to something you learned about recycling.</td>
<td>Draw a picture that is related to something you learned about recycling.</td>
</tr>
<tr>
<td>Discussion</td>
<td>The student will be able to discuss with peers background knowledge of recycling, what they know, want to know and what they have learned.</td>
<td>The student will be able to discuss with peers background knowledge of recycling, what they know, what they know, want to know and what they have learned.</td>
<td>The student will be able to discuss with peers some background knowledge of recycling. Using the realia given by the teacher.</td>
<td>The students will be able to identify the symbol for recycling, and participate with minimal discussion. Using the realia given by the teacher and pictures/book.</td>
<td>The students will be able to identify the symbol for recycling, and participate with minimal discussion. Using the realia given by the teacher and pictures/book.</td>
</tr>
</tbody>
</table>

*any linguistic support for discussion?*
<table>
<thead>
<tr>
<th>Function</th>
<th>Situation/Topic</th>
<th>Expressions</th>
<th>Vocabulary</th>
<th>Grammar</th>
</tr>
</thead>
<tbody>
<tr>
<td>Describe</td>
<td>Personal experiences, background knowledge.</td>
<td>It is important to recycle because ______________.</td>
<td>Environment</td>
<td>Sentences</td>
</tr>
<tr>
<td>Retell</td>
<td>Recycling at home.</td>
<td>I do this in my house ______________.</td>
<td>Recycling</td>
<td>Phrases</td>
</tr>
<tr>
<td>Define</td>
<td>The events in the book: The Great Trash Bash by Loreen Leedy.</td>
<td>In the book they did ______________.</td>
<td>Reduce</td>
<td></td>
</tr>
<tr>
<td>Identify</td>
<td></td>
<td>This is what I know about recycling ______________.</td>
<td>Reuse</td>
<td>Words</td>
</tr>
<tr>
<td>Listening</td>
<td></td>
<td>This is what I have learned about recycling ______________.</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>When we recycle the garbage goes ______________.</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Now that I know about recycling I will ______________.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Unit Recycling
Lesson 1 - Introduction to Recycling – KWL Chart

1. Recycling
2. Grade 3, Elementary
3. Target Group - *Mainstream class with integrated ELL students.

Unit Objective: Describe how earth materials can be conserved by reducing the quantities used, and by reusing and recycling materials rather than discarding them.

<table>
<thead>
<tr>
<th>Content Objectives</th>
<th>Language Objectives</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>TSWBAT:</strong></td>
<td>The students will:</td>
</tr>
<tr>
<td></td>
<td>• Participate in whole group and small group discussions.</td>
</tr>
<tr>
<td>- Orally communicate and/or draw a picture about their personal experiences, background knowledge and what they have learned about the topic of recycling.</td>
<td>• Complete a list or KWL Chart by orally communicating their thought of what they know, want to know and finally what they learned.</td>
</tr>
<tr>
<td>- Verbally recall facts from the book in regards to recycling.</td>
<td>• Understand content concepts and/or vocabulary, by restating in a sentence.</td>
</tr>
<tr>
<td></td>
<td>• Listen to the story and follow along on the overhead.</td>
</tr>
<tr>
<td></td>
<td>• Listen and communicate with other students during small groups.</td>
</tr>
</tbody>
</table>

Materials:
- Book: The Great Trash Bash by Loreen Leedy
- Chart Paper/KWL Chart
- Markers
- Recycling Symbol
- Overhead Projector
- Student paper/crayons
- Lesson Assessment Worksheet
- Pieces of realia! (plastic bottle, paper, metal(foil) etc.)

Vocabulary:
- Recycling
- Environment
- Reduce
- Reuse
Inquiry:

This lesson will allow students to recall their personal experiences and background knowledge about recycling. They will discuss their thoughts/ideas with their peers in small groups and then explain their understanding and elaborate on why recycling is so important.

Procedure:

1. First present your Content Objectives (CO) and Language Objectives (LO) to your students. I would write them on the board and verbalize it to the classroom in student friendly terms.

2. As a whole class, tell the students that your discussion today is going to be about Recycling. (Have a picture of the recycling symbol up on the board and the word recycling)

3. Ask for a show of hands, who has heard about recycling? (pointing to the picture and the word Recycling).

4. Ask, What is recycling? Give time for sharing of answers and then introduce the vocabulary word and definition. During this time the word environment may also be discussed, be sure to introduce the word and its definition. You can also have a quick vocabulary hands-on activity, which will bring more meaning for students. Ex As the students are in their groups, give them index cards some with vocabulary words, some with pictures and some with definitions of the vocabulary. The students are then responsible to find their partners that match with either of the 3 cards they have gotten. This will bring interaction and discussion about the vocabulary at hand.

5. Put students into small groups and have them discuss what they know about recycling. (For some students whom may not verbalize their ideas that well, you can have them draw a picture to show what they know about recycling) These students will receive modified instruction. It will also be helpful to put a higher level ELL in the group.

6. When done have them come back to whole class and verbally communicate their thoughts and show any drawings, while the teacher writes their ideas down on the chart paper under K.

7. Ask the students, Is there anything about recycling that you Want to know? Have students turn to their small group partners for discussion.

8. Bring students back to whole groups and the teacher will write down any ideas students have shared regarding what they Want to know about recycling.

9. After discussion of what the students know and want to know about recycling.
   a. What do you know about recycling?
   b. What are some things that you recycle?
   c. Do you recycle at home?

10. Read the story, The Great Trash Bash by Loreen Leedy During the reading of the story, project the story on the overhead projector in order for the students to follow along as the teacher reads the story.

11. After reading the story, discuss with students their thoughts about the book. Have the students discuss with a partner the following:
   a. Did the book tell us anything that we already know about recycling? Confirmation! (give students time to generate their ideas and verbally communicate their answers).
   b. Did the book tell us anything that we wanted to know about recycling? (give students time to generate their ideas and verbally communicate their answers in peers).
12. Put the students into small groups and have them discuss what they learned about recycling. (For some students whom may not verbalize their ideas that well, you can have them draw a picture to show what they know about recycling)

13. Bring the students back to the KWL chart. Ask the students, after reading the book, was there any information that you learned about recycling that you didn’t know before we read the book. (give students time to generate their ideas and verbally communicate their answers). then add student responses to the KWL Chart.

14. After completing the KWL Chart, Review the chart with the students. Continue any discussions about the chart and what they have learned. Ask the students if there is anything they are going to do differently, now that they have learned so much about recycling.

15. This would be a great time to introduce the realia materials to the students. Pass them around for the students to feel and observe.

16. Have students complete an assessment piece for the lesson to ensure that the students met the overall lesson content objectives. Have the students write, draw and/or orally express three things that they have learned about recycling.
Lesson 1 - Introduction to Recycling

After reading the book: The Great Trash Bash by Loreen Leedy and completing the KWL Chart with your class. Complete the following questions.

1. **Write three (3) things that you have learned about recycling and/or draw a picture.**
   a. 
   b. 
   c. 

2. **Draw a picture about something you have learned about recycling.**
Think Green

Remember to reduce, reuse and recycle.

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Lesson 2
### Where are your PIS?

**Name:** Lisa Pereira

**Unit/Lesson:** Recycling/Lesson 2

<table>
<thead>
<tr>
<th>Function</th>
<th>Situation/Topic</th>
<th>Expressions</th>
<th>Vocabulary</th>
<th>Grammar</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sort</td>
<td>The sorting of realia materials to be recycled, into its proper containers.</td>
<td>Pictures/drawings</td>
<td>Hydrocarbons</td>
<td>Pictures</td>
</tr>
<tr>
<td>Describe</td>
<td>Collection and organization of materials before put into recycling bins.</td>
<td>Oral and Written form</td>
<td>Fossil fuels</td>
<td>Sounds</td>
</tr>
<tr>
<td>Retell</td>
<td>The events in the book: The Lorax: by Dr. Seuss.</td>
<td>In the book this happened because ______.</td>
<td>Natural resources</td>
<td>Sentences</td>
</tr>
<tr>
<td>Define</td>
<td></td>
<td>If no one recycles the earth could ____ because _____.</td>
<td>Conserve</td>
<td>Phrases</td>
</tr>
<tr>
<td>Identify</td>
<td></td>
<td>If everyone recycled the earth _______.</td>
<td>Pollution</td>
<td>Words</td>
</tr>
<tr>
<td>Listening</td>
<td></td>
<td>It is important to recycle because _______.</td>
<td></td>
<td>Orally and in written form.</td>
</tr>
</tbody>
</table>
Unit Recycling
Lesson 2 – Recycle Your Garbage

1. Recycling
2. Grade 3, Elementary
3. Target Group - *Mainstream class with integrated ELL students.

Unit Objective: Describe how earth materials can be conserved by reducing the quantities used, and by reusing and recycling materials rather than discarding them.

<table>
<thead>
<tr>
<th>Content Objectives</th>
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</tr>
</thead>
<tbody>
<tr>
<td>TSWBAT:</td>
<td></td>
</tr>
<tr>
<td>- Understand that they can reduce and reuse materials rather than discarding them by sorting their garbage into five different categories to recycle. (paper, plastic, metal, glass(not used in class) and garbage.</td>
<td>- Explain the reason why they have sorted their objects for recycling.</td>
</tr>
<tr>
<td>- Identify/recognize the recycling symbol on the containers/objects for recycling.</td>
<td>- Participate in whole group and small group discussions.</td>
</tr>
<tr>
<td>- Give a general statement of what could happen to the earth if we don’t recycle.</td>
<td>- Understand content concepts and/or vocabulary, by restating in a sentence.</td>
</tr>
</tbody>
</table>

Materials:
- Paper Bags (one for each student)
- Precut garbage pieces consisting of: paper, plastic, metal, glass (paper pieces resembling things that are glass, and garbage. Pieces of realia! (plastic bottle, paper, metal(foil) etc.)
- Sticker or paper to make recycling labels. (address labels are good to use)
- (Optional) 3 Boxes or plastic containers with recycling symbols on them in front of the class.
- (Optional) 3 labels per student. (to create own recycling symbols)
- Book: The Lorax, by Dr. Seuss.

Familiar Vocabulary:
- Recycling
- Environment
- Reduce
- Reuse

New Vocabulary
- Fossil Fuels (Hydrocarbon) - Compounds that are made up of solely carbon and hydrogen.
• Pollution - is the introduction of contaminants into a natural environment that causes instability, disorder, harm or discomfort to the ecosystem i.e. physical systems or living organisms

• Conserve - to prevent injury, decay, waste, or loss of: Conserve your strength for the race. to use or manage (natural resources) wisely; preserve; save: Conserve the woodlands.

• Natural resources - a material source of wealth, such as timber, fresh water, or a mineral deposit, that occurs in a natural state and has economic.

Teacher Background and Information:

Recycling symbols can be found on most products that are recyclable. On plastics they are commonly found with an abbreviation underneath them, or a letter in the center of the symbol. This represents the type of plastic used to make the product. The monomer of units used to create the long chain polymer plastics are hydrocarbons. There are many more plastics around, but these are the plastic that we can currently recycle.

<table>
<thead>
<tr>
<th>1 – Polyethylene terephthalate (PET)</th>
<th>5 – Polypropylene (PP)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2 – High-density polyethylene (HDPE)</td>
<td>6 – Polystyrene (PS)</td>
</tr>
<tr>
<td>3 – Polyvinyl chloride (PVC)</td>
<td>7 – Other resins, (ABS)</td>
</tr>
<tr>
<td>4 – Low-density polyethylene (LDPE)</td>
<td></td>
</tr>
</tbody>
</table>

There are many household substances that can be recycled. They are commonly broken up into the following categories:

• Plastics (plastic container, milk containers, grocery bags etc)
• Glass, Steel and Aluminum (tin cans, aluminum foil)
• Paper (paper bags, writing paper, cardboard boxes, cereal boxes)
• Batteries (batteries do need to be recycled)

Inquiry:

This lesson will allow students to learn how to separate their garbage in order to recycle it. The students will be engaged by entering the room to piles of garbage, it will spike their curiosity. They will then explore their garbage in an attempt to identify and separate their garbage into the different groups of recyclable materials. The students will then explain, examine and elaborate on why recycling is so important.

Procedure:

1. First present your Content Objectives (CO) and Language Objectives (LO) to your students. I would write them on the board and verbalize it to the classroom in student friendly terms.

2. Prep materials when students are not in the room. Spread the recyclable trash around the room in various places. Also leave a paper bag on the desk of each student.

3. When the students enter the room to find trash everywhere, ask them to grab their paper bags and start picking up all the trash they see, put it in their bags and come back to their seats. Allow appropriate time approximately 5 minutes.

4. Once the students are seated it is time to talk about recycling. Ask:
a. What did you just do? Have lower ELL students demonstrate or draw a picture, verbally express with one word.

b. What kinds of materials/objects did you pick up?

c. Have lower level ELL point to pictures of objects about what materials/objects did you pick up?

d. What do you think we are going to do with them? Giving students appropriate time to answer.

5. Pair the students up into groups. Draw the recycling symbol on the board or a picture of one. Ask.

a. Has anyone seen this symbol before?

b. What is this symbol?

c. Do you know what the symbol means? Give students some time to answer. They can discuss with a peer or small group. After they have given their thoughts ask,

6. Some students might notice the numbers and want to know what they mean. Give a quick description if necessary from the chart above, but stay focused on the recycling/conserving.

a. Have the students turn to their partners and discuss Why should we recycle? Knowing the information from Lesson 1, this should be quick. Paraphrase what students are saying and then communicate: Recycling allows us to conserve our natural resources like trees and the fossil fuels (hydrocarbons) it takes to create plastics.

7. Discuss the vocabulary with the students, giving them opportunities to explain their knowledge/understanding of the word, before giving the definitions and explanations, utilizing the word wall.

8. Have the students discuss with their partners and discuss the different forms/products to be recycled. (paper, plastic, glass, metal). Have the students divide their trash into those categories based on their appearance and textures. Give time for sorting.

9. Continue discussion: Have the students work in groups and discuss with each other the following questions. Put the questions on the board.

a. How can you tell the difference between each category of recyclables?

b. How did you sort your recyclable materials? Have lower ELL students use one word answers/drawings.

c. What could happen if no one recycles? Have lower ELL students use one word answers/drawings.

d. What could happen if everyone recycles? Have lower ELL students use one word answers/drawings.

10. After the students discuss with their peers/groups, as a whole class discuss the following questions.

a. How will not recycling affect the planet? Have lower ELL students use one word answers/drawings.

b. What natural resources will it use?

c. Are they renewable resources?

d. What could happen if no one recycles? Have lower ELL students use one word answers/drawings.
c. What could happen if everyone recycles? Have lower ELL students use one word answers/drawings.

11. Give students the worksheet to complete “Recycle Your Garbage”. (modify for other students, have them work in pairs and/or draw a picture.) The modified worksheet will have multiple choice questions, word bank and sentence starters to assist with possible answers.

12. When worksheet is complete, collect and discuss as a whole class the information that they had to complete.

13. Have the students take the materials that they have sorted on their desks and put into the proper recycle box in the front of the room. Give time for each student to bring materials to the front of the room and place in the proper recycle bin.

14. Before reading The Lorax, by Dr. Seuss, discuss with the students how Dr. Seuss uses words that rhyme, and how if he can’t find a word that rhymes he will make up fake words. This will help the understanding of lower level ELL students. During the reading of the story, project the story on the overhead projector in order for the students to follow along as the teacher reads the story.

15. After reading the book, have the students turn and talk about the renewable and nonrenewable resources. (give students time to generate their ideas and verbally communicate their answers, ELLs can use sentence starters, word wall, pictures etc).
   a. Have the students discuss with their partner about the happenings in the book. Why did the fish leave? The fish left because ....................
   b. Why did the bears leave? The bears left because......
   c. What is happening to the water? The water ......... because.......The sky? The sky ......... because........
   d. Talk about the importance of recycling, non renewable/renewable resources. (For some students whom may not verbalize their ideas that well, you can have them draw a picture to show what they know about recycling, non renewable/renewable resources).

16. Have students complete an assessment piece for the lesson to ensure that the students met the overall lesson content objectives. Have the lower level ELL students draw and/or orally express as they can, what items they can recycle and why it is good to recycle.
Recycle Your Garbage

1. What are four different groups you can separate your trash into for recycling?

2. Touch a piece of material from each of your piles, how do they feel different from one another?

3. Why is it important to recycle plastics?

4. Why should paper be recycled? Is its source non-renewable?

5. List two things in your house that you could put into each recycling bin at home!

<table>
<thead>
<tr>
<th>Plastic</th>
<th>Paper</th>
<th>Metal</th>
<th>Glass</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>1.</td>
<td>1.</td>
<td>1.</td>
</tr>
<tr>
<td>2.</td>
<td>2.</td>
<td>2.</td>
<td>2.</td>
</tr>
</tbody>
</table>
(Modified) **Recycle Your Garbage**

1. What are four different groups you can separate your trash into for recycling? (circle)
   a. Glass  b. water c. metal d. paper e. trash f. toys
g. books h. bracelets i. crayons

2. Touch a piece of material from each of your piles, how do they feel different from one another? (circle)
   a. Rough  b. Smooth c. soft e. wet f. plastic g. hard h. flower

3. Why is it important to recycle plastics?
   It is important to recycle plastic because________________________.

4. Why should paper be recycled?
   Paper should be recycled because______________________________.

5. List two things in your house that you could put into each recycling bin at home! (you can use the word bank below & the word wall)

<table>
<thead>
<tr>
<th>Plastic</th>
<th>Paper</th>
<th>Metal</th>
<th>Glass</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>1.</td>
<td>1.</td>
<td>1.</td>
</tr>
<tr>
<td>2.</td>
<td>2.</td>
<td>2.</td>
<td>2.</td>
</tr>
</tbody>
</table>

   Cereal box, water bottle, notebook paper, newspaper, markers, pens,
   Chinese food container, napkin, pizza box, drinking glass, glass vase,
One morning, when you are putting out the garbage for the garbage man to take away, you notice none of your neighbors are recycling? You decide that you need to send a letter to all your neighbors letting them know how important recycling is to our planet and environment. Write that letter below and be sure to let them know about what you have learned up to this point about recycling and let them know how it could help conserve our natural resources.

Dear Neighbors,

__________________________________________________________________________
__________________________________________________________________________
__________________________________________________________________________
__________________________________________________________________________
__________________________________________________________________________
__________________________________________________________________________
__________________________________________________________________________
__________________________________________________________________________
__________________________________________________________________________
__________________________________________________________________________
__________________________________________________________________________

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__________________________________________________________________________

__________________________________________________________________________

__________________________________________________________________________

__________________________________________________________________________
Sentence Starters:

Remember to ________________________________.

It is important to recycle because ________________________________.

The items you are able to recycle are: __________, __________, __________.

Word Bank

Reduce, Reuse, Recycle, Environment, water, air, pollution, plastic,
Glass, metal, paper, world, trees, food, conserve, natural resources
Reduce, Reuse, Recycle

**Reduce:** This means you reduce the amount of materials you use. For example, if you use both sides of a paper, you are reducing the number of pages you need.

**Reuse:** this means you use the material over again, either for the same purpose, or for something else. For example, a coffee can, might be reused as a container for crayons or pencils.

**Recycle:** This means to use the materials over again to make a new product. For example, old newspapers are recycled when they are made into new paper products.

<table>
<thead>
<tr>
<th>Paper</th>
<th>Soda can</th>
<th>Rubber tire</th>
<th>Cereal box</th>
<th>Plastic bags</th>
</tr>
</thead>
<tbody>
<tr>
<td>Water</td>
<td>Glass jar</td>
<td>Popsicle sticks</td>
<td>Milk carton</td>
<td>styrofoam</td>
</tr>
</tbody>
</table>

Look at the items in the box above. Add some similar items of your own.

Decide if the items from the box can be recycled, reused, or reduced. Put them in the appropriate category in the chart below. Items may appear in more than one category.

<table>
<thead>
<tr>
<th>Reduce</th>
<th>Reuse</th>
<th>Recycle</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
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</table>
Lesson 3
### Lesson 3 - Let’s Make Paper - Rubric

<table>
<thead>
<tr>
<th>Domain/Topic</th>
<th>Bridging/Mainstream Level 5</th>
<th>Expanding Level 4</th>
<th>Developing Level 3</th>
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<th>Starting Level 1</th>
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</thead>
<tbody>
<tr>
<td><strong>Writing</strong></td>
<td>Complete the Let’s Make paper comparison worksheet.</td>
<td>Write four sentences related to the comparison of paper to either your paper or regular paper.</td>
<td>Write two sentences related to two or three of the comparisons of paper to either your paper or regular paper.</td>
<td>Draw a picture and write a few words relating to two of the comparisons of paper to either your paper or regular paper.</td>
<td>Draw a picture that is related to one of the comparisons of the paper to either your paper or regular paper.</td>
</tr>
<tr>
<td><strong>Discussion</strong></td>
<td>The student will be able to discuss with reasoning of why they think what they are saying.</td>
<td>The student will be able to discuss using full phrases and partially reasoning.</td>
<td>The student will be able to discuss using sentences or partial phrases.</td>
<td>The student will be able to discuss with a partner using a sentence.</td>
<td>The students will be able to discuss with a partner using words.</td>
</tr>
<tr>
<td><strong>Listening</strong></td>
<td>Students will read silently while listening to the story being read aloud.</td>
<td>The students will be able to listen to the story read and read the story aloud with minimal mistakes.</td>
<td>Students will be able to listen to the story read, follow along on the overhead projector and read some sentences on their own.</td>
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<td>Day 1</td>
<td>Function</td>
<td>Situation/Topic</td>
<td>Expressions</td>
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</tr>
<tr>
<td>-------</td>
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<td>-------------</td>
<td>------------</td>
<td>---------</td>
</tr>
</tbody>
</table>
|       | Describe | Discussing the differences of the many pieces of paper in front of them. | This feels like _______.  
This looks like _______.  
This feels different because _______.  
This looks different because _______. | Waste stream  
Paperboard  
Junk Mail  
Packaging | Pictures  
Sounds  
Sentences  
Phrases |
|       | Retell   | Where does all the paper come from? What products? | | | |
|       | Define   | | | | |
|       | Identify | | | | |
|       | Listening| | | | |
|       | Writing  | | | | |

<table>
<thead>
<tr>
<th>Day 2</th>
<th>Function</th>
<th>Situation/Topic</th>
<th>Expressions</th>
<th>Vocabulary</th>
<th>Grammar</th>
</tr>
</thead>
</table>
|       | Describe | Recycling shredded/torn paper into new recycled paper. | The recycled paper is like the regular paper because _______.  
The recycled paper is different from the regular paper because_____.  
What does it feel like?  
What does it look like?  
What does it smell like?  
How does recycling reduce the amount of our garbage? | Shredding  
Screening  
Pulping  
Kneading  
Fibers  
Pulp | Pictures  
Sounds  
Sentences  
Phrases  
Words |
Unit Recycling
Lesson 3 - **What is Made of Paper?** / Let's Make Paper!
Day 1

1. Recycling
2. Grade 3, Elementary
3. Target Group - *Mainstream class with integrated ELL students.*

**Unit Objective:** Describe how earth materials can be conserved by reducing the quantities used, and by reusing and recycling materials rather than discarding them.

<table>
<thead>
<tr>
<th>Content Objectives</th>
<th>Language Objectives</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>TSWBAT:</strong></td>
<td></td>
</tr>
<tr>
<td>- Distinguish how many products are made of paper/</td>
<td>- Participate in whole groups and small group discussions.</td>
</tr>
<tr>
<td>- Analyze the different pieces of paper and discuss their observation.</td>
<td>- Compare the pieces of paper and discuss the difference/comparisons.</td>
</tr>
<tr>
<td>- Draw Conclusions About why paper recycling is important.</td>
<td>- Applies knowledge by retelling of content-related vocabulary with appropriate definitions or illustrative examples.</td>
</tr>
</tbody>
</table>

**Materials:**
- Bucket
- All of the following materials should be in portions of one per student: Very small paper bags
- Crepe paper streamers cut into three inch lengths
- One quarter of page from a magazine
- Piece of cardboard from a cereal box
- Piece of newspaper
- Piece of corrugated cardboard
- Clipping from an advertising circular
- Old dittos from class

**Vocabulary:**
- **Waste stream** - the total garbage that we generate becomes part of all garbage and is known as the waste stream.
- **Paperboard** - Another name for this is chip wood. A light cardboard type of paper often used for cereal boxes and school supplies.
- **Junk Mail** - This is the advertising, mail-order catalogues, and requests for donations that come to your mail box.
- **Packaging** - packaging means the materials that hold a product. For example, when you buy eggs, they come in cardboard cartons. Those cartons are the packaging.
Inquiry:
These two lessons are designed to make the students aware of how many different types of paper products there are, and how much they contribute to the total waste stream. The first lesson sensitizes the student to the problem; the second lesson is a hands-on paper making activity to give the students a better understanding of how paper is recycled on a large scale. (I do recommend trying the paper making experiment at home before embarking upon this as a classroom activity. That way you will be more familiar with the processes yourself, and can troubleshoot any potential problems you might encounter in your classroom.)

Procedure:

1. First present your Content Objectives (CO) and Language Objectives (LO) to your students. I would write them on the board and verbalize it to the classroom in student friendly terms.

2. Ask the students:
   a. What will happen to our world if people keep cutting down trees? (Give time for students to generate their answers and respond). Have the students look around the room and discuss with a partner the many things that are made from trees?
   b. How many pieces of paper do you use daily? Or cardboard? (show some samples of recycled paper such as cereal boxes, McDonald’s bags, and the newspaper. Show the children where it tells that the item was made from recycled paper.

3. Place a piece of the various types of paper into the small paper bags and distribute one bag to each student. Fill the bags before class so the students are unfamiliar with the contents.

4. Put the students into pairs.

5. Direct the students to take out the contents of their bags and examine them.

6. Ask them to discuss with other student in their group and comment on the textures and other factors they notice about the papers.

7. Start a word bank on the board or chart paper under the heading "Paper Products", and begin a discussion about where students believe these papers came from.

8. Expand the discussion to encompass other types of paper. When students comment on the cereal box piece, you can ask what other foods they know that come in boxes like that? Then you can further expand the discussion by asking what other things? Ex. (computer program boxes, school supplies and even candy bar packaging) use light cardboard in their packaging.

9. Lead the students in a discussion about packaging. Explain that the bits of paper that you gave them were packaged in the small paper bag.
   a. Ask how does paper play a role in the packaging of products they encounter in their lives?
   b. Where do you see paper?
   c. When do you use paper?

10. Walk around with the bucket and ask students to place their scraps and bag into the bucket. Optionally, you can also have the students tear the bag and larger pieces into smaller one inch pieces when placing into the bucket. This will prepare things for the next day’s activity and give the students a better feel for the differing textures of the paper.

11. Once the scraps are collected, hold up the bucket and
   a. Ask the students what they think should happen to the paper now? The students should respond with the concept of recycling: making something new out of something old.
   b. Ask the students what other examples they can think of where things are re-used instead of thrown away?

12. Explain that the total garbage that we generate becomes part of all garbage and is known as the waste stream. The students will now have a better understanding of how many products are made of paper and can see that the paper portion of the waste stream can be considerable.
13. Dump the contents of the bucket on a large desk. Have the students try to come to an understanding of how little scraps of paper add up to a larger stack. Lead the students into the next step which is to try to have them extrapolate that tiny stack of paper to the huge mounds of waste paper that accumulate every day. Ask the students what they would do with the piles of paper if they ran a town? Explain that this waste paper is dumped in a landfill, burned (discuss waste to energy plants whereby burning garbage heats water to steam and generates electricity), or recycled into new paper products.

14. Put the paper scraps back into the bucket and cover with warm water. This will prepare the paper for the next day’s lesson on paper making.
Unit Recycling
Lesson 3- Let’s Make Paper!
Day 2

1. Recycling
2. Grade 3, Elementary
3. Target Group: *Mainstream class with integrated ELL students.

Unit Objective: Describe how earth materials can be conserved by reducing the quantities used, and by reusing and recycling materials rather than discarding them.

<table>
<thead>
<tr>
<th>Content Objectives</th>
<th>Language Objectives</th>
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</thead>
<tbody>
<tr>
<td>TSWBAT:</td>
<td></td>
</tr>
<tr>
<td>• Students will create a piece of paper from recycled material.</td>
<td></td>
</tr>
<tr>
<td>• Discover how important it is to recycle and how easy it is to make recycled paper.</td>
<td></td>
</tr>
<tr>
<td>• Describe the steps needed to make paper (from raw as well as recycled material).</td>
<td></td>
</tr>
<tr>
<td>• Orally communicate and/or write the comparisons of recycled paper and regular paper.</td>
<td></td>
</tr>
<tr>
<td>• Students will observe and describe verbally and non verbally what happens when different paper products are made wet.</td>
<td></td>
</tr>
<tr>
<td>• Students will verbally describe the changes that occur throughout the process of paper recycling.</td>
<td></td>
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<tr>
<td>• Participates in conversations with peers and adults on familiar topics by asking and answering questions and soliciting information.</td>
<td></td>
</tr>
<tr>
<td>• Applies knowledge by retelling of content-related vocabulary with appropriate definitions or illustrative examples.</td>
<td></td>
</tr>
<tr>
<td>• Compare the differences of recycled paper and regular paper.</td>
<td></td>
</tr>
<tr>
<td>• Follow directions on how to make recycled paper.</td>
<td></td>
</tr>
</tbody>
</table>

Materials:

- Blender
- Pans
- Measuring cups
- Shredded paper from shredder or ripped paper into 1 inch pieces
- Rolling pin
- 2 Buckets
- 5"x7" Wooden Frame
- Screening Material large enough to cover frame
- Small nails, tacks or staples to attach screening to frame
- Basin at least 8" deep, wide enough to fit frame
Materials (continued)

- Pieces of felt 9"x12" (at least one per student)
- Warm water
- Old newspapers
- Wooden Spoon for stirring
- Smocks (optional, this can get messy)
- Sponge
- Several Magnifying Glasses
- Book: The Giving Tree by Shel Silverstein

Vocabulary:

- Shredding - to tear or cut into small pieces.
- Screening – using screens, with either slots or holes, to remove contaminants that are larger than pulp fibers.
- Pulping – Adding water and applying mechanical action to separate fibers from each other.
- Kneading – to manipulate by pressing and stretching to remove water.
- Fibers – Tiny thread-like particles. In the case of paper, they come from the tree from which the paper was made.
- Pulp - Wet wood fibers used to make paper.

Procedure:

1. Have the students in small groups and ask the students: Give the students time to discuss with each other, and then bring them back to whole class and share their answers.
   a. Why is it important that we recycle the paper we use?
   b. What renewable resources are we conserving and protecting?
   c. How would recycling paper help cut down on our garbage?
2. Tack the screen on the wood frame.
3. As the student work in groups, each student will have a role.
   a. The holding of the screen and frame
   b. The scooping of the wet paper onto the screen.
   c. Each student will be working with their own paper.
4. Take a handful of the wet shredded paper from the bucket and put into the blender. Discuss vocabulary
   a. Ask the students what happened to the paper when water was added to it.
5. Cover the paper with warm water and blend until the paper is broken down into pulp.
   a. Ask the students, What happened to it in the blender?
6. Pour the pulp into the basin and repeat until all of the paper is processed.
7. Lay newspapers in an area that can be undisturbed for a day and place felts on them. You may want to mark these with the students' names so they will know which paper is theirs. Before the students begin to make their individual pieces of paper, you can briefly have them touch the pulp with their hands. Ask the students to observe the wet paper and discuss with a partner what they see. Give appropriate time for discourse. Ask the students: now let's share with the rest of the class what you observed. Students may respond about seeing little strings in the paper. Then you can explain that the paper is fibrous; it contains little fibers that fit together to form a mat that becomes paper. Discuss vocabulary
8. Have the students take turns dipping the frame into the basin and lifting it up horizontally. The students should gently shake the frame from side to side and hold it for a minute to drain off the excess water. It is also helpful to try to absorb some of the water by applying the sponge to the other side. Wringing out the sponge.
a. What does your piece of paper look like? Describe it.

b. Does your paper look like the paper we write on? Why or why not?

9. The student should then flip the frame onto his/her piece of felt. Use the sponge and light tapping to peel the paper off of the frame and onto the felt. While students are waiting to make their paper, in addition to watching the other students, they can take a magnifying glass and examine notebook, newspaper or computer paper to try to see fibers within the paper.

10. Let the paper dry overnight. Voila! Paper from paper.

   a. How is this paper different from the paper we use to write and draw on? (the paper will be coarse compared to “regular” paper).

11. There can be an additional extension to the lesson. You can do a T-Chart comparing the recycled paper to regular paper. The students can work in groups and complete together.

12. After everyone has created their recycled paper read the book The Giving Tree by Shel Silverstein.

   a. By reading the book The Giving Tree the students should be able to relate the idea of recycling to how the tree recycled parts of it to give to the boy to make other things.
**Let's Make Paper**

Let's make comparisons between the paper you made and a regular piece of paper.

<table>
<thead>
<tr>
<th>Color</th>
<th>Your Paper</th>
<th>Regular Paper</th>
</tr>
</thead>
<tbody>
<tr>
<td>Are the colors the same?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Explain!</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Sight</th>
<th>Your Paper</th>
<th>Regular Paper</th>
</tr>
</thead>
<tbody>
<tr>
<td>Do the papers look the same?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Explain!</td>
<td></td>
<td></td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Texture</th>
<th>Your Paper</th>
<th>Regular Paper</th>
</tr>
</thead>
<tbody>
<tr>
<td>Do both pieces of paper feel the same?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Explain</td>
<td></td>
<td></td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Smell</th>
<th>Your Paper</th>
<th>Regular Paper</th>
</tr>
</thead>
<tbody>
<tr>
<td>Do both pieces of paper smell the same?</td>
<td></td>
<td></td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>What Else?</th>
<th>Your Paper</th>
<th>Regular Paper</th>
</tr>
</thead>
<tbody>
<tr>
<td>Any other things different?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Explain!</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Checklists
Write the page numbers and any other identifying features to identify those parts of your lessons that employ the following strategies.

<table>
<thead>
<tr>
<th>SHELTERED STRATEGIES</th>
<th>Lesson 1</th>
<th>Lesson 2</th>
<th>Lesson 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>I. Contextualize Lesson</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I. A. Build and Activate Background Knowledge</td>
<td>✓ 13</td>
<td>✓ 25</td>
<td></td>
</tr>
<tr>
<td>I.B. Develop Vocabulary</td>
<td>✓ 13-14</td>
<td>25-27</td>
<td></td>
</tr>
<tr>
<td>I. C. Use extensive Visuals, Realia, Manipulatives, &amp; Gestures</td>
<td>✓ 13-14</td>
<td>25-27</td>
<td></td>
</tr>
<tr>
<td>I. D. Model (Instructions, Processes)</td>
<td>✓ 13-14</td>
<td>25-27</td>
<td></td>
</tr>
<tr>
<td>I. E. Create Opps. To Negotiate Meaning/ Check Understanding</td>
<td>✓ 13-14</td>
<td>25-27</td>
<td></td>
</tr>
<tr>
<td>II. Make Text Comprehensible</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>II.A. Intentional Use of Graphic Organizers</td>
<td>✓ 13-14</td>
<td>25-27</td>
<td></td>
</tr>
<tr>
<td>II.B. Modify Written Text</td>
<td>✓ 13-14</td>
<td>25-27</td>
<td></td>
</tr>
<tr>
<td>III. Make Talk Comprehensible</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>III.A. Pace Teacher’s Speech</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>III.B. Use of Listening Guides</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>III.C. Use of Word Walls</td>
<td>✓ 13-14</td>
<td>25-27</td>
<td></td>
</tr>
<tr>
<td>III.D. Frame Main Ideas</td>
<td>✓</td>
<td>✓</td>
<td></td>
</tr>
<tr>
<td>III.E. Check for Understanding</td>
<td>✓ 13-14</td>
<td>25-27</td>
<td></td>
</tr>
<tr>
<td>IV. Engage: Opportunities for Output</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>IV.A. Use Teacher Questioning and Response Strategies</td>
<td>✓ 13-14</td>
<td>25-27</td>
<td></td>
</tr>
<tr>
<td>IV.B. Practice Instructional Conversations</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>V. Engage at Appropriate Language Proficiency Levels</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>V.A. Use questions appropriate for language proficiency levels in conversations, activities, and assessments</td>
<td>✓ 13-14</td>
<td>25-27</td>
<td></td>
</tr>
<tr>
<td>VI. Give Students Voice</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>VI. A. Challenge students to produce extended talk</td>
<td>✓ 13-14</td>
<td>25-27</td>
<td></td>
</tr>
<tr>
<td>VI. B. Model Language for Oral and Written Production</td>
<td>✓ 13-14</td>
<td>25-27</td>
<td></td>
</tr>
<tr>
<td>VI. C Use Group/Pr. Work to Elicit Student Talk; Students as Researchers</td>
<td>✓ 13-14</td>
<td>25-27</td>
<td></td>
</tr>
</tbody>
</table>
Original Lessons
The lessons that I designed were created on my own. I found there was a need in our grade level, because the district expected us to teach recycling, but didn't provide teachers with materials or lessons.
I brought together a few lessons of recycling that I have done/created and completed with my students.

Good!

Be mindful of the language (as handwritten)
demand and provide support always.
Unit Recycling
Lesson 1 - Introduction to Recycling – KWL Chart

1. Recycling
2. Grade 3, Elementary
3. Target Group - *Mainstream class with integrated ELL students.

Unit Objective: Describe how earth materials can be conserved by reducing the quantities used, and by reusing and recycling materials rather than discarding them.

<table>
<thead>
<tr>
<th>Content Objectives</th>
<th>Language Objectives</th>
</tr>
</thead>
<tbody>
<tr>
<td>TSWBAT:</td>
<td>The students will:</td>
</tr>
<tr>
<td>• Orally communicate and/or draw a picture about their personal experiences, background knowledge and what they have learned about the topic of recycling.</td>
<td>• Discuss environmental issues as a whole class and in small groups.</td>
</tr>
<tr>
<td>• Verbally recall facts from the book in regards to recycling.</td>
<td>• Complete a list or KWL Chart by orally communicating their thought of what they know, want to know and finally what they learned.</td>
</tr>
<tr>
<td></td>
<td>• Understand content concepts and/or vocabulary.</td>
</tr>
<tr>
<td></td>
<td>• Listen to the story and follow along on the overhead.</td>
</tr>
<tr>
<td></td>
<td>• Listen and communicate with other students during small groups.</td>
</tr>
</tbody>
</table>

Materials:
- Book: The Great Trash Bash by Loreen Leedy
- Chart Paper/KWL Chart
- Markers
- Recycling Symbol
- Overhead Projector
- Student paper/crayons
- Lesson Assessment Worksheet

Vocabulary:
- Recycling • reduce
- Environment • reuse

Inquiry:
This lesson will allow students to recall their personal experiences and background knowledge about recycling. They will discuss their thoughts/ideas with their peers in small groups and then explain their understanding and elaborate on why recycling is so important.
Procedure:

1. As a whole class, tell the students that your discussion today is going to be about Recycling. (Have a picture of the recycling symbol up on the board and the word recycling)
2. Ask for a show of hands, who has heard about recycling? (pointing to the picture and the word Recycling).
3. Ask, What is recycling? Give time for sharing of answers and then introduce the vocabulary word and definition. During this time the word environment may also be discussed, be sure to introduce the word and its definition. → Could you turn the vocabulary activity into a more hands-on meaningful way?
4. Put students into small groups and have them discuss what they know about recycling. (For some students whom may not verbalize their ideas that well, you can have them draw a picture to show what they know about recycling) → ok, indicate that Ss will have modified instructions.
5. When done have them come back to whole class and verbally communicate their thoughts and show any drawings, while the teacher writes their ideas down on the chart paper under K.
6. Ask the students, Is there anything about recycling that you want to know? Have students turn to their small group partners for discussion.
7. Bring students back to whole groups and the teacher will write down any ideas students have shared regarding what they want to know about recycling.
8. After discussion of what the students know and want to know about recycling. Read the story, The Great Trash Bash by Loreen Leedy During the reading of the story, project the story on the overhead projector in order for the students to follow along as the teacher reads the story.
9. After reading the story, discuss with students their thoughts about the book. Did the book tell us anything that we already know about recycling? Confirmation! (Give students time to generate their ideas and verbally communicate their answers). Did the book tell us anything that we wanted to know about recycling? (Give students time to generate their ideas and verbally communicate their answers).
10. Put the students into small groups and have them discuss what they learned about recycling. (For some students whom may not verbalize their ideas that well, you can have them draw a picture to show what they know about recycling)
11. Bring the students back to the KWL chart. Ask the students, after reading the book, was there any information that you learned about recycling that you didn't know before we read the book. (Give students time to generate their ideas and verbally communicate their answers). then add student responses to the KWL Chart.
12. After completing the KWL Chart, Review the chart with the students. Continue any discussions about the chart and what they have learned. Ask the students if there is anything they are going to do differently, now that they have learned so much about recycling.
13. Have students complete an assessment piece for the lesson to ensure that the students met the overall lesson content objectives. Have the students write, draw and/or orally express three things that they have learned about recycling.
Lesson 1- Introduction to Recycling

After reading the book: The Great Trash Bash by Loreen Leedy and completing the KWL Chart with your class. Complete the following questions.

1. Write three (3) things that you have learned about recycling and/or draw a picture.

   a

   

   b

   

   c

2. Draw a picture about something you have learned about recycling.
Lesson 1 – Introduction to Recycling – KWL Chart

Rubric

<table>
<thead>
<tr>
<th>Domain/Topic</th>
<th>Bridging/Mainstream Level 5</th>
<th>Expanding Level 4</th>
<th>Developing Level 3</th>
<th>Emerging Level 2</th>
<th>Starting Level 1</th>
</tr>
</thead>
<tbody>
<tr>
<td>Listening, Reading</td>
<td>Students will read silently while listening to the story being read aloud.</td>
<td>The students will be able to listen to the story read and read the story aloud with minimal mistakes.</td>
<td>Students will be able to listen to the story read, follow along on the overhead projector and read some sentences on their own.</td>
<td>Students will be able to listen to the story read and follow along on the overhead projector.</td>
<td>Students will be able to listen to the story read.</td>
</tr>
<tr>
<td>Writing</td>
<td>Draw a picture and write three sentences about something you learned about recycling.</td>
<td>Draw a picture and write two sentences about something you learned about recycling.</td>
<td>Draw a picture and write a sentence relating to something you learned about recycling.</td>
<td>Draw a picture that is related to something you learned about recycling.</td>
<td></td>
</tr>
<tr>
<td>Discussion</td>
<td>The student will be able to discuss with peers background knowledge of recycling, what they know, want to know and what they have learned.</td>
<td>The student will be able to discuss with peers background knowledge of recycling, what they know, want to know and what they have learned.</td>
<td>The student will be able to discuss with peers some background knowledge of recycling.</td>
<td>The students will be able to identify the symbol for recycling, and participate with minimal discussion.</td>
<td></td>
</tr>
<tr>
<td>Function</td>
<td>Situation/Topic</td>
<td>Expressions</td>
<td>Vocabulary</td>
<td>Grammar</td>
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</tr>
<tr>
<td>Describe</td>
<td>The events in the book: The Great Trash Bask by Loreen Leedy. Personal experiences, background knowledge.</td>
<td>It is important to recycle because __________. I do this in my house ____. In the book they did ____. What do you know about recycling? What do you want to know? What have you learned?</td>
<td>Environment Recycling Reduce Reuse</td>
<td>Sentences Phrases Words</td>
<td></td>
</tr>
<tr>
<td>Retell</td>
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<tr>
<td>Define</td>
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<tr>
<td>Identify</td>
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</tbody>
</table>

*Note: Additional expressions may be used to help students offer their thoughts in class.*
Unit Recycling
Lesson 2 – Recycle Your Garbage

1. Recycling
2. Grade 3, Elementary
3. Target Group - *Mainstream class with integrated ELL students.

Unit Objective: Describe how earth materials can be conserved by reducing the quantities used, and by reusing and recycling materials rather than discarding them.

<table>
<thead>
<tr>
<th>Content Objectives</th>
<th>Language Objectives</th>
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</thead>
<tbody>
<tr>
<td><strong>TSWBAT:</strong></td>
<td>The students will:</td>
</tr>
<tr>
<td>- Understand that they can reduce and reuse materials rather than discarding them by sorting their garbage into five different categories to recycle. (paper, plastic, metal, glass (not used in class) and garbage.)</td>
<td>- Explain the reason why they have sorted their objects for recycling.</td>
</tr>
<tr>
<td>- Identify/recognize the recycling symbol on the containers/objects for recycling.</td>
<td>- Participate in whole group and small group discussions.</td>
</tr>
<tr>
<td>- Give a general statement of what could happen to the earth if we don’t recycle.</td>
<td>- Understand content concepts and/or vocabulary, by restating in a sentence.</td>
</tr>
<tr>
<td></td>
<td>- Listen and communicate with other students during small groups.</td>
</tr>
<tr>
<td></td>
<td>- Become familiar with vocabulary by using the words when speaking in small and whole groups.</td>
</tr>
</tbody>
</table>

Materials:

- Paper Bags (one for each student)
- Precut garbage pieces consisting of: paper, plastic, metal, glass (paper pieces resembling things that are glass, and garbage. Pieces of realia! (plastic bottle, paper, metal(foil) etc.)
- Sticker or paper to make recycling labels. (address labels are good to use)
- (Optional) 3 Boxes or plastic containers with recycling symbols on them in front of the class.
- (Optional) 3 labels per student. (to create own recycling symbols)
- Book: The Lorax, by Dr. Seuss.

Familiar Vocabulary:
- Recycling
- Environment
- Reduce
- Reuse

New Vocabulary

- **Fossil Fuels (Hydrocarbon)** - Compounds that are made up of solely carbon and hydrogen.
- Pollution - is the introduction of contaminants into a natural environment that causes instability, disorder, harm or discomfort to the ecosystem i.e. physical systems or living organisms
- Conserve - to prevent injury, decay, waste, or loss of: Conserve your strength for the race. to use or manage (natural resources) wisely; preserve; save: Conserve the woodlands.
- Natural resources - a material source of wealth, such as timber, fresh water, or a mineral deposit, that occurs in a natural state and has economic.

Teacher Background and Information:

Recycling symbols can be found on most products that are recyclable. On plastics they are commonly found with an abbreviation underneath them, or a letter in the center of the symbol. This represents the type of plastic used to make the product. The monomer of units used to create the long chain polymer plastics are hydrocarbons. There are many more plastics around, but these are the plastic that we can currently recycle.

<table>
<thead>
<tr>
<th>1 - Polyethylene terephthalate (PET)</th>
<th>5 - Polypropylene (PP)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2 - High-density polyethylene (HDPE)</td>
<td>6 - Polystyrene (PS)</td>
</tr>
<tr>
<td>3 - Polyvinyl chloride (PVC)</td>
<td>7 - Other resins, (ABS)</td>
</tr>
<tr>
<td>4 - Low-density polyethylene (LDPE)</td>
<td></td>
</tr>
</tbody>
</table>

There are many household substances that can be recycled. They are commonly broken up into the following categories:

- Plastics (plastic container, milk containers, grocery bags etc)
- Glass, Steel and Aluminum (tin cans, aluminum foil)
- Paper (paper bags, writing paper, cardboard boxes, cereal boxes)
- Batteries (batteries do need to be recycled)

Inquiry:

This lesson will allow students to learn how to separate their garbage in order to recycle it. The students will be engaged by entering the room to piles of garbage, it will spike their curiosity. They will then explore their garbage in an attempt to identify and separate their garbage into the different groups of recyclable materials. The students will then explain, examine and elaborate on why recycling is so important.

Procedure:

1. First present your Content Objectives (CO) and Language Objectives (LO) to your students. I would write them on the board and verbalize it to the classroom.

2. Prep materials when students are not in the room. Spread the recyclable trash around the room in various places. Also leave a paper bag on the desk of each student.

3. When the students enter the room to find trash everywhere, ask them to grab their paper bags and start picking up all the trash they see, put it in their bags and come back to their seats. Allow appropriate time approximately 5 minutes.
4. Once the students are seated it is time to talk about recycling. Ask, What did you just do? What kinds of materials/objects did you pick up? What do you think we are going to do with them? Giving students appropriate time to answer.

5. Draw the recycling symbol on the board or a picture of one. Ask.
   a. Has anyone seen this symbol before?
   b. What is this symbol?
   c. Do you know what the symbol means? Give students some time to answer. They can discuss with a peer or small group. After they have given their thoughts ask,

6. Some students might notice the numbers and want to know what they mean. Give a quick description if necessary from the chart above, but stay focused on the recycling/conserving.
   a. Why should we recycle? Knowing the information from Lesson 1, this should be quick. Paraphrase what students are saying and then communicate: Recycling allows us to conserve our natural resources like trees and the fossil fuels (hydrocarbons) it takes to create plastics.

7. Discuss the vocabulary with the students, giving them opportunities to explain their knowledge/understanding of the word, before giving the definitions and explanations.

8. Discuss with the students the different forms/products to be recycled. (paper, plastic, glass, metal). Have the students divide their trash into those categories based on their appearance and textures. Give time for sorting.

9. Continue discussion: Have the students work in groups and discuss with each other the following questions. Put the questions on the board.
   a. How can you tell the difference between each category of recyclables?
   b. How did you sort your recyclable materials?
   c. What could happen if no one recycles?
   d. What could happen if everyone recycles?

10. After the students discuss with their peers/groups, as a whole class discuss the following questions.
   a. How will not recycling affect the planet?
   b. What natural resources will it use?
   c. Are they renewable resources?
   d. What could happen if no one recycles?
   e. What could happen if everyone recycles?

11. Give students the worksheet to complete “Recycle Your Garbage”. (modify for other students, have them work in pairs and/or draw a picture.)

12. When worksheet is complete, collect and discuss the information that they had to complete.

13. Have the students take the materials that they have sorted on their desks and put into the proper recycle box in the front of the room. Give time for each student to bring materials to the front of the room and place in the proper recycle bin.

14. Read The Lorax, by Dr. Seuss. During the reading of the story, project the story on the overhead projector in order for the students to follow along as the teacher reads the story.
15. After reading the book, have the students turn and talk about the renewable and nonrenewable resources (give students time to generate their ideas and verbally communicate their answers). And have whole class discussion about the happenings in the book. Why did the fish leave? Why did the bears leave? What is happening to the water? The sky? Talk about the importance of recycling, nonrenewable/renewable resources. (For some students whom may not verbalize their ideas that well, you can have them draw a picture to show what they know about recycling, nonrenewable/renewable resources).

16. Have students complete an assessment piece for the lesson to ensure that the students met the overall lesson content objectives. Have the students write, draw and/or orally express what items they can recycle and why it is good to recycle.
<table>
<thead>
<tr>
<th>Function</th>
<th>Situation/Topic</th>
<th>Expressions</th>
<th>Vocabulary</th>
<th>Grammar</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sort</td>
<td>The sorting of realia materials to be recycled, into its proper containers.</td>
<td>Pictures/drawings, Oral and Written form</td>
<td>Hydrocarbons</td>
<td>Pictures</td>
</tr>
<tr>
<td>Describe</td>
<td>Collection and organization of materials before put into recycling bins.</td>
<td>In the book this happened because</td>
<td>Fossil fuels</td>
<td>Sounds</td>
</tr>
<tr>
<td>Tell</td>
<td>The events in the book: The Lorax: by Dr. Seuss.</td>
<td>What can happen to the earth if no one recycles?</td>
<td>Natural resources</td>
<td>Sentences</td>
</tr>
<tr>
<td>Define</td>
<td></td>
<td>If everyone recycled the earth would happen to the earth if everyone recycled?</td>
<td>Conserve</td>
<td>Phrases</td>
</tr>
<tr>
<td>Identify</td>
<td></td>
<td>Why is it important to recycle?</td>
<td>Pollution</td>
<td>Words</td>
</tr>
<tr>
<td>Listening</td>
<td></td>
<td>What would you tell your neighbors, family or friends about recycling?</td>
<td></td>
<td>Orally and in written form</td>
</tr>
</tbody>
</table>

Discussion of what the materials feel like, look like.
### Lesson 2 - Recycle Your Garbage - Rubric

<table>
<thead>
<tr>
<th>Domain/Topic</th>
<th>Bridging/Mainstream Level 5</th>
<th>Expanding Level 4</th>
<th>Developing Level 3</th>
<th>Emerging Level 2</th>
<th>Starting Level 1</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sorting</td>
<td>The student are able to recycle all material into the appropriate containers. And give reasoning why.</td>
<td>The student will be able to sort all items appropriately in the right containers.</td>
<td>The student will be able to sort three items appropriately in the right containers.</td>
<td>The student will be able to sort two items appropriately in the right containers.</td>
<td>The student will be able to sort one item appropriately in the right container.</td>
</tr>
<tr>
<td>Writing</td>
<td>Write a paragraph 3-5 sentences about something you learned about recycling.</td>
<td>Draw a picture and write three sentences about something you learned about recycling.</td>
<td>Draw a picture and write two sentences about something you learned about recycling.</td>
<td>Draw a picture and write a few words relating to something you learned about recycling. Using the word wall.</td>
<td>Draw a picture that is related to something you learned about recycling.</td>
</tr>
<tr>
<td>Discussion</td>
<td>The student will be able to discuss with peers the importance of recycling, and renewable &amp; non-renewable resources.</td>
<td>The student will be able to discuss with peers the importance of recycling, and either/or renewable or non-renewable resources.</td>
<td>The student will be able to discuss with peers 2 reasons for recycling, giving 1 example of why.</td>
<td>The student will be able to discuss with peers 1 reason to recycle, and identify the symbol. Use realia</td>
<td>The students will be able to identify the symbol for recycling, and participate with minimal discussion. Using the realia given by the teacher and pictures/book.</td>
</tr>
<tr>
<td>Listening, Reading</td>
<td>Students will read silently while listening to the story being read aloud.</td>
<td>The students will be able to listen to the story read and read the story aloud with minimal mistakes.</td>
<td>Students will be able to listen to the story read, follow along on the overhead projector and read some sentences on their own.</td>
<td>Students will be able to listen to the story read and follow along on the overhead projector.</td>
<td>Students will be able to listen to the story read at the listening center, while having a copy of the book in front of them to follow along.</td>
</tr>
</tbody>
</table>
One morning, when you are putting out the garbage for the garbage man to take away, you notice none of your neighbors are recycling? You decide that you need to send a letter to all your neighbors letting them know how important recycling is to our planet and environment. Write that letter below and be sure to let them know about what you have learned up to this point about recycling and let them know how it could help conserve our natural resources.

Dear Neighbors,
Reduce, Reuse, Recycle

Reduce: This means you reduce the amount of materials you use. For example, if you use both sides of a paper, you are reducing the number of pages you need.

Reuse: this means you use the material over again, either for the same purpose, or for something else. For example, a coffee can, might be reused as a container for crayons or pencils.

Recycle: This means to use the materials over again to make a new product. For example, old newspapers are recycled when they are made into new paper products.

<table>
<thead>
<tr>
<th>Paper</th>
<th>Soda can</th>
<th>Rubber tire</th>
<th>Cereal box</th>
<th>Plastic bags</th>
</tr>
</thead>
<tbody>
<tr>
<td>Water</td>
<td>Glass jar</td>
<td>Popsicle sticks</td>
<td>Milk carton</td>
<td>styrofoam</td>
</tr>
</tbody>
</table>

Look at the items in the box above. Add some similar items of your own.

Decide if the items from the box can be recycled, reused, or reduced. Put them in the appropriate category in the chart below. Items may appear in more than one category.

<table>
<thead>
<tr>
<th>Reduce</th>
<th>Reuse</th>
<th>Recycle</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Recycle Your Garbage

1. What are four different groups you can separate your trash into for recycling?

2. Touch a piece of material from each of your piles, how do they feel different from one another?

3. Why is it important to recycle plastics?

4. Why should paper be recycled? Is its source non-renewable?

5. List two things in your house that you could put into each recycling bin at home!

<table>
<thead>
<tr>
<th>Plastic</th>
<th>Paper</th>
<th>Metal</th>
<th>Glass</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>1.</td>
<td>1.</td>
<td>1.</td>
</tr>
<tr>
<td>2.</td>
<td>2.</td>
<td>2.</td>
<td>2.</td>
</tr>
</tbody>
</table>
Think Green

Remember to reduce, reuse and recycle.
## Day 1

<table>
<thead>
<tr>
<th>Function</th>
<th>Situation/Topic</th>
<th>Expressions</th>
<th>Vocabulary</th>
<th>Grammar</th>
</tr>
</thead>
<tbody>
<tr>
<td>Describe</td>
<td>Discussing the differences of the many pieces of paper in front of them.</td>
<td>Discussion of what the materials feel like, look like.</td>
<td>Waste stream, Paperboard, Junk Mail, Packaging</td>
<td>Pictures</td>
</tr>
<tr>
<td>Retell</td>
<td></td>
<td></td>
<td></td>
<td>Sounds</td>
</tr>
<tr>
<td>Define</td>
<td>Where does all the paper come from? What products?</td>
<td></td>
<td></td>
<td>Sentences</td>
</tr>
<tr>
<td>Identify</td>
<td></td>
<td></td>
<td></td>
<td>Phrases</td>
</tr>
<tr>
<td>Listening</td>
<td></td>
<td></td>
<td></td>
<td>Words</td>
</tr>
<tr>
<td>Writing</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

## Day 2

<table>
<thead>
<tr>
<th>Function</th>
<th>Situation/Topic</th>
<th>Expressions</th>
<th>Vocabulary</th>
<th>Grammar</th>
</tr>
</thead>
<tbody>
<tr>
<td>Describe</td>
<td>Recycling shredded/torn paper into new recycled paper.</td>
<td>Compare the recycled paper to the regular paper.</td>
<td>Shredding, Screening, Pulping, Kneading, Fibers, Pulp</td>
<td>Pictures</td>
</tr>
<tr>
<td>Retell</td>
<td></td>
<td></td>
<td></td>
<td>Sounds</td>
</tr>
<tr>
<td>Define</td>
<td>The events in the book: The Giving Tree by Shel Silverstein.</td>
<td>What does it feel like?</td>
<td></td>
<td>Sentences</td>
</tr>
<tr>
<td>Identify</td>
<td></td>
<td>What does it look like?</td>
<td></td>
<td>Phrases</td>
</tr>
<tr>
<td>Listening</td>
<td></td>
<td>What does it smell like?</td>
<td></td>
<td>Words</td>
</tr>
<tr>
<td>Writing</td>
<td></td>
<td>How can we reduce the amount of our garbage by recycling?</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
### Lesson 3 - Let’s Make Paper - Rubric

<table>
<thead>
<tr>
<th>Domain/Topic</th>
<th>Bridging/Mainstream Level 5</th>
<th>Expanding Level 4</th>
<th>Developing Level 3</th>
<th>Emerging Level 2</th>
<th>Starting Level 1</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Writing</strong></td>
<td>Complete the Let’s Make paper comparison worksheet.</td>
<td>Write four sentences related to the comparison of paper to either your paper or regular paper.</td>
<td>Write two sentences related to two or three of the comparisons of paper to either your paper or regular paper.</td>
<td>Draw a picture and write a few words relating to two of the comparisons of paper.</td>
<td>Draw a picture that is related to one of the comparisons of the paper.</td>
</tr>
<tr>
<td><strong>Discussion</strong></td>
<td>The student will be able to discuss with reasoning of why they think what they are saying.</td>
<td>The student will be able to discuss using full phrases and partially reasoning.</td>
<td>The student will be able to discuss using sentences or partial phrases.</td>
<td>The student will be able to discuss with a partner using a sentence.</td>
<td>The students will be able to discuss with a partner using words.</td>
</tr>
<tr>
<td><strong>Listening</strong></td>
<td>Students will read silently while listening to the story being read aloud.</td>
<td>The students will be able to listen to the story read and read the story aloud with minimal mistakes.</td>
<td>Students will be able to listen to the story read, follow along on the overhead projector and read some sentences on their own.</td>
<td>Students will be able to listen to the story read and follow along on the overhead projector.</td>
<td>Students will be able to listen to the story read at the listening center, while having a copy of the book in front of them to follow along.</td>
</tr>
<tr>
<td><strong>Making Paper</strong></td>
<td>The students will be able to take the wet pieces of paper onto the wood frame and screen and manipulate it, pushes out all water. Final product will be dry and formed to the outer wood frame.</td>
<td>The students will be able to take the wet pieces of paper onto the wood frame and screen and manipulate it, pushes out all water. The students will be dry and formed almost perfect.</td>
<td>The students will be able to take the wet pieces of paper onto the wood frame and screen and manipulate it, to push out all water. Final product will be partially dry, some dampness.</td>
<td>The students will be able to take the wet pieces of paper onto the wood frame and screen and manipulate it, to push out all water. Final product will be some ruff bumps and still wet and movable.</td>
<td>The students will be able to take the wet pieces of paper onto the wood frame and screen and manipulate it. Final product will be clumpy and partially torn.</td>
</tr>
</tbody>
</table>
Unit Recycling
Lesson 3 - What is Made of Paper? / Let’s Make Paper!
Day 1

1. Recycling
2. Grade 3, Elementary
3. Target Group - *Mainstream class with integrated ELL students.

Unit Objective: Describe how earth materials can be conserved by reducing the quantities used, and by reusing and recycling materials rather than discarding them.

<table>
<thead>
<tr>
<th>Content Objectives</th>
<th>Language Objectives</th>
</tr>
</thead>
<tbody>
<tr>
<td>TSWBAT:</td>
<td>The students will:</td>
</tr>
<tr>
<td>• Distinguish how many products are made of paper.</td>
<td>• Participate in whole groups and small group discussions.</td>
</tr>
<tr>
<td>• Analyze the different pieces of paper and discuss their observation.</td>
<td>• Compare the pieces of paper and discuss the difference/comparisons.</td>
</tr>
<tr>
<td>• Draw Conclusions About why paper recycling is important.</td>
<td>• Applies knowledge by retelling of content-related vocabulary with appropriate definitions or illustrative examples.</td>
</tr>
</tbody>
</table>

Materials:

• Bucket
• All of the following materials should be in portions of one per student: Very small paper bags
• Crepe paper streamers cut into three inch lengths
• One quarter of page from a magazine
• Piece of cardboard from a cereal box
• Piece of newspaper
• Piece of corrugated cardboard
• Clipping from an advertising circular
• Old dittos from class

Vocabulary:

• Waste stream - the total garbage that we generate becomes part of all garbage and is known as the waste stream.
• Paperboard - Another name for this is chip wood. A light cardboard type of paper often used for cereal boxes and school supplies.
• Junk Mail - This is the advertising, mail-order catalogues, and requests for donations that come to your mail box.
• Packaging - packaging means the materials that hold a product. For example, when you buy eggs, they come in cardboard cartons. Those cartons are the packaging.
Inquiry:
These two lessons are designed to make the students aware of how many different types of paper products there are, and how much they contribute to the total waste stream. The first lesson sensitizes the student to the problem; the second lesson is a hands-on paper making activity to give the students a better understanding of how paper is recycled on a large scale. (I do recommend trying the paper making experiment at home before embarking upon this as a classroom activity. That way you will be more familiar with the processes yourself, and can troubleshoot any potential problems you might encounter in your classroom.)

Procedure:

1. First present your Content Objectives (CO) and Language Objectives (LO) to your students. I would write them on the board and verbalize it to the classroom.
2. Ask the students:
   a. What will happen to our world if people keep cutting down trees? (Give time for students to generate their answers and respond). Have the students look around the room and discuss with a partner the many things that are made from trees?
   b. How many pieces of paper do you use daily? Or cardboard? (show some samples of recycled paper such as cereal boxes, McDonald's bags, and the newspaper. Show the children where it tells that the item was made from recycled paper.)
3. Place a piece of the various types of paper into the small paper bags and distribute one bag to each student. Fill the bags before class so the students are unfamiliar with the contents.
4. Direct the students to take out the contents of their bags and examine them.
5. Ask them to discuss with other student in their group and comment on the textures and other factors they notice about the papers.
6. Start a word bank on the board or chart paper under the heading "Paper Products", and begin a discussion about where students believe these papers came from.
7. Expand the discussion to encompass other types of paper. When students comment on the cereal box piece, you can ask what other foods they know that come in boxes like that? Then you can further expand the discussion by asking what other things? Ex. (computer program boxes, school supplies and even candy bar packaging) use light cardboard in their packaging.
8. Lead the students in a discussion about packaging. Explain that the bits of paper that you gave them were packaged in the small paper bag.
   a. Ask how does paper play a role in the packaging of products they encounter in their lives?
9. Walk around with the bucket and ask students to place their scraps and bag into the bucket. Optionally, you can also have the students tear the bag and larger pieces into smaller one inch pieces when placing into the bucket. This will prepare things for the next day's activity and give the students a better feel for the differing textures of the paper.
10. Once the scraps are collected, hold up the bucket and
   a. Ask the students what they think should happen to the paper now? The students should respond with the concept of recycling: making something new out of something old.
   b. Ask the students what other examples they can think of where things are re-used instead of thrown away?
11. Explain that the total garbage that we generate becomes part of all garbage and is known as the waste stream. The students will now have a better understanding of how many products are made of paper and can see that the paper portion of the waste stream can be considerable.
12. Dump the contents of the bucket on a large desk. Have the students try to come to an understanding of how little scraps of paper add up to a larger stack. Lead the students into the next step which is to try to have them extrapolate that tiny stack of paper to the huge mounds of waste paper that accumulate every day. Ask the students what they would do with the piles of paper if they ran a town? Explain that this waste paper is dumped in a landfill, burned (discuss waste to energy plants whereby burning garbage heats water to steam and generates electricity), or recycled into new paper products.

13. Put the paper scraps back into the bucket and cover with warm water. This will prepare the paper for the next day’s lesson on paper making.
Unit Recycling
Lesson 3- Let's Make Paper!
Day 2

1. Recycling
2. Grade 3, Elementary
3. Target Group - *Mainstream class with integrated ELL students.

Unit Objective: Describe how earth materials can be conserved by reducing the quantities used, and by reusing and recycling materials rather than discarding them.

<table>
<thead>
<tr>
<th>Content Objectives</th>
<th>Language Objectives</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>TSWBAT:</strong></td>
<td>The students will:</td>
</tr>
<tr>
<td>• Students will create a piece of paper from recycled material.</td>
<td>• Students will observe and describe verbally and non verbally what happens when different paper products are made wet.</td>
</tr>
<tr>
<td>• Discover how important it is to recycle and how easy it is to make recycled paper.</td>
<td>• Students will verbally describe the changes that occur throughout the process of paper recycling.</td>
</tr>
<tr>
<td>• Describe the steps needed to make paper (from raw as well as recycled material).</td>
<td>• Participates in conversations with peers and adults on familiar topics by asking and answering questions and soliciting information.</td>
</tr>
<tr>
<td>• Orally communicate and/or write the comparisons of recycled paper and regular paper.</td>
<td>• Applies knowledge by retelling of content-related vocabulary with appropriate definitions or illustrative examples.</td>
</tr>
</tbody>
</table>

Materials:

- Blender
- Pans
- Measuring cups
- Shredded paper from shredder or ripped paper into 1 inch pieces
- Rolling pin
- 2 Buckets
- 5"x7" Wooden Frame
- Screening Material large enough to cover frame
- Small nails, tacks or staples to attach screening to frame
- Basin at least 8" deep, wide enough to fit frame
Materials (continued)

- Pieces of felt 9"x12" (at least one per student)
- Warm water
- Old newspapers
- Wooden Spoon for stirring
- Smocks (optional, this can get messy)
- Sponge
- Several Magnifying Glasses
- Book: The Giving Tree by Shel Silverstien

Vocabulary:

- Shredding - to tear or cut into small pieces.
- Screening - using screens, with either slots or holes, to remove contaminants that are larger than pulp fibers.
- Pulping - Adding water and applying mechanical action to separate fibers from each other.
- Kneading - to manipulate by pressing and stretching to remove water.
- Fibers - Tiny thread-like particles. In the case of paper, they come from the tree from which the paper was made.
- Pulp - Wet wood fibers used to make paper.

Procedure:

1. Have the students in small groups and ask the students: Give the students time to discuss with each other, and then bring them back to whole class and share their answers.
   a. Why is it important that we recycle the paper we use?
   b. What renewable resources are we conserving and protecting?
   c. How would recycling paper help cut down on our garbage?
2. Wrap the screen around the wooden frame and tack or staple it down.
3. Take a handful of the wet shredded paper from the bucket and put into the blender.
   a. Ask the students what happened to the paper when water was added to it.
4. Cover the paper with warm water and blend until the paper is broken down into pulp.
   a. Ask the students, What happened to it in the blender?
5. Pour the pulp into the basin and repeat until all of the paper is processed.
6. Lay newspapers in an area that can be undisturbed for a day and place felts on them. You may want to mark these with the students' names so they will know which paper is theirs. Before the students begin to make their individual pieces of paper, you can briefly have them touch the pulp with their hands. Ask the students to observe the wet paper and discuss with a partner what they see. Give appropriate time for discourse. Ask the students: now let's share with the rest of the class what you observed. Students may respond about seeing little strings in the paper. Then you can explain that the paper is fibrous, it contains little fibers that fit together to form a mat that becomes paper.
7. Have the students take turns dipping the frame into the basin and lifting it up horizontally. The students should gently shake the frame from side to side and hold it for a minute to drain off the excess water. It is also helpful to try to absorb some of the water by applying the sponge to the other side. Wringing out the sponge.
   a. What does your piece of paper look like? Describe it.
   b. Does your paper look like the paper we write on? Why or why not?
8. The student should then flip the frame onto his/her piece of felt. Use the sponge and light tapping to peel the paper off of the frame and onto the felt. While students are waiting to make their paper, in addition
to watching the other students, they can take a magnifying glass and examine notebook, newspaper or computer paper to try to see fibers within the paper.

   a. How is this paper different from the paper we use to write and draw on? (the paper will be coarse compared to "regular" paper).

10. There can be an additional extension to the lesson. You can do a T-Chart comparing the recycled paper to regular paper.

11. After everyone has created their recycled paper read the book The Giving Tree by Shel Silverstein.

any particular objectives here. What do you expect to communicate to SS by doing the reading? Explain.

This is something SS can do in groups.

Good idea!
Let's Make Paper

Let's make comparisons between the paper you made and a regular piece of paper.

<table>
<thead>
<tr>
<th></th>
<th>Your Paper</th>
<th></th>
<th>Regular Paper</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Color</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Are the colors the</td>
<td></td>
<td></td>
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<tr>
<td>same?</td>
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<tr>
<td>Explain!</td>
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<tr>
<td><strong>Sight</strong></td>
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<tr>
<td>Do the papers look</td>
<td></td>
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<tr>
<td>the same?</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Explain!</td>
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<tr>
<td><strong>Texture</strong></td>
<td></td>
<td></td>
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</tr>
<tr>
<td>Do both pieces of</td>
<td></td>
<td></td>
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<tr>
<td>paper feel the same?</td>
<td></td>
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<tr>
<td>Explain</td>
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<tr>
<td><strong>Smell</strong></td>
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<tr>
<td>Do both pieces of</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>paper smell the</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>same?</td>
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<td></td>
</tr>
<tr>
<td><strong>What Else?</strong></td>
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<td></td>
<td></td>
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<tr>
<td>Any other things</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>different?</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Explain!</td>
<td></td>
<td></td>
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</tr>
</tbody>
</table>

**nice!**
Recycling

Lesson Extensions & Activities

By

Lisa Pereira
Modified Activities for ELLS in Mainstream Classes

- Substitute Letter
- Overview of Unit Plan
- Alignment of Standards
- Warm Up (Contextualization) Activity
- Modified Reading Activity
- Vocabulary Activity
- Interactive Activity
- Choice Activity
- Cool Down Activity
# Overview of Recycling Unit - Science/Social Studies

**Grade 3**

<table>
<thead>
<tr>
<th>Day 1</th>
<th>Day 2</th>
<th>Day 3</th>
<th>Day 4</th>
<th>Day 5</th>
</tr>
</thead>
<tbody>
<tr>
<td>Warm Up:</td>
<td>Warm Up:</td>
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<td>10 minutes</td>
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<tr>
<td>Brainstorming:</td>
<td>Word Wall activity:</td>
<td>Give One Get One</td>
<td>Free Write</td>
<td>Video Clip</td>
</tr>
<tr>
<td>Picture cards of cans, bottles, newspapers, magazines</td>
<td>Use index cards to define and illustrate words related to recycling</td>
<td>(one thing you learned about recycling)</td>
<td>(what would it be like to live in a world that was polluted)</td>
<td>United Streaming (Discovery Channel) video on the three R’s</td>
</tr>
<tr>
<td>Activity:</td>
<td>Activity:</td>
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<td>Activity:</td>
<td>Activity:</td>
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<tr>
<td>15 minutes</td>
<td>15 minutes</td>
<td>25 minutes</td>
<td>25 minutes</td>
<td>15 minutes</td>
</tr>
<tr>
<td>Whole-class</td>
<td>KWL about what they know about recycling</td>
<td>Construct a poster with their partner promoting recycling in their school, home, or community</td>
<td>Pairs of students will do an internet search on renewable and non-renewable resources</td>
<td>Create a T-Chart for information that they have learned about recycling</td>
</tr>
<tr>
<td>Internet search: Google Earth (show Naples, Italy where trash collection has ceased)</td>
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<tr>
<td>Cool Down:</td>
<td>Cool Down:</td>
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<td>10 minutes</td>
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<tr>
<td>Exit Tickets</td>
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<tr>
<td>1 thing you learned 1 question you have</td>
<td></td>
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<td>Sentences Strips:</td>
</tr>
<tr>
<td>Out Share</td>
<td></td>
<td>Think-Pair-Share</td>
<td>Crossword Puzzle</td>
<td>Students will write down two facts they have learned about recycling to put on a bulletin board when lesson is complete</td>
</tr>
<tr>
<td>Outcome sentences:</td>
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<tr>
<td>Day 6</td>
<td>Day 7</td>
<td>Day 8</td>
<td>Day 9</td>
<td>Day 10</td>
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</tr>
<tr>
<td><strong>Warm up:</strong>&lt;br&gt;10 minutes&lt;br&gt;Conversation Circles/Inside-Outside Circles&lt;br&gt;Would you like to live in a planet that was polluted? Why/Why not?&lt;br&gt;What could you do to prevent this from happening?</td>
<td><strong>Warm up:</strong>&lt;br&gt;10 minutes&lt;br&gt;Video&lt;br&gt;Show students video clip from Disney's Wall-E&lt;br&gt;And share their feelings</td>
<td><strong>Warm up:</strong>&lt;br&gt;10 minutes&lt;br&gt;Introduce the guest speaker from Rainbow Recycling</td>
<td><strong>Warm up:</strong>&lt;br&gt;10 minutes&lt;br&gt;Picture cards of compost piles&lt;br&gt;Discussion of ways to reduce, reuse and recycle</td>
<td><strong>Warm up:</strong>&lt;br&gt;10 minutes&lt;br&gt;Jeopardy Game&lt;br&gt;(quiz questions to prepare for the assessment)</td>
</tr>
<tr>
<td><strong>Activity:</strong>&lt;br&gt;15 minutes&lt;br&gt;List-Group-Sort&lt;br&gt;(in groups, use vocab. and terms for the unit)(Groups using sticky notes and chart paper)</td>
<td><strong>Activity:</strong>&lt;br&gt;30 minutes&lt;br&gt;Science&lt;br&gt;Experiment with compost piles</td>
<td><strong>Activity:</strong>&lt;br&gt;30 minutes&lt;br&gt;Guest Speaker</td>
<td><strong>Activity:</strong>&lt;br&gt;30 minutes&lt;br&gt;Students will create an object using reusable materials</td>
<td><strong>Activity:</strong>&lt;br&gt;15 minutes&lt;br&gt;Assessment&lt;br&gt;(Test with multiple answer types)</td>
</tr>
<tr>
<td><strong>Cool Down:</strong>&lt;br&gt;5 minutes&lt;br&gt;Share out&lt;br&gt;I learned...</td>
<td><strong>Cool Down:</strong>&lt;br&gt;10 minutes&lt;br&gt;In 25 Words or Less&lt;br&gt;(students define recycling)</td>
<td><strong>Cool Down:</strong>&lt;br&gt;10 minutes&lt;br&gt;Venn Diagram comparing renewable and non-renewable resources</td>
<td><strong>Cool Down:</strong>&lt;br&gt;5 minutes&lt;br&gt;TPR Lesson&lt;br&gt;(students respond nonverbally to a series of commands)</td>
<td><strong>Cool Down:</strong>&lt;br&gt;5 minutes&lt;br&gt;Weather Report</td>
</tr>
</tbody>
</table>
Overview of Standards

Warm Up Activity - Brainstorming Carousel

Science: Earth's materials provide resources for all living things, but those resources are limited and should be conserved

ELL Standards: Report on a topic or an experience with appropriate facts and details, speaking clearly at an understandable pace.

Modified Reading Activity – Reader's Theatre

Reading: Read a text with appropriate pace, good intonation, expression, and phrasing

ELL Standards: Read with sufficient accuracy and fluency to support comprehension

Vocabulary Activity – Interactive Word Wall

Science: Earth’s materials provide resources for all living things, but those resources are limited and should be conserved

ELL Standards: Identify real life connections between words and their use

Acquire and use accurately grade appropriate conversational, general academic, and domain specific words and phrases

Interactive Activity - In 25 Words or Less

Writing: Writers will notice important information in non-fiction writing

ELL Standards: With guidance and support from peers, produce writing in which the development and organization are appropriate to task and purpose

Choice Activity – Computer Based Learning Activity

Technology: Use technology (computer) to acquire and understanding of a topic

ELL Standards: Recall information from experiences or gather information from print and digital sources; take brief notes on sources and sort evidence into provided categories

Cool Down Activity – Found Object

Science: Humans can extend the use of some natural resources by recycling

ELL Standards: Speak in complete sentences when appropriate to task and situation in order to provide requested detail or clarification
# Warm-Up

## Contextualization Activity - The Brainstorming Carousel

<table>
<thead>
<tr>
<th>Lesson Element and Time Frame</th>
<th>Lesson Details</th>
<th>Materials, Resources, and Modifications</th>
</tr>
</thead>
</table>
| **Content and Language Objectives** | Students will move around the classroom and respond to a pictures of pollution  
Students will write how the picture makes them feel or what they think about it  
Students will share their ideas and thoughts through writing, speaking, and listening to their peers. | Pictures of water pollution, smoke stacks, contaminated land, oil spills, deforestation and forest fires (see attached)  
Chart paper with markers  
Masking tape  
Timer                                                                                           |
| **Background**  
**5 minutes** | Everyone uses language for various reasons. This activity is to encourage discussion and response to images of pollution. This activity inspires students to think, write, share, and discuss their thoughts and ideas in through language. | Board for vocabulary                                                                                     |
| **Instructions**  
**10 minutes** | Students will walk around the room making comments on the chart paper about the photographs and what they think about the pictures. The students can respond to what their classmates wrote as well.  
The students will stay at each “station” for 2-3 minutes and will rotate at the sound of the digital timer.  
When the stations are completed, students will return to their seats and discuss their ideas and thoughts. | Chart paper  
Pollution photographs (see attached)  
Markers                                                                                           |
| **Lesson and Practice Activities**  
**25-30 minutes** | Once the students have rotated, the teacher will ask the students how they felt doing the activity and encourage them to share their ideas. After the teacher will go to each of the stations and ask for volunteers to share. In addition, the teacher can also read from each chart paper thoughts or quotes to inspire conversation. | Pictures of water pollution, smoke stacks, contaminated land, oil spills, deforestation and forest fires  
Chart paper with markers  
Masking tape  
Timer                                                                                           |
| **Discussion**  
**10 minutes** | Conversation Starters:  
What does this picture show?  
How do you think this happened?  
Do you think that this can be changed? | Chart paper to write important points/ideas                                                                 |
## Modified Reading Activity - Reader's Theatre

<table>
<thead>
<tr>
<th>Lesson Element and Time Frame</th>
<th>Lesson Details</th>
<th>Materials, Resources, and Modifications</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Content and Language Objectives</strong></td>
<td>Students will read a text fluently with appropriate pace, intonation and phrasing</td>
<td>Grouping: Whole Class</td>
</tr>
<tr>
<td>15 minutes</td>
<td>Students will read with a small group collaboratively taking turns</td>
<td>Board with objectives</td>
</tr>
<tr>
<td></td>
<td>Students will share their ideas and thoughts through writing, speaking, and listening to their peers</td>
<td></td>
</tr>
<tr>
<td><strong>Background</strong></td>
<td>Everyone uses language for various reasons. This activity is to encourage discussion and response to a play about recycling. This activity inspires students to think, share, and discuss their thoughts and ideas through language.</td>
<td>Grouping: Whole Class</td>
</tr>
<tr>
<td>5 minutes</td>
<td>Students will be in groups of 2-3</td>
<td>Board for vocabulary</td>
</tr>
<tr>
<td><strong>Instructions</strong></td>
<td>Students will be assigned “parts” of a play</td>
<td>Grouping: Groups of 2-3</td>
</tr>
<tr>
<td>10 minutes</td>
<td>Students will read their “parts” and actively tell the story</td>
<td>Names of “parts” on board</td>
</tr>
<tr>
<td><strong>Lesson and Practice Activities</strong></td>
<td>Once the students have been grouped, the teacher will ask the students to begin reading the play.</td>
<td>Leveled Reader’s Theatre:</td>
</tr>
<tr>
<td>25-30 minutes</td>
<td>After the teacher will go to each of the stations and listen for appropriate pace, intonation and phrasing.</td>
<td>The Three R Plan</td>
</tr>
<tr>
<td></td>
<td>In addition, the teacher can also read from each play to model fluency.</td>
<td>Reduce, Reuse, Recycle</td>
</tr>
<tr>
<td></td>
<td>Conversation Starters:</td>
<td>Highlighters for highlighting parts</td>
</tr>
<tr>
<td><strong>Discussion</strong></td>
<td>What does this story tell you?</td>
<td>Chart paper to write important points/ideas</td>
</tr>
<tr>
<td>10 minutes</td>
<td>What lesson did you learn from the play?</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Do you think that this play be changed?</td>
<td></td>
</tr>
</tbody>
</table>
Vocabulary Activity

List of Vocabulary:

- reduce
- reuse
- recycle
- conserve
- conservation
- environment
- compost
- landfill
- pulp
- sorting
- contaminate
- pollution
- waste
- groundwater
- natural resources
Vocabulary Activity

Word Wall

Have the students work with a partner and choose a word from the vocabulary word list. Students will write their definitions and illustrate their word. After students are done, hang the papers on the wall for all to see.

recycle - process of turning materials into new items
# Interactive Activity - In 25 Words or Less

<table>
<thead>
<tr>
<th>Lesson Element &amp; Time Frame</th>
<th>Lesson Details</th>
<th>Materials &amp; Modifications</th>
</tr>
</thead>
</table>
| **Content and Language Objectives** 10 minutes | We will learn about Earth Day  
We will brainstorm about what Earth Day means (speak and write)  
We will read about Earth Day  
We will share and discuss what Earth Day is | KWL Chart on Earth Day  
Markers  
Chart Paper  
Grouping: Whole Class |
| **Warm Up** 5 minutes | Earth Day Image – show poster/media showing the Earth  
Have a student share what the picture makes them think of | Poster of the planet earth (or a globe or Google Earth image)  
Grouping: Whole Class |
| **Vocabulary Focus** 5 minutes | Earth Day, global, natural environment, awareness, organization | Vocabulary word wall  
Grouping: Whole Class |
| **Lesson & Practice Activities** 30 minutes | KWL chart activity – share and discuss what we know about Earth Day, what we want to know about Earth Day, and what have we learned about Earth Day  
Small Group Reader Response- (2-3 students) students will read leveled and modified text “Earth Day” and share and discuss information that they have learned 25 Words or Less Activity-Students will work together as a group to answer: What is Earth Day? On chart paper students will record their thoughts and ideas. One student will pass the pen and each student will respond and record their ideas  
Sharing – groups will hang their chart paper and discuss their answers to the question: What is Earth Day? | Chart Paper  
Markers  
“Earth Day” texts  
Chart paper  
Masking tape  
Timer (for teacher)  
Grouping: Groups of four |
| **Cool Down and Assessment** 10 minutes | Outcome Sentences – students will share out their ideas about what they have learned  
Review Objectives – Did students learn more about Earth Day? Did they learn why it was formed? | Soft ball to toss |
| **Homework** 15 minutes | Journal: What are some ways we can work together to take care of the planet? | Paper |
# Choice Activity

## Computer Based Learning Activity

<table>
<thead>
<tr>
<th>Lesson Element and Time Frame</th>
<th>Lesson Details</th>
<th>Materials and Resources</th>
</tr>
</thead>
<tbody>
<tr>
<td>Content &amp; Language Objectives</td>
<td>We will learn about planet Earth and its features We will view a picture of the Earth We will share what we see through Google Earth</td>
<td></td>
</tr>
<tr>
<td>5 Minutes</td>
<td></td>
<td>Board for objectives Grouping: Whole Class</td>
</tr>
<tr>
<td>Warm-Up</td>
<td>Discuss ways to properly use the internet with the class Model for the class how to enter the website in the tool bar</td>
<td>Grouping: Whole Class Computers</td>
</tr>
<tr>
<td>10 minutes</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Vocabulary Focus</td>
<td>Continents, globe, mountains, rainforests, islands, oceans</td>
<td>Vocabulary List</td>
</tr>
<tr>
<td>5 minutes</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lesson &amp; Practice Activities</td>
<td><strong>KWL Chart</strong> – Students will brainstorm in groups of 4 what they already know about the planet Earth  Internet search using Google Earth with a partner Students will choose a region of the world to explore with a partner Students will see what makes their region unique and share with the class</td>
<td></td>
</tr>
<tr>
<td>30 minutes</td>
<td></td>
<td>Grouping of 4 for the KWL review (mixture of NNS and NS) Chart paper Markers</td>
</tr>
<tr>
<td>Cool Down &amp; Assessment</td>
<td><strong>Outcome Sentences</strong> – students will share their internet findings  Share- students will discuss the regions of the world they looked at</td>
<td></td>
</tr>
<tr>
<td>5 minutes</td>
<td></td>
<td>Grouping: Whole Class Small globe to pass</td>
</tr>
<tr>
<td>Homework</td>
<td>Students review the vocabulary</td>
<td>Grouping: Individual</td>
</tr>
<tr>
<td>5 minutes</td>
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</tbody>
</table>
# Cool Down Activity - Found Object

<table>
<thead>
<tr>
<th>Lesson Element and Time Frame</th>
<th>Lesson Details</th>
<th>Materials and Resources</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Content &amp; Language Objectives</strong></td>
<td>We will review the importance of the 3 R's</td>
<td>KWL Charts from lessons</td>
</tr>
<tr>
<td>5 Minutes</td>
<td>We will find an object in the class room that relates</td>
<td>Grouping: Whole Class</td>
</tr>
<tr>
<td><strong>Warm-Up</strong></td>
<td>Have students share with a partner one thing that can be recycled, reused, or reduced</td>
<td>Timer</td>
</tr>
<tr>
<td>10 minutes</td>
<td></td>
<td>Grouping: Partners</td>
</tr>
<tr>
<td><strong>Vocabulary Focus</strong></td>
<td>Aluminum Paper Plastic</td>
<td>Vocabulary List</td>
</tr>
<tr>
<td>5 minutes</td>
<td></td>
<td>Grouping: Whole Class</td>
</tr>
<tr>
<td><strong>Lesson &amp; Practice Activities</strong></td>
<td>Found Object – Ask students with small groups to find an object that connects to their learning</td>
<td>Teacher should prepare a box or bag of miscellaneous objects to be used for this purpose</td>
</tr>
<tr>
<td>30 minutes</td>
<td>Students can share with others how the object links to what they have just been studying</td>
<td>Grouping: Small Groups of 4</td>
</tr>
<tr>
<td><strong>Cool Down &amp; Assessment</strong></td>
<td>Students will present their object to the class and describe how it could be recycled, reused, or reduced</td>
<td>Objects from above</td>
</tr>
<tr>
<td>5 minutes</td>
<td></td>
<td>Timer</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Grouping: Whole Class</td>
</tr>
<tr>
<td><strong>Homework</strong></td>
<td>Students will go home and find another object that can be recycled, reused, or reduced</td>
<td>Household objects</td>
</tr>
<tr>
<td>5 minutes</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Resources

Migliacci, N. Working with English Language Learners Materials and Resources

Fifty Ways to Save the Planet. Playbac Publishing Company 2009

www.readinga-z.com

cintonavegr3.wikispaces.com – site created by my colleagues and myself regarding recycling. Here students will find resources, games and activities to do at home.
RECYCLE!!

**Essential Question:** How can you right now make a difference or impact the earth/community?

**Objectives:**

- Explain advantages and disadvantages of renewable and nonrenewable energy sources that can be used for making electricity, fueling cars or heating homes.
- Describe ways people use earth materials, such as fossil fuels, trees, water, soils and rocks as natural resources to improve their lives.
- Describe how earth materials can be conserved by reducing the quantities used, and by reusing and recycling materials rather than discarding them.

**Recycling – Resources and Activities**

**Books/Articles**
Read Alouds
Shared Reading
Guided Reading Groups
Centers
Reader's Theatre

**Science Activities**
Build a Terrarium (out of recycled items)
Compost Pile Science
Testing which household items can be recycled, reused, or reduced

**Internet and Websites**
WebQuests
Internet Scavenger Hunt
Create a WebSpace/Blog
Recycling Games
Create a online story/storyboard
PowerPoint creation

**Games and other Activities**
Recycled Bowling
Scavenger Hunt
Recycling Relay
Where does it go? (Sorting game)
Poster Contest
Matching Games

**Arts and Crafts**
Trash Pizza
CD Picture Frames
Bird Houses
Making Instruments
Making Paper
Read Up On Recycling!


Earth Works Group Inc. 50 things you can do to save the earth. Berkeley: Earthworks Group 1989.


Leedy, Loreen. The Great Trash Bash


Showers, Paul. Where Does the Garbage Go.


Great Books for Teachers


Other Great Books


Fun School Recycling Activities

Trash Pizza
Materials: A trash can from a classroom, teacher's lounge and cafeteria
Directions: Conduct a waste audit of each trash can, categorizing items by the following types: recyclable paper, non-recyclable paper (tissues, paper towels, construction paper), cardboard, plastic bottles #1 & #2, other non-recyclable plastics and plastic films, aluminum cans, steel cans, food waste, other organic material like old flowers or plant trimmings, Styrofoam, what else is in there? You can take this information and create a pie chart, develop percentages of each material, etc. This will also help guide you if you are looking to launch a recycling program at your school and will you a handle on what is in the school’s waste stream.

CD Case Picture Frame
Materials: Empty CD case, ribbon, buttons, puzzle pieces, shells, etc, wrapping paper, old felt or material, glue
Directions: This all takes place inside the case. Use the wrapping paper to create a background that will be seen through the back of the case. Adhere a wallet-size photo (or Polaroid, if needed immediately) on top of the paper. Cut a piece of wrapping paper, felt or material to fit inside the case. Cut out a portion in a square, heart or other shape to reveal the photo. Glue over the photo. Decorate with remaining items, add a ribbon border, etc. Close the case and enjoy!

Where Does it Go?
Divide the students into groups of four-five. Assign each of them an end-point in the waste stream – recycling, landfill, litter/storm drain/Rio Grande, etc. Provide a description of the process and a few small props. Have the groups act out the process, charades-style, while the other groups try to guess what they are portraying.

Recycled Art
Bringing in trash and recyclables to create as an art project, be it a theme or let the kids just create an awesome project. Asking kids to develop their own art project and find the materials themselves from the waste stream is enlightening as well.
Scavenger Hunt
An event that I've done with kids is to have them find the recyclable items (like a scavenger hunt). Put a list together of recyclable items (plastic #1 and #2 bottles, various paper items, bottles, etc), and have them go through a pile of stuff and obtain one of each item. Not only does this educate them on what can be recycled, but it gets them to consider some options (like magazines) that they may not have known are recyclable.

Bird House
Another one is to have them make a birdhouse out of milk cartons and other scrap recyclables that can function as one (not just decorative).

Recycling Relay
What you need: 3 labeled boxes: 1 recycle, 1 reuse, and 1 trash
2 boxes of clean “trash” (assemble items that might typically be thrown away, include reusable and recyclable items). Works well for many age groups. It is a relay race. Basically you get a pile of reusable, recyclable, landfill able items- maybe about 20 (depending on the age of your group). Then you have three buckets. One for Reuse, that is placed closest, one that is for Recycling that is placed mid-way, and one for Landfill/Trash that is placed the furthest away.
The team figures out what to do with each item: reuse, recycle, or landfill, and then they have to run to the bucket and place it in the appropriate bin. As you can tell, the more items they reuse, and then the more items they can recycle, the higher chance they have for winning. It also reinforces the idea that reuse is cheaper, uses less resources than even recycling, and that recycling uses less resources than land filling (and making something with new materials). At the end you can review what was put in each bin, the team has to explain how they would have reused the items that they put in the reuse bin to count and confirm that the items they put in the recycling bin are really recyclable in your community. You can deduct points or do whatever you want.

Recycled Bowling
Have students create bowling pins from used 2 liter bottles. You can decorate the bottles with paints or markers. You can also decorate by placing shredded paper inside the bottles; this adds color and weight to the bottles. Then set the pins up and begin bowling using a large ball such as a basketball or kickball.

The Science of Reuse
Find a reusable or recyclable item (ex. Milk jug, flower pot). Have the students think of additional ways to use the item. Reward the student or group who finds the most uses for the item.
Recycle Jeopardy: http://www.co.douglas.or.us/recycle/

Lid Mandala
Make a mural out of plastic different colored plastic lids. See the BRING website, photo on top right hand side (collect and keep separate different colored lids-draw a picture outline with chalk and have them add to the "lid mandala"- www.bringrecycling.org

Wastruments
Make musical instruments out of plastic bottles or other stuff