

Fill In The GAPP

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Overview: What does it mean to recycle and what things can we recycle? Through the use of video and the Internet, students will learn the answers to these questions. Students will view a short 2-3 minute video clip entitled, *Keeping Your Community Clean* to discover the meaning of recycling. They will then visit a web site where they will investigate recyclable and non-recyclable items.

Grade Level: K-1

Time Allotment: 2-3, 45 minute class periods

Subject Matter: Science and Technology

Learning Objectives:

Students will be able to:

- define recycling
- identify items that may be recycled

Standards:

- Virginia Standards of Learning which can be found at <http://www.pen.k12.va.us/VDOE/Superintendent/Sols/home.shtml>
 - *Science K.10 The students will investigate and understand that materials can be reused, recycled, and conserved.
 - *Science 1.8 the student will investigate and understand that natural resources are limited.

Media Components:

Video

- *Keeping Your Community Clean* <http://www.unitedstreaming.com> (To fully utilize this site, you must obtain a membership to United Streaming for a password and username. Check with your school system to obtain this information.) You must also have installed one of the following free media players:

*Quicktime

<http://www.apple.com/quicktime/>

*Windows Media Player

<http://www.microsoft.com/windows/windowsmedia/download/default.asp>

Internet

- **Roscoe's Recycle Room**
<http://www.recycleroom.org/>
Go to Roscoe's Shopping Spree.

To full utilize this site, you must load Shockwave: (this is a free plug-in) <http://www.macromedia.com/shockwave/> onto your computer. This site allows students to choose items off a grocery shelf, which can be recycled. Students click and hold on an item found on the grocery shelf and drag the item into Roscoe's shopping cart. If the item is in a recyclable packaging, students get points. The item disappears and a new item appears on the shelf. After a period of time the student's points are tallied. This site requires a membership, however membership is free.

Materials:

- one small grocery bag of clean "garbage" per group of 3-4 students. Examples could include washed out plastic soda and milk containers, rinsed out soda cans, newspapers, cereal boxes, clean pickle or other glass jars, etc.
- poster board 10" x 13", one per student
- butcher paper or plastic to cover desks or tables for easy cleanup
- four large boxes to put the garbage into after it has been sorted. Each box should be labelled as aluminium, plastic, paper, or glass. The entire class will use these boxes.
- letter to parents asking for recyclable garbage to be sent to school. No Glass!
- small acrylic beads to be substituted for glass in the Culminating Activity

Prep for Teachers:

- Cue clip to 4:00 Where narrator says, "Let's role the video tape." and you see a young boy in the role of a news reporter.

4:00 Audio --"Let's role the video tape. . ."
Visual--a young boy in the role of news reporter

- Two weeks prior to the lesson send attached note home to parents asking them to send in one item that may be recycled.
- Provide examples of items that have been made from recycled materials. Examples could include paper or plastic bags, stationary, etc
- Assign students to groups of 3-4 for Introductory Activity.
- Place a variety of the clean garbage into grocery bags--one bag per group.
- Join and bookmark Web site, Roscoe's Recycle Room
- Preload the Roscoe Recycle Room Web site onto a computer and use a computer projection device to demonstrate how the game is played.

Introductory Activity: Setting the Stage

Step 1:

Ask, "What do you do at your house with your garbage?" Allow all willing students to respond. "Say, "At my house, we recycle."

Say, "Today we are going to be talking and thinking about the word recycle and what it means." Hold up several different items to the class, and say, "All of these items were made from something that has been used and then recycled." Introduce the **Focus for Media Interaction:** Ask, "Does anybody know what it means to recycle? We are going to watch a short video to find out the definition. After we watch the video clip together, raise your hand if you can tell me what

the word recycle means.” **Play** video at 4:00 when boy is saying, “Let’s role the video tape.” **Pause** the video at 4:23 after the definition when the boy says, “It means it can be used again to help save some of our earth's natural resources,” and you see a plastic milk jug that has just been put into a blue recycling bin.

4:23 Audio --“It means it can be used again to help save some of our earth's natural resources”

Visual--a plastic milk jug has just been put into a blue recycling bin

Say, “What does it mean to recycle?” (to use again to help save some of our earth’s natural resources) Review some of our earth’s natural resources with students so that they have a better understanding of how recycling helps save our earth’s precious resources.

Step 2:

Say, “In order to recycle effectively, we recycle certain type of items and we group them so that when the items go to be reused, or recycled, it can happen more easily and more quickly.” Provide a **Focus for Media Interaction**:. Say, “Let’s listen to this next clip of video to hear the four ways garbage can be sorted for recycling.” **Resume** video at 4:23. **Pause** again at 5:07 when the boy says, “...and start recycling right away,” and you see a forklift.

5:07 Audio --”Start recycling right away.”

Visual--a forklift lifting a recycling bin off a truck

Ask, “ Who can tell me one way we sort garbage? (Ask this question four times until all answers are given: aluminium, glass, paper, plastic) As each answer is given, write the response on the board. After all answers are covered, have students give specific examples from each category of things around their houses they have used that fit into the category. Say, “Let’s rewind and watch that clip again to hear the four ways we sort our garbage and see some more examples.” Rewind the video back to the scene with the forklift lifting a recycling bin off a truck. If you have a timer you can rewind back to 4:23 and watch again. You will hear, "Start recycling right away. Follow up by asking the class, “Did anyone see any examples that we don’t already have listed on the board?” Accept all reasonable responses. Say, “Let’s review what we have learned. “What does it mean to recycle?” (to reuse something again so that we can help save our earth’s natural resources) Say, “Raise your hand if you can tell me again what the four ways of sorting garbage for recycling are. Try not to look at the board!” (glass, aluminium, paper, plastic)

Learning Activities

Say, “To help you better understand how we sort our garbage, I am giving you an activity to complete. After I give your group a bag of trash, I want you to work together to sort it into the recycling categories. When I give you your bag of garbage, dump it onto your table and begin sorting it into piles. Remember to put all the aluminium together. All the glass goes together. All the plastic goes together; and all the paper goes together.” Pass out garbage bags. Provide ample time for the sort. Walk around the room and assist as needed while students are sorting garbage. When all groups have finished sorting their bags of garbage, say, “Now that we have

sorted our garbage, we must put the trash into our special recycling boxes.” Call on students to bring a designated pile of garbage and supervise as they place it into the correct recycling box. Say, “You have learned a very important lesson about recycling and how to sort garbage so that it can be recycled. I hope you will go home and begin to recycle your garbage. Remember that it helps us save our earth’s natural resources.”

Provide a **Focus for Media Interaction**. Say, “I have found a Web site about a friend who is trying to keep his community clean by buying only products at the grocery store which are packaged in recyclable containers. Roscoe is shopping at the grocery store. He is looking only for item that are packaged in containers that have been made from recycled materials. By helping Roscoe, maybe we will be able to help our own families make better choices as they shop.” Go to the bookmarked site, *Roscoe’s Recycle Room*. Say, “Let’s watch together as I try to help Roscoe. If you see something on the shelf that you think could be recycled, raise your hand to let me know what the item is and I will click on the item and drag it into his buggy. Since we are on a timer we may not get many points at first but we’ll have several chances to play the game again. Let’s get started.”

Culminating Activity

Provide each student with a poster board. Say, “Sometimes we make art or other objects out of garbage instead of recycling. This is called reusing garbage. This is another way to help conserve our natural resources.” Show examples. (I use the tops from hair sprays to hold small items.) Say, “Roscoe is a man that looked to me like he was made out of a garbage can. We are going to make a man that is made from real garbage. We will call his name GAPP. GAPP stands for glass, aluminium, paper, and plastic which are the four categories we talked about that we sort garbage into. You will use the garbage that you brought from home. Work together as a group of three or four to make your GAPP. You may glue your GAPP to the poster board to keep him from falling apart. When everyone is done we will share our GAPPs and you can tell about the different recyclable materials you made him from. I have some glass beads here that you may use on your GAPP.” Pass out the glass beads and allow students to gather together the items they brought in from home. Walk around the room and assist as needed during the art project. As students are working, ask questions to reinforce the concepts to be remembered. Ask, “What are the four ways we sort garbage for recycling? (glass, aluminium, paper, plastic). Why should we recycle or reuse materials instead of just throwing them away? (to conserve natural resources.)” Say, “I think you all are going to take very good care of our world's natural resources.”

Cross-Curricular Extensions

Language Arts: Provide scenic pictures from old calendars or print pictures off Internet. Provide students with small pieces of trash such as newspaper, candy wrappers, small bits of plastic, etc. Have students glue their trash to the pictures. Students may then write or dictate a sentence about what could happen if we did not recycle.

Social Studies: Have students demonstrate good citizenship by participating in a nation-wide program called “Keep America Beautiful”. Through partnerships and strategic alliances with citizens, businesses and government, KAB’s programs motivate millions of volunteers annually

to clean up, beautify and improve their neighborhoods, creating safer and more livable community environments. More information can be found at <http://www.kab.org/gac1.cfm>.

Math: Cover and decorate a box and place in the teacher's lounge. Request that teachers place emptied and cleaned soda cans into the box. Everyday count the number of different types of sodas were consumed. Graph the results.

Science: Expand the science lesson by showing children how paper can be recycled or made from grass. Directions are found at <http://www.cs.uiowa.edu/~jones/prairiepaper.html>. The teacher should read thoroughly all directions and be familiar with this project before attempting in a class situation.

Art: A variety of art projects made from garbage are found at the Imagination Factory <http://www.kid-at-art.com/>.

Community Connection: See Social Studies



Dear Parent,

We are beginning a new unit on recycling. Your child will learn what recycling is all about, why we should recycle, and how trash is sorted for recycling. I am asking for your help. I need you to send a clean piece of trash to school by _____.

Examples of clean trash are:

- empty cereal boxes
- soda cans that have been rinsed out
- plastic milk jugs that have been washed and dried
- candy wrappers

I am asking that you do not send anything that has sharp edges or that is made of glass. Again all trash must be thoroughly cleaned and dried.

We will be using this trash to create an art project, which will be put on display. Please plan to stop by the school to see all of our wonderful creations. We will send a note home to let you know when our work goes on display.

Dear Parent,

We have completed our unit on recycling. After learning that garbage is sorted into one of four basic categories Glass, Aluminum, Paper, and Plastic, the students created an imaginary man we have named GAPP. Our GAPPs are on display. Please come by the school to see our work.



