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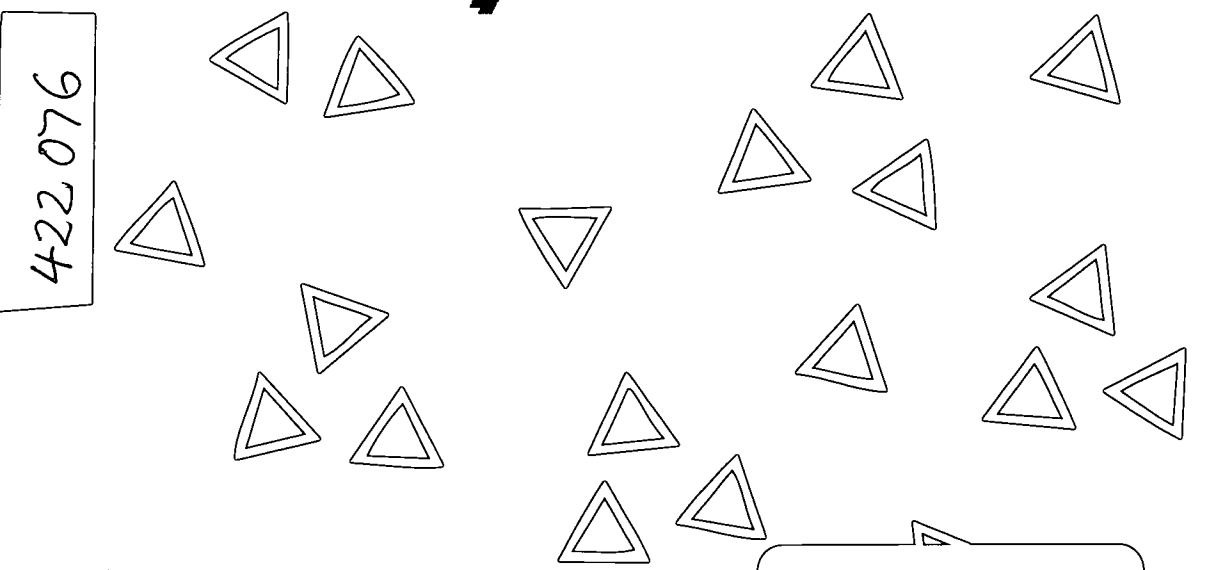
ABSTRACT

Since 1975, the Association for Childhood Education International has published a column called "Classroom Idea-Sparkers" in each issue of Childhood Education journal. The column provides practical help for classroom teachers, preschool through middle school, offering educators ideas and activities to help extend learning and make it more relevant to students' everyday lives. This collection comprises those activities from "Classroom Idea-Sparkers" columns published since 1994. The activities have been organized by six categories: language arts and history, art and music, science and math, environment, back to school, and parents. The activities, which can be adapted for younger or older children, range from those intended to encourage reading and to involve students in art, music, science and math, to those that promote environmental and multicultural appreciation. (JPB)

Activities for the Classroom and Beyond



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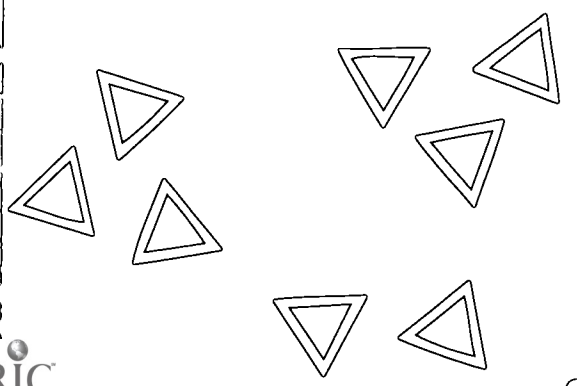

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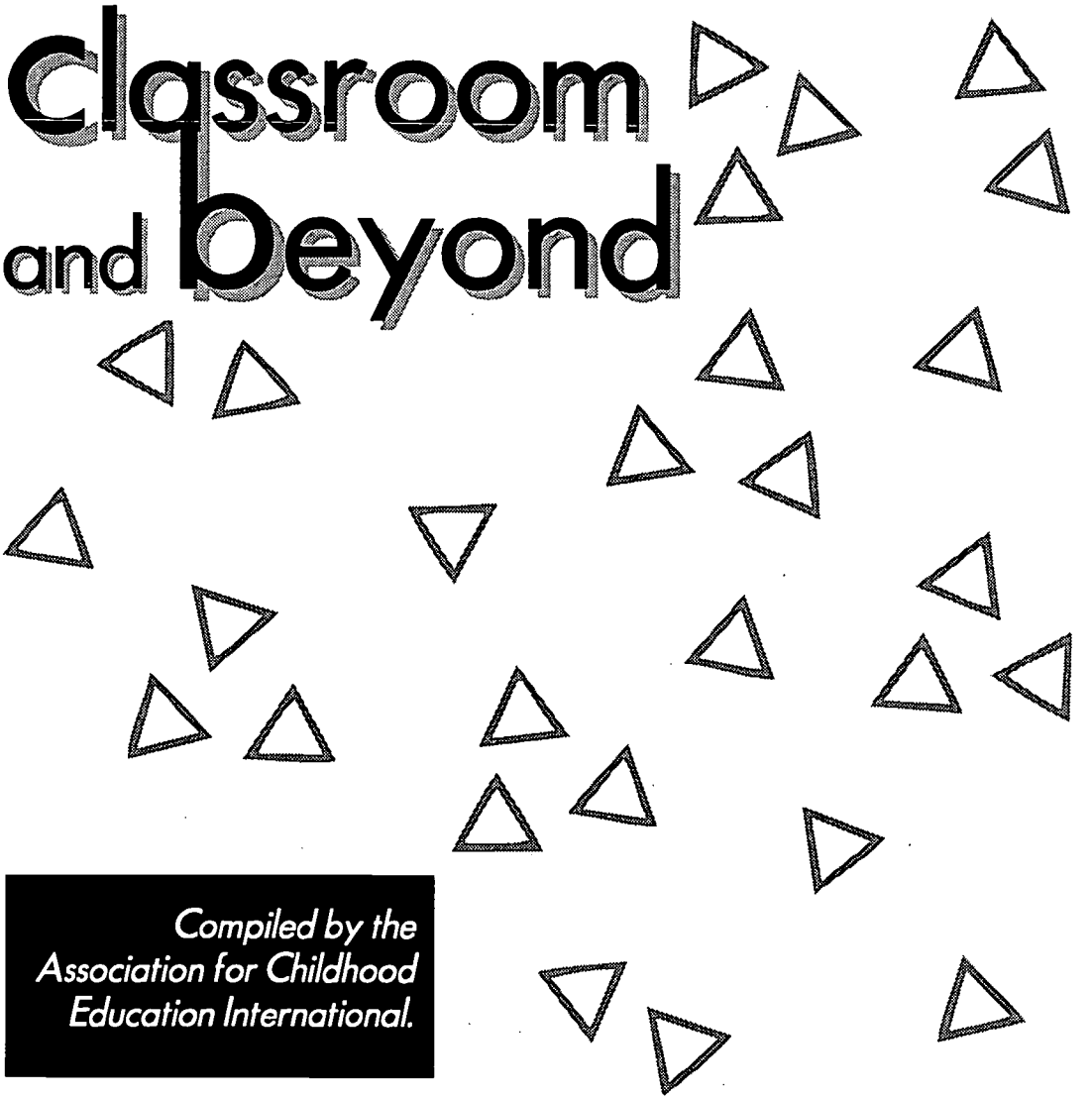

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table of contents

preface

Since 1975, the Association for Childhood Education International has been publishing a column called "Classroom Idea-Sparkers." Appearing in every issue of *Childhood Education* (except the International Focus Issues), this column is an attempt to provide practical help for classroom teachers, preschool through middle school. Each column offers educators ideas and activities to help extend learning and make it more relevant to students' everyday lives.

These activities have been submitted by ACEI members, and sometimes nonmembers as well. Some of the activities have been developed from educational materials submitted by other organizations or corporations that recognize the critical role that teachers play and the importance of offering these vital people as much support and as many resources as possible.

In 1985, ACEI offered a book in which ten years of these "Idea-Sparkers" were collected. The editors, Barbara J. Simmons and June Hogue, noted in their preface that "Every teacher has the important task of selecting experiences that are challenging, educational and enriching. Often it is necessary to supplement state guidelines and adapt the local curriculum to meet children's individual differences." This need remains strong today. With each child they teach, educators face new challenges as they try to find ways to make education meaningful.

In this new collection, we have gathered the activities from "Classroom Idea-Sparkers" columns published since 1994 (thanks to column editors Jenny Wojcik and Rebecca McMahon). We have deleted those activities that were time-sensitive, that relied upon teachers sending away for materials that may no longer be available or that recommended exploring a Web site that may be out of operation.

To make this publication more user-friendly, we have placed the activities into six categories: language arts and history, art and music, science and math, environment, back to school, and parents. While many were written for a specific age bracket, they can be adapted for younger or older children.

Enjoy!

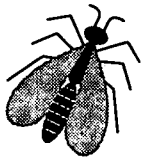
—ACEI Editorial Staff

language arts and history

Read Along & Discover a Song

*Barbara Hatcher, Dianne Pape and R. Tim Nicosia teach in the Department of Curriculum and Instruction at Southwest Texas State University (SWTSU) in San Marcos, Texas. JoAnn Nicosia is a veteran teacher at Crockett Elementary with San Marcos Consolidated Independent School District. All are advocates for developmentally appropriate classroom practice; at the 1997 Annual Conference, they presented suggestions for using children's song picture books. The ideas in this Idea-Sparker were presented by the following student members of the Hazel B. McCanne SWTSU ACEI: **Sondra Becerra, Stacy Brau, Guadalupe Chavez, Darla Comstock, Victoria Davis, Carmen Fernandez, Cheryl Fernandez, Farah Fitzpatrick, Cheryl Flanders, Kelly Hanko, Sunny Heimbecker, Dawn Keays, Stacy McConnell, Kolony Petty, Cacie Riddle, Suzi Smith, Michelle Tuttle, Jennifer Woodring** and **Laura Zamora**. These ideas maximize the interdisciplinary nature of song picture books to create a medley of possible learning activities.*

I Know an Old Lady Who Swallowed a Fly



Illustrated by Glen Rounds (Holiday House, 1990)

Language Arts

- Have students retell the story using puppets or flannel board pieces.
- Match rhyming words from the song (dog/hog, goat/throat, cat/that, etc.).
- Write additional verses for the song.
- Compare this version to the book *There Was an Old Lady Who Swallowed a Fly*, illustrated by Nadine Bernard Westcott (Little, Brown, 1980).

Math

- To practice ordinal numbering (first, second, etc.), place pictures of animals in order of their appearance.
- Arrange pictures of animals by size (largest to smallest or smallest to largest).
- Graph pictures of animals according to each animal's number of legs.
- Looking at realistic pictures, have students estimate the length and/or height of the various animals. Compare the figures to actual measurements, using reference books.

Science

- Match pictures of animals to their natural habitat.
- Discuss food cycles of our ecosystem.
- Classify animals by identifying their similarities.

On Top of Spaghetti By Tom Glazer (Addison-Wesley, 1995)

Language Arts

- Divide a large piece of butcher paper into thirds and label each section according to the beginning, middle and end. Have each student draw a picture of their part of the story, and then display it on the chart in the appropriate category.
- Read *Strega Nona* by Tomie de Paola or *Cloudy with a Chance of Meatballs* by Judi Barrett.

Math

- Graph each child's favorite pasta dish (spaghetti, macaroni and cheese, lasagna, etc.).
- Use different types of pasta to make patterns.
- Use pieces of straight pasta to practice non-standard measurement.

Science

- Sort a variety of different types of pasta.
- Discuss the difference between "seeds" and "non-seeds."

Creative Arts

- Make a pasta collage or string pasta to make jewelry.
- Turn the dramatic play center into an Italian restaurant.

Over in the Meadow By John Langstaff. Illustrations by Feodor Rojankovsky (Harcourt Brace Jovanovich, 1957)

Language Arts

- Have students write and/or dictate stories describing the animal they would choose to be if they lived in the meadow.
- Compare to the book *Over in the Meadow: A Traditional Counting Rhyme*, with art by Louise Voce (Candlewick, 1994), or other versions by Ezra Jack Keats and Paul Galdone.

Math

- Graph each child's favorite animal.
- Practice counting ingredients (raisins, pretzels, Wheat Chex™ cereal, etc.) into a sealable baggie to make a "Meadow Mix" for individual playground snacks.

Science

- Match pictures of animals to their natural habitat.
- Make and hang bird feeders.
- Match pictures of animals in the story to their young.

Creative Arts

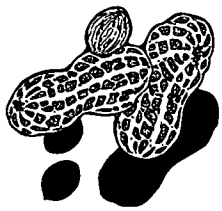
- Match various animal movements (flying, crawling, hopping, etc.) to music.
- Sponge paint with various animal shapes on a meadow background to create a mural.
- Create meadow animals from students' thumb prints.

Peanut Butter and Jelly Illustrated by Nadine Bernard Westcott (E. P. Dutton, 1987)

Language Arts

- Write recipes for making peanut butter and jelly sandwiches.
- List animals that like to eat peanuts, or a list of things you can make from peanuts.
- Read a biography of George Washington Carver.

Math



- Graph favorite flavors of jelly.
- Taste and vote for favorite brands of peanut butter. Tally and display the results.
- Sort peanuts by the number of individual peanuts in each pod.

Science

- Discuss the life cycle of a peanut.
- Identify the names and functions of the peanut parts (skin, embryo and cotyledon).
- Grow peanuts.

Creative Arts

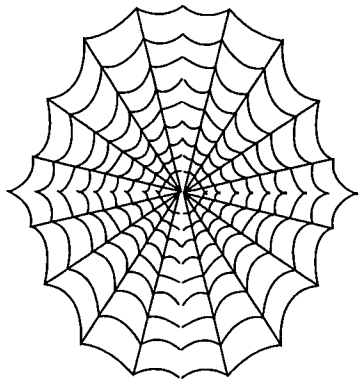
- Use empty peanut shells with tempera paint for printing on construction paper.
- Make and use peanut butter play dough (1 part peanut butter, 1 part honey, and 2 parts powdered milk).

Itsy Bitsy Spider As told and illustrated by Iza Trapani (New York: Whispering Coyote Press, 1993)

Language Arts

- Learn the nursery rhyme "Little Miss Muffet." Write a letter to Miss Muffet explaining why she should not be afraid of spiders.
- Trapani's version presents the spider as she encounters a fan, mouse, cat and rocking chair. Have students write their own verses describing the spider's adventures as she tries to spin her web.

Math



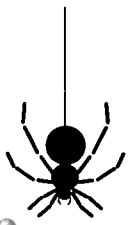
- Make a counting game by cutting out black spiders and using white chalk to place a numeral on the spiders' backs. Have the children place the correct number of buttons on each spider. Dots can be drawn on the back for self-checking, or so younger children can practice one-to-one correspondence.
- Write math facts using the number 8.

Science

- Collect and observe spiders to determine their special characteristics (e.g., eight legs, two body parts, etc.).
- Discuss different types of spiders, and classify them by common characteristics.
- Read books to determine how spiders benefit their environments.

Creative Arts

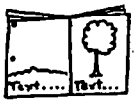
- Create spiders by painting each child's hand and four fingers with black paint. Make two hand prints on construction paper, with the palms overlapping and the fingers extending in opposite directions. When dry, add "moving" eyes.
- Create spider webs on brightly colored construction paper by rolling marbles dipped in paint over the paper or using squeeze-bottle paint. Fingerprint spiders can be added for an extra effect.
- Make spider treats by placing four pretzel sticks into the cream filling on each side of a Nutter Butter cookie.



Creating Interactive Books ...To Teach Concepts

Sirpa Grierson, an Educational Consultant from Orem, Utah, contributed the following Idea-Sparker. Having worked with elementary teachers in a variety of situations, Grierson shares these suggestions for strengthening literacy programs.

As young children learn how to read, they quickly learn new vocabulary in the form of concrete words (nouns) such as *cat* or *dinosaur.* Words that signify abstract concepts, such as *over* or *around,* are more difficult to teach. Student-illustrated interactive books can make learning fun, and allow a teacher to assess a child's understanding with ease. Kindergarten teachers in the Alpine School District in Orem, Utah, use simple, predictable texts to help young readers learn concept words.



You can create small books from 8 1/2" x 11" pages folded in halves. A typical, simple story line could feature a small character (like a chipmunk or mouse) that children can color and cut out. A foot-long piece of yarn can be tied to a hole punched into the paper character where the tail would be and then attached to the book's folded pages. The teacher constructs a big book version of the story during shared writing time, after which the children create smaller versions of the story, including illustrations, using the same text. The limited text appears at the bottom of each page.

The first page, for example, could show a hole that a chipmunk comes *out* of; on consecutive pages he scurries *across* the ground, *under* a tree, *up* the trunk, *through* the branches, and then *down* to a hazelnut that he eats. After the children have illustrated the text, they can take the chipmunk and make it scurry through the pages as they practice reading the concept words. Another version of this book, by Carolyn McCartney, featured a little ghost who floated *above* a haunted house, *between* two jack-o'-lanterns, *through* the grass, *over* the fence, *beside* the school, *around* the tree and *back* to me!

History Immersion

Several years ago, Berkeley Carroll School's elementary and middle school curriculum coordinator Jean Schroeder started an Egyptian tomb program for the school's 5th-graders. The students spend two months of the year transforming their history classroom into an authentic re-creation of an ancient Egyptian tomb. As they work on the classroom's transformation, they become experts on Egyptian daily life, mythology and religious beliefs.

Instead of an exam, the 5th-graders must become tour guides in the tomb, displaying in a real-life situation what they learned about Egypt. They must be able to explain every hieroglyph, painting and object in the "tomb." One year, the tomb was open to the public.

Students in other grades also experience history rather than simply reading about it. Sixth-graders re-create Aztec cities and the Renaissance city of Florence. Seventh-graders become Loyalists and Rebels in order to debate the American Revolution. Eighth-graders travel the world via the Internet.

The following Idea-Sparker was provided by ***Ann Widdifield****, 5th-grade teacher, Marshall Road Elementary School, Vienna, Virginia.*

Poetry Smiles Upon Us

Poetry
Opens my
Eyes, opens my
Mind and
Stirs my imagination
by Sarah, March 1997

In this activity students will develop, over five to six weeks, some lively, creative poetry programs to perform. Some of my students' programs took the format of an Academy Awards show, a radio show and a television newscast.

Teacher

Divide students into groups named after poetry terms, such as simile, metaphor, hyperbole, imagery and personification. For each group make: 1) listings of required readings, group jobs, member names, program expectations and due dates, and 2) a group form for keeping track of poem titles, poet, number of stanzas, rhyme (yes/no), poetry devices (some, few) and ratings (1-10). For each individual make: 1) a "Poetic Me" booklet for collecting favorite poems, original works, illustrations, reactions and a dedication; 2) a poetry reading log for comments or responses on five poems of the student's choice and 3) a poetry poster to illustrate or advertise a favorite poem.

Teach mini-lessons on how to recognize stanzas and literary devices, and how to read poetry aloud. Read and show different kinds of poetry, such as haiku, acrostic, cinquain, concrete, narrative and lyrical. Write poetry with the students. Model how a group will work. During group meetings, circulate to encourage the students, read with a group and answer questions.

Group

Read assigned poems together. Each person updates the group form. Discuss what should be considered for the 10- to 12-minute program. Each person must perform a solo and the total group must perform a chorus number. Students will use collaborative decision-making and problem-solving skills to select a theme, find props and determine how to meet the requirements and deadlines.

Individual

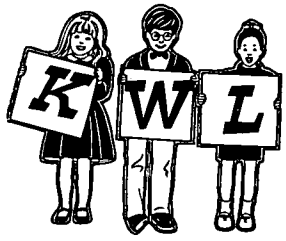
Each student completes his or her "Poetic Me" booklet, poster and poetry log, and selects one original poem for teacher evaluation and later publication. Ongoing reading and writing conferences keep the teacher aware of immediate student needs.

Finale

The programs are presented, and the teacher/student audience evaluates other groups by writing a compliment and a suggestion for each group. Finally, the class critiques the teacher's plan and gives compliments and suggestions for next year. One of my groups wrote: "Poetry embraces us with joy and happiness."

The following Idea-Sparker was submitted by ***Peggy L. Snowden****, Arkansas Tech University, Russellville, Arkansas.*

Motivate and activate your students with . . .



K-W-L is a highly useful, flexible and productive instructional technique developed by Donald Ogle (Ogle, 1986a, 1986b, 1992). The letters stand for What I Know, What I Want To Know and What I Learned. The technique is used to rouse students' interest provide internal motivation, and activate and elicit children's background knowledge of and experiences with a particular topic. Pardo and Raphael (1991) offered a detailed explanation of K-W-L, with a sample lesson. They also outlined K-W-L's framework, which involves brainstorming, generating categories, organizing ideas and information, creating and formulating questions, checking and verifying learning, and selecting reading and research materials. Once students have mastered the basic technique, many possible variations can be used with all types of grouping patterns and in many curricular areas. The following is a list of some of those variations.

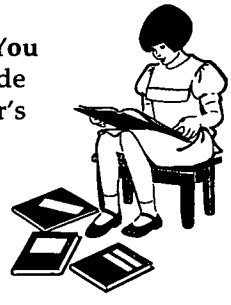
1. S-K-P-L: What Do You See? What Do You Know About What You See? What Do You Predict Will Happen When You (perform experiment)? What Have You Learned About Your Prediction? This modification is useful in science class. It helps the students organize background knowledge, observe, develop a hypothesis and then experiment to validate or reject the hypothesis.

2. B-K-L: What Do You Want To Be? What Do You Know About This? What Have You Learned About This Career/Occupation? This modification is useful for a unit on careers, or for preparing students for Career Day. It can be integrated with journal writing, oral communication or making graphic materials such as posters.

3. K-S-I: What Do You Know? What Do You Want To Share? Why Is This Important? This variation is useful as a "Teacher for a Day" activity. The student prepares a K-S-I outline, discusses the topic with the teacher and explains why this topic would be interesting to other students. If they decide the topic is of interest, the student acts as the teacher for that topic. This presentation can be piggybacked with other student presentations.

4. K-W-W: What Do You Know? What Do You Want To Learn? Where Can You Find the Information? This modification is designed for teaching research skills.

5. W-W-W: What Do You Want To Learn? Who Do You Want To Work With? Why, When and Where Will You Work with the Other Student(s)? This alteration is helpful for forming interest-based cooperative groups.



6. R-L-S: What Did You Read? What Did You Learn? What Will You Share with the Class About What You Read? R-L-S can be used to provide an alternative to the standard book report or to introduce the "Author's Chair."

7. T-L-I: Who Gave the Talk? What Did You Learn from the Speaker? Why Is the Information Important to You? This is an individual activity that will help students become good critical listeners.

8. W-L-H: What Was Your Activity or Project? What Did You Learn? How Do You Plan To Use the Information? Using this activity as a post-reading or post-project activity will help students evaluate learning.

9. W-L/D-W: What Did You Read? Why Did You Like or Dislike the Reading Material? Would You Recommend This Material to Another Student? This modification will encourage readers to evaluate reading material and articulate their evaluation.

10. W-W-W-W (or 4 W's): What Did We Do? What Did We Learn/Accomplish? How Well Did We Work Together? What Can We Do Better Next Time? This is a valuable activity for helping students engage in group processing after a cooperative group exercise. The group processing can be done orally or in writing.

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The following Idea-Sparker is from the American Medical Association Alliance, Inc. It is designed to teach preschool through 3rd-grade children about making positive choices in the things they do and in the way they treat others.

Hands Are NOT for Hitting

Before starting the project, talk to the students about why hitting or hurting others in any way is unacceptable. Ask them to name some good things they can do with their hands. Some ideas to start the discussion include:

Hugging
Holding or shaking hands
Patting a friend on the back
Sharing toys
Playing with a ball
Coloring with crayons

Playing on the computer
Fingerpainting
Petting an animal
Giving someone a present
Drawing a picture
Feeding a fish

Next, ask the children to name things they should never do with their hands. Have a discussion about all negative hand activities, including hurting others, hitting, slapping, pushing and fighting. Have the children explain why hitting or hurting others is wrong.

After your discussion, have the children trace their hands on a piece of paper. Then ask them to write a poem or story, color their "hands," print their names on their "hands" and draw pictures of family members or friends.

To reinforce the lesson, display the "hands" in the classroom to remind students that hitting others is unacceptable, or have parents hang their child's "hand" on the refrigerator at home to remind the entire family to choose nonviolent ways to deal with others.

The following Idea-Sparker is from an article by ***Edward F. DeRoche*** *that appeared in* Principal, *the magazine from the National Association of Elementary School Principals.*

Using Newspapers in Middle-Grade Classrooms

Teachers can use newspapers to educate their students in many ways. Some ideas include the following:

- Encourage students to discuss, debate, clarify, question, analyze and summarize information about people and social problems.
- Use the weather page to teach math, science and social studies.
- Use scores and statistics from the sports pages to make charts and graphs.
- Help students create their own comic strips or cartoons.
- Help students write letters to the editor about an issue or concern.
- Help students produce their own classroom newspaper.
- Give a daily quiz, with a designated student developing five questions from that day's newspaper for classmates to answer.
- Use a world map to find the locations of foreign news stories.
- Have each student read a book and write a review, modeled on the newspaper's reviews.
- Have students write a classified ad and compute the cost of printing it in the newspaper for a day, several days or a week.
- Have students make their own dictionaries by cutting out new words from the newspaper, pasting them in a booklet and researching their meaning and use.

The following Idea-Sparker was submitted by ***George E. Pawlas****, Assistant Professor of Education, University of Central Florida.*

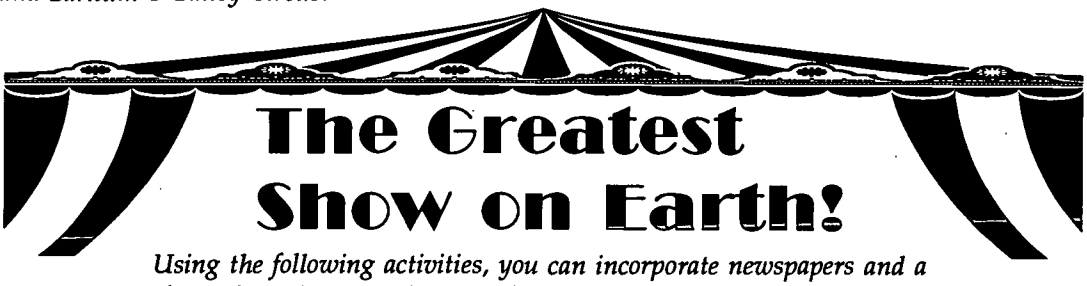
An Incentive to Read

Elementary students are constantly facing distractions that keep them from reading. Teachers and principals have developed many creative ways to foster a special love of reading in the minds and hearts of their students. One elementary school developed a plan in which students received unique rewards when they read 50 books.

Upon completing 50 books, a student would be allowed to select something special to do at the school for one day. Such special activities included: being the principal's assistant, working in the cafeteria or being the media specialist.

School personnel report that students are eagerly reading books because they have either enjoyed their first opportunity to perform special jobs, or because they saw another student occupied in a school job. The bottom line is that students are electing to read rather than be engaged in alternate activities. The students who have participated in the activity indicated that they have a better understanding of what school employees do each day. Consequently, they have become "key communicators" for their school.

The following Idea-Sparker is from "Circus: A Teaching Unit," disseminated by Ringling Brothers and Barnum & Bailey Circus.



The Greatest Show on Earth!

Using the following activities, you can incorporate newspapers and a circus theme into your integrated curriculum:

★ Have students search newspapers for words that describe the acts they would like to have in their classroom circus (imaginary or real!). Let them clip the words and arrange them to make a one-page advertisement that would encourage people to come to your show. If they cannot find the word they are looking for, let them clip letters to spell out the word. Have them identify and count the number of nouns, verbs, adjectives, etc.

★ Have students study the feature articles on the first page of the newspaper and then write a feature article about the circus coming to their town, or about your classroom circus. Encourage them to include drawings, pictures and headlines with their features.

★ The Ringling Bros. and Barnum & Bailey family is composed of people from all over the world who work together every day. Let students look through the newspaper to find and cut out pictures of people of different cultures who are living or working together in harmony. Display them on the bulletin board, using the stock or classified pages as a background. Clip letters or words to make a title for your display (e.g., "Getting Along" or "Living and Working in Harmony").

★ Going to the circus is a cultural event, where people and animals from all over the world visit your city. Look through the newspaper and clip out or list all of the events happening this week in your town that offer a chance to learn about another culture. Look for stories on food, music, entertainment, holiday celebrations and people from different ethnic backgrounds to help you in your search.

★ Have students research the circus by interviewing a senior citizen about their memories of the circus as a child. Have them prepare feature stories about their findings and report to the class. Discuss the similarities and differences in each report.

★ Circus performers are very active and have to exercise strict discipline when it comes to their training, health and nutrition. Create an editorial section for your newspaper and ask students to give their opinions on the importance of diet, good food and exercise. Encourage the use of "opinion" words such as "believe," "think" and "feel."

★ Tape newspaper pages together, spread them on the floor and have each student lie on the paper in a "circus pose." Use a marker to outline the pose, then cut each one out. Draw and color in the costume parts and attach the figures to the wall, creating a life-size circus mural. To personalize each cutout, take a close-up photo of each child and enlarge it on a copy machine. You've just created a classroom circus!

This Idea-Sparker was shared by ***Camille Hodges****, Willow Springs School, Fairfax, Virginia. The activity is designed to help children develop an appreciation for the folklore and literature from the Native American culture.*

Native American Legends in the Classroom

The teacher begins the activity by collecting Native American legends. Audiotape, videotape or book versions may be used. Prior to the project, the teacher provides students with some background information on Native Americans through classroom activities. Students then listen to one legend per day. They may wish to illustrate their favorite part of the story after hearing it. The teacher needs to present the students with the Story Map Formula (see below) for myths and legends. After presenting the story, students will discuss the formula parts. The students then select a legend to read, summarize and illustrate. Each student then uses the legend formula to write his/her original legend. Students might brainstorm problems to be solved, or natural occurrences to be explained.

Story Map Formula

I. Title (this should explain something in nature).
II. Setting (sets the mood of the story).
III. What is the problem to be solved?
IV. Main characters and their relationship to each other (i.e., two brothers, mother and son, three sisters).
V. What task must be done in order to solve the problem? To whom is the main character accountable?
VI. What natural occurrence is explained in your legend?
VII. Design and illustrate a cover for your legend.

This activity works well as part of an interdisciplinary social studies unit. Camille, for example, reads a legend at the beginning of class each day during her 6th-grade unit on Native Americans. It gives the lesson focus and involves students emotionally in Native American culture. It can also be adapted to various grade levels and settings. One could weave a substantial fine arts strand through this activity, adding more depth with art, music and movement.

Picture Stories

Develop imagination and creativity. Bring in some old magazines and ask the children to cut out four or five pictures each. Next, they will arrange the pictures on a large sheet of paper. Underneath the picture they will write a story that connects all of the pictures. For variety, the children can rearrange the pictures and tell a new story using the changed arrangement.




Christine Capone is a preschool teacher from Winter Park, Florida. She is also a student at the University of Central Florida, Orlando. Christine used this activity with her preschoolers to introduce geography in a fun and creative way.

Classroom Anytown, USA

This project is designed to get children excited about geography by communicating with other children throughout the United States. All you have to do is talk to your class about different states, create and send a questionnaire to any town in the U.S. and wait for a reply. The children will get so excited when the first letter arrives. Pictures can also be requested, which makes this project even more exciting. Students may make special pen pals as a result of this project. Your questionnaire should read as follows:

Dear Teacher and Class,

We would like to learn about your school and community. Please fill out the questionnaire below and mail it back as soon as you can. Thank you for your participation in our project.

1. What is the name of your school?
2. How many students are in your school? How many are in your class?
3. What is your teacher's name?
4. What time each day does school begin and end?
5. What do you do after school?
6. What is the weather like where you live?
7. Is your school in the city or country?
8. What is your state animal? State bird? State flower? State tree?
9. If someone came to visit the area in which you live, what are some special places they could visit?
10. Write about any other information you wish to share.

If you are unable to participate, please pass this letter on to another teacher. Thank you and we hope to hear from you soon!

Let Your Voice Be Heard

Promote good citizenship by asking students to select an issue that affects children. A reading assignment could involve scanning local newspapers to locate stories about issues of concern to children. Then direct them to write letters to the editor of a local newspaper, stating their opinions on the subject. They can do research to find the editors' names and the addresses. This is also an opportunity to teach letter writing skills. Maybe some of the letters will even get published.

The following Idea-Sparker was shared by ***Janet Sheard****, 4th-grade teacher at West School in Glencoe, Illinois. Janet adapted her Travelmates Program from one originally developed by* ***Judy D. Dollard*** *of Eisenhower Middle School in Kansas City, Kansas.*

Travelmates

Travelmates has been an exciting component of Janet Sheard's 4th-grade class for several years. The students begin with an in-class activity to identify the states and countries that they have visited. The class tabulates the results and discusses them. Next, the teacher explains travelmates. They are "classmates" (stuffed animals, dolls, etc.) that travel in backpacks with diaries and return to school to share their adventures. Students bring in a doll or stuffed animal to be their travelmates; the students should be told that their travelmates may not return. The children then create backpacks (use "fannypacks") for their travelmates. A diary (a small spiral notebook will do) is added to the backpack. Students write the following message in the diary:

Dear Friends,
Please sign my diary. Include places I've been and sights I've seen. A souvenir, or better yet, a photo of you and me, would be wonderful. Please sign my diary, including your name and address. Thanks for passing me along.

Sincerely,
(travelmate's name)

P.S.
Please remind me to send home an occasional postcard!

Students also need to include an identification tag with the student's name, the school's name and address and the story of the project. The following is an example:

Hello!
You are probably wondering who I am and why you are holding me. Let me take this time to introduce myself. My name is ***(travelmate's name)****. I am working on a* ***(grade level)*** *social studies project at* ***(name of school)*** *in* ***(city and state)****. I have been sent on a journey across the country. When I return to* ***(city)****, the students in* ***(teacher's name)*** *class will plot my travels on a world map.*

Please pass me from person to person. This is my method of traveling. Record your name, city and state in the diary that's provided inside my backpack. If you wish, you may send or put in a souvenir. Then pass me on to another person from a different region, city or school.

On ***(date)****, please send me home toward* ***(home destination)****. When I reach* ***(home destination)****, please call* ***(the teacher or school)*** *so that I can be picked up.*

Thanks for your help. Please don't keep me too long.

You may wish to laminate the card, punch a hole in it and attach it to the travelmate with yarn. Then the travelmate is ready to go. If time and equipment are available, the students can make a video introducing themselves and their travelmates. In order to begin the journey, the students need to select the first destination for their travelmate. The teacher may need to seek out people in the community to help with this part. Make contacts with parents, friends and members of the community to find traveling compan-

ions for the travelmates. You might try to develop a partnership with a local business whose employees travel a lot.

After all the preparations have been made and the travelmates are ready to go, the students may have a Bon Voyage party. Send invitations to parents, friends, traveling companions and the local press. The students can prepare refreshments, view the video and give their travelmates one last hug. Travelmates and their diaries should be put in their backpacks and should be packed in a small box. This will facilitate their return mailing at the end of the trip.

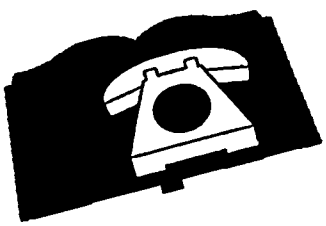
Once the travelers are on their way, students will begin to receive postcards and letters. Display them as they arrive and mark their locations on a large world map. Many class activities can be pursued at the conclusion of the project, including:

- Making an itinerary for each travelmate based on the information provided in the diaries
- Making a map showing the locations visited by the travelmate
- Making a chart showing distances traveled
- Creating displays, including the itineraries, maps, cards, letters, souvenirs and travelmates
- Having students plan and give oral presentations in order to share the results of their project (they could also make a video)
- Having students write letters to the people who signed their diaries
- Using the information to complete creative writing activities, such as autobiographies, adventure stories, etc.
- Hosting a Welcome Back party for the travelmates.

The travelmates activity can be adapted to suit a variety of age levels and settings. In addition, it can provide students with significant geography lessons. The project can also increase students' awareness of their world and interest in travel. At the end of the project, students will also be able to gather information from an original source and create an itinerary from that information, plot locations on maps and use mileage scales to determine distances between locations.

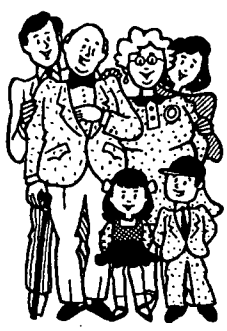
Let Your Fingers Do the Walking

Here is a way to incorporate your old Yellow Pages into a reading and writing activity. Have the children look through the Yellow Pages and select a particular service. The children will learn a practical application for alphabetization and categorization. They will also learn about listing by last name first. Next, ask them to write a clever or funny ad for that company.



Family History Time Lines

This activity is a way to involve your students' families while teaching them social studies skills. Give each child a large sheet of paper and use a ruler to draw a line about three feet long. Ask the children to fill in the important dates in their families' lives, starting with their parents' marriage or their own birth. Siblings' birthdays, times when the family moved, etc., can be added. The children's families may need to provide details and specific dates. Those familiar with U.S. history can fill in major events that happened in their lifetimes.



Celebrate Reading Festival

Many schools sponsor science fairs on an annual basis. Here is a twist on that idea. Why not set aside time to celebrate reading at a Reading Festival? Students create projects related to a favorite book or author and bring them to school to display to their peers, parents and community. These could be either classroom- or school-wide projects. Projects might include:

1. Posters to illustrate or advertise a book
2. A banner about a book or character
3. A diorama or model relating to a book, character or scene from a book
4. A doll dressed as a character from a book
5. A mobile about a book
6. A book jacket display
7. Maps depicting locations in a story
8. Puppets of a character or characters in a story
9. A mural about a book
10. A time line to graphically depict events in a story
11. A poem written about the story
12. A game made up to use facts from the story
13. A video created about the story
14. A poster about the authors and their works
15. A new version of the book created by the student
16. Bookmarks designed to highlight favorite books

The list can go on and on. Participating students can receive bookmarks and certificates. Local libraries can be involved. Librarians could view the exhibit and hold a library card drive at the festival. Invite a children's author to speak, ask students to dress as their favorite character or author, and involve parents and other students to drop in and help with reading. The festival could be held at any time during the school year and could also be tied into Children's Book Week or other reading celebrations.

List It

Bring in the grocery section of a newspaper. Ask the children to make up a grocery list that will feed a family for a day and cost a specific amount of budgeted money. The children then can add up the prices of the foods they have selected, using the grocery section. If the total amount is greater than the budget allowance, discuss what items could be taken away. This is also a chance to review nutrition and balanced meals.

Susan M. Toohey Kaye is Recording Secretary for the Rhode Island ACEI. She originally presented this Idea-Sparker at a K-1 conference co-sponsored by the Rhode Island ACEI and the Rhode Island Association of Young Children. Susan has used this activity for two years in her 2nd-grade classroom with resounding success. The students have responded wonderfully, utilizing and increasing their writing skills. Parents love the idea and appreciate the chance to be more involved in their child's education.

Take Note!

Make the home-school connection with Notice Folders. Do your students:

- have difficulty remembering about important school notices, notes or homework?
- have difficulty recounting the day's activities to their parents?

Here is a solution that is student-tested and parent-endorsed—Notice Folders!

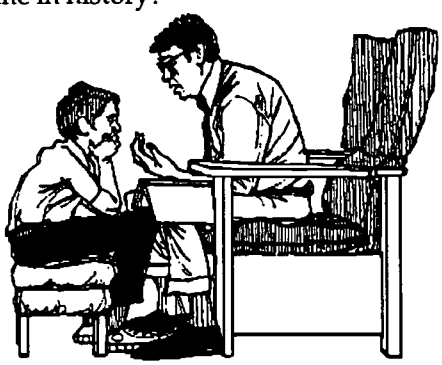
Fill a pocket folder that has paper fasteners with writing paper. Student use the pockets of the Notice Folder to organize and transport school work, important school notices or notes to and from parents.

At the end of each school day, students can write or draw a message to their parents describing their activity-packed day. Parents can also use the notice folder to write to the teacher. Enlist parent support for this activity in your Welcome Back Notice, at Open House or at parent conferences. It is a great way for students to share the day with parents, as well as to reflect on their own learning.

Investigative Reporting

Ask the children to gather information by interviewing someone in their family or neighborhood. Work in groups to select questions for the interview. Some sample questions are:

- Did the person live during a particularly exciting time in history?
- Did he or she accomplish a major achievement?
- What does the person do for a living?



Look at examples of written interviews in magazines. Using this format, ask the children to write down the responses from their interviews. Students can edit the interviews by cutting out ideas that are repeated, removing halting phrases such as "you know" or putting the information in order by topic.

Roxanne Rowley *shares this Idea-Sparker that could be put together anytime. Rowley teaches in a pre-school program, funded by the Michigan School Readiness Grant, for children who are 4 years old and have been identified as at-risk. This circle time activity has been successful in improving listening skills and could be adapted for use in other grade levels.*

Same/Different Listening Activity

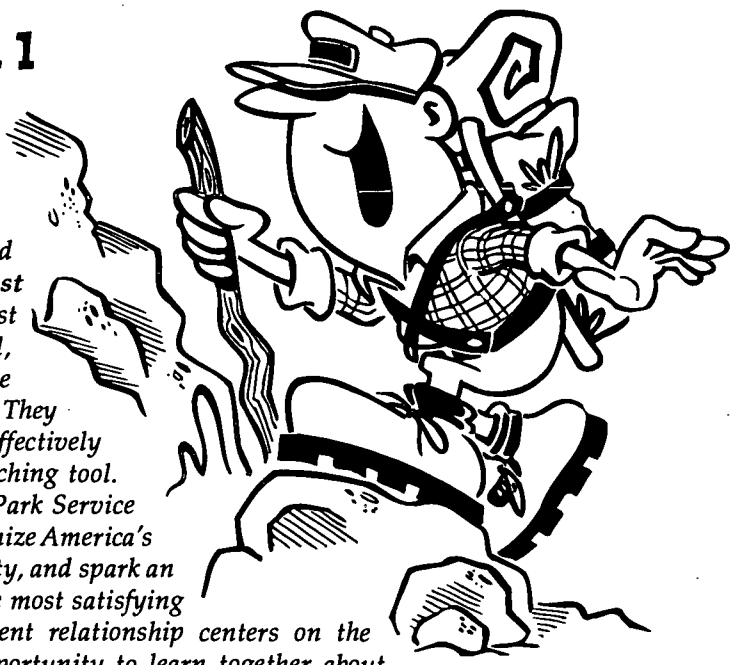
This activity uses 20 small margarine tubs and lids. Find different objects to put into the tubs (e.g., coins, paper clips, small stones, dry macaroni, rice, beans, cotton balls, small blocks, rubber bands or clothespins). Make up ten pairs of margarine tubs for the listening activity. The object is to match up the pairs of tubs by listening to how each one sounds when shaken. Does it sound the same as the other tub? Or does it sound different? This activity enhances auditory discrimination and cognitive skills, and is just plain fun. It has proven to be an enjoyable circle time activity.

Journal Mania

Journals can be an effective instructional tool. You and your students can use journals to:

- ✔ create and maintain a dialogue between you and a student
- ✔ record daily observations regarding the weather, sunrise and sunset, which can later be graphed and analyzed
- ✔ create a learning log in which students record key ideas they have learned, reflect on their daily activities or generate questions
- ✔ create a writing portfolio
- ✔ log key ideas from various content areas
- ✔ keep notes and/or student drawings.

Explore Your National Parks



*Randall M. MacDonald is a college reference librarian and school volunteer. **Susan Priest MacDonald** is Media Specialist at Jesse Keen Elementary School, Lakeland, Florida. Both are frequent National Park visitors. They share the following ideas for effectively using National Parks as a teaching tool. Activities based on National Park Service site themes help students recognize America's cultural and ecological diversity, and spark an interest in history. One of the most satisfying elements of any teacher/student relationship centers on the exchange of ideas and the opportunity to learn together about places, events and persons. National Parks provide a ready source of inspiration for educators and may be used as a basis for cross-curricular studies.*

Do You Know?

National Park sites commemorate the history of places and events, recall the contributions of notable persons, or preserve the beauty of natural resources. Students of history, political science, natural science and other disciplines can learn by studying these sites.

The National Park Service administers 368 units across the country. Park Service personnel provide expert interpretation of park sites, and may recommend specific activities for related classroom instruction, through the Parks as Classrooms program. Inquire at your nearest National Park site for information about this program.

Numerous books have been written about the nation's parks. These might be a good starting point for your explorations. Rourke Press and Children's Press have each pub-lished a series of books on national parks.

National Park Site Explorations

- Select several parks and have students examine their significance. For a unit on early American history, for example, study the pivotal events that shaped the United States' growth: the Revolutionary War (Minute Man National Historical Park, Saratoga National Park), westward expansion (Cumberland Gap National Historic Park, Jefferson National Expansion Memorial), the Civil War (Fort Sumter National Monument, Chickamauga and Chattanooga Military Park, Appomattox Court House National Historical Park), and the rise of industrialization (Lowell National Historical Park).
- As a writing assignment, help students prepare a class newspaper based on the events at one or more parks. Have each student prepare an article based on class research, including descriptions of significant historic events, and stories about individuals connected with the history of the site. Compile and distribute copies to all the students.
- Work with students to create a short play based upon the history of the park. Present the program to other students, parents and colleagues.
- Examine park ecosystems and the relationships of living things. From the moose of Isle Royale National Park in Michigan, to the blindfish of Kentucky's Mammoth Cave National Park, to the majestic cacti of Organ Pipe Cactus National Monument in Arizona, the astounding diversity of plant and animal life in the United States becomes evident.

- Have students graph numbers of plant species or animals native to a park, or the number of persons involved in an historic event. Students may be impressed by such a quantitative analysis, and it adds another dimension to their understanding of nature or history.
- Learn about the role park personnel play in preservation and interpretation. Have a park ranger visit your classroom to describe "A Day in the Life of a Ranger."
- Use park sites as an introduction to state or regional studies of history and the human condition. Consider examining lesser known parks, and those associated with these sites.
- Effigy Mounds National Monument, near Marquette, Iowa, features prehistoric earthen mounds overlooking the Mississippi River.
- The Frederick Law Olmstead National Historic Site commemorates the career of the noted landscape architect and park designer (including New York City's Central Park). His former home and office are in Brookline, Massachusetts.
- The Sewall-Belmont House National Historic Site in Washington, D.C., memorializes the activities of the National Women's Party. Alice Paul and other leaders in the struggle for women's suffrage are remembered here.
- The Whitman Mission National Historic Site, near Walla Walla, Washington, marks an important station along the Oregon Trail.

Thousands of visitors journey to America's National Parks each year. "Travel" with your class to several, as you explore America's intriguing natural and cultural history. The learning adventure will keep you coming back.

art and music

The following Idea-Sparker was submitted by ***Julie Wisor****, ACEI Director of Membership.*

Old McDonald's Farm

Do you want to teach younger students about their classroom? You can do so by modifying the words to *Old McDonald Had a Farm.* Julie used this song to help her Cherub Choir (ages 2 through 5) understand what goes on in their church (*Rev. Green He Had a Church*) and to encourage a class of 2-year-olds (including her daughter) to take a closer look at their class (*Our Teacher Debbie Had a School*).

She asks each group how many of them know the *Old McDonald* song. Usually, everyone cheers, "ME!" She then explains that they are going to sing the same melody or music, but they are going to change the words. Start by asking one child to pick something from the classroom (such as a book) and describe what the teacher can do with it (read it). The class can then sing the following verse:

"Our teacher Debbie had a school. E—I—E—I—O!
And in her school she had a book. E—I—E—I—O!
With a read, read here, and a read, read there.
Here a read, there a read, everywhere a read, read.
Our teacher Debbie had a school, E—I—E—I—O!"

Once they get the hang of it, Julie then selects two children to pick something different from the classroom and describe what can be done with the new object. The class then sings a new verse, using the new object and activity. The game continues until you run out of ideas or children.

Judy Murphy *teaches art at Lincolnway High School in New Lenox, Illinois. Here she shares a project she developed that incorporates art history into clay classes.*

Integrating Art History into the Studio

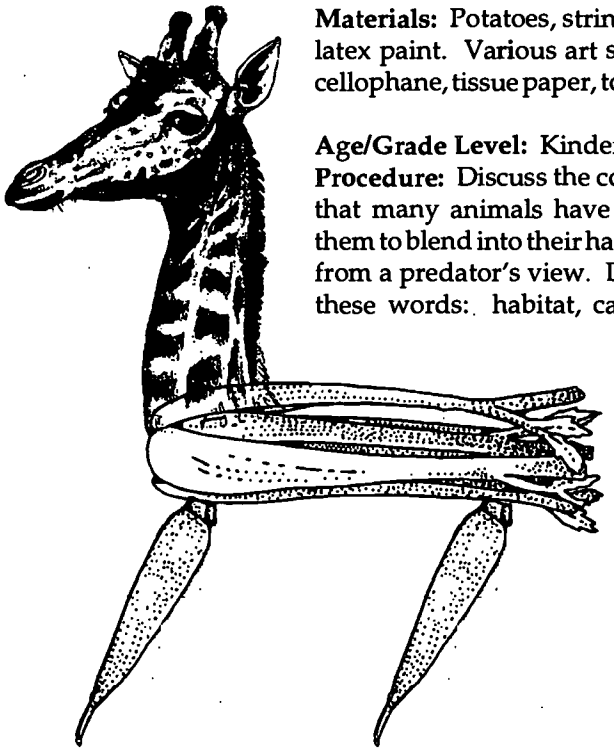
Students learned about pop art during several class sessions that involved handouts and pictures of famous works. Several artists, including Andy Warhol, Claes Oldenburg and Roy Lichtenstein, were discussed in detail. Students then selected an artist they liked and created a pop art sculpture in the manner of that artist using inch, coil and slab methods.

In conjunction with developing skill at slab construction, students were introduced to surrealism. Then they created a nearly perfect construction out of clay and used a paddle to alter the shape to make it appear as if it had melted. The final touch was to add something that represented reality to the surrealistic form.

The impressionist project was the most challenging. Students took a more in-depth look at a particular artist and wrote a 3- to 5-page report on the artist, their work and the period. Next, students selected one of that artist's works and recreated it with clay using coils on a flat surface. Although this technique proved to be challenging, the finished products were exciting.

Invent a Camouflaged Animal

Objective: Through discussion and art, students will be able to understand the concept of camouflaging.



Materials: Potatoes, string beans and carrots painted with white latex paint. Various art supplies—cotton, bits of colored paper, cellophane, tissue paper, toothpicks, straws, tape, pins, glue, string.

Age/Grade Level: Kindergarten-6th Grade

Procedure: Discuss the constant dangers animals face. Point out that many animals have markings and colorations that enable them to blend into their habitat and thus be camouflaged or hidden from a predator's view. Depending on students' ages, introduce these words: habitat, camouflage, predator, prey, adaptation. Make a list of animals that use camouflage for protection and a list of animals that use other means of protection. Challenge students to make an animal from one of the painted vegetables that will blend into the natural surroundings outside. Use a vegetable as the main body part and attach other art supplies to enhance the "animal's" camouflaging abilities. Give the animal a name. Take students outside and send teams in separate directions to hide the vegetables amid grass, shrubs or, ideally, in the woods; then exchange sites and search for the "animals." Discuss the characteristics that increased the likelihood that an animal would be found. The activity can be repeated several times.

Variations: Because some animals have limited color vision and view the world in varying shades of a single tone, let students wear red cellophane "glasses" and search for the animals again. Probably, fewer animals will be found the second time.

Submitted by: Lynda Hatch

Renate Tracy, a 4th-grade classroom teacher at Reed School in Lockport, Illinois, shared the following activity. It illustrates how she has integrated her love for fine art and experience as a art teacher into her elementary classroom.

Teaching Through Art

Famous paintings not only help teacher appreciation and understanding of art, but also can be used to introduce other cultures. By looking at paintings, students imagine what life might have been like during different historical periods. Tracy incorporates art history, language arts and math into activities that utilize "genre" paintings. The "genre" artist uses canvas or paper to tell a story about his or her world and the people who shared it.

Tracy began by selecting several Winslow Homer paintings: "Snap the Whip" and "Inside the Country School." These works were particularly appealing because Homer's subjects were about the same age as Tracy's students. In addition, she was able to obtain copies of these works from her local public library.

The two works illustrate what life was like for country children in the late 1800s. "Snap the Whip" focuses on a group of boys playing in the school yard on a bright autumn day. "Inside the Country School" shows a young teacher working with a group of older boys who are all reading, while the girls and younger children are busy doing other lessons. Tracy's students were convinced that this painting showed the interior of the schoolhouse depicted in "Snap the Whip." While that may or may not be the case, this type of associative interaction between the children and the artworks is the kind of response that should be anticipated and encouraged.

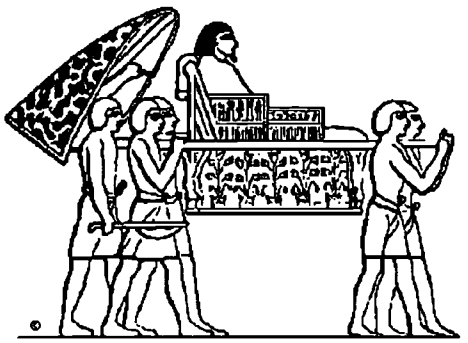
After discussing the works at great length, the class developed and illustrated an imaginary biographical sketch of one of the boys in "Snap the Whip." Using "Inside the Country School" as a model, they drew their own classroom's interior and discussed the differences between the two rooms. The students also created a list of verbs and adjectives, using both paintings as inspiration. Working with a partner, they wrote each other letters about their school days. One partner took the role of a present-day 3rd-grader in Illinois, while the other wrote from the perspective of a 19th century 3rd-grader who attended the country school.

Also as part of the project, students tried some mental math problems from *The Common School Arithmetic Book* used during the 19th century. The purpose of this book was to help students solve everyday arithmetic problems in their heads. Finally, the students had an opportunity to learn more about the artist's life.

The project was an enormous success and Tracy plans to do it again with a few additions. She will incorporate the prices of goods from that time by using replicas of old catalogs or newspapers. In addition, she will read Laura Ingalls Wilder's *The Long Winter.* In that book, the author not only wrote about what life was like, but also about the school where she had just begun teaching. Tracy hopes to incorporate other artists and their works into the curriculum. Look for more of her ideas in future columns.

The next three ideas were shared by **Tom Wolfe**, *elementary art teacher in Elmhurst Community Unit District #205 in Elmhurst, Illinois. Wolfe describes some of his favorite and most successful projects from his extensive "teaching portfolio." All these ideas are "kid-tested" and the students look forward to their art time each week.*

Valley of the Kings



If you had walked through the lower level of Field School last year, you would have have entered the Field School version of the Valley of the Kings. Each 4th-grade student created their own life-size copy of a sarcophagus. Wolfe began the unit with a discussion of Egyptian history and explained some of the Ancient Egyptians' philosophy regarding life and death. Wolfe pointed out that King Tut had been the age of a 4th-grader when he became king. The students speculated about what life might have been like if they had been in his place, while they viewed slides of tombs, hieroglyphics and wall decorations.

Each student created a sarcophagus out of white butcher paper. They began by tracing themselves on the paper and folding it symmetrically. They used a hieroglyphic stamp set to stamp out their names, added decorations and personalized their project by adding items to represent what they "liked" in life. The students used pencils, markers and paint to adorn their projects. The finished projects were laminated and hung along the walls of a hallway in the school's lower level. A sign welcoming visitors to the "Valley of the Kings" was hung in the entryway.

Jungle Pictures

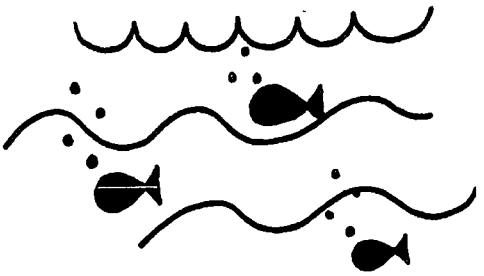
This project has been a hit with 2nd-graders for a number of years and could easily work with most age levels. The students begin the project by viewing slides of Henri Rousseau's works. Students learn about foreground, middle and background. They create simplified animal shapes and foliage with pencil and then paint the lines in black. The next step is to fill in the background spaces with marker (or crayon), creating some very dramatic results.

Gargoyle Masks

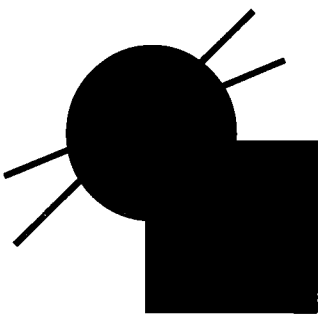
This clay project is ideal for Halloween time, although it can be used at any time of year. Students begin with plastic mask forms. They make slabs of clay and lay these over the mask forms. They add features with coils, slipping and scoring. They can add horns, unique ears and unusual noses or mustaches. The masks are fired, glazed and fired again. The results range from the grotesque to the sublime, based on the mood of the artist. During this project, Wolfe teaches the architectural background of gargoyles.

Cool Colors

The kindergarten students are asked to think about water. They talk about and draw various wavy lines. They use cool colors and paint an entire sheet to represent water. The next week, students return and use a simple fish stencil to stencil fish into their "body of water." They apply fluorescent paint with a sponge fish. Marker caps are used to stencil on bubble eyes and seaweed.



Lines and Shapes



The project begins with a discussion of lines. Using black paint, the students paint a variety of lines that cross and create shapes. At their next class session, the students talk about and paint the shapes they have created, using a monochromatic color scheme. They paint in the areas, but not on the black lines. At the third session, the students come back to the project to add texture. They add bits of foil, fabric and glitter into the spaces. The course of this one project gives students a wide range of experiences with lines, shapes, color and texture.

science and math

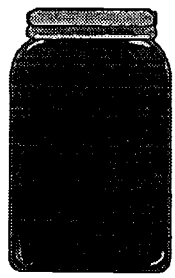
The following Idea-Sparker was submitted by ***George E. Pawlas,*** *Assistant Professor of Education, University of Central Florida.*

Estimation Skills in Real Life

Textbooks have limited opportunities to practice the concept of "estimating." Students need more chances to practice this skill. Creative teachers have devised methods and activities that allow their students to enhance their knowledge base.

One creative senior student teaching intern I supervised provided her 2nd-grade students with extended opportunities to practice estimation. For ten weeks, she filled a wide-mouth jar with objects, and changed the objects each week. The students were able to view spatial relationships more clearly with this method. The intern also left a few of the objects outside the jar so that students could touch and examine them (e.g., Styrofoam packing pieces, marbles, erasers). Each week, the students estimated the number of objects in the jar and recorded these estimates on log sheets. At the end of the week, the actual number of objects would also be recorded on the log sheets. Students could then compare their estimations with the actual number of items and more clearly understand why their estimations were either too low or too high.

Two students were assigned each week to count the objects. This was usually done with great ceremony on Friday mornings. The student or students with the most accurate estimate received a prize. The student teacher found that the students looked forward to each new challenge on Monday mornings. This long-term practice increased the students' accuracy in this activity and others.



Plants & Light

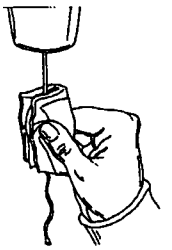
Demonstrate how plants use sunlight to turn carbon dioxide and water into food.

- Cut paper into three shapes about two inches wide. Circles and triangles work well, but you can use other shapes, too.
- Clip these shapes with paper clips to three leaves of either an indoor or an outdoor plant, being careful not to tear the leaves.
- Keep one piece of paper on the leaf for one day, a second on for two days and the third on for one week.
- What happens to the leaves? Do they change color? What effect does the lack of light have? What effect does the length of time the leaves are covered have?

The following two ideas were provided by Kinetic City Super Crew™, a radio adventure show and outreach program for children, developed by the American Association for the Advancement of Science.

MEGACONE

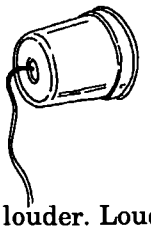
When you don't mind having a little noise in the classroom, this activity will certainly capture your students' attention and teach them something about sound.



Materials:

- sturdy cup, such as an empty yogurt cup
- ball-point pen
- paper clip
- string
- wet paper towel

Use a pen to punch a small hole in the bottom of the cup. Thread a string through the hole. Tie the paper clip to the end of the string inside the cup. The paper clip will prevent the string from sliding all the way through. Hold the Megacone so that the string dangles down. Slide your fingers down the string. It makes a noise, right? Slide your fingers down a string that isn't attached to a cup. The noise is softer, isn't it? By holding a piece of wet paper towel as you slide your fingers down the string, the noise becomes even louder. Experiment with cups of different sizes and materials. The sound is created because your fingers are vibrating the string. Experiment with string of different lengths and materials.



More About Sound

Sound only happens when something vibrates. Touch your throat and speak. Feel the vibration? Vibrations travel faster through solids than through air. The Megacone sound goes through lots of solids: a string, paper towel, hand and cup. The cup channels more sound into a smaller space. Plus, the sound leaves in one general direction. More sound all heading the same way is louder. Loud sounds vibrate harder. Pluck a guitar string gently. It shakes back and forth just a bit. The sound is soft. Pluck harder. The string shakes more. The sound is loud.

PITCH OUT

How do baseball pitchers make the ball bob, curve, slide, change up?

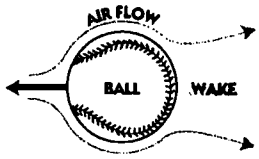
Materials:

- beach ball, volleyball, soccer ball or large foam ball
- playground

Toss up the ball and hit it dead-center with your palm. Does it spin? Does it curve? Does it bob like a knuckle ball? Toss up the ball and hit it on the side. Does it curve? Does it spin? How much? Which way? Can you make the ball curve the other way? Put top (forward) spin on the ball by hitting it near the top. (This may take a few tries.) How does top spin affect the ball's path? What happens to the ball when it hits the ground? Can you make the ball roll back to you when it hits the ground?

More About Baseball Physics

A moving ball cuts through the air. The air splits, flows around the ball, and meets behind the ball in a bumpy trail called a wake. When a ball spins, the wake moves. Top spin pushes the wake up, forcing the ball down. Side spin pushes air to one side of the ball. The ball curves toward the other side. A knuckle ball has little spin. The wake moves up, down and around—and so does the ball.



*This Idea-Sparker was provided by **Kinetic City Super Crew**™, a radio adventure show and outreach program for children, developed by the American Association for the Advancement of Science.*

True Colors

With a few drops of ordinary water, lines and pictures drawn with colored markers can become something entirely different.

Materials:

- water-based markers (not waterproof) and felt-tip pens (not ball-point)
- paper coffee filters or paper towels
- glasses or other tall containers (clear works best)
- pencil or ruler
- tape
- construction paper

Here's What To Do:

1. Cut a strip of paper towel almost as tall as your container. Draw an ink line a few inches from the end. Tape the strip to a pencil.
2. Add a little water to the container. Rest the pencil on top. The paper should touch the water. The marker line should be above the water. If it's too low, roll a bit of paper onto the pencil.
3. Wait 5 minutes. What happens? (If nothing happens, try another kind of water-based marker.)
4. Make chromatograms (color patterns) with markers of different colors.
5. Draw a picture on a paper towel with markers. Drip a little water on it with a toothpick. What happens?

Here's More About Art Chemistry

Many markers mix different pigments (colors) to make one color, such as brown. Chromatograms separate these pigments. Here's how: Water rises up the paper to the dry ink. It loosens pigments from the paper. (Water-proof markers don't work because water can't loosen the pigments.) Water carriers the pigments up the strip. Lightweight pigments travel farther than heavy pigments, so the colors separate.

The following idea was submitted by ***Beverly Verner****, a graduate Elementary Education student at Sacred Heart University, Fairfield, Ct. This lesson for grades 3-6 uses color to illustrate light refraction, thereby using artistic elements as an introduction to a science lesson.*

The Mystery of Color & Light

... an introduction to light refraction

Materials:

- small prism
- color wheel chart
- 3 1/2-inch color wheel that spins (*To make, cut a 3 1/2-inch cardboard circle and glue white paper to one side. Divide the circle into 6 equal sections and color each section either red, orange, yellow, blue, green or purple. Pierce 2 holes in the circle's center and run 2 feet of yarn through the holes, tying the ends in a knot. Place the circle in the center of the yarn, and loop around several times, pulling outward on yarn to spin the wheel.)*

Procedure:

- Ask for a volunteer. Give this child a prism and send him/her to a sunny window (or shine a flashlight through the prism onto a white wall). Ask for a second volunteer and have this student spin the color wheel to see what happens.
- Ask the class some questions from a corresponding worksheet, such as: What are primary and secondary colors? What colors do we get when we mix two primary colors? What is another name for violet? Why does light appear to be white? How does light travel? (Explain that light travels in a straight line at 186,000 miles/second, and that by bending, or refracting, light, the colors of the spectrum appear.)
- Let children complete the worksheet to see if they understand the principles of color and light.
- When students have finished, review the questions. With the color wheel chart as a guide, illustrate how primary colors combine to form secondary colors. Which 6 colors are part of the spectrum, and what device do we use to see these colors? Ask questions about light facts. Write all important terms on blackboard.

Resources

Science for Fun Experiments, by Gary Gibson
The Most Amazing Science Pop-Up Book, by Jay Young
175 Science Experiments To Amuse and Amaze your Friends, by Brenda Walpole

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Brrrr!

For a fun and tasty winter activity, let students watch maple candy quickly go from boiling hot to freezing cold.

Materials:
Maple syrup
Measuring cup
Water
Large baking pan
Hot plate
Sauce pan
Freezer

- Fill the pan 2/3 full with water. Freeze until the water is a solid block of ice.
- Boil 1/2 cup of maple syrup for 8 minutes, until very soft.
- Very slowly pour the soft, pliant syrup in long strips over the ice. The soft syrup will harden almost instantly into brittle maple candy.
- Remove the candy from the ice and give the children a taste. Discuss the difference in how the candy looks and smells in hot and cold forms.

The following Idea-Sparkers are from Chef Combo's™ Fantastic Adventures in Tasting and Nutrition, © 1996, National Dairy Council.

My Favorite Bug

Materials:
Magnifying glass
1-oz. string cheese sticks

Pretzel sticks
Paper plates

Part 1: The Nature Walk

- Take the students outside for a nature walk to observe insects. Explain that there are many insects in the world and that we don't want to hurt them because most insects are helpers.
- Ask students to name an insect, or bug. Let the students examine the grass, flowers and ground for insects. When one is spotted, use the magnifying glass for students to get a better look.

- After the walk, talk about the bugs the students saw.

Part 2: The Recipe

- Have children wash their hands.
- Demonstrate how to assemble the recipe by first putting a string cheese stick on a plate. This will be the body of your bug.
- Take 8 pretzel sticks and add legs and feelers to your bug.
- After everyone has assembled and tasted their creation, have students take a like/dislike survey. Help children count the responses and record the results on a Tasting Chart.

Recipe for Juggling Balls

Materials:
3 helium-quality, 9" or 11" round balloons for each juggling ball
1/3 cup uncooked rice for each ball (a 2 lb. bag of white rice is about 4 1/2 cups)
Scissors
Funnel
Bottle
Strapping tape

Directions:

1. Using the funnel, measure 1/3 cup rice into clean, dry soft drink bottle.
2. Inflate 1 balloon to the size of a fist and, while holding the neck of the balloon closed, stretch lip of balloon over bottle opening.
3. Turn bottle over to get rice into balloon; remove balloon from bottle.
4. With scissors, cut off rolled tip of balloon.
5. Fold over neck of balloon, and tape down with 1 1/2" of strapping tape.
6. Cut off neck of second balloon; cut periodic holes in balloon.
7. Stretch second balloon over rice-filled balloon.
8. Repeat steps #6 and #7 with third balloon.
9. Roll ball between hands to make it round.
10. Juggle!

The following Idea-Sparker is one of many science experiments using ARM & HAMMER baking soda that was developed at Cornell University.

Floating Grapes

This experiment demonstrates that grapes can be made to "float" in a mixture of baking soda and vinegar. Baking soda and vinegar react to produce carbon dioxide gas. Gases are less dense than liquids and will rise to the top of liquids. When gas bubbles attach themselves to a solid submerged in a liquid, the bubbles may increase the buoyancy enough to lift the object.

First, fill a plastic cup half-way with vinegar. Add one tablespoon of baking soda to the vinegar. After the fizzing subsides, place one or two grapes in the cup. Observe the movement of the grapes. Bubbles of carbon dioxide will be produced by the reaction of the vinegar and baking soda. These bubbles will attach themselves to the surface of the grapes and "lift" the grape to the top of the liquid. Once the grape is at the top, the bubbles of carbon dioxide are released into the air, and the grape sinks back to the bottom of the cup, where it will pick up more gas. The process is repeated until most of the carbon dioxide produced has been removed. To emphasize the effects of the vinegar/baking soda mixture, demonstrate what happens when you put a grape in a cup of plain water.

For K-2 children, stress the concept that gases can be produced that will make objects float. For grades 3-5, explain that gases are less dense than liquids and solids. Chemical reactions that produce gases can be used to lift a more dense object to the top of a less dense medium. Students in grades 6-8 can discover that the production of a gas is one piece of evidence that a chemical reaction has occurred. Attractive forces attach bubbles of gas to the grapes and make them buoyant enough to float.

What Color is the Grass?

Students participating in this activity will explore the environment and learn that objects are not always what they appear to be. Ask the students to make personalized "eye spy" glasses by decorating cardboard paper towel holders. Next, have the students draw a picture of what they think a piece of grass looks like. Take a "field" trip to a grassy area. Have them sit in the grass and explore a small area of the ground using their "eye spy" glasses. Back in the classroom, the students will draw what they observed about the grass. Discuss the similarities and differences between their two sets of drawings. As an extension to this activity, the students could use a magnifying glass and a microscope to observe the grass more closely. New drawings could be made based on the closer observations.

A visit to a science center can be an exciting and educational field trip for your students. The Association of Science-Technology Centers offers some tips for visiting science centers to make the most of the experience.

Science Centers

- Plan ahead. Request a brochure from the science center. Go over the brochure with your students. Select the attractions that you most want to see. Buy tickets for special shows in advance. Find out if there is a place to eat and if you can bring in lunches.
- Kids like to wander in science centers. Each child will find a different area fascinating and will want to spend more time there. Remember, you will need help as they explore the museum's many interactive attractions.
- Visit the museum in kid-sized chunks. Do not try to do it all in one day.
- Return to the center after the first visit. Children will find something new and exciting each time they go—and learn more about what science can offer.
- IMAX and Omnimax movies are great. If one is available, you and the children will be sure to find it fascinating, and you will get to sit down. Very young children, however, may reach sensory overload and may become scared by some of these movies.
- Stimulate thinking by asking questions like: What do you see? What does it feel like? What does this remind you of? Help children relate what they are doing at the museum to a personal experience.
- Let students ask questions. Ask them questions that begin "What do you think will happen if . . . " If you do not know the answer, "Let's find out" is a good response and a science center is a good place to conduct research.

The following Idea-Sparker was submitted by ***Ann Widdifield****, 5th-grade teacher, Marshall Road Elementary School, Vienna, Virginia.*

A Remainder of One

It happens all the time. Large class—limited space. What do you do when your class is packed and you seem to have one too many students? This was my problem. I had started the year with 32 5th-graders. They were a mix of ESL, learning disabled, gifted and talented and "regular" students. While we were very crowded, we had just enough space to move around and interact with one another. I established four groups of eight students each. Then, a new student arrived and I did not have any viable group space left. I made one group into nine, but the arrangement did not work.

We were studying division at the time, so I asked myself what I had asked my students: What do you do with the remainder? With a paper-and-pencil problem you can just write R 1. In real life, however, the division problem is not over until you decide what to do with the remainder. The solution depends on what the left-over object is: a cookie, a pencil, a bus for a field trip or a person.

I decided to maintain the groups of eight by having the students take turns being "the remainder." Each week, a different student would sit by himself in the back of the room. I described the plan to the class and we discussed their concerns. Their biggest concern was whether the remainder could still join the reading or social studies groups when the time came. I answered "Yes" and explained that if the class was working on any other group projects the remainder could pick the group of his or her choice.

When I asked for volunteers I was surprised to get eight immediate takers. I then drew names to assign the rest of the class their turns as the remainder.

Each week, the remainder sat by himself or herself. During the week, the remainder wrote about how it felt to be in that position. At the end of the week, the student shared the writing with the class and then moved to the group of the next remainder. If I forgot to give something to the remainder, the class, feeling very protective of the remainder, would say, "Mrs. W., don't forget the remainder."

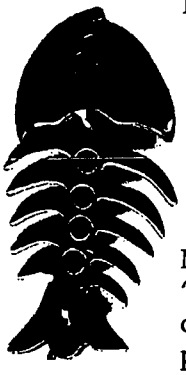
Only one student did not like being the remainder. The rest of the class found unique advantages to the role. What started out as a big problem turned into a learning experience for my class. They used division in real life, wrote their observations in a journal, read to the class, demonstrated empathy for people who were not in their group, and recognized how it feels to be left out—to be the remainder.

Money Math

This activity will help children learn the concepts of addition and subtraction, as well as equivalence. The object of the game is to be the first

player to earn a predetermined amount of money (the game can be played with play money). Each player rolls the dice and gets as many pennies as the number shown on the dice. As each player gets five pennies, the pennies are replaced by a nickel and ten pennies are replaced by a dime. The first player to reach the preset amount wins.

Making Fossils

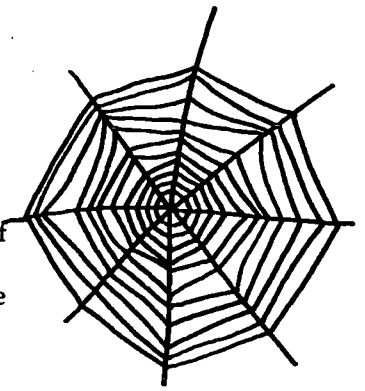


In order to get started in this activity you will need the following materials:

Rocks, shells, chicken bones, fish skeletons,
leaves, twigs or branches
Plaster of Paris and a container for mixing
Cardboard boxes or milk cartons
Petroleum jelly

Mix up the plaster of Paris as directed on the box. Select an object to "fossilize." Pour a layer of plaster into the cardboard container. Grease the object (shell, bones, leaf, etc.) with petroleum jelly, then place it in the plaster—pressing so the downward side is covered. Let the mixture harden and then remove the object. Voila! You have made a replica of a fossil.

Spider Web Magic!

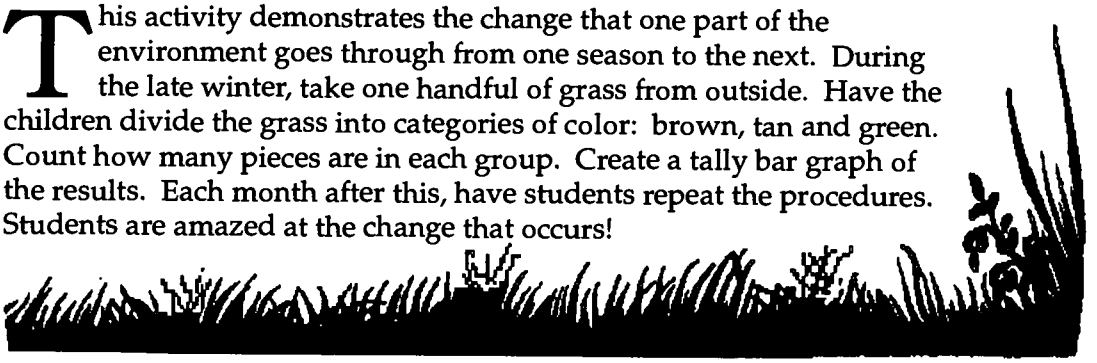


Have you ever noticed how beautiful a spider web is when it glistens in the sunshine? Why not capture one for your class? You will need to find a good spider web outdoors. Be sure the spider is not at home. Using a can of enamel spray paint, spray both sides of the web. Press a piece of paper against the web and snip the web's support lines. Let the web dry and you are set to share the beauty with others. You may want to check back and see the new web that the spider spun to replace the one you captured.

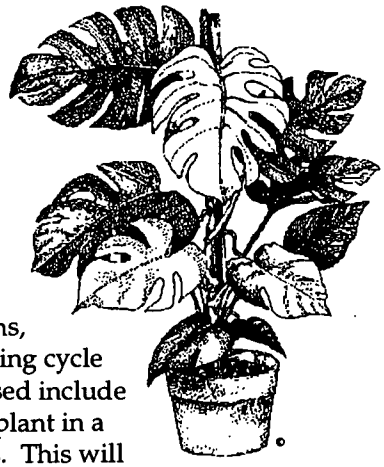
Pat Wyant has been an active member of ACEI and is currently President of the Chicago Area Branch. She teaches at Admiral Byrd School in Elk Grove Village and has used the following idea in her science curriculum with much success. Once again, this is a simple idea that is very effective.

When Does Spring Come?

This activity demonstrates the change that one part of the environment goes through from one season to the next. During the late winter, take one handful of grass from outside. Have the children divide the grass into categories of color: brown, tan and green. Count how many pieces are in each group. Create a tally bar graph of the results. Each month after this, have students repeat the procedures. Students are amazed at the change that occurs!



Rose Mary Dillon is a primary teacher at Irene King School in Romeoville, Illinois. She recommends this project as a way to explore the changing cycles of plant growth. The project only takes a few minutes of formal teaching time once a month for three to four months. The plant is in the classroom for informal observation throughout.



Growing Up Green

By observing the same plant over several months, primary grade students can witness the changing cycle of plant growth. Some plants that might be used include potatoes, sweet potatoes or onions. Place the plant in a clear container of water, holding it up with toothpicks. This will allow all stages of growth to be observed by the children. Make a chart for each student by folding a sheet of paper into four boxes. The first observation will be recorded in the first quadrangle. All children will record the date and draw and label the plant as it is observed. Then place the plant in sunlight, checking periodically for maximum exposure to the sun. Turn the plant occasionally. Collect and save the students' log sheets.

One month later, pass out the log sheets again so that the children can record the date and any new growth in the second quadrangle. Observe all visible changes. Repeat the process for each of the following two months until the last frame is filled in. Compare the four drawings and then move the plant into soil. Some children may wish to start their own plant for observation at home or in the classroom. This project could be extended to provide opportunities for measurement and prediction. If several plants were started, the class could change the conditions for each plant and make comparisons.

Roxanne Rowley is a Coordinator/Teacher at the Four Stars Preschool in Manistee, Michigan. Roxanne teaches 4-year-olds in this state-funded pre-kindergarten program for "at-risk" children. She shares her experience with using pocket charts in a variety of ways. This tool could be used to enhance science activities and is adaptable across the curriculum.

Pocket Charts As a Useful Tool

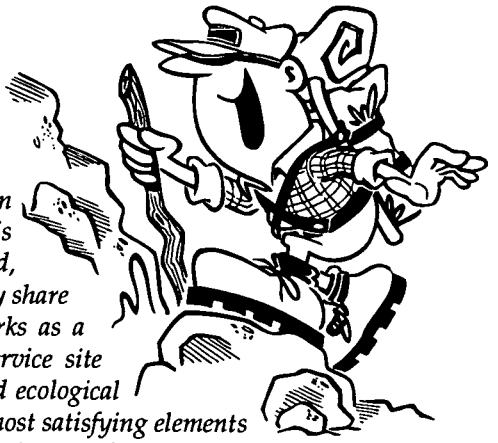
Pocket charts can be useful in the early childhood setting. This particular pocket chart can be a useful aid when talking about graphing. The subjects to be graphed (animals, shapes, colors) are arranged in the top pockets. The children use their own names, printed on index cards. Then they can "choose" an animal or subject they like for the graph. The results are easy to see and count. The cards can be transferred to a large sheet of butcher paper in graph form and the pocket chart is available for the next project.

Pocket charts are also useful to group children for cooperative projects. The pockets make a great holder for the groups of children who are working together. It is especially handy once the children recognize their own names. They can refer to the pocket chart and know with whom they will be working.

Signs and symbols make good "reading" for young children. The pocket chart can hold signs that are found in the environment. The children can put their name next to the signs they recognize.

environment

Explore Your National Parks



Randall M. MacDonald is a college reference librarian and school volunteer. ***Susan Priest MacDonald*** *is Media Specialist at Jesse Keen Elementary School, Lakeland, Florida. Both are frequent National Park visitors. They share the following ideas for effectively using National Parks as a teaching tool. Activities based on National Park Service site themes help students recognize America's cultural and ecological diversity, and spark an interest in history. One of the most satisfying elements of any teacher/student relationship centers on the exchange of ideas and the opportunity to learn together about places, events and persons. National Parks provide a ready source of inspiration for educators and may be used as a basis for cross-curricular studies.*

Nature's Shapes

Materials: A sheet of paper divided into four columns with four shapes across the top (circle, square, triangle, rectangle); writing utensils.

Distribute the materials and have the children find the shapes that correspond to objects in nature. Write or sketch the object in the corresponding column for each shape. Encourage your students to use their imaginations and expand on the idea of shapes. A circle could designate a hole in a tree, a seed or the entrance to an animal home, for example. Compare and discuss the results as a group.

Explain that there is an order to everything. Discuss different kinds of shapes and how they are put together to form other ones. How do these natural forms relate to man-made objects? What is the purpose of certain shapes? (e.g., some seeds are round to disperse themselves.)

Nature's Gallery

Materials: White paper for each child; variety of "color producing" plants/ natural objects (crushable berries, bright fungus, charred sticks).

Discuss the natural colors of plants and animals. Have the students create their own "art" from small amounts of found objects that produce color. Berry juice, flower petals, some nuts and wood all work well. You can also explain how Native Americans made dyes out of natural objects and that the colors we use in everyday life are taken from nature.

Sensory Awareness

Break the students into four groups. Designate each group as a body part related to a sense (the "eyes" will see, the "nose" will smell, the "hands" will touch and the "ears" will listen). Ask the students to walk quietly for two full minutes (which will really feel like a long time to them). As they walk, they are only allowed to use the assigned sense. After they finish, discuss what each child experienced.

Camouflage Challenge

Materials: Marbles or crayons of different colors

This activity reinforces the idea of camouflage. Choose a designated area (between two trees, for example) and have kids close their eyes. Hide the marbles or crayons in the area. When all the objects are hidden, have the children locate them all. They will probably see reds and oranges first and greens and browns last. Discuss their experience. (Make sure that you know how many objects were hidden in order to be sure that they are all found.)

A *Kinder* and *Gentler* Scavenger Hunt

Materials: Paper and writing utensils and an item list for each child. Set time limits and parameters for the hunt before students begin. The item list can be structured to include characteristics of items (such as colors, textures, purposes, etc.).

Distribute the materials and ask students to locate as many of the items as possible. Stress that instead of picking them up or removing them, they will sketch each item they see. After a designated time, gather all the children in a group to share and discuss their discoveries. Discuss how things in nature can have the same characteristics, even if they are different. Talk about and share the sketches. Students can expand the activity by creating riddles about some of the items they found. For example: I am soft, green and can be found on the north side of trees. What am I? (Moss.)

The following Idea-Sparker is from INFORM, Inc., a national non-profit environmental research organization that investigates and develops strategies for a better environment.

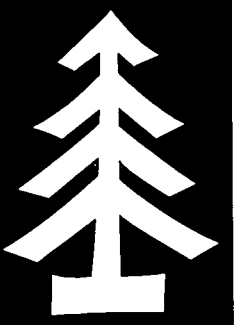
Reduce, Reuse, Recycle

At school, home, work and play, each U.S. resident throws away 4.3 pounds of waste per day—more per capita than citizens of countries with comparable standards of living. As garbage becomes increasingly expensive and difficult to get rid of, government leaders realize that the best solution is to try to prevent waste. While students learn academic subjects, they can also learn lessons about waste prevention that will last a lifetime. The following is a list of tips for students, teachers and school administrators:

- Encourage the use of both sides of paper for art, scrap, drafts and reports.
- Reuse loose-leaf binders.
- Use reusable book covers and bookmarks.
- Use refillable pens, pencils and markers.
- Pack a less wasteful lunch with reusable lunch bags, reusable food/juice containers and insulated bottles like Thermoses™.
- Place "swap boxes" in each classroom so students can exchange items from home that are no longer needed.
- Create a "scrap box" to encourage paper reuse.
- Use more overhead transparencies and central bulletin boards, and fewer handouts.
- Use items that would otherwise be discarded for arts and crafts activities.
- Compost fruit and vegetable waste and use for classroom plants.
- Use washable plates, tableware and cups in cafeteria.
- Buy equipment that does not require batteries (e.g., manual pencil sharpeners, solar-powered calculators).

The Arbor Day Connection

Planting a tree is an act of optimism and kindness, a labor of love and a commitment to stewardship. As a result, planting trees is a common Earth Day occurrence that provides a fitting connection to Arbor Day, which is celebrated the last Friday of April.



Plant a Tree

The highlight of classroom activities focusing on how to plant and care for trees can be a simple, yet meaningful, Arbor Day Ceremony. A basic Arbor Day ceremony might include the following:

1. Greeting by a school principal or community leader.
2. Reading a brief Arbor Day history written by your students.
3. Singing several songs and/or reading a couple of poems about trees.
4. Planting a tree together. Children can participate by each adding a handful of soil brought from home or collected at school to cover the roots. A small sign displaying the planters' handwritten names could be placed by the roots.
5. Demonstrating how to properly water and care for the new tree.

Earth Day Groceries

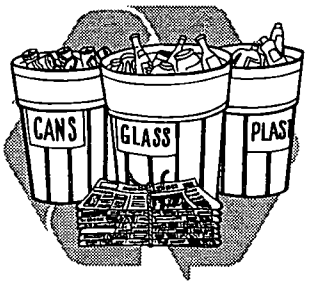
Schoolchildren can decorate brown paper grocery bags with original slogans and artwork that increase environmental awareness, promote recycling and encourage the elimination of pollution. The bags can then be passed out to shoppers (filled with their grocery purchases) at local stores on Earth Day. As of August 14, 1997, 311 schools had decorated 119,849 Earth Day grocery bags. What a great way to spread the word in your community!

An Environmentally Packed Picnic

Provide an opportunity to enjoy the great outdoors by planning outdoor learning activities on the school playground or at a local park. Each child is responsible for bringing his or her own environmentally packed picnic lunch (meaning little or no waste—reusable containers, recyclable foil wrap, etc.).

Recyclable Sorting

Have students sort a collection of common household trash according to the recyclable material type (paper, glass, plastic or aluminum). Use the information provided to discuss the advantages of recycling rather than disposing of these and other similar items.



Decomposition Rates
paper: 1 month, rope: 6 months, wood: 10 years
tin can: 100 years, aluminum can: 400 years
plastic: 500 years, glass: 1,000,000 + years

Scouting the Library

Young children will love to hear about *Clifford's Spring Clean-Up* (Cartwheel Books, 1997). In this book, author Norman Bridwell's big red dog works hard to clean the house and a nearby vacant lot in preparation for Earth Day.

Janet McDonnell's book *Celebrating Earth Day* (Children's Press, 1994), with illustrations by Diana Magnuson, presents the story of one class's Earth Day activities, which include helping to clean a neighborhood park, planting a tree and planning a special party.

Earth Day, by Linda Lowry (First Avenue Editions, 1992), is a nonfiction account of Earth Day in the United States from 1970 to 1990, and includes descriptions of the special activities that have been planned to call global attention to problems such as pollution, environmental destruction and the waste of natural resources.

The trials of a 4th-grade student trying to accomplish her Earth Day goal of planting a live oak at the city park are revealed in the short chapter book *Tanya's Big Green Dream*, written by Linda Glaser and illustrated with the black-and-white pencil drawings of Susan McGinnis (Simon & Schuster, 1994). As an added plus, the paper and binding are made from recycled materials!

The book *Every Day Is Earth Day: A Craft Book* (Holiday Crafts for Kids) was written by Kathy Ross with illustrations by Sharon Lane Holm (Milbrook Press, 1995) as an introduction to the concept of recycling. A few of the ideas for reusing items thrown away every day include making an Earth puppet or creating a litter-devouring "trash monster."

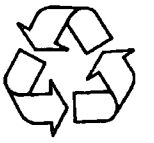
Other Resources:

Hawkins, J. (1971). *Every day is Earth Day.* Chicago, IL: Children's Press.
McQueen, K. (1991). *Let's talk trash! The kids book about recycling.* Burlington, VT: Waterfront Books.
McVicker, D. (1994). *Easy recycling handbook.* Gilbert, AZ: Grassroots Books.
New resources for Earth Day. (1997). *Teaching PreK-8, 27*(7), 43.

Be "Tree-tectives"

Early in April, post a sign that reads "What do these items have in common?" Occasionally add some sort of tree product such as an apple, a cork, a chopstick, a rubber band, a greeting card, an aspirin bottle (empty, of course) or a small bottle of maple syrup to the display. On Arbor Day, the students can reveal that each of the items comes from a different type of tree. Then, the teacher tapes a picture of a tree product (paper, wood, food or other) onto each student's back and instructs them to intermingle and ask each other "yes" or "no" questions (two per person) about their picture until they think they can identify the product.

School Recycling



Has your school joined the recycling movement? Why not work with your local town or city waste management company to develop a plan to recycle within the school? Your efforts may be initially limited by the community's level of involvement in recycling. In such cases, students can write to local officials, encouraging them to expand their recycling efforts.

You can set up recycling bins in classrooms for paper/paper products and other bins in the lunch area for cans, bottles and plastics. Juice boxes and/or milk cartons might also be recycled. Students can weigh and measure, chart and graph their trash, comparing recyclable and nonrecyclable materials. They can calculate the average amount of recyclable and nonrecyclable material generated per student. As the students collect this data, they can also develop strategies for reducing the amount of daily trash.

Other classroom activities might include creating community display posters that promote recycling, writing a play or puppet show and writing letters to editors of local papers.

Picking at Packaging

Have all students bring in a packaged product (a cereal box, for example). Ask them to examine the package and answer the following questions:

1. Is the package made from recyclable materials?
2. Is this product available in more than one kind of packaging? (If so, compare the packaging in terms of recycling and waste reduction.)
3. Is there a better way to package this product? Design a new package for this product that is environmentally sound.
4. Could this product be stored and purchased in bulk quantities?
5. Why do you think the package was designed this way?
6. What happens to this package after it's thrown away?

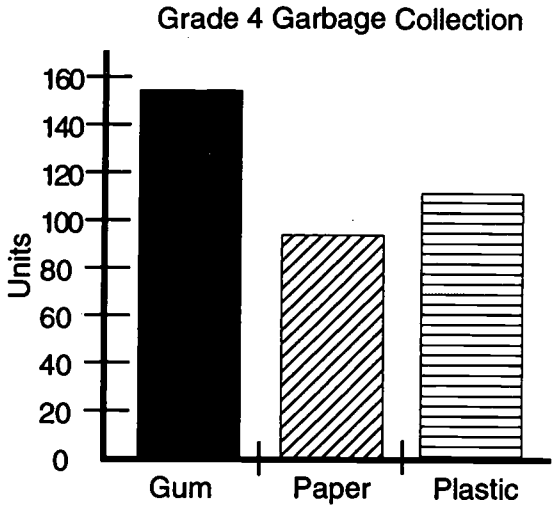
This activity may help students begin to think about "precycling," which means buying items that are already made from recycled products or that can be recycled.

This Idea-Sparker was submitted by ***Sudha Swaminathan****, a doctoral student at the State University of New York at Buffalo. In India, Sudha worked with primary and middle school children, helping them learn to use computers. One 4th-grader's comment about the "mess" around the school provided the catalyst for a school-wide project.*

Tally Your Garbage

Sudha's student wanted to know whether all the school's garbage would reach to the top of the school's temple tower if stacked together. Her classmates also became interested. Soon, they were participating in a drive to clean their school. Every day they sorted and stored their garbage instead of disposing of it. The children stuck gum on boards, stacked loose paper in piles and collected pieces of plastic in a box. They took pride in counting the amount they had collected each day and used bar graphs to depict the stark details of their garbage data.

By displaying this chart on the school bulletin board, the class helped increase the environmental awareness of the school community. Children and their teachers were astounded at the amount of gum not properly disposed of in a single month. The 7th-graders followed up this project with a study about how gum affects those who chew it. The 10th-graders started to explore options for proper disposal of garbage. The rest of the school made similar charts each month, delighting as the amounts of garbage decreased.



The project ultimately incorporated mathematical reasoning and problem solving (e.g., How do you scale down 153 gum blobs, 93 sheets of paper and 111 pieces of plastic into a bar graph that would fit a sheet 3 feet long and 2 feet wide?) and health issues (e.g., What are the chemical differences between the various gums available in the market and how do they affect the user?). The project offered many possibilities for similar ideas.

Paper Conservation

In conjunction with their recycling efforts, students could keep track of the amount of paper they use each day by setting up a collection point in the room. Students could weigh the amount of paper they use in one day and then determine how much they use in a week, a month or the entire school year. They could also develop strategies for conserving paper in their classrooms and at home.

Make Your Own Recycled Paper

Students can get first-hand experience with the actual process of recycling by making their own recycled paper. When planning for this activity, please note that it takes at least two days.

Materials:
Blender
Water
Newspaper
Large pan, at least 3" deep
Window screen, cut to fit the pan
Large, flat piece of wood (as large as a newspaper page)
Measuring cup

In a blender, mix 5 cups of water and 2 1/2 pages of newspaper that have been torn into small pieces. Blend the paper and the water until the resulting mixture looks like pulp. Next, add about 1" of water to the pan, put the screen in the pan and pour one cup of the paper pulp over the screen. Spread the pulp in the water evenly over the screen. Lift the screen and let the water drain off. Now, take a complete section of the newspaper and open it so that it is several pages thick and open like a book. The screen with the pulp should be placed to the right side of the fold on the open paper. Close the newspaper and then very carefully flip the newspaper section over so that the screen is on the top. Then place the board on top of the newspaper and press down to squeeze out the moisture. Carefully take out the screen and leave the newspaper open for the "new" paper to dry. This should take at least 24 hours. After the pulp paper is dry, you may peel it off the newspaper and write on it. Have fun! You can experiment with other kinds of paper and use the same process.

Waste-Free Lunch Day

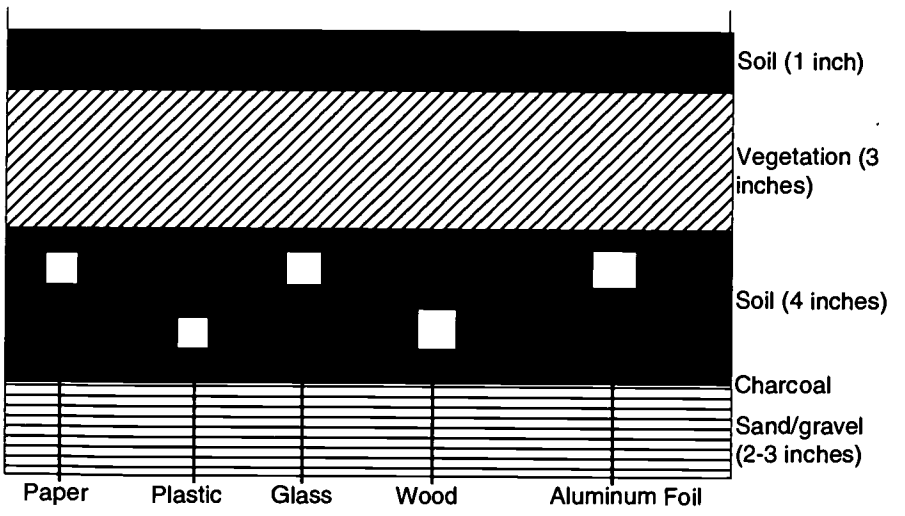
In order to encourage students to be environmentally conscious, why not sponsor a waste-free lunch day? Students who bring their lunches would try to use reusable containers, reusable tableware and reusable lunch bags. Students could chart the amount of garbage produced on a "regular" lunch day and compare it to the amount on a "waste-free" day. Students could also work with cafeteria personnel to help design similar activities for a hot lunch program to emphasize using products made from recycled materials, and to determine how much of the waste was recyclable.

Make Your Own Landfill

This activity will help students develop an understanding of which items are biodegradable and which produce long-term pollution. You will need the following materials:

5-gallon fish tank
Sand and/or gravel
Charcoal (to prevent odor)
Organic waste (vegetable scraps—avoid cabbage, mustard greens and fruit)

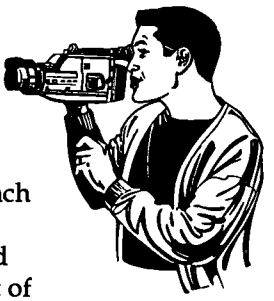
Students should layer each item as depicted below. They need to begin with 2-3" of sand and/or gravel. Add a small amount of charcoal on top of the sand. Add 4" of real soil. Then add about 3" of vegetation (pressed down to make a solid layer), finally ending with about 1" of soil on the top. Place small amounts of paper, plastic, glass, wood and aluminum foil next to the aquarium glass so they can be seen in the soil. Each item should be labeled on the outside of the glass. Students should observe their "landfill" on a daily, weekly and monthly basis. The mixture needs to be stirred once or twice a week to maintain a high oxygen level. If the mixture seems to be getting dry, you may wish to add some water or cover the top to allow moisture to build up. Once decomposition begins, students can record their observations.



back to school

The following Idea-Sparker was submitted by George E. Pawlas, Assistant Professor of Education, University of Central Florida.

Creating Lasting Memories



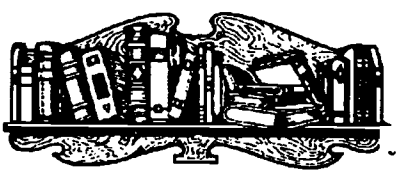
The growing popularity of video cameras has opened up opportunities for school administrators or teachers to preserve the events of a school year and make money at the same time. At one school the local PTA used funds raised from a school carnival, bake sales and other fundraisers to purchase a video camera. The school's media specialist, several teacher's aides and parent volunteers learned how to operate the camera and became quite skilled at "catching" people being themselves. These candid shots became part of a video titled "The Candid Camera at Holland School."

Using another tape, school officials recorded special events and daily school happenings. Appropriate headers were prepared and videotaped before the event, reducing the amount of editing required at the end of the year. Each classroom recorded its own special events and activities on a third set of tapes.

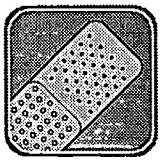
The school sold the tapes at the end of the year. Parents were given options that included paying a fee for each videotape they wanted to purchase or providing blank videotapes and paying a reduced fee to copy the originals. School personnel did some of the copying and also used a business partner volunteer. This project allowed school officials to create and share lasting memories, while making money to purchase needed supplies, materials and equipment.

Reading Preview

Reading is a great summer pastime. Why not check out a few new children's books during the summer and preview them for your classroom library or read-aloud time? An afternoon in the children's section of the public library, spent checking out the collection or talking to the children's librarian about some of his or her favorite books could be fun and productive. This might be a great time to see how the library can support any special projects or activities you might have in mind for the upcoming school year. You might also check with your local children's bookstore to see if it is sponsoring any special events (e.g., author's visits) that might tie in to your curriculum.



Jonathan Mertz, former ACEI Membership Assistant and home buddy with Project CHAMPS, submitted the following unique and timely Idea-Sparker.



Teacher Fanny Pack

Scraped knees, cut elbows and bumped heads are part of growing up. Occasionally, the injury is a little more serious and requires the immediate attention of an adult. Because of the growing incidence of HIV and other blood-borne diseases, such as hepatitis, it is *very* important to always follow universal safety procedures with *all* children.

The Children's Hospital AIDS Mentor Program (CHAMPS) in Washington, D.C., has developed a fanny pack for the volunteers to wear while working with HIV-positive children. The fanny pack can be kept in the classroom and worn during recess and on field trips.

Each pack consists of the following:

Remember: treat all children equally! Always use universal safety procedures!

- *1 fanny pack - very cheap and available at most discount stores*
- *sets of latex gloves - buy a box at your local pharmacy and share with other teachers*
- *several gauze strips - it is important to have a barrier between you and blood. If gauze is not available, use wadded up tissues or clothing*
- *Band-Aids™ - keep a variety of sizes*
- *plastic sandwich bags - bloodied materials must be disposed of properly. Just put it in a plastic bag.*

On the Road

If you are traveling this summer, you could prepare activities for next year by:

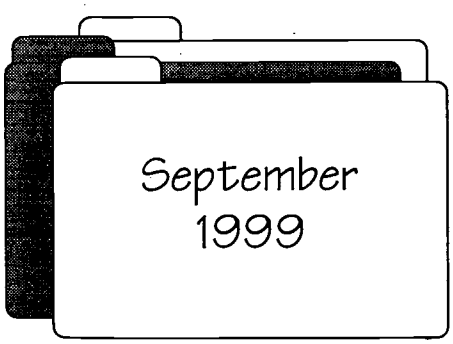
- Collecting soil and rock samples from different parts of the country
- Sending yourself postcards from the places you have visited
- Creating a photo journal of your trip
- Keeping a journal to share with your students
- Setting up a pen pal program with schools in other parts of the country
- Collecting artifacts from different parts of the country (mail them back to your school so you can travel light)
- Creating a travel treasure hunt (give students clues that require them to use map skills or research to identify your travel destination or the route you took)

Name That Student

If you already have your class list for the coming year, you could make up some master lists to use throughout the year. Your local office supply store will have label sheets that can be run through most photocopy machines. Simply type a master sheet and then run the labels through the copier. Take a few minutes to make up master sheets with each child's first and last names, ones with student names and addresses, and ones with parent names and addresses. Those of you who have access to a computer could set up a database from which to run labels and letters. Many software packages can facilitate this process. You can create name tags with these labels and also use the labels for folders, workbooks and letters to parents. The time saved in the long run makes the initial investment worthwhile.

File It . . .

Getting our files organized is usually one of those projects that we like to save for summer. While you are going through your files, why not take the process a step further? You might want to color code your files by subject matter, time of year or content. Why not make a special folder for each month where you can keep copies of letters to send parents, project ideas, ideas for holiday celebrations and reminders of other things you would want to get done during that month. Setting up a file folder for each day of the week can also be helpful.



Kristine M. Reed from Portsmouth, Rhode Island, shares the following classroom management tip. She discovered the potential and flexibility of clipboards while working with a group of 1st-graders at Winn Brook School in Belmont, Massachusetts. Clipboards became an essential classroom tool for everyone in the class.

Clipboards

Clipboards can serve as a wonderful tool for motivating children's work and enhancing the flexibility of the classroom environment. For example, students may use clipboards when making observational drawings or collecting data in the classroom or at field trip sites. Introducing the clipboard as a tool of the scientist validates the children's work and conveys a sense of the activity's importance.

Clipboards can go beyond drawings and data collection. They can be used throughout daily life in the early childhood classroom. Whenever tables in the room seem crowded, such as during writing workshop or math lessons, children can spread out in any large group area. Their clipboards provide a firm work surface. Some children, eager to continue writing or drawing, may take their clipboard with them to the playground at recess. And teachers can use clipboards as they observe and record children's activities.

Back to School Ideas

As summer draws to a close, many teachers like to make contact with their new students. You might think about . . .

- Mailing a welcome letter to your students telling about yourself, what to expect, what supplies to bring, etc. Kids love to get mail and this is a great way to make your first connection.
- Sending each of your new students a postcard while you are on vacation. If you take pre-printed labels with you, adding a short message and a stamp should take no time at all.
- Having a "Stop By and Say Hi" day. Many teachers come in before school begins in order to set up their classrooms. You might invite students to drop by and say "hi" during an afternoon that you will be working.

Thinking It Through

Summer is a great time to get organized and plan for the year ahead. Sit down with a calendar and create a plan for the year. Pencil in special projects, events and activities. Think through how you would like to present the curriculum. Take a look at what you have planned and see if you will need to arrange for extra help, special materials or resource people. Determine when you will need to make these arrangements and make a notation in the margins of the previous month. Keep your master calendar handy throughout the year.

parents

Great Beginnings Parent Orientation Nights

During the first week of school, why not have a parent orientation night? This is a time for parents (only) to come in, meet you and learn about your policies and procedures and the programs for that school year. This is a time to explain your homework policies, student discipline procedures and your expectations. Parents will then be able to help their children get off to a good start because they too know just what to expect. Opening up the lines of communication during these first days makes good sense and lays the groundwork for a successful year. Some teachers worry that they will not have student work to display. The point of this meeting, however, is to provide information so that parents understand what is expected. This can also be a good time to distribute the school's parent handbook and any other critical information that you want to make sure gets past the backpacks and into the hands of parents.

A New Twist on Open House

Most schools usually have open house on one night in the fall or the spring. Here is a new way to approach this annual event. Why not highlight one or two grade levels each month? Individual classes could have their own special open house at which their work would be displayed and activities would be set up for parents. The classes could provide refreshments made in class cooking projects. Each child in the family will have a chance to be special. The PTA or other parent organization might decide to have their meetings on those nights, giving parents the chance to be involved as well.

Teachers could select the time when their class would be highlighted. In this way, the open house would showcase work that really reflects what is happening in the classrooms, rather than projects contrived for the event. Special subjects teachers (PE, art and music) might choose to have a night of their own to display the work of their students and include demonstrations. Parents would be able to visit on more than one occasion and teachers would have some flexibility in scheduling.

9 + 4 = 13 5 X 7 = 35

Math Mania Night

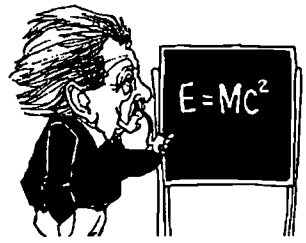
Staff members and students could set up a variety of math games, activities and challenges that families could work on together. Stations could be located in the classrooms or within a central location. This would give parents an opportunity to experience the kinds of math activities that their children are engaged in during the day. The activities could be coded based on difficulty and age level, allowing families to choose appropriate activities. Families who make it through the "mania" could receive a certificate, have their names posted in the school or receive a small token.

15 / 5 = 3 9 / 3 = 3 5 X 1 = 5 4 + 4 = 8 7 - 9 = -2 12 X 12 = 144 17 - 11 = 6

7 + 5 = 12 4 X 4 = 16 24 / 8 = 3

Science Spectacular

A similar program could be developed using hands-on science activities. Families could work together to complete hands-on science experiments at stations. You could also enlist the help of families to run individual stations to take some of the pressure off the staff. Think of the learning that could take place during an evening like this.

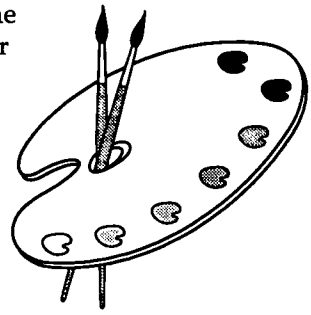


Make and Take Nights

We always ask parents to help their children at home to work on concepts or practice skills introduced in school. Why not provide an opportunity for parents and kids to "make and take" games that can be used at home? This activity works particularly well with primary and pre-primary students where active learning and concrete activities are stressed. Some very successful make and take nights have focused on making math, reading and pre-reading games. Once again, the staff and parents can set up stations, provide the directions, materials and a sample of the finished product. The families could make games to use at home, to lend out or to keep and use in classrooms.

Art Extravaganza

Another make and take night idea could focus on having parents and children work on a variety of art activities designed to let them experience several types of media. Stations would be set up that might include sponge painting, block printing, marble painting, clay, etc. Families would have an opportunity to work at the stations and express their creativity. Provide plenty of time and space for this event because it is likely to attract large numbers of families.



Make and Taste Night

Want to encourage nutritious snacking? Here is another educational activity. Enlist the help of a local home economist, cooperative extension agency or nutritionist. Develop a set of activities focusing on making easy and simple nutritious snacks. Each station should include a recipe with directions, clearly marked ingredients, a supervising staff person, parent or student, and enough supplies. For example, at one station you might make "ants on a log" using a celery stick, peanut butter and raisins. Families stop by, make the recipe, have a taste, take a copy of the recipe and move on to the next station. This is always a big favorite with families.

If parents are coming to school for an open house or other event, it is often helpful to provide an opportunity to have them become actively involved when they are at school. Why not consider one of these activities when you have a school-wide event? These activities provide a way for families to leave their "mark" by adding a colorful touch to the hallways or common areas. You can adapt this idea to a variety of themes.

Family Forest

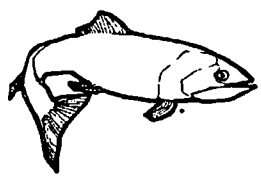
Each family can cut out and decorate a leaf with their family's name on it. These can be hung on large tree trunks that have been precut and hung on the walls.

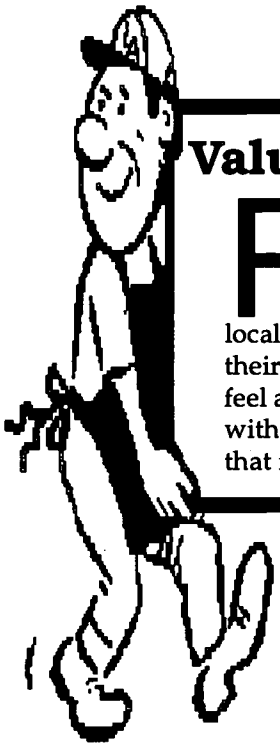
Field of Families

Each family can decorate a flower of their choice and put the names of the people in their family on it with the family surname in the middle. These can be hung on a green background.

Family "School" of Fish

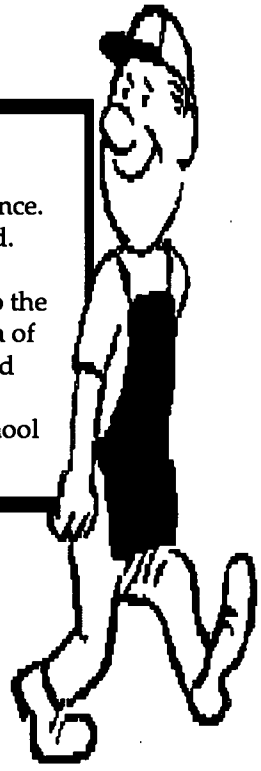
Each family can trace, cut out and decorate a colorful ocean creature or fish with the names of the people in their family. These can be put up on a large blue piece of paper.





Value Your Volunteers

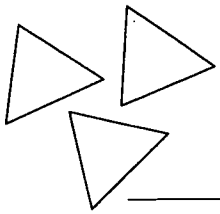
Parent volunteers can really make a difference. Try to find ways to make them feel valued. Recognize them in your newsletters, on bulletin boards in the hall and in letters to the local press. If you have the space, give them a room of their own where they can work, hang their coats and feel at home. You might also want to provide them with special buttons to wear when they come to school that identify them as Very Important Volunteers.



Parent Appreciation Night

Ask staff to keep track of those parents who have helped out during the school year and invite those parents back for a special parent appreciation night or morning breakfast. Teachers can provide refreshment or students can make the refreshments. Each class could make a banner or sign thanking the parents for their hard work. Certificates can be awarded and token gifts might be distributed. These could be provided by a variety of sources such as the student council, local businesses or from classes making gifts. This has become a long-standing tradition that parents, staff and students look forward to each year.

Parents are a child's first and most important teachers. Working together we can really make a difference for children!



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