Recycle & Reuse to Learn the Three ’Rs

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Goals and Objectives:

Reading Objectives:

- Demonstrate knowledge of the alphabetic principle and apply phonics skills to read text.
- Use multiple strategies to develop appropriate vocabulary.
- Use a variety of strategies to comprehend text.
- Identify, analyze, and apply knowledge of the elements of a variety of nonfiction, informational, and expository texts to demonstrate an understanding of the information presented.

Writing Objectives:

- Use prewriting strategies to generate ideas.
- Revise and refine the draft for clarity and effectiveness.
- Develop and demonstrate creative writing.

Math Objectives:

- Develop an understanding of base-ten numerations system.
- Develop quick recall of addition facts and related subtraction facts.
Course Outline/Overview:

Engaging students to recycle and reuse products to promote reading, writing and arithmetic is the premise for this project. Cereal and other food boxes are reused as book covers to make instant “books” or journals which sparked many creative writing activities. Outdated travel brochures provide practical guides for a theme park or attraction and include information such as: items needed for the trip; order of shows; favorite, scariest, or least favorite ride; special memories, and overall park rating.

An array of plastic containers (butter, whip cream, or coffee creamers) can be utilized to store letters, word families, vocabulary words and math facts. Attaching Velcro or magnetic strips to these plastic containers will create a reusable teaching tool for students to manipulate at their seats or in a learning center. Even clear plastic cups with a dome shaped lid become bug catchers, planters, and observation containers for tadpoles.

Recycling and reusing many different types of products in the classroom promotes a “Go Green” attitude about helping to protect our environment. This project provides a vehicle in which students can creatively reuse products to extend their learning.
Lesson Plans & Directions for Recycled Resources:

The following activities use recycled materials that are creatively transformed to provide educational resources for students in their study of reading, writing and arithmetic.

Reading & Writing Activities:

- **Activity #1: Reusing Outdated Travel Brochures**
  1. Cut the front and back covers from travel brochures.
  2. Make Xerox copies of pages that will be inserted (see attached).
  3. Cut Xerox copies to the size of travel brochure.
  4. Insert pre-cut pages to the brochure cover.
  5. Staple on the left side to make a booklet.
  6. Display in writing center (use hanging shoe curtain).
  7. Encourage students to select a travel brochure.
  8. Once a student completes travel brochure have students share, display (in classroom or media center) & take home.

- **Activity #2: Student Created Books/Journals with Cereal Boxes or Other Food Boxes**
  1. Cut sides, tops and bottom parts of cereal or food boxes.
  2. Make Xerox copies of pages that will be inserted (see attached).
  3. Cut Xerox copies to the size of boxes.
  4. Insert pages into box covers.
  5. Staple on the left side to make a book or journal.
  6. Display in writing center (use plastic hanger with several clothespins, hanging with yarn from ceiling).
  7. Allow each child to select a cereal or food book.
  8. Engage students in the writing stages: brainstorming, prewriting, writing, editing, revising, final copy.
  9. Share & display
  10. Establish a check-out system.
Activity #3: Reuse Plastic Containers With Word Families, spelling and/or Vocabulary Words

1. Encourage students to bring the following empty and clean plastic containers:
   a. Plastic Strawberry Containers w/ Lids Attached
   b. Clear Coffee Creamer
   c. Tennis Ball
   d. Pringles Cans
   e. Butter or Margarine Tubs w/ Lids
   f. Plastic Clear Cups w/ Dome Lids

2. Attach Velcro or magnetic strips to appropriate containers.

3. Attach Velcro or magnetic strips to letters (magnetic letters can be used), word families, etc. on card stock quality type paper.

4. Demonstrate how to use different containers appropriately.

5. Encourage students to use at a center or at their desks.

Special Note: For long water bottle or coffee creamer containers, craft sticks can be used to write spelling and/or vocabulary words, math facts, etc. Insert craft sticks in container. Students empty craft sticks on foam fruit trays (makes less noise than “pouring” on their desks).
Activity #4: Sequence Strips With Jello or Pudding Boxes
1. Encourage students to bring empty Jello or pudding boxes.
2. Cut boxes apart.
3. Pre-cut paper to fit Jello or Pudding lid.
4. Staple or glue paper strip to lid.
5. Encourage students to write or illustrate story sequence; stages (butterfly or frog).
6. Allow children to share, exhibit and take home.

Activity #5: Lunch Bag Books
1. Fold lunch bags in half.
2. Use hole punch to make holes on side.
3. Use old pencils and insert in holes.
4. Attach rubber bands.
5. Use 3”X5” index cards to create the insert pages for paper bags.

Activity #6: Literacy Bags With Canvas Store Bags
1. Buy an assortment of canvas store bags (use money from Adapter Grant to purchase bags).
2. Add books; clip board; folder w/rebus story; Mad Libs, and or word searches. Include a beach towel.
3. Encourage students to check-out Literacy Canvas Bags enjoy over the weekend with family.
Math Activities:

○ **Activity #1: Fact Families**
  1. Encourage students to bring clean cup holder containers and plastic bottle caps.
  2. Write a number on the bottle cap.
  3. On large tongue depressors write four number sentences that are in the fact family.
  4. Encourage students to use tongue depressors to sort in cup holder tray.
  5. Add other manipulative such as connecting cubes, chain links, different colored paper clips.

Special Note: Write the number fact of print on round labels and attach to milk, or water caps. Store in sandwich zip-lock bags.

○ **Activity #2: Math Fact Drills for +, -, x, ÷**
  1. Xerox the math facts on card stock paper (to make self-checking write answer on back).
  2. Laminate.
  3. Insert laminated facts in coffee cream container.
  4. Encourage students to work in pairs to ask each other the math drills.
  5. Use a 1 minute timer for students to how many math facts they can identify.
  6. Allow children to keep track of their 1 minute drills.

Special Note: Craft sticks can be used to write the number sentences for fact families or fact drills.

○ **Activity #3: Egg Carton Math**
  1. Encourage students to bring empty & clean egg cartons.
     a. Cut egg cartons to illustrate different sets; counting by 2’s, 4’s, etc.; multiplication and division facts.
Miscellaneous Activities:

1. **Science:**
   a. Use 2 liter bottles for bird feeder or planters.
   b. Use clear plastic cup w/ a dome shaped lid for planters, bug catchers (glue a piece of mesh or screen on top).
   c. Clear plastic cup w/a dome shaped lid can be used to observe life cycle of a butterfly or a frog.
   d. Attach a folded paper book to cup w/ rubber band to make a handy science log.

2. **Art:**
   a. Use fruit foam trays to make a picture frame to display student’s work, illustrations, etc.
   b. Create two-dimensional art pieces and three-dimensional models w/ found materials (recyclables).
PHOTO CAPTION:

- Cup holder with laminated family fact cards
- Starbucks dome cups used to observe/record the life cycle of a frog (several tadpoles are in the cup)
  (science log booklet made with food boxes; post-its are stapled inside for children to record their observations)
- Life cycle of a frog made from the cardboard circles that hold Jell-O containers (girl is holding and pointing to life cycle card)
- Strawberry plastic container with magnetic advertisement calendar glued to lid; magnetic letters inside for students to practice their spelling words
- Plastic coffee creamer container with magnetic letters or addition and subtraction facts for students to manipulate and practice with
Attachments

Special Note: Each title or heading should be on a separate page with a 3½” margin.

**Activity #1: Reusing Outdated Travel Brochures:**

- Items to pack for the trip:
- Order of shows:
- My favorite ride was...
- The scariest ride was...
- My Least Favorite Ride was...
- A special memory was when...
- Overall park ratings...(Include a scale from 1-5 with 5 as the highest...
- Park or attraction cleanliness...
- Parking...
- Wait time while in lines...
- Food Cost...

**Activity #2: Student Created Books/Journals with Cereal Boxes: (Story starters)**

- One day while I was eating __________ the strangest thing happened. All of the sudden...