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ABSTRACT

Four issues of "ACTTive Technology" include major articles, editorials, suggested curriculum activities, reviews of software and educational media, early childhood and technology news items, and conference calendars. Major articles include: "Teaching and Learning with Technology" (Joyce Johanson); "Use Switches and Alternate Keyboards To Add Music and Dramatic Play to Your Classroom" (Amy Betz and Judy Potter); "Effective Classroom Conditions Promote Emergent Literacy"; "Let's Get Physical with Science" (Susan Schoon); "IDEA and Access to the General Education Curriculum: An Early Childhood Perspective" (Patricia L. Hutinger); "When Young Children Use the Internet: A Report of Benefits for Families, Children, and Teachers" (Letha Clark); "Use Technology To Study Nature" (Amy Betz); and "Companies Offer Statewide Licenses for Software Writing Tools." (Some articles contain references.) (DB)

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Winter 1998

Teaching and Learning with Technology

by Joyce Johanson

Technology As A Tool for Teachers

Teachers have always used tools to help them present the material to be learned. Some of these tools we classify today as "low tech"—such things as chalk and chalkboards, magic markers and poster paper; others by comparison have been more "high tech"—tape recorders, 8 mm movie projectors, film strip projectors, slide projectors, overhead projectors, VCRs, and laser disc players.

Today's newest "high tech" educational tools include computers and interactive software. From a teaching perspective, they offer many advantages ranging from classroom management, recordkeeping, assessment, lesson planning, and lesson presentation. Computer software exists that enables a teacher to accomplish all these tasks and more in less time than traditional methods.

The time saving features of databases, spreadsheets, desk top publishing, and word processing software allow teachers to organize their lessons, their classroom budgets, their communication with parents, and children's IEPs, assessment portfolios, and personal records. Once created and stored on hard drive or floppy disk, the files containing these materials are accessible and available for modifying and updating.

Calendar making programs, graphics programs, and such programs as *Print Shop Deluxe* provide teachers with tools for creating posters, classroom calendars (weekly, monthly, yearly), banners, invitations, name tags, and labels. Using authoring software, such as Roger Wagner's *HyperStudio,* teachers can even create their own software that enhances a curricular activity or is individualized for a particular student.

Technology plays an especially essential role for teachers of children with disabilities. Not only does it make some of the routine teaching tasks easier, but technology also allows a teacher to create learning activities and set up inclusive learning environments that enable the child with disabilities to learn and play along with the other children. In addition, special education teachers can take advantage of the plethora of information about disabilities and assistive technology that is posted on various web sites. Resources, chat rooms, and articles can be accessed to provide current, important information to any teacher, no matter how remote or rural her classroom is. Contact can be made with consultants, well-known professionals, and other early childhood colleagues through e-mail for sharing curriculum ideas and gaining resource information. The potential for future uses grows daily as new technologies are created and as inventive teachers realize the power computers have as teaching tools and begin to take advantage of their capabilities.

Technology As A Tool for Young Children with Disabilities

Since 1980, Macomb Projects has been exploring the potential of computer and adaptive technologies as they relate to the education of young children with disabilities. The overriding mission of Macomb Projects is to provide equalizing opportunities to young children with disabilities by providing their families and teachers with training, technical assistance, and products relating to assistive technology. Technology, particularly computers and adaptive peripherals, has provided these young children, their families, and their teachers with tools for equalizing opportunities in many areas—cognitive development, motor development, social development, and self esteem, to name a few.

Computers are extremely patient and uncritical when children make mistakes—marvelous characteristics which make them quite effective for young children's learning. Not only that, the newer interactive software allows young children to explore and experiment in a safe environment where there is no wrong answer and where a child may experience success, sometimes for the first time.

Computers are an especially important learning tool for children with physical disabilities. Assistive technologies, including computers and adaptive devices (e.g., switches, alternative keyboards, touch tablets) pro-

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From The Editors. . .

by Linda Robinson

As winter winds blew snow across Illinois, parents and early childhood teachers traveled to Macomb to attend Macomb Projects' ninth annual Early Childhood Technology Conference (formerly known as the ACTT Conference).

Once again, the conference was a huge success, thanks to the many efforts of dedicated staff, the expertise of presenters, the enthusiasm of participants, and the generosity of many companies that donated software and publications as door prizes. One of the most pleasurable aspects of the conference for our staff is seeing familiar faces and meeting new people.

Despite all the years this conference has been offered, our staff are still amazed at the number of participants who come as novices to technology, especially to any type of adaptive equipment. This speaks to the ever-present need for training and more conferences which focus on technology topics for early childhood.

In spite of technology's availability and proven benefits since the 1980's, to this day, if you look at programs of conferences sponsored by national or international early childhood organizations, you will see few offerings which involve technology for young children. These groups, which boast of best practices and developmentally appropriate, innovative interventions, still do not encourage the role technology can play in the lives of young children—particularly those with disabilities. The topic deserves at least some attention at yearly conferences. The lack is not because presenters are unwilling to discuss technology. For several years, Macomb Projects' staff and other national experts in the field have had conference proposals dealing with technology topics rejected. A review of those presentations which were accepted finds technology to be a topic that is sadly missing from the broader realm of early childhood issues. It is up to us as conference attendees and members of these organizations to let sponsors know our needs and desires.

On a positive note, many state technology conferences are now including (and some have for years) early childhood presentations in their yearly program. Macomb Projects staff are asked more frequently to present at these conferences.

Although attending conference presentations provides participants an awareness level of technology knowledge, hands-on training and the cooperative support of both teachers and administrators are needed to make technology successful for young children, as pointed out in our feature article. The degree of teacher involvement and administrative support seems to correlate directly with effective technology use in the classroom.

There are many components to consider when using technology including environment, activity design and adaptability, suitable software and input selection. For specific information on any of these factors, refer to the various curricula offered by our Projects. *Building InterACTTive Futures* and *eMERGing Literacy and Technology* are two which address these technology components.

Another resource for information on almost any topic is the Internet. Explore the many early childhood web sites by following the directions provided in this issue for going on a treasure hunt. And if you need hands-on training in technology or the expressive arts, check out our Macomb Projects web site at www.mprojects.wiu.edu

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vide children with disabilities a variety of tools that encourage autonomous behavior and increase the probability that they will interact with their environment (Hutinger, 1996). For example, a child who is unable to hold a pencil can use the computer, a switch or TouchWindow, and a graphics program to draw. Parents and teachers involved in Macomb Projects' longitudinal research study on technology's effectiveness for children with multiple disabilities reported that their children showed greatest gains in areas of social and emotional behaviors, "including enhanced self concept, independence, social interaction, cooperation, and exploratory play." (Hutinger, Johanson, Stoneburner, 1996, p. 26) Gains in cognitive, motor, and communication development also resulted from assistive technology use.

Both verbal and nonverbal children can use the computer as a communication tool. Software provides both subjects and purpose for conversations for those who are able, and willing, to speak. Social interactions among children using the computer occur spontaneously and should be encouraged. Children for whom verbal communication and/or social interaction is difficult are motivated to increase skill in these areas through their interactions with the computer.

Implementing Technology

Undeniably, the role of technology in early childhood special education is that of a tool for learning, communicating, equalizing opportunities, and creating positive changes in the learning environment (Sivin-Kachala & Bialo, 1996). Technology appears to hold great potential for learning for all ages, and research has shown that technology can have especially great impact on the learning of children with disabilities (Bialo & Sivin, 1990; Cohen, 1993; Holder-Brown & Parette, 1992; Hutinger, et.al, 1994; Hutinger, Robinson, & Johanson, 1990; McCormick, 1987; Sartorio, 1993; Sivin-Kachala & Bialo, 1996).

The potential technology has for *all children* is beyond anything in past educational experiences. But in and of itself technology is no magic wand. To be effective, it must be used—and used appropriately. Simply having a computer and adaptive technologies available for the children is not enough.

Technology Integration

Effective technology implementation in the preschool special education classroom—or in any classroom—involves a knowledgeable teacher who understands technology's potential for education. Dwyer (1994) points out that effective technology integration means teachers must change teaching strategies and move from teacher-centered activities to those that are learner centered; that they must become facilitators and collaborators; and that instruction must move from memorization to problem solving.

The teacher's role involves arranging the classroom environment (both the physical environment and the learning environment) to give children access to the technology. In addition, the teacher must plan developmentally appropriate activities that are available to the children throughout the day. Computer software can be used to introduce a concept or to reinforce a concept that has been introduced through more traditional methods. The effective teacher drops the "expert" role and becomes a facilitator to the children's learning by setting up an appropriate environment and designing curriculum activities that reinforce key concepts both on and off the computer.

Ideally, classrooms have a computer center in addition to the traditional block center, writing center, art center, housekeeping center, and so on. Children are able to select computer as an activity during free choice time. They may work individually or gather around the computer in small groups. The teachers also use the computer with both large and small groups, depending on the activity. Children with physical disabilities or language impairments have access to their assistive technology throughout the day.

Over the years that Macomb Projects has been involved with young children, teachers, and assistive technology, we have witnessed many teacher practices that negatively impact successful integration. These include using computers for drill and practice, allowing only one child to sit at the computer at a time, limiting children's turns on the computer to no more than 5 minutes, and using the computer as a reward. Teachers using these practices typically do so because they haven't been exposed to alternatives. They've simply made gut-reaction decisions about technology use in their classrooms. For instance, one classroom teacher took a child's augmentative communication away from her and put it on a shelf after morning circle time. In her mind, she was protecting the expensive equipment from damage it might receive during the school day. What she did not consider was that she was depriving the child of communication except for a short time each morning (Hutinger, et. al, 1994; Hutinger, Johanson, Stoneburner, 1996).

Administrative Support and Staff Development

The classroom teacher and her program assistants hold the key to successful integration of technology into the special education classroom because they control its use and create opportunities for children to use the technology as a tool. Therefore, technology training is critical. Without training, with-

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out the opportunities to learn to use the equipment for themselves, teachers may have difficulty being motivated or comfortable using the technology in their classroom environment.

Administrative support for technology training is essential. Findings from Macomb Projects' Technology Inservice Project (Project TIP) indicated that technology training tends to be most successful when teachers and administrators plan together. Project TIP staff found that whether the initial idea to host a TIP workshop was a teacher's idea or an administrator's idea, if there was collaboration, the results were good. When either group tried the workshop without support and input from the other, events often did not go smoothly. If administrators scheduled a workshop without teacher "buy-in," teachers would attend as expected, put in their time, and go about business as usual when the workshop ended. If teachers organized a technology workshop without administrative support, the workshop itself was successful but, since there was no administrative support and follow through, teachers' initial excitement about implementing technology turned to frustration due to the administrator's lack of enthusiasm and support (Hutinger, 1995).

Change is seldom easy, but teachers who receive more than just "one-shot" technology training workshops, those who receive appropriate training at their own developmental level and who also are provided with opportunities for follow-up training and support, those who use technology as a tool for themselves, are the teachers who are most likely to see technology's benefits for learning and to implement technology effectively into their classroom curriculum. For such teachers, change is neither a headache nor a chore, but a natural and welcome evolution.

Cat in the Hat Offers Exciting Features

The Cat in the Hat, published by Brøderbund brings new excitement to an old Dr. Seuss favorite. *The Cat in the Hat* has a new level of interactivity. Children not only play in the pictures, but move and play with objects on selected pages. For example, they can find the basketball on the first page, pick it up, and make a dunk shot into a wastebasket. On another page, children manipulate the objects to help the Cat in the Hat balance. The objects can be moved from one of the Cat in the Hat's hands to the other. There are many more surprises found in this interactive storybook!!

As with the other Living Books, this program includes Read to Me or Play with Me options. The text can be highlighted in phrases to correspond with the reading. *The Cat in the Hat* offers exciting new features! Words are highlighted in smaller portions or phrases. When words highlighted in pink are clicked, a graphic appears to describe the meaning of the word. An added feature is use of the Rebus format for substituting pictures for words.

Macintosh System requirements include a Macintosh or Power PC Computer which has a 25 MHz 68040 processor or faster; System 7.1 or greater; 5 MB (or 5.5 if using a Power PC) of RAM free; double speed CD-ROM drive; and 13" or larger Color Monitor, at least 256 colors.

System requirements for IBM or clones include Window 3.1 or Windows 95; 66 MHz 486 or faster; 8 MB RAM; double speed CD-ROM drive; SVGA 640x480, 256 colors; and Windows-compatible sound device.

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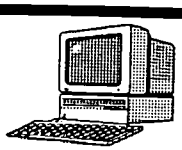

Curriculum ACTTivities

Editor's Note: The following curriculum activity is taken from *eMERGing Literacy and Technology: Working Together*, the new interactive technology and literacy curriculum developed at Macomb Projects. See page 10 for more information about the product.

Rainy Day Fun: Thanks to *The Cat in The Hat!*

Introduction

"Rain, Rain go away..." Time goes by slowly when you *have* to stay indoors. Siblings often find themselves together on rainy afternoons. Like Tommy and Sally in Dr. Seuss's *Cat in the Hat*, siblings must use their imaginations to create fun and exciting activities to keep themselves occupied. During this time, they learn to cooperate and work together to solve problems as they play. Like Tommy and Sally, siblings are also responsible for cleaning their rooms or play areas when they are finished, whether they or their imaginary friends made the mess. Having experienced the doldrums that come with rainy days, children will understand and sympathize with the characters in this story—and be ready to join in their adventures!

Materials

The *Cat in the Hat* software program
The Cat in the Hat book (Dr. Seuss)
Computer

Introductory Activity

Read The *Cat in the Hat* book with the children and discuss the story. Encourage the children to share their ideas. Children enjoy reciting lines along with the teacher.

Computer Activity

Use the Read to Me mode during circle time. Children can watch and listen to the story. When the story is finished, ask the children about their favorite things in the story. Teachers might ask children the following questions: *What is your favorite rainy day activity? What might you find in a big red box? What would the Cat in the Hat do if he came to your house? What do you like to pick up when you clean your house? What games do you play with your brother, sister, or others when you are home?*

Put *The Cat in the Hat* software at the computer center as a choice for children at center time. Placing a copy of *The Cat in the Hat* storybook near the computer will encourage children to follow along in the book as a friend uses the software.

Extended Activity

Make a felt board with characters and items from the story. The children might enjoy playing with the Cat and his balancing objects.

Read *Rainy Day Magic* by Mary-Louise Gay about two children who use their imagination to have fun at home on a rainy day. Children can make a Rainy Day Activity slide show with *Kid Pix Studio*. Ask children to draw pictures in *Kid Pix Studio* of rainy day activities they do at home, school, or grandmother's house. Ask children to dictate what their picture is about. Children can record their descriptions on their drawings with a microphone and the built in recorder. Create a slide show from the pictures. Add the slide show to *Kid Desk* as a program choice.

Provide a prop box for the children to dress up as the Cat in the Hat. Include a red and white hat, red bow tie, white gloves, an umbrella, and a tail along with some of the objects that the Cat balanced. You may include books, a cup and saucer, balls, a toy boat, a plastic cake, a toy rake, a toy man, and a red fan.

Use the curriculum integration activities suggested on the following pages.

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CURRICULUM INTEGRATION IDEAS

COOKING/SNACKS

- Eat goldfish crackers out of a fish bowl.
- Make jello and cut it into cat or fish shapes for snacks.
- Provide a cardboard box for play with props for Thing One and Thing Two. Include housekeeping supplies. Children can work cooperatively to set up the area for snack time or clean it up after snacks.

FAMILY CONNECTIONS

- Ask children to bring in pictures of their siblings, families, pets, or house. Make a collage of their pictures.
- Plan a "Sibling Night" with the chidlren. Invite brothers and sisters and do rainy day activities together.

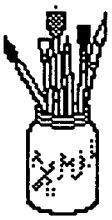
CONSTRUCTION

- Create a large stuffed paper fish as a group. Children can decorate the fish with paint or crayons.
- Use construction paper to create the Cat in the Hat's hat. Children can cut strips of construction paper and glue them together to make stripes.
- Press fish prints onto paper using fish shapes dipped in paint. Children can cust the fish out or hang the prints on a mural.
- Construct a "Clean Machine" using a washer or refrigerator box. Children can decorate the machine as they please.

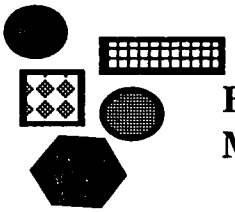
SCIENCE/MATH

- Use a balancing scale. Talk about which objects are heavier and how to make the scale balance. Use items like those in the story then expand the experience to include other items the children want to experiment with.
- Use a sorting tray. Children can sort objects from the story according to color, size, and shape.
- Care for a classroom pet. Children can be assigned "Pet Keeper" for a day to practice the basics of pet care.

ART



- Paint a picture at the easel. Squirt the painting with water from a spray bottle.
- Make a drawing with wet chalk.
- Draw fish with crayons and paint a fish bowl over the fish.
- Create a mural with a partner. Provide a variety of materials for the partners to chose from.

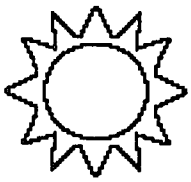


BLOCKS/ MANIPULATIVES

- Provide red and white blocks for building.
- Encourage children to work with a partner to create a pattern with the red and white blocks.
- Make puzzles using scenes from the software.
- Build replicas of homes using blocks, toy furniture, toy cars, and toy people. Reenact rainy day activities.

GROUP/INDIVIDUAL STORY EXPERIENCES

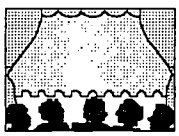
- Provide a 20 Questions box about *The Cat in The Hat.* Children can ask questions, answer questions, or make predictions about the story.
- Act out the story using props and costumes.
- Place objects related to the story in a bag. Children can take turns reaching inside the bag, feeling an object, and making predictions about what it is. Then they can pull their objects from the bag and talk about them.



OUTDOOR PLAY/MOTOR

- Talk about balancing. Practice balancing. Children can balance different items from the story (such as the cake, a cup and saucer).
- Provide a balance beam or tape on the floor to allow children an opportunity to walk along and balance on it.

DRAMATIC PLAY



- Create a hat rack. Provide many types, colors, and styles of hats for children to try on.
- Provide props so children can act out the story and role play the characters.
- Supply cleaning equipment or a "Clean Machine" so children can clean the housekeeping area.

EXTENSIONS BEYOND THE CLASSROOM

- Invite a juggler or a person who can balance objects to come to the classroom and give the class a show. The children can try to balance something on their heads or in their hands.
- Invite a magician to visit the classroom to put on a short show and help children do a simple magic trick.
- Take a field trip to a pet store. Ask the salesperson to tell the children about the animals and discuss their care. Back in the classroom, ask children to tell about the animals they saw.
- Visit a veterinary clinic or invite a veterinarian to the classroom to talk about pet care.
- Invite a parent to bring a cat or kitten to the classroom.

RELATED BOOKS, POEMS, STORIES

- *The Cat in the Hat Comes Back*
- Mercer Mayer books
- *Rain* (Spier, Peter)
- *Rainy Day Dream* (Chesworth, M.)
- *I Did It* (Rockwell, H.)
- *Henry and Mudge and the Long Weekend* (Rylant, C.)

RELATED SOFTWARE

- *Berenstain Bears Get in A Fight*
- *Berenstain Bears in the Dark*
- *Just Me and My Dad*
- *Busytown*
- *Just Grandma and Me*
- *Arthur's Reading Race*
- *Just Me and My Mom*
- *Sheila Rae the Brave*
- *Gryohon Bricks*
- *Kid Pix Studio*

SENSORY

- Explore plastic fish and other objects in a water table.
- Create a Cat in the Hat out of play dough.

MUSIC AND MOVEMENT

- Create a cat/hat rap and chart the words.
- Record music from the software and chart words for the children to sing along.
- Provide musical instruments for children so they can create music together.

LITERACY LINKS

- Create signs for the red box. Children can draw pictures to represent the things in the box.
- Draw, label, and decorate Thing One and Thing Two. The children can cut them out and post them on a wall or bulletin board in the classroom.
- Create a recipe chart for jello jigglers. Use pictures and drawings to depict measurements and amounts used in the recipe.

Use Switches and Alternate Keyboards to Add Music and Dramatic Play to Your Classroom

by Amy Betz and Judy Potter

Music and dramatic play are enjoyable activities for many children. Technology can help children who may not usually be able to actively participate in story reenactments. Several devices are available for you to use to make dramatic play more meaningful to your children.

Two stories that many children in the Expressive Arts Project have enjoyed have been "The Three Little Pigs," and "The Three Billy Goats Gruff." Both are traditional children's stories and both have terrific songs performed by Greg and Steve. "The Three Little Pigs Blues" can be found on *Playing Favorites*, while "The Three Billy Goats Gruff Blues" is found on *Rockin' Down the Road.* Both songs have an infectious blues beat that many children enjoy and move to in a variety of ways. Each song also has repetitive phrases ("Little Pig, Little Pig, let me come in.", "Not by the hair of my chinny-chin-chin.", and "Who's that trippin' across my bridge?") that can enhance children's play when used with assistive technology.

Children who can activate a switch but may not be able to say the phrase can now actively take part in the story. Any of the phrases can be recorded in to a BIGmack™ (AbleNet) switch. When the child presses the switch, he or she can take on the role of the wolf, pig, troll, or goat.

A TalkPad (Frame Technologies) can be used to include four characters for a group activity. Each button can hold up to 15 seconds of the song or phrases to be used in the activity. Icons can be placed on the switches for easy identification. With this device, each of the three little pigs or the three billy goats gruff and the big bad wolf or the troll can be used for the children to role play.

An alternate keyboard such as IntelliKeys™ or Key Largo® with Ke:nx® can be used when you create overlays for the stories. Step-by-step directions for making overlays can be found with the software. Simple icons from Kid Pix® can be imported to make the overlays. Song phrases can be recorded to match the icons. Children can activate the icons and take part in the activities.

With a few simple adaptations, all children can enjoy the experiences of music and dramatic play in the classroom.

If you are interested in any products referred to in this article, contact the companies listed below.

Greg & Steve's recordings
Youngheart Music
10701 Holder Street, P.O. Box 6017
Cypress, CA 90630
800-444-4287
www.younghrt.com/

TalkPad
Frame Technologies
W681 Pearl Street; Oneida, WI 54155
Voice/Fax: 920-869-2979
email: cframe@netnet.net

IntelliKeys
IntelliTools, Inc.
55 Leveroni Court, Suite 9
Novato, CA 94949
800-899-6687; 415-382-5950
email: info@intellitools.com

Key Largo, Ke:nx, and Discover:Kenx
Don Johnston Inc.
1000 N. Rand Road, Bldg. 115
Wauconda, IL 60084-0639
800-999-4660; Fax. 847-5264177

BigMack
AbleNet, Inc.
1081 Tenth Avenue S. E.
Minneapolis, MN 55414-1312
800-322-0956; Fax: 612-379-9143
www.ablenetinc.com

Kid Pix
Brøderbund Software, Inc
500 Redwood Blvd.
Novato, CA 94948-6121

Web Site Features IntelliTools Activities

Looking for a helpful Web site? Visit www.intellitools.com! IntelliTools' Web site features an Activity Exchange so users of the company's products have a place to share curriculum activities. Visiters to the site can preview and download activities made with such products as *Overlay Maker, IntelliTalk, IntelliPics,* or *ClickIt!* Currently, the majority of activities on the site have been created for use with Macintosh computers.

The site features a database that can be searched by tool, skill level, or content area. Check the items that apply to your situation, click Search, and view activities that meet the criteria you have chosen. To view an activity, click on it. Activities that you want to use can be downloaded to your hard drive.

If you have developed an activity for an IntelliTools product, and you want to share it with others, you can send it to IntelliTools. If it is selected for use on the Web site, IntelliTools will send you free software of your choice from its catalog.

The ECEOL-L Treasure Hunt: An Early Childhood Educator's Internet Training Exercise!

Editor's Note: Macomb Projects' staff members who subscribe to an early childhood professional development ListServ recently received information sent to the ListServ by James Chung of the Beansprout Child Care Network. Mr. Chung informed ListServ subscribers about a web site and ListServ for early educators. His information follows.

Would you like to find out what the Internet offers early educators? Interested in learning more about becoming a successful contributor to a LISTSERV community? Try the ECEOL web site and LISTSERV "treasure hunt" exercise, and while you "play," you can learn some important Internet basics.

You will need:

•A WWW browser (ex. Netscape, MS Explorer, etc.) and access to the World Wide Web
•A Starting Point (http://www.ume.maine.edu/~cofed/eceol/welcome.shtml)
•A sense of adventure and willingness to try something new

Getting Started: Open up your WWW browser and enter this "URL" or web site address: http://www.ume.maine.edu/~cofed/eceol/welcome.shtml

1. You are now on the ECEOL home page.
   a. Read about the purpose of the ECEOL LISTSERV.
   b. Find the instructions for how to subscribe/unsubscribe to the list by clicking on the underlined phrase.
   c. Learn how a LISTSERV mailing list works.
   d. Print out the instructions on this page. Keep the instructions near the computer for future reference.
2. Return to the ECEOL home page.
   a. Click on the underlined words in the phrase that discusses the purpose of the web site.
   b. To get your "map" of the ECEOL web site to help you with this treasure hunt, print out the table of contents and use it to help you find the sections that you need.

The following questions are for the 8 specific sections of the ECEOL site. You can use your "map" of the web site as a guide:

3. Find the section of the ECEOL site for 'net users.
   a. Check out a "Netiquette" link and find 2 favorite tips to share.
   b. Check out the "Search Engines" section and do one Internet search for a topic that interests you.(ex. "Early childhood assessment" or "The Reggio Emilia Approach")
   c. Scroll down the page and find a web corner for Early Childhood Educators and Families. Go to that site. Click on the Childchat category. Click on the schedule of events and chat room ideas, and find out what early educators are "chatting" about.
4. Locate the Professional Development section.
   a. Find the web site that will lead you to ERIC digests. Pick one ERIC digest that looks interesting and print it for your collection.
   b. Go to the NAEYC web site. Click on the Early Years section. Find one topic that interests you and open up and read that document.
   c. Look for another web site that interests you on the professional development page. Click on that "link" and visit the site.
5. Open the Advocacy section.
   a. See if you can find a group that is interested in promoting reseach=based information on the importance of early growth and development as part of a national public awareness campaign.
   b. Find out why the first three years of life are so important.
   c. Find out what materials are available for free from this campaign. (Clue:Use the arrow to scroll down the light bulbs on the left. Click on the "campaign info" bulb...)
   d. Check out one other web site on the advocacy page that interests you.

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Treasure Hunt continued from page 9

6. Find the Curriculum and Environments area.
   a. Can you find a site that deals with doing long-term projects with young children? Visit this site to learn more about this approach.
   b. Choose and explore another educational approach link.
   c. Pick one curriculum web site link and see what kinds of information are offered.
7. Visit the "Issues" area.
   a. Imagine the following scenario. You are employed as an early childhood educator and want to bring computers to your classroom but have no money in the budget to do so. See if you can find a web site that might help you find a solution to this dilemma.
   b. Find a site that will help you with health and safety questions in early childhood settings. Investigate the site to see what kind of information is being offered, and what group is providing the information. (Be aware-not all information is equally accurate just because it
   is on the WWW. Evaluate the source of the information....)
8. Explore the Children and Developmental Guidelines section of the ECEOL web site.
   a. Choose one of the sections prepared by the National Network for Child Care and discover what organization operates the NNCC.
   b. Pick 2 other sites created by different organizations, and visit them as well.
9. Locate the Diversity section.
   a. Find the web site that is devoted to Teaching Tolerance nationwide, and is currently offering a free kit for early educators to use with young children. Click on the curriculum resources link to learn more about the "Starting Small" materials.
   b. Visit another site interested in diversity issues.
   c. Visit a site which defines inclusion.
      1. Return to the site which you explored in #6.
         Is this approach compatible with an inclusive philosophy?
      2. Return to a site you've explored in another section to see if its information is compatible with an inclusive philosophy.
10. What section of the web site is left to visit? Click on this final area.
    a. Look for a web site that will give you information on using portfolios as a tool for observation and assessment.
    b. Investigate positive aspects of using portfolio assessment with young children.

Special Bonus Challenge Question (optional!):
Find a web site to add to the ECEOL collection. We are looking for:
•sites with quality information for early educators
•well organized collections of sites with information of interest to early educators
(An example of Selection Criteria for "great web sites" can be found at http://www.ala.org/parentspage/greatsites/criteria.html)

If you find a web site that is used on ECEOL, we will add your name to a list of contributors to the site. If you are doing this exercise as part of a course requirement, please have your instructor contact BonnieB@Maine.Edu to verify that you have successfully completed the Bonus Challenge Question.

Bonus Challenge Question #2:
If you join the ECEOL-L LISTSERV, use the LISTSERV instructions to SEARCH the ECEOL-L archives for a topic that interests you.

This exercise was created by ECEOL-L co-LISTSERV owner Bonnie Blagojevic with the help and support of ECEOL-L Special Projects Workgroup Members: Deborah Abelman, Barbara Backer, Betty Black, Eileen Donahue Brittain,Sydney Gurewitz Clemens, Jane I Davidson, Dara McCormick, Cynde Mutryn,Jacqueline Osborne, Sheila Rowden, Mary Rivkin, Heidi Weiman, Nancy Yost, and Laura T. Zionts.
[illegible] Blagojevic can be contacted at The Sharing Place Child Care Center, Talmar Wood, Orono, Maine 04473 or BonnieB@Maine.Maine.Edu

Government Technology Programs of Interest to Schools

Interested in writing grants for technology in your school? Check out the following Web sites for helpful information.

Applications of Advanced Technologies
www.nsf.gov
Star School Program
www.ed.gov/Technology
Teacher Enhancement Projects
www.nsf.gov
Teaching with Technology
www.neh.fed.us
Technology Innovation Challenge Grants
www.ed.gov/Technology
Telecommunications and Information Application Program
www.nita.doc.gov

Guide Offers Suggestions for Technology Implementation

Technology for Students with Disabilities: A Decision Maker's Resource Guide contains practical information about questions concerning technology and children with disabilities.

The 109 page book contains four chapters: Supporting Teaching and Learning with Technology; Finding the Right Technology and Paying For It; Ensuring Your Investment Pays Off; Policies that Spport Technology Implementation; and Resources for Information and Services. A Glossary and Several Federal Documents are included.

The Guide was jointly published by the Office of Special Education and Rebilitation Services and the National School Boards Association. Call 703/838-6722 for information. Resources are available at www.nsba.org/itte

Calendar of Conferences

April 15 - 19, 1998: CEC Annual Convention in Minneapolis, MN. Contact 800/486-5773 or cec@cec.sped.org or find information at www.cec.sped.org

April 27 - 30, 1998: YAI 1998 International Conference, "Together We Are Better: Sharing Strategies and Perspectives on Developmental Disabilities" in New York City. Contact 212/273-6255.

May 11 - 12, 1998: TechSplosion '98 in Springfield, IL. Contact IATP at 217/522-7985.

May 12 - 13, 1998: Technology Opens Doors Conference in Albany, NY. Contact 518/474-2825.

May 14 - 16, 1998: Mission Possible: Building Bridges with Assistive Technology Conference in Denver, CO. Contact 303/864-5100.

May 19 - 20, 1998: Accessing Technology through Awareness in Indiana (ATTAIN) Conference in Indianapolis, IN. Contact 317/921-8766.

May 29, 1998: Assistive Technology '98 in Boston, MA. Contact 617/737-9495 or visit the web site at www.matp.org/AT98.html

May 29 - June 1, 1998: International Parent to Parent Conference, "Planting Seeds for Tomorrow," in Atlanta, GA. Contact 770/451-5484.

June 26 - July 1, 1998: The State of the Arts and Science, RESNA '98 in Minneapolis, MN. Contact 703/524-6686 or 612/296-2771.

August 6 - 8, 1998: IntelliTools Summer Conference in San Rafael, CA. Contact 800/899-6687.

September 17 - 19, 1998: The Assistive Technology Conference '98 in Topeka, KS, sponsored by Assistive Technology for Kansans Project. Contact 800/500-1034, 913/272-1034 (fax) or capper@sound.net

October 22 - 24, 1998: Closing the Gap in Henderson, MN. Contact 507/248-3294.

Laureate Offers Demo CD-ROM, Book Free

Laureate Learning Systems, Inc. has created a new CD-ROM Demo for Macintosh and Windows 95 computers. Demos of fourteen of Laureate's programs allow you to preview the software and decide which will best meet the needs of your classroom.

The demo disc also contains video footage of the software being used, testimonials, detailed product descriptions, and sample goals and objectives.

The CD-ROM is free from Laureate. Call 800/562-6801. The company is also offering callers a complimentary copy of *Sequential Software for Language Intervention and Development* by Dr. Mary Sweig Wilson.

Visit www.LaureateLearning. com

IntelliTalk II Soon on Market

IntelliTools, Inc. will soon be distributing a new product, *IntelliTalk II* "The Talking, Pictorial Word Processing Program." New features include a spell checker, text that can't be erased, rebus fonts, a picture library, the ability to add graphics, and hidden text.

IntelliTalk II promotes development of early literacy skills through the following features: continuous auditory feedback, tracking words from left to right, providing pictorial clues, and helping students associate picture symbols with written words.

The price will be $99.95 when the product becomes available in the Spring. If you already own an *IntelliTalk*, you can upgrade for $60.00.

ACTTive Technology Subscription Form

Name _____

Agency _____

Street Address _____

City _____ **State** _____ **Zip** _____

For a year's subscription to *ACTTive Technology*, complete this form and return it with a purchase order or check for $16.00 to Macomb Projects, 27 Horrabin Hall, Western Illinois University, Macomb, IL 61455.
Orders from outside the U.S. must be paid for in U.S. funds drawn from U.S. banks.

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Effective Classroom Conditions Promote Emergent Literacy

What conditions are necessary for interactive software and related activities to have positive effects on children's emerging literacy skills? was one of many questions answered by Macomb Projects' recently completed 3-year research project, The Early Childhood Emergent Literacy Technology Research Study. This project developed the Interactive Technology Literacy Curriculum (ITLC) and implemented it in various phases in classrooms in west central Illinois. Some of the classroom teachers had had previous training and experience using computers, while others had not. Over the three years, the project studied eight classrooms and 255 children, ages 3 to 5, with mild to moderate disabilities.

Researchers found that the classroom environment as well as the attitudes and behaviors of teachers affected implementation of the ITLC and impacted children's emerging literacy skills.

Effective Conditions

Effective classrooms offered children a literacy-rich environment which included materials for drawing, writing, making books, and reading—in addition to a variety of software. Print was found in many places in the classroom, including commercially-printed poems hung on the walls, stories dictated by children and hand written by teachers on poster paper, children's names, and labels for centers and various objects found in the classroom.

Teachers and other adults in effective classrooms facilitated children at the computer by offering choices, modeling behaviors, and redirecting inappropriate behaviors. Adults facilitated children's play, used techniques that enabled children to manage their own behaviors, and offered activities that were child-directed. Teachers positioned the computer at child-eye level, kept two or more chairs at the computer center, encouraged more than one child to be at the computer, placed the software selections in the computer center for children to make choices, and changed software CD-ROMs when needed. They also rotated or added new center materials to match classroom themes and projects. They evaluated software and chose it not only on its quality and interactivity level, but also on the children's interests and ongoing classroom themes.

One off-computer activity that effectively promoted emergent writing behaviors was use of a sign-up sheet—a strategy that offered children the opportunity to manage their own turn-taking. Children 'wrote' their own names (in the form of scribbles and mock writing) on the sign-up sheet. The sign-up sheet gave children a purpose for writing. Not only were they learning to write their own names, but they were also sequencing (who was next?), reading other children's names, understanding the concepts of print, and interacting socially as they discussed where their names were on the list in relation to others. Children began to move their names from the middle of the page up to the top and over to the left side as time went by.

The sign-up sheets also became a good problem solving tool and, as one teacher said, "The children begin to understand if they sign up twice, they can have two turns on the computer." The children's names took different forms as they move from scribbling to emergent letters to recognizable letters.

Another off-computer activity that was effective in promoting literacy was use of the hard-copy of Living Books software and books related to software themes. Children using the Living Books series would take the hard copy of the book over to the computer area where they would then sit in pairs or small groups to look at, point to the pictures, read along, and make choices and comparisons between the book and the program. When children used the books on which the Living Books software is based, they were beginning to understand the relationship that the book has to the story, that pictures and books have meaning, that pages turn from the left to the right, and the connection between turning the page on the screen and in the book to finding particular pages.

Ineffective Conditions

Conditions not effective in promoting the ITLC involved teachers' directive behaviors, such as telling children what to do, when to do it, and not allowing them to make their own choices. Sometimes adults directed

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From The Editors. . .

by Linda Robinson

What do dogs, cats, farm animals, gardening, famous paintings, and simple machines have in common? No, it's not the beginning of a bad joke. Instead it is the beginning of many great curriculum ideas. Actually, all of these topics are directly related to software and themes which are described in this issue. The diversity of the subject matter proves that software can be integrated into many parts of the preschool curriculum.

Macomb Projects staff have been speaking and writing about curriculum integration for years. As staff observe the many classrooms in our area using technology, integration seems to be second nature to most of the teachers. They are able to fit software programs into themes almost effortlessly. These teachers have learned to plan a variety of activities around one program. Their ability to integrate software and design an environment to suit children's needs makes them an important component of an effective classroom for emerging literacy. Of course, environment is only one factor. Other factors are addressed in our cover article.

A tip for integrating software into your curriculum is to review software thoroughly as you plan activities. Software can fit into many different themes. A small portion of a program may work well for a particular unit, or it may be the whole program which can be used. For example, in the article on science activities, simple machines is the theme and the computer is one of the centers for which activities have been designed to reinforce problem solving. Several programs were reviewed before finding the two which were chosen for the unit. One of the programs centers around children designing their own machines, while the other is a story of a boy who is able to fix a simple machine. Both are very different programs which fit into the chosen theme and reinforce problem solving, literacy and a variety of other skills.

Teachers who have effectively used software in their programs also are the ones who see the most benefits of technology for children. It seems to be a cycle - the more integrated the technology, the more benefits are seen and the more enthusiasm the teacher has to create further activities. This enthusiasm is contagious when ideas are shared among educators and families. Sharing can be local and now global through the Internet. What a wonderful way to get new ideas and tips on software and adaptations!

As Macomb Projects staff has discovered recently, the Internet can be a great medium for young children to communicate with those in other classrooms. Through an exciting new Project, TEChPLACEs, preschool classrooms in west central Illinois can share ideas and experiences with each other. Since the Internet is an uncharted territory for most children and many teachers and families, questions are frequently asked about how e-mail works. We have compiled a list of the most commonly asked questions with their answers to help those of you who may be wondering how telecommunications works or how to answer questions from your children. Check out the TEChPLACEs web site to find out more about the Project. And for other information on training and curricula, visit the Macomb Projects site, www.mprojects.wiu.edu.

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children's use of the computer or interfered by offering unnecessary help. For instance, they told children what to do in the program instead of offering them the opportunity to explore and discover for themselves. This practice was especially common with student teachers and classroom aides.

A second undesirable condition was teachers' use of the computer as a reward or withholding the computer as a punishment. Often, as punishment for a negative behavior *not associated with the computer*, a particular child was denied use of the computer (e.g., *Johnny, since you misbehaved this morning during circle time, you can't use the computer today*).

Another condition that produced ineffective results was limiting children's time at the computer. Despite the fact that children are seldom limited to 5 minutes when engaged in other preschool activities such as blocks, drawing, puzzles, or playhouse activities, some teachers *insisted* on time limits for computer use. Children were given timed turns, from 5 to 15 minutes long; then the child was told that his or her turn was over. When questioned about this practice, one teacher said that because the technology benefited the children, she wanted all to have a turn. Her motives, while well-intentioned, resulted in children's negative behaviors.

Data showed that when teachers limited computer time and turns, children exhibited hostile behaviors and communicated less. Children forced to take short turns were concerned about not being able to accomplish their chosen activity. The computer area then changed from a place of social interaction and communication to an area of isolation and hostility. Children were protective of their time; did not want to share their space at the computer even with an on-looker; did not take time to communicate, share ideas with others, or call attention to an interesting picture or animation; and sometimes even pushed or shoved another child out of the way. These behaviors were in direct contrast to those observed in ITLC classrooms where children managed their own turns and times on the computer.

Summary

The use of interactive software, combined with the effective conditions encouraged children to explore, to communicate, to interact socially with each other and with adults, to make judgments and to solve problems. Data from the study shows that children in the ITLC classrooms where effective conditions were present increased their understanding of basic literacy concepts (e.g., words and pictures tell stories; stories have a sequence; stories have a beginning, middle, and end; stories have characters, actions, and settings). As a result of the ITLC implemented under the effective conditions, children also improved literacy skills in the following areas: labeling, storytelling, understanding key concepts of a story, recognizing letters and identifying or reading words, identifying environmental print, understanding that reading is done from top to bottom and from left to right; sequencing; and predicting outcomes.

Portions of this article were exerpted from *Final Report: The Early Childhood Emergent Literacy Technology Research Study* by Hutinger, Bell, Beard, Bond, Johanson, and Terry. For more information about the project and its results, contact Macomb Projects at 309/298-1634.

WIU Offers Fall Literacy Course

Want to learn more about emergent literacy and at the same time receive university credit? Haven't the time for regularly scheduled classes or can't travel the distance to come to Western Illinois University? Then you might want to take advantage of the course available from Project ELIPSS (Emergent Literacy Instructional Program and Support Services) that is being offered this fall through the Department of Elementary Education and Reading.

Using videotapes of six emergent literacy broadcasts developed by Project ELIPSS, you can view the material, complete the assigned projects, mail the homework to the instructor, and await your grade of Satisfactory/Unsatisfactory. The class may be taken for two semester hours of either graduate or undergraduate credit. Titles of the six videos are

- *Building a Firm Foundation for Early Literacy Development: Language and Literacy Learning;*
- *From Scribbling to "Real" Writing: Stages in Early Writing Development;*
- *Developing a Literacy-Rich Environment;*
- *Making Quality Children's Literature Available to Every Child:*
- *Choosing and Using Literature; The Shared Language Time: Beginning Reading Through Rhymes, Songs, Poems, and Big Books;* and
- *Ongoing Assessment of Emergent Literacy Behaviors.*

Requirements for each videotape include

- selecting 1 of 12 suggested activities and implementing it, and
- submitting completed forms and documentation (e.g., photos, children's work, lesson plans) of your activity.

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Join the *ArtExpress* Team for Fall Training

ArtExpress targets children with special needs by:

- using developmentally appropriate tools, materials, and activities;
- integrating the arts into early childhood content;
- encouraging children to develop their own images (symbols);
- making art materials accessible and available;
- allowing children enough time to participate in the entire art process; and
- adapting materials, devices, and technology to ensure access to expressive arts.

Training Schedule

October 7-9, 1998, 9:00 am to 4:00 pm

Module One—Creating a Firm Foundation for Expressive Arts
Module Two—Developing Skills to Implement the Expressive Arts
Module Three—Applying Expressive Arts throughout the Curriculum

Costs

Sites agreeing to replicate the Expressive Arts model do not pay for training. Costs include travel and lodging during the training period.

Schools not interested in replication may still participate in the training sessions by paying $300 per person.

Clip and return this portion if you are interested in training or would like more information about the *ArtExpress* curriculum

_____ Yes, I plan to attend *ArtExpress* training and would like more information on how my classroom can become a replication site for the Expressive Arts Project.

_____ Yes, I plan to attend *ArtExpress* training but am not interested in becoming a replication site for the Expressive Arts Project at this time.

_____ Please send me information about the *ArtExpress* curriculum.

Your Position:
_____ Family Member
_____ Early Childhood Special Education Staff
_____ Multiple Disabilities Staff

Name _____
Address _____
City _____ State _____ Zip _____
School or Program _____
Daytime Phone (_____) _____

_____ Please check if special accomodations are needed.
Nature of accomodations requested: _____

Return form to:

ArtExpress, 27 Horrabin Hall, 1 University Circle
Western Illinois University, Macomb, IL 61455
If you have questions, please contact Amy or Judy at: 309/298-1634
Fax: 309/298-2305, e-mail: AA-Betz@wiu.edu • JD-Potter@wiu.edu
www.mprojects.wiu.edu

Curriculum ACTTivities

Editor's Note: The following curriculum activity is taken from *eMERGing Literacy and Technology: Working Together*, the new interactive technology and literacy curriculum developed at Macomb Projects.

Preschool Success Starter: Maggie's Farmyard Adventure

Introduction

Children love to explore their environment. *Maggie's Farmyard Adventure* offers the opportunity to explore the sounds found in the kitchen, see animals that can sometimes be found in the yard, hear the farmyard animals, and play in the barn that offers all of the experiences that some adults remember from childhood. Although Maggie's story contains animated comical adventures, children experience and hear the same types of sounds and activities at home. Stop and listen to all the noises in your kitchen from the children talking, the toaster popping, or the sound of glasses clinking together. Go outside and listen to the animals. Have you ever imagined what the animals are saying if only we could understand them? What about the elusive family pet that is hiding somewhere? Young children will enjoy playing and exploring the farmyard with Maggie.

Materials

- Computer
- *Preschool Success Starter: Maggie's Farmyard Adventure* software program
- Books about animals, the farm, and/or cats.

Introductory Activity

Arrange a field trip to a local farm and/or petting zoo. Before the class visits, chart the children's predications of what they might see and hear on their trip. On the way home lead a sing-a-long of "Old MacDonald Had a Farm."

Computer Activity

- Encourage children to imitate farm animal sounds. Record the animal sounds the children are making or sounds from the software program. Listen to the sounds and identify which farm animal it is.
- Create a *HyperStudio* stack of animals and their sounds. Children explore the stack and identify the different animals. Add child-created animal pictures to the stack.

Extended Activity

- Provide a variety of musical instruments for the children to explore.
- Design and make musical instruments and/or noise makers.
- Encourage children to search through the classroom to find objects that create noise. Ask children to describe the noises.

Summary

Young children have been provided opportunities to explore the farmyard environment in *Maggie's Farmyard Adventure*. Many of these adventures are experienced in children's activities at home. The software lets children revisit these experiences, from listening to sounds in the kitchen to going outside and listening to the animals. The following pages offer suggestions for integrated curriculum activities.

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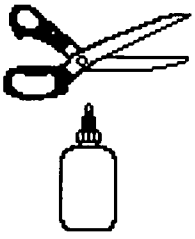
CURRICULUM INTEGRATION IDEAS

COOKING/SNACKS

- Prepare and eat corn bread.
- Make "Pigs in a Blanket" from rolled biscuits and mini-hot dog links. Children can roll up the hot dogs in a flattened biscuit. Bake and enjoy at snack time.
- Mix milk shakes from skim milk and low-fat ice cream. Children can help by adding ingredients and mixing the shake.
- Make ice cream in plastic baggies (recipe available through local 4-H office).
- Prepare "Dirt Pudding" recipe as a snack. Add gummy worms for an extra surprise.

CONSTRUCTION



- Cut large animal forms from refrigerator boxes. Attach forms on an outside fence or easel. Children can paint the animals. Display the forms around the classroom.
- Decorate large pieces of cardboard with paint and pieces of real hay to make bales of hay to display with the animals.
- Create farmyard animal puppets from scrap materials such as fur pieces, yarn, feathers, and pom poms.
- Design "songs" with words and rebus pictures. Children can bind an cut out pictures that represent the words.

GROUP/INDIVIDUAL STORY EXPERIENCES

- Make a felt board for the story *Moo Moo, Brown Cow*. Tell the story during circle time and then provide the felt board and pieces for children to retell the story in their own words.
- Read *Old MacDonald Had A Farm* with the children. Provide the book and stuffed animals in the reading area for children to act out the story and make animal sounds.
- Create a puppet stage from a cardboard box. Use the animal puppets created by children for a puppet show about animals. Children can make up their own plays about favorite animals

SCIENCE/MATH

- Create a mini-garden on the school grounds. Children can plant seeds and nurture their plants. Plants can be harvested when they ripen.
- Plant seeds in individual containers. Each child can plant a vegetable seed and water the plant. Children can watch the plant's growth cycle and chart results.
- Provide plastic animals for sorting by color, shape, or name.

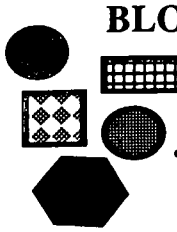
LITERACY LINKS

- Label photos of farm equipment displayed in the block area.
- Make a recipe chart for "Pigs in a Blanket" that the children can follow while cooking.
- Create a *HyperStudio* stack to illustrate how to make "Baggie Ice Cream." The children can follow the steps on the computer to make the recipe.
- Give the "farm stand" or "farmers' market" in the dramatic play area a name. Make a sign for it. Children can also make open/closed signs, price tags, and sale signs.
- Make a chart of the "New Farm Words" the children have learned throughout the unit.
- Write a poem about favorite animials. Make the poems into a book. Children can title their poetry book and illustrate it. This would also make an interesting *HyperStudio* stack.
- Chart the plants' growth.

ART

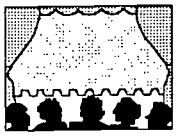
- Make a collage using farm materials such as corn husks and seeds.
- Provide a variety of materials in the art center so children can create animals.
- Paint with corn cobs and tempra paint on large paper.

BLOCKS/MANIPULATIVES



- Mold farm animals using home-made modeling clay or play dough.
- Build a farm using blocks. Provide small farm animals, toy machinery, trucks, cars, little people, and fences.
- Build animals using Legos or building blocks. Display them in the class "farmyard" located in the dramatic play area.

DRAMATIC PLAY



- Set up a farm stand or farmers' market using farm/garden-grown food donated by families, plastic fruit and vegetables, or other foods created by children in the art center. Provide dramatic play props such as farm clothes, straw hats, calculators, scales, play money, ticket pads, and baskets. Display farm pictures or pictures of produce from magazines.
- Build a farmyard in the classroom. Decorate the playhouse as a barn by covering it with red mural paper. Add cardboard animals and hay bales (see "Construction"). Makes fences and add props (e.g., stuffed cat and kittens, milk pail, baskets).

EXTENSIONS BEYOND THE CLASSROOM

- Invite a farmer to the classroom to talk about life on a farm. He/she can explain and demonstrate various aspects of farm-related chores or bring an animal.
- Visit a farm implement store and take a tour of the farm machinery.
- Visit a grain elevator.
- Contact the local 4-H extension office and invite 4-H members to the classroom to share their 4-H animals.
- Explore farms around the world through various media: video, web sites, books. Discuss the differences between farms in the U.S. and those in other countries. If you know a farmer who uses a different farming method or has a unique type of farm (e.g., raises ostriches), invite him/her to the class to share information about his/her farm.

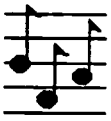
RELATED BOOKS, POEMS, STORIES

- *Farm Noises* (J. Miller)
- *Farmyard Songs* (C. Morley)
- *Heartland* (D. Siebert)
- *It's A Perfect Day* (A. Pizer)
- *The Milk Makers* (G. Gibbons)
- *Moo Moo, Brown Cow* (J. Wood)
- *Old MacDonald Had a Farm* (G. Rounds)
- *Who Said Moo?* (H. Ziefert)
- *Who Owns the Cow?* (A. Clements)

RELATED SOFTWARE

- *The Backyard*
- *Big Job*
- *How Things Work in Busytown*
- *Fisher-Price Sing Alongs: Barnyard Rhythm & Moos (V 1)*
- *Jump*Start Toddler*
- *Katie's Farm*
- *Kid Pix Studio*
- *Let's Explore the Farm with Buzzy*
- *Playroom*

MUSIC AND MOVEMENT



- Play and dance to country music.
- Sing "The Farmer in the Dell" and play with game with the song.
- Listen to "The Children's Symphony" (by McDonald) which includes the selection, "The Farmer in the Dell."
- Demonstrate square dancing. Children can dance to the music while making up their own square dances.
- Experiment with creative movement. Children can pretend to be various animals. Ask children to make the animal sound along with the movement.

SENSORY

- Add corn kernels and/or dried beans to the sensory table. Children can explore the feel and texture of these items. Provide measuring tools, funnels, and other plastic toys.
- Experiment with the textures of corn. Let children touch and smell various corn products such as corn meal, corn on the cob, corn kernels, and popcorn.
- Place wheat products in the discovery area.
- Hide various stuffed animals in a paper bag. Children can reach in, touch the toys, and guess which animal they are touching.

Curriculum Integration Ideas continued from pages 6 and 7

OUTDOOR PLAY/MOTOR

- Create a farm on the playground. Some children can be animals; others can be farmers. Children can pretend to "run" the farm by planting crops, caring for livestock, or operating equipment.
- Provide pedal tractors for children to ride. Use cardboard pieces to decorate tricycles or big wheels like large farm equipment.
- Explore the sandbox. Provide items such as Little Tykes planting tools, plastic farm animals, and toy farm equipment.

FAMILY CONNECTIONS

- Create a "Farm Take-Home Bag" with a video of the farm-related field trips, a photo album of farm experiences in the classroom, and an activity that the children and parents can explore together. Some parents may have a computer at home, so add a disk with the children's *HyperStudio* stack of "favorite aminal poems."
- Develop a short play or program about animals with the children. Create props, make up songs, and write the play. Send home computer-generated invitations created by the children. Use *Kid Pix Studio* or a computer card program, such as *Print Studio, Printshop,* or *Hallmark Card Creations.* Work with the children to prepare refreshments to serve.
- Ask parents to send items from home for the "Farmers' Market."
- Invite families to share their farm experiences with the class through a classroom visit, photographs, video, letter, or e-mail.

Software Information

Preschool Success Starter: Maggie's Farmyard Adventure

Have you seen Maggie's cat? Join Maggie in *Preschool Success Starter: Maggie's Farmyard Adventure*, a new Living Book (Brøderbund) title, as she searches for her cat in the farmyard. Along the way, you can play musical instruments in the kitchen, sing with grandpa, dress the scarecrow, sing "Old MacDonald" with the barnyard animals, feed the animals, and clap along with Maggie and her mom in the yard as you sing, "If You're Happy and You Know It." Find the hidden surprise in the barn at the end of the story when Maggie finds her cat. If you don't want to read the story, click on the activities or the song book. The song book contains several choices with animated words and musical songs that children will enjoy. So, if you're happy and you know it, play along.

Preschool Success Starter: Maggie's Farmyard Adventure has the following system reguirements: Macintosh or Power PC Computers need 33 Mhz 68040 processor (or faster), at least System 7.1, 16 MB RAM free for Power PC and 12 MB RAM for others, a double speed CD-ROM drive, and a 13" color monitor (or larger) with 256 colors. IBM and compatibles need Windows 3.1 or Windows 95, 66 MHz 486 (or faster), 8 MB RAM, a double speed CD-ROM drive, a SVGA 640x480 monitor with 256 colors, and Windows-compatible sound device. A printer and external speakers are optional.

See pages 5 through 8 for curriculum activities and integration ideas to use with this software.

Order
eMERGing Literacy and Technology: Working Together
from Macomb Projects
27 Horrabin Hall
Western Illinois University
Macomb, IL 61455

$50 plus shipping

Resource Directory

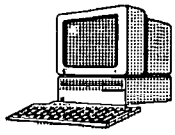
Resources for People with Disabilities, a 1998 directory published by Ferguson Publishing Company, contains over 8,100 entries of valuable information. Major sections include

- **Assistive Technology**, which provides information about companies that produce assistive technology devices;
- **Funding Sources** for education, technology, and research;
- **Organizations and Associations**; and
- **Publications, Publishers, and Conferences.**

The directory also includes five essays, one of which deals with understanding the basics of assistive technology. In addition, readers may use one of three indexes to help them find information by type of disability, by state, or by name of organization.

The bound, 1,100 page, two volume directory is $89.95. It is also available on CD-ROM. Contact Ferguson Publishing at

800/306-9941;
www.fergpubco.com; or
fergpub@aol.com



Curriculum ACTTivities

Editor's Note: The following curriculum activity is taken from *Building InterACTTive Futures* (1998).

My Dog

Since most young children love animals, a software program such as *Ruff's Bone*, which focuses on a dog's silly antics, quickly becomes a children's favorite. By designing classroom activities not only around animals but also around the scavenger hunt theme of the software, children are offered a variety of experiences.

The technology skill for this activity requires the teacher's knowledge to attach a TouchWindow to the computer, calibrate the TouchWindow, and operate a program with the TouchWindow or mouse. The suggested learning level of this activity is *Exploration* - children are observant and creative. They begin to make choices and figure out components. This activity can be adjusted to any level of involvement in the classroom.

Materials

Computer (4 MB RAM with System 7.0 or 2 MB RAM with System 6.07/6.08)
Color monitor and CD-ROM drive
Ruff's Bone (Brøderbund)
TouchWindow or mouse

Ahead of Time

Position equipment so that the monitor is at a comfortable eye level for the child. Secure TouchWindow to the monitor with Velcro. Under "Control Panel" select "TouchWindow" and calibrate the Window to make sure it is working properly.

Open the CD-ROM, *Ruff's Bone,* and select "Let's Play." This option gives the child an opportunity to interact within each screen.

Computer Activity

Encourage the children to listen to the story being read on each screen. Then explore the objects and characters on each page. When the child is finished exploring one page, she can turn the page to continue. Ask the child what her favorite part of a screen is and why.

In a group activity, children can take turns activating objects on the screen. Ask them to predict what their chosen object or character will do before pressing. Encourage them to retell the story. Ask, *"What is your favorite part?" "What happens at the end?"*

Related Activities

Storybook

Since the software comes with a storybook, this book could be read to the children before the computer activity. Encourage the children to talk about their dogs. The book could be left in the book center so that the children can read it on their own.

Playboard and Figures

Select several objects and characters from the program to print. Attach the figures to cardstock and laminate. Attach Velcro to each figure so children can play with the objects and characters on a foam board. Encourage them to re-create Ruff's story or to create a new story about the dog and his bone.

Scavenger Hunt

Design a scavenger hunt so children search for a dog's bone in the classroom. Leave picture clues throughout the room to lead the children to the next spot. Conduct the activity with individual children, small groups, or a large group.

continued on page 10

My Dog continued from page 9

Animal Food

Besides bones, what do dogs eat? What do other pets eat? Make "puppy chow" snack during snack time. Children could pretend to be dogs and try to eat without using their hands. Encourage the children to talk about foods their pets eat. If there are classroom pets, what do they eat? Could they eat bones?

Funny Bones

Where do bones come from? Explore a model or picture of a skeleton and encourage the children to talk about why we have bones and why so many? How do our bones grow? If possible, explore an animal's skeleton from a book, picture, or model. How is it different from ours?

Pet Album

Ask families to send photographs from home of any house pets which the children have. These pictures can then be shared as part of a unit on Pets. Children can talk about their pets. Put together a class book on pets.

Encourage the children to draw pictures of their pets or other animals. Put the pictures together as a class book. The children can "write" a story on their page. Read the story together as a group. The book can then be sent home with each child to be shared with family members.

Other Activities

Create *Discover:Kenx* set ups with a few hot spot choices for each screen or communication overlays with pet pictures—to talk about pets and foods.

Curriculum Integration Ideas

Animals

- Explore foods animals eat
- Discuss where dog bones come from
- Explore what animals eat bones
- Draw pictures of pets
- Create collage of animal pictures—which ones are good pets
- Put together book about pets and their foods

Science

- Explore why we have bones
- Discuss how our bones grow—talk about nutrition
- Explore skeleton model
- Read book on bones
- Compare human and animal bones in skeleton models
- Invite an archeaologist to the classroom—talk about people who look for old bones
- Examine pet foods—what is in them and why

Cooking/Snacks

- Cook bones in a soup for snack
- Eat foods during snack time that help our bones grow

Summary

A story about a dog's search for his bone can be the basis for many classroom activities. Through exploration of bone structure, nutrition, and animal life, children's science knowledge will be enhanced. Family pictures of pets and children's drawing and writing are great foundations for class books to help increase emergent literacy. Through adaptations and simplifications of the software, these activities can be designed for participation of all children.

***Building InterACTTive Futures* (1998) by Hutinger, Johanson, Robinson, and Schneider is a curriculum guide focusing on young children and interactive technology. Topics covered include the learning environment, family participation, technology assessment, customization techniques, equipment and software information, procedures for creating materials and for using specialized devices, as well as many curriculum activities such as the one on pages 9 and 10 of this issue. The book sells for $50. Contact Macomb Projects at 309/298-1634 for ordering information.**

Enjoy Art with Cézanne and Tour the Louvre

by Amy Betz

Take tours of two museums, the Philadelphia Museum of Art and the Louvre, with the help of software. *A is for ART, C is for Cézanne* (Philadelphia Museum of Art) contains 31 paintings and two drawings from the Philadelphia Museum of Art. *The Louvre Museum* contains 154 images from its collection.

In *A is for ART, C is for Cézanne,* an animated Cézanne is your tour guide and helper. Children can create their own museum with the images, search for shapes within the images, listen to stories about the art, or do puzzles. The artwork is divided into three categories: people, places (landscapes), and things (still lifes). Choose one of the categories to view the images. Each screen has a TV, a block, a truck, museum, Cézanne, exit, arrow keys, and pictures of other images in the category.

The TV narrates a story about the image. The truck allows you to collect the artwork for your museum. The museum icon takes you to your museum where you may arrange and rearrange your collection. Clicking on the block will take you to the game page to search for shapes, repaint the image, or complete a puzzle.

The Louvre Museum has a fantastic 3 minute tour of the building. It also has narration, a scrapbook, time-line, location finder, close-up capabilities, and much more. This sophisticated software is probably better suited for older children.

These programs, as well as *ArtSpace* (see separate article on this page) offer children opportunities to examine images they may otherwise never have a chance to view. Expand the art gallery concept by hanging posters of artwork or by creating an art gallery of your children's work.

A is for ART, C is for Cézanne (Philadelphia Museum of Art) and *The Louvre Museum* (Voyager) each sell for $39.95. Both can be used with Macintosh and Windows, and are available from Educational Resources and Crystal Productions.

CD-ROM Takes Children on Museum Visit

Designed for easy access by children with disabilities, *ArtSpace* is an interactive multimedia experience combining sound, photos, video, and other graphics. *ArtSpace* simulates a visit to an art museum that houses over 536 works of art. More than 40 minutes of QuickTime video and over 90 minutes of sound are included on the software. Artwork seen in *ArtSpace* was contributed by 26 contemporary adult artists, 100 child artists, and 11 museums from across the U.S.

In addition to works of art in the *Adult Gallery* and *Children's Gallery,* the software contains *The Studio,* which allows children to re-create drawings with a switch press, a touch on a TouchWindow, or the click of the mouse.

ArtSpace sells for $30 plus shipping and is available from Macomb Projects, 27 Horrabin Hall, Western Illinois University, Macomb, IL 61455. A hefty five-part curriculum guide is available for use with the software. Among other topics, the curriculum guide offers ideas for integrating art-related activities across the curriculum. *ArtSpace* sold with its curriculum guide is $50 plus shipping.

IntelliTools Distributes New Switch-operated Software

IntelliTools is now distributing switch-operated software developed by Inclusive Technologies, an English company.

First Looks-Patterns includes ten distinct geometric patterns which are built with a switch click, one element at a time. There are three levels of complexity.

Opposites, as the name implies, introduces the concept of opposites such as big and little, open and closed, and so forth.

Switch users create scenes using Build I. Each switch click adds a new element to a familiar scene (e.g., eating a meal, riding in a car). The scene is animated when it is complete.

Each program offers many options and settings for individual students. The software is available for either Macintosh or Windows. Call IntelliTools at 800/899-6687 for more information.

SEMERC Software Available in U.S.

SEMERC has created software for special needs children in the United Kingdom for the past 16 years. SEMERC software is now available in the U.S. from ProMedia, Inc. Products include the *Switch On* series for children with physical, cognitive and developmental disabilities; *Dazzle,* a paint and drawing program; and sensory software, such as *Listen Here!, Speak Up!, Touch Here!* and *Splatter.* Most programs are available for Windows, but many also come in Macintosh versions. Visit ProMedia's web site at www.promedia-semerc.com or call 800/462-0930 for a catalog.

Let's Get Physical with Science

by Susan Schoon

Most children, when provided with rich interactive learning experiences that include the development of science processes and skills, will respond with great enthusiasm. However, science and science-related activities are often overlooked as crucial elements of discussion and involvement in the classroom. Young children need to be able to develop problem solving skills at an early age so that they will be better prepared for the transition and demands of higher level learning.

Adopting an integrated curriculum approach to learning, a practice of blending one subject or theme into all subject areas, is recommended for assuring that science, as well as other areas, receive the valuable attention they deserve. Through the design of an integrated curriculum, no content area should be neglected for any extended period of time. Compared to the more "traditional" method of teaching science, the integrated curriculum plan is less rigid, more spontaneous and open-ended with permeable boundaries allowing for children's individual differences. Furthermore, this curriculum design provides children with the opportunity to create and display their own understanding of related concepts.

The following is a sample thematic unit for simple machines. The components of the unit build on the fundamental principals and ideas expressed in Macomb Projects' Project ELIPSS (Emergent Literacy Instructional Program and Support Services) publication, *Science, Math and Literacy: A Way of Life for Young Children.* This integrated thematic unit includes descriptions of integrated activities, suggested software to support the theme, and a list of professional and classroom resources. For every idea offered, each individual class will adapt, respond, and enrich these suggestions to fit their unique classroom life.

Classroom Integration Guide

Art

• **Tools for Design.** Ask children to describe the different ways tools are used to create art in their world. Make a list of their responses.

• **Spiro-graph.** Allow children to experiment with a Spirograph game. Ask children to describe how the machine works.

Language

• **Describe Ideal Machines.** Ask children to describe what an ideal machine would look like, how it would function, and how it would be built.

• **Tools with Descriptive Names.** Investigate many titles for simple machines. For example, can opener, nutcracker and corkscrew. Children will predict what the machines are used for based on the name.

Math

• **Abacus.** Use an abacus for math. Build an abacus from found objects. Experiment with how many different structures can serve the same purpose as the abacus.

• **Balance Scales.** Set up an activity center including a balance scale. (Suggestion: Set up the activity center next to the computer.) Invite children to use the scales throughout the day to solve problems.

Music

Mechanical Melodies. Collect a variety of objects such as clocks, paper airplane propellers, pliers, and wooden hammers, that can be used to make rhythms. In a small group make up musical patterns.

• **Instruments with Moving Parts.** Graph the different moving parts of several musical instruments. Make a list of their differences and similarities.

Movement

• **Pantomime Machines at Work.** Ask children to place the name of their favorite machine in a hat. Take turns drawing out a name of a machine and acting it out.

• **Playground Machines.** Weather permitting, take children outdoors. Select a group or piece of playground equipment and ask children to categorize it into one of the following categories: inclined plane, wedge, wheel and axle, and pulley. Discuss the results of the findings.

Social Studies

• **Earthmovers.** Plan a field trip to the nearest manufacture of earth moving equipment. Discuss how earthmovers are used to help our lives.

Computers

• **Children's Software.** Children's software is often used to develop a thematic unit or to introduce a topic. Selected software titles contain features that will support quality integration by developing both problem-solving and literacy skills. Giving children access to computers provides them with opportunities to discover, draw conclusions, problem solve, explore and interact supporting similar dimensions found in the science curricula. Furthermore, planning for children to interact with peers and adults as they investigate concepts found in the software will insure the development of a rich learning experience. Creating a specific plan to accompany the software program will also insure that the learning experience will coincide with your educational philosophies and goals for a particular thematic unit. *Jimmy Saves the Day* and *The Incredible Machine,* two software programs which contain

continued on page 13

Science continued from page 12

informtion about tools and simple machines, are described on page 15. Curriculum activities are included for each program.

Resources

Suggested Professional Resources:

Davenport, J. (1996). *Simple machines and problem solving in integrated mathematics and science instruction.* Western Washington University.

DeWeese, B. (1994). *Playground physics: Simple machines.* Monterey, CA: Evan-Moor.

ELIPSS, Head Start Emergent Literacy Project. (1997). *Module seven: Science, math and literacy... a winning combination for young children.* Macomb, IL: Western Illinois University.

ELIPSS, Head Start Emergent Literacy Project. (1997). *Module eight: Science, math and literacy: A way of life for young children.* Macomb, IL: Western Illinois University.

Head Start/IBM Partnership Project. (1994). *Computers in Head Start classrooms.* Alexandria, VA: Mobis Corp.

National Research Council. (1998). *Every child a scientist: Achieving scientific literacy for all.* Washington, DC: National Academy Press.

Wright, J., & Shade, D. (1994). *Young children: Active learners in a technological age.* Washington, DC: National Association for the Education of Young Children.

Suggested Children's Books:

Albert, T. (1994). Simple machines: *Studying the inclined plan, wedge, screw, lever, wheel and axle, and pulley.* Greensboro, NC: Carson-Dellosa.

Delafosse, C. (1993). *The camera: Snapshots, movies, videos, and cartoons.* New York: Scholastic.

Berger, M. (1995). *Simple machines.* New York: Newbridge Communications.

Grant, D. (1992). *Airplanes and flying machines.* New York: Scholastic.

Hawkinson, J., & Faulhaver, M. (1969). *Music and instruments for children to make.* Niles, IL: Whitman.

Hewitt, S. (1998). *Machines we use.* New York: Children's Press.

Macauley, D. (1988). *The way things work.* New York: Houghton Mifflin.

Pigdon, D. & Woolley, M. (1987). New York: Simon & Schuster.

Robbins, K. (1983). *Tools.* New York: Four Winds Press.

Rockwell, A. (1986). *Things that go.* New York: E.P. Dutton.

Recommended Software:

Amazing Machines. (1996). Lewisville, NC: Science for Kids.

Big Job. (1995). Bethesad, MD: Discovery Communications, Inc.

How Things Work. (1994). New York: Simon & Schuster Interactive.

I Spy. (1997). New York: Scholastic.

Jimmy Saves the Day. (1996). Lewisville, NC: Science for Kids.

Lego Island. (1997). Navato, CA: Mindscape, Inc.

The Incredible Machine. (1995). Salinas, CA: Sierra On-line, Inc.

Tonka Rescue . (1997) Beverly, MA: Hasbro Interactive.

Tonka Trucks . (1996) Beverly, MA: Hasbro Interactive.

Video:

Fred Levine Productions, (1991). *Road construction ahead.* Montpelier, VT: Focus Video Productions.

To Copy or Not to Copy? If That's the Question, the Answer is "Don't Do It!"

Children are taught early to share because sharing is a good and often necessary skill for coping with people and situations throughout life. However, when it comes to sharing software, teachers and trainers need to curb the sharing urge! Copying and distributing commercial software is illegal, whether the motivation for copying is educational, altruistic, profit-seeking, or just plain "I loved this program and wanted to share it with you."

The *Copyright Act of 1976*, Public Law 94-553, contains language (Section 107 of Title 17) regarding fair use of copyrighted materials. Fair use allows copying without permission from or remuneration to the copyright owners because of minimal use of the materials. Teachers are among those listed in the law as having privileges of fair use. Guidelines for print materials allow for only relatively small portions of the work to be copied (e.g., 250 words of a poem; a complete article of less than 2,500 words; 10% of a prose work, up to 1,000 words).

Software is another matter. It isn't possible to copy just part of a program. A 1980 revision (SS 117) to the Copyright Act addressed fair use of copyrighted computer programs. Consumers have the right to make one back-up (archival) copy of a program. If the consumer has sold the software or given it away, legally he or she is required to destroy archival copies of programs or to include them as part of the transaction. Consumers may not use back-up copies to make replacement copies of a program that has been sold or given away. Multiple copies of a program to sell or give away may not be made, even if the intention is to distribute them only among teachers within the district that purchased the program.

Unlawfully copying software can create legal problems for teachers, school administrators, and the school board. To help schools save money and to decrease unauthorized copying practices, software companies offer site licenses. Schools using site licenses receive multiple copies of the software at reduced prices. Information about site licensing agreements is contained in a company's catalog or from a customer service representative.

If you are tempted to "save money" by copying and sharing software with friends or co-workers at your school, don't give in to the temptation. Pirating software can cost you much more than the price of the program—civil and criminal charges with fines up to $250,000 and perhaps a jail term of five years!

continued on page 15

Young Children and the Internet FAQs

The following frequently asked questions have come from teachers, children, and parents involved in a project that introduced most of them to e-mail and the Internet. The project, TEChPLACEs, is one of the Macomb Projects and is in its first year of funding. During the 97-98 school year, TEChPLACEs staff worked closely with teachers and children in four classrooms—a pre-k, two kindergartens, and a first grade—in four west central Illinois communities. As often happens, the enthusiasm of the children affected their parents, causing many of them to become interested and involved also.

As the children corresponded with children in other classrooms via e-mail, helped in the development of the "All About Us" Web pages, and contributed to the current construction of "Our Community" their curiosity and need to know produced many questions and problem solving situations. The questions are real and the answers are solutions resulting from the creative thinking and collaborative efforts of those involved in the project. Future issues of *ACTTive Technology* will bring you more FAQs from the world of TEChPLACEs.

1. **If your friend sends you a message while you are sending a message, do Internet messages bump into each other?** While it may seem likely that they might crash into one another, Internet messages do not collide. It could be said that these messages, much like regular mail trucks going in opposite directions, pass each other and arrive at their destination unharmed.

2. **How do I e-mail with all the children in my class?** Each teacher will have to discover what works best with each group of children. Some teachers may be able to connect to a large television monitor making it possible for all the children in the classroom to view incoming mail and join in the composition of outgoing messages. Some teachers may have better success with their group reading and sending mail three times a week rather than every day. Depending on the amount of mail received, some may find it easier to read and reply to a portion of the messages as a large group and have smaller groups respond to the remaining correspondence. Other teachers may find it works best to generate outgoing messages and read the incoming mail as a group but then designate a smaller group, which changes frequently, to answer any mail messages. Very young children pose their own challenges. Teachers of these children may find it works best to read one or two messages as a group and rather than construct a reply at the computer, prepare the message away from the computer. The teacher then enters the children's words and sends the message at a more convenient time.

3. **How do I help three and four year old children understand where e-mail messages go?** The idea of regular U.S. Postal mail is hard for most children to understand, but even more difficult is e-mail that is an abstract practice that some adults cannot grasp. One teacher found a way to ease the confusion for the children in her classroom. As a group, the preschoolers prepared and sent a message to the building principal. The teacher and the children then visited the principal and watched as she opened the e-mail message. Lo and behold, it was the same message the children had composed in the classroom and sent earlier in the day.

4. **How do I send e-mail to my child at school?** First of all, you must have e-mail capabilities and there must also be Internet access and an e-mail account in your child's classroom. In addition, you must know the e-mail address for the classroom. Knowing this, it is likely to depend on how the classroom teacher wants to handle the children receiving e-mail. In many cases, it is easy enough to designate the recipient of an e-mail message by including that information in the "subject" area of the message. For example, if the message is for your daughter Cara, you might put "To Cara from Mom" in the subject box. That helps the other children, many of whom recognize each other's names, know that that message is for Cara. In the message itself, by greeting Cara and her classmates, you will send a special message to your daughter and a message to the entire class, all of whom like to receive and send mail. By doing this, the message includes all the children, even those who may not receive their own personal greetings.

Software Review

Jimmy Saves the Day

Jimmy Saves the Day is a 30 page story about a young man named Jimmy, whose unique ability to change into shapes of simple machines is called upon to save a llama named Dolly. Children can read text both in and out of sequence as well as select hot spots for full animation of each character of each story line. At any time they can exit the program or choose to revisit a specific page. One particular page contains a hide-and-seek puzzle that allows children to select the best tool to save Dolly the llama from her perils and mishaps.

The program can be used to help children gain knowledge about ways to use simple machines and to help them identify the inclined plane, cone, pulley, screw, wheel, and lever as simple machines. At the computer, children can work with a peer to identify the simple machines in the program. Off the computer, they can discuss the different types of simple machines they use and their purpose. Ideas can be recorded on large sheets of chart paper that children can illustrate to create a wall display or combine to make a class book. As the software is discussed with children, invite them to change the book's ending by suggesting a different tool to get Dolly Llama out of the chest.

This IBM program, published by Science for Kids, sells for $12.95.

Software Review

The Incredible Machine

The Incredible Machine is a high energy, problem-solving, puzzle-seeking game that helps children learn about the properties of simple machines. Children replicate or create a puzzle based on their knowledge of how simple machines function. All forty puzzles contain parts and functions consistent with those of simple machines. To solve a puzzle, children recreate the successful functions of a machine feature in the puzzle. Children use a storage bin of parts to complete their creations. Those parts include such things as inclined planes, balls, gears, wheels and axles, pulleys, and switches.

Off computer activities involving Lincoln Logs, Legos, an Erector Set, and blocks of varying shapes and sizes allow children to build machines with working parts and to experiment with inclined planes and blocks. As a class project, they might try building a small machine that serves a specific purpose in the classroom. Ask children to browse the classroom locating ways in which machines and tools are used. Record their observations. Members of the class can make presentations on the information gathered.

This Macintosh program, published by Sierra, sells for $24.95

One-Stop Web Site

Federal Resources for Educational Excellence (FREE) web site offers quick access to hundreds of teaching and learning resources (e.g., history, science, math, art, and other tools for teachers and students) from more than 35 federal agencies. Check it out at www.ed.gov/free

Calendar of Conferences

June 26 - July 1, 1998: The State of the Arts and Science, RESNA '98 in Minneapolis, MN. Contact 703/524-6686 or 612/296-2771.

August 6 - 8, 1998: IntelliTools Summer Conference in San Rafael, CA. Contact 800/899-6687.

September 17 - 19, 1998: The Assistive Technology Conference '98 in Topeka, KS, sponsored by Assistive Technology for Kansans Project. Contact 800/500-1034, 913/272-1034 (fax) or capper@sound.net

October 22 - 24, 1998: Closing the Gap in Henderson, MN. Contact 507/248-3294.

February 22-24, 1999: Midwest Education and Technology Conference in St. Louis, MO. Contact 800/835-8282.

Literacy Course **continued from page 3**

For more information about registering for the course (ELED 450G), paying tuition and fees, and purchasing the videos and accompanying book, contact the Department of Elementary Education and Reading of Western Illinois University at 309/298-1961 or www.wiu.edu/users/mieled.

Persons interested in two additional ELIPSS videos, *Science, Math, and Literacy...A Winning Combination for Young Children* and *Science, Math, and Literacy...A Way of Life for Young Children* should contact Macomb Projects 309/298-1634 about the availability of those tapes.

Copying Software **continued from page 13**

For more information about what is and is not allowed when it comes to copying software, contact the Software Publishers Association at 202/452-1600. The organization's web site is at www.spa.org. Free information is available for distribution to teachers and trainers at your school.

Information in this article was taken in part from *Software for Young Children* (in press) by Patricia Hutinger and Joyce Johanson

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VOLUME 13, NUMBER 3 Summer 1998

IDEA and Access to the General Education Curriculum: An Early Childhood Perspective

by Patricia L. Hutinger

In July, I was fortunate enough to participate in a three-hour panel discussion, along with five other professionals from a variety of disciplines, at a meeting of research project directors in Washington, DC, exploring the meaning of the term 'access to the general education curriculum' in the new IDEA. My role was to represent an early childhood perspective, of course, with an emphasis on Macomb Projects' work with young children, their families, and technology. What follows summarizes only a few aspects of the panel discussion.

My sense is that as early childhood educators, we are fortunate that it is easier to describe access to the early childhood general curriculum than it is to describe what that same term means to adolescents. Curriculum changes over time as children grow older. Early childhood curriculum has a different context and, in my work, refers to the activities of daily life—the people, events, objects, and conditions a child experiences as s/he learns about the world. Good general early childhood curriculum includes communication, movement, social skills and interaction, art, play, science, emergent literacy, and more—what the late James Hymes compared to as the content of a university. Ideally, the regular early childhood curriculum is a series of integrated meaningful experiences carried out in the context of daily activities as opposed to teaching isolated, discrete skills. The regular early childhood general curriculum is broad, not narrow and closely prescribed.

However, we do start 'close to home' and emphasize content, developmental levels and abilities (or, in Vygotsky's term, the 'zone of proximal distance'), then figure out ways for children with varying disabilities to DO THOSE THINGS. Adapting materials, adapting activities, and adapting tools becomes part of the processes needed to help children access the early childhood general curriculum. It shouldn't come as a surprise that I touted technology as an important set of tools to assist in access. Adaptations I discussed include computers, a variety of input devices such as touch tablets and alternative keyboards, output devices (printers, speech), and a wealth of developmentally appropriate, interesting, interactive software (**not** the kind directed at a specific disability because that tends to be too directed toward isolated skills and, worse than that, dull).

The panel made the point that regular education curriculum is not perfect and undoubtedly needs rethinking and restructuring in some areas, an important consideration for us as we examine early childhood classrooms. Too much too fast is not acceptable. Congress, in passing the legislation for IDEA made it clear that the inadequacies of the instructional system in general education was not to be the basis for consigning a child to special education! Nor is passing children with special needs along through the grades, without insuring that they do indeed learn what other children are learning appropriate. Special education is no longer expected to be a **place** but a **set of supports**. Moreover, all children with disabilities are expected to have access to the regular education curriculum. Exclusions MUST be justified. IEP team meetings must include regular education teachers.

Special education is no longer expected to be a **place** but a **set of supports.**

School districts have the responsibility and the obligation to provide access. Schools are encouraged to strengthen their general education program so all students are well served. Along with that responsibility, increased funding for personnel preparation has been legislated so districts can prepare general educators for their roles

continued on page 3

From The Editors. . .

by Linda Robinson

The other day my ten-year-old daughter asked me what the word "jargon" meant. As I explained to her the definition, I used the field of special education as an example of how a group of people use similar language. As I proceeded to explain that words used a year ago may not be accurate today, it all sounded so ridiculous. My daughter walked away confused and sorry she asked her question in the first place.

What I realized from trying to define the "jargon" of special education was that we may keep changing the words, but it's the interpretation of those words that really matters. Our children's and families' needs should dictate how those words are interpreted. This is evident in the wording of the new IDEA, in which we now refer to "access to the general education curriculum." As pointed out in our cover story, curriculum for early childhood is different from elementary or secondary level curriculum. Therefore, the support is going to be different. We need to be concerned about how a child can fully participate in the curriculum, not just be included in the classroom.

That term "inclusion" which we, as professionals, have used so freely for the past few years, has been interpreted in many ways by many school districts. Unfortunately, it's that flexibility in definition which has caused pain, frustration, and many hours of confrontation for families. Will this new terminology make it easier for families to get children's needs met?

It would seem that the definition of "inclusion" should have involved access to the general curriculum, instead it has meant being placed in a setting. It's too bad more people didn't use Webster's definition of inclusion, *a relation between two classes that obtains when all members of the first are also members of the second.* Of course, what does "members" really mean? Are you a member when you can access the general curriculum? Do we now need to worry about the interpretation of "access?" The good news in all of this is that funding is being provided to prepare general educators to assist all children to participate in the curriculum.

Of course the term "access" is not new to us in the field of assistive technology. We have focused for years on equalized play and making toys and activities accessible to all children. Hopefully families will now have an easier time justifying the use of technology as a means for their child to access the curriculum. As you know the possibilities are limitless! Take for example the use of *KidDesk* to support literacy skills. As you read the article in this issue, you will see how even this program, which you may have only thought of as desktop management software, can be used to provide independent access to the computer and enhance literacy for all children. The many curriculum integration ideas which are included in the *Playskool Puzzles* activity are good examples of how software themes carry over into a variety of curriculum areas. Suggestions for using one of the Living Books programs, *Stellaluna*, as a guided reading activity are also provided.

Since Internet is becoming a resource tool in many areas of the elementary and secondary curriculum, young children should be given access to it also. If you have visited the TechPlaces page on our Macomb Projects web site (www.mprojects.wiu.edu), you already know the possibilities Internet access holds for preschool children. They not only gain a variety of skills in contributing to their web page, they meet and learn about children outside of their classroom who may be of different cultures and backgrounds. The World Wide Web also holds a wealth of information and experiences in such areas as the expressive arts. We have provided a variety of web site addresses to get you started. Check them out for yourself and your children.

As you read through this issue and think about the terms we use to provide the best education for our children, pay close attention to Megan's mother's words on page 12. You will realize how important access to the general education curriculum is as this mother expresses joy over the fact that through technology her daughter is able to participate and feel *she is part of the group.* This is truly what access is all about!

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IDEA continued from page 1

in educating students with disabilities [Section 612(a)]. The reality, from my perspective, is that teachers and staff in classrooms, the gatekeepers, must be trained to work with children with disabilities and their families, AND need to know how to use the new technologies. Computers and interactive multimedia are here to stay. They are not fads. Perhaps technology support teams will become more prevalent in the schools.

The goals of the general education curriculum will only be accessible when they are examined and shared by both special education and regular educators. Expectations need to be shared then negotiated at both the preservice and inservice levels. Roles are likely to be shared too. We've participated in teams where early childhood and special education personnel work together in the same room. I can't say enough about the importance of establishing a mutual culture and trust among staff and families.

One question the panel addressed, a practical one, was "Why would we really want to provide access to the general curriculum?" The legal answer, of course, is, "It's the law!" But in human terms, I believe if we truly do provide children with disabilities with the tools to access the general curriculum, we provide an opportunity for education to work effectively. Time and time again, our research and model demonstration projects consistently find that children labeled as having a variety of disabilities can do far more than their teachers and parents thought.

One four-year-old (almost five), diagnosed as having autistic tendencies, teaches himself to read with Living Books software. Three- and four-year-olds learn to write their names, for a purpose, using sign-up sheets. They can also use *KidDesk*, send e-mail, and help develop a web site. They can become computer experts and help each other with software and simple equipment problems. They retain a great deal of information and skill related to art and technology applications over the summer when no opportunities are available. In short, many children with disabilities are quite capable of doing far more than adults expect of them.

Of course, there's much more to our panel discussion than you'd want to read here. IDEA and access to the regular curriculum represents legislation that affects the early childhood community and the way we approach our jobs, so it is important for us to understand it. The Spring 1998 bulletin from the National Center on Educational Restructuring and Inclusion (NCERI) is immensely helpful. Single copies may be secured, free (with a self addressed stamped envelope), from: NCERI, The Graduate School and University Center, 33 West 42 Street, New York, NY 10036.

See page 16 for more about IDEA and assistive technology.

Government Web Site Contains IDEA Information

Information about IDEA '97 is available at the IDEA '97 Web site (www.ed.gov/offices/users/idea). Some of the changes include
(1) parental involvement in the development of a child's IEP;
(2) the consideration of technology in the IEP development; and
(3) the participation of children with disabilities in the school's usual assessment activities.

Tech Team Hosts Breakfast Training Sessions

by Joyce Johanson

Necessity, they say, is the mother of invention. And it was necessity indeed that led the Technology Support Team at Just Kids Early Childhood Learning Center in Middle Island, New York, to "invent" Curriculum Breakfast Training Sessions. Demands for teachers' time and attention to children's needs left little time for the technology training the schools' teachers needed and desired. As a result, the Tech Team looked to the half hour time slot before school started.

The Curriculum Breakfasts at Just Kids are now held bi-weekly and are popular with teachers, support staff, and therapists. The week prior to each breakfast, a software program is selected for discussion. Participants take time during the week to preview the program; then the morning of the breakfast, around a table filled with coffee, juices, and bagels, a member of the Tech Team leads participants in a discussion of the program. They consider

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IDEA Training Materials Available from NICHCY

Are you interested in obtaining a training packet on IDEA 1997 Amendments? The packet contains 500 pages of information and resources, including 145 overhead transparencies. The training package was developed by the Office of Special Education Programs (ODEP) and the National Information Center for Children and Youth with Disabilities (NICHCY). Go to www.ed.gov/offices/OSERS/IDEA/train.html or call NICHCY at 800/695-0285 for an order form.

Software Review

Playskool Puzzles Offers Fun, Challenges

Draw it, cut it up, and put it together again to see a puzzle come to life. Making a puzzle is fun with *Playskool Puzzles* (Hasbro Interactive). This program is loaded with fun sounds, music, and animation. Children can choose from the following main menu items: "Explore It," "Puzzle Maker," "Connect the Dots," "Jigsaw," and "Mix and Match." Each of the activities uses a variety of tools such as a hammer, hand saw, wrench, circular saw blade, needle and thread, vacuum sweeper, and/or drawing tools which provide many opportunities for creative expression. Three levels of play are available to meet the needs of individual children. In the easy level, children are given puzzles that have 3-5 pieces; a small number of dots to connect; and dot labels that begin with 1 or A. In the medium level, children are given puzzles that have six to nine pieces; more dots to connect; and dot labels that begin with numbers and letters other than 1 or A. In the hardest level, children are offered more challenging puzzles that have 10-15 puzzle pieces or more dots to connect. To complete the puzzle, the orientation of the puzzle pieces must be rotated. Also, the hardest level does not show a minute image of the completed puzzle.

"Explore It" provides a variety of familiar scenes which have missing parts. Selections include the park, beach, farm, or house. Parts of the scene are missing and children use shapes and context as clues to fit the pieces in the puzzle. When children click on images on the completed puzzle, it expands into another puzzle. Children can move through several layers. In the "Puzzle Maker" children create and alter puzzles with coloring tools, stamps, and cutting tools (hand saw, circular saw blade, or hammer). The new puzzles produce enjoyable animation and sound when put together. In the next activity, children create pictures by connecting dots in the appropriate order using a needle and thread, hammer and nails, or wrench and nuts (complete with sound effects). Children select their dot labels (123, abc, or ABC). "Connect the Dots" also offers a surprise button; the computer selects the tool and dot label combination. When dots are connected and the picture completed, the Toolbox appears, and children can play with the image. Choose a puzzle in the "Jigsaw" activity and watch the whirlwind blow the puzzle into pieces. Click and drag with the mouse to move puzzle pieces together. When assembly of the puzzle is completed, the name of the object appears and the word is spoken. The puzzle also has animation and sound. In "Mix and Match," children mix and match body parts to create silly characters that animate and talk. Character pictures, such as Dracula's head on a cowgirl torso with clown legs and feet, can be decorated using the Toolbox.

Opportunities for the children to color, erase, vacuum, restore, and print their creations are provided by the Toolbox found in the program. The program features a puzzle activity pull-down menu with icons for fast and easy switches between activities. There are four print options: coloring book, coloring book with puzzle piece outlines, color picture, and color picture with puzzle piece outlines. The Printer icon can be found throughout the program in the Toolbox. The program has a save feature.

System Requirements: (Macintosh) System 7.0 or higher, 68030 Processor/25 MHz or better, color monitor, 8 MB of RAM, double speed CD-ROM drive; (IBM/compatible) 486 DX/33 MHz or better, Super VGA Color Monitor, Windows 3.1 or Windows 95, 8 MB of RAM, Sound card, Double speed CD-ROM drive. A printer, external speakers, and microphone are optional.

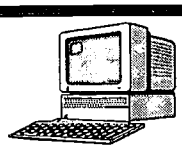
New Video Highlights Importance of Technology Team

Macomb Projects' latest video production highlights the importance of the variety of tasks accomplished by an on-site, trained, technology support team. *Supporting A Comprehensive Technology System: Roles of An On-Site Technology Team* illustrates the importance of a comprehensive system that includes assessing children's technology needs, integrating computers into the curriculum, and making satisfactory transitions. It demonstrates how this was accomplished by the Technology Team at Just Kids Early Childhood Learning Center in Middle Island, New York.

The Tech Team at Just Kids was trained by Macomb Projects' staff to conduct assessments; train teachers, families, and support staff; troubleshoot technical problems; and assist with technology integration. Teachers, parents, and Team members discuss the benefits of the comprehensive system and demonstrate the Team's contributions to that success.

The video is a must for those who are purchasing technology and software for the classroom since it demonstrates that equipment itself is not enough. On-going training and technical support supply the ingredients that mean the dollars invested in technology will be well spent.

Contact Vicki DeBold at 309/298-1634 for ordering information.



Curriculum ACTTivities

Editor's Note: The following curriculum activity is taken from *eMERGing Literacy and Technology: Working Together* , the new interactive technology and literacy curriculum developed at Macomb Projects.

Exploring Tool Use with *Playskool Puzzles*

Introduction

Children love a challenge. When faced with a puzzle, their hands and minds come alive as they try to figure out how the pieces fit together. *Playskool Puzzles* gives children the opportunity to use various tools such as a hammer, needle, saw, and vacuum cleaner while interacting with the different puzzle activities. The program offers a variety of experiences for problem solving and making choices: Which tool do I use? How do I fit the pieces together? Where do I get color for my picture? Many more problem solving situations are presented while children are creating and expressing themselves.

Building on the theme of tools used in the program, a teacher can extend the idea of tool use to help children understand what tools are, how they are used, and why they are important. The following activities and those on the Curriculum Integration pages reflect the idea of using tools in our everyday life to do things from constructing a birdhouse with hammer and nails to mending a hole in fabric with needle and thread.

Materials

Playskool Puzzles software program
Computer
A variety of puzzles to place in the manipulative center.
Books about tools, construction, puzzles, creative design, and problem solving to display in the reading center.

Introductory Activity

Present children with a puzzle—in this case the pieces of a birdhouse. Children can build a simple birdhouse during circle time by fitting the pieces together and using tools to build. Materials for the birdhouse may be wood or another material. Place the pieces on the rug and introduce the tools needed to put the pieces together. Ask the children to guess what the pieces will make when they are put together. The children can make suggestions on how the pieces fit. The teacher can problem solve with the group to fit the pieces together correctly. Children can take turns using tools for construction. Finally, review the building process with the class and record directions for constructing the birdhouse.

Computer Activity

- Provide *Playskool Puzzles* software as a choice during free play. Children can view the program individually or in small groups. Ask the children some of the following questions while they view the program: *Why did you choose that tool? What does the tool do? What happens if you choose a different tool?*
- Conduct a small group activity using the "Connect the Dots" portion of the *Playskool Puzzles* program. Ask children to choose the wrench and see what happens as they connect the dots. Ask the group *"What do you think would happen if you choose another tool?"* Children can share their ideas. Ask a child to change the tool. Children can note changes. Ask children: *Does the puzzle look the same when you use a different tool? What else changed besides the tool?*

Extended Activity

- Print out several puzzles in the coloring book mode. Place the puzzles in the writing area for children to color. Cut the puzzles out using different methods; cutting, tearing, cutting on the lines, or free form. Children can make their own puzzles and take them home.

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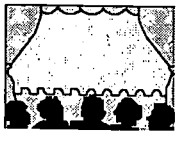
CURRICULUM INTEGRATION IDEAS

ART

- Design tools. Use a graphics program to design tools on the computer.
- Design and build tools from collage materials such as Styrofoam, paper rolls, wood scraps and aluminum foil.
- Provide a variety of drawing tools at the easel for creating pictures.

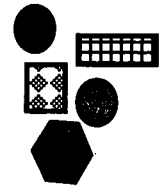
CONSTRUCTION

- Print puzzles from *Playskool Puzzles* software. Glue to posterboard and cut out. Cover puzzle pieces with clear contact paper.
- Design puzzles on the computer using a graphic program. Print puzzles on full sheet label pages. Place on cardboard and cut out puzzles pieces.
- Create puzzles from colored poster board. Cut a shape. Divide shape piece into sections and cut out.
- Construct a birdhouse or bird feeder from 2-liter pop bottles.
- Construct simple birdhouses with a variety of materials (e.g., wood scraps, small nails, cardboard, popscicle sticks, tongue depressors and duct tape) in the woodworking area.
- Cut out people, cartoons, and/or animals from magazines. Mix and match heads, bodies, and legs to make funny characters.



DRAMATIC PLAY

- Create a workshop or tool shed. Use a toy workbench and tools. Add materials to build with so children can create. Place tool belts, tool aprons, overalls, safety goggles, work gloves, denim or khaki shirts, and work boots for work clothes.
- Set up a carpenter's shop. Place tools created in the construction center on a work bench and use saw horses. Use the work clothes prop box. Include scrap pieces of wood and cardboard. Make pretend saws from cardboard. Add glue and tape for constructing doll furniture, birdhouses, or a playhouse.
- Supply plastic hangers and old clothes to hang up. Mix and match clothing.
- Set up a cleaning service. Supply housekeeping tools such as carpet sweepers, brooms, mops, buckets, sponges.



BLOCKS/MANIPULATIVES

- Provide plastic canvas, large plastic needles, and yarn for children to experiment with needlework. Children can cross-stitch, embroider, and/or make up their own stitches.
- Provide a variety of puzzles for the children to choose from (e.g., wooden puzzles, jigsaw puzzles, computer generated puzzles, floor puzzles, and child-created puzzles).
- Build with wooden blocks.
- Provide lacing cards in the shape of different tools.
- Display a pegboard with hooks for hanging tools. Draw an outline around each tool. Children can place tools on the pegboard and match the shape.

COOKING/SNACKS

- Make pancakes. Drizzle the batter into tool shapes. Serve with butter and syrup.
- Talk about different kitchen tools and cook a snack using the various tools such as spatula, grater, hand egg beater, whisk, cookie cutters, and vegetable peeler.
- Create Nuts and Bolts snack mix. Mix together pretzel sticks and Cheerios. Serve with cheese slices.
- Make peanut butter sandwiches. Cut individual sandwiches in fourths. Ask children to put the sandwich pieces together. Serve with milk.

EXTENSIONS BEYOND THE CLASSROOM

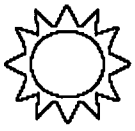
- Visit a hardware store.
- Invite a carpenter, plumber, or mechanic to visit the classroom and share his/her craft.
- Visit the school cafeteria. Ask the cook to demonstrate the different kitchen tools used for cooking.
- Invite a parent or grandparent to visit the class and demonstrate knitting or other needlework.
- Demonstrate sewing. Invite a parent to demonstrate the different tools used for sewing clothes.

FAMILY CONNECTIONS

- Send a Polaroid camera (or disposable 35mm camera) home with children to photograph tools found at home. Create a slide show or *HyperStudio* stack of the tools found at home. Children can dictate stories about their tools from home. Print *HyperStudio* stack and make into a book to send home.
- Create a "Take-Home Bag" about tools. Place a book about tools in the bag. Ask parents and children to use a tool found in the home. Provide paper and markers for writing a story and/or drawing a picture of what they did.

LITERACY LINKS

- Name the carpenter's workshop and make a sign for the dramatic play area.
- Name the cleaning service and make a sign for the dramatic play area.
- Dictate stories about pictures created with drawing tools at the easel.
- Place tool names on the pegboard shapes and lacing cards.
- Name the tools children designed and record the descriptions.
- Make a storage container for puzzles made by the children. Children can name their puzzle and place it in the storage container.
- Display instructions for the construction of birdhouses using 2-liter pop bottles.
- Create Thank You cards for classroom visitors.
- Make a title for the tool dictionary.



OUTDOOR PLAY/MOTOR

- Rake leaves using a variety of sizes and types of rakes. After raking the leaves, play in them.
- Pick up sticks and twigs around the school grounds. Collect them in a wheelbarrow and/or wagon. Provide work gloves, rakes, and brooms for additional tools.
- Shovel snow using all kinds of shovels and other tools for removing snow such as a broom and scraper. Make snow bricks. Press snow into various sizes and shapes of tin pans. Use spatulas, wooden spoons, and/or plastic knifes, forks, and spoons to help shape snow.
- Prepare dirt for planting seeds using child sized tools. Plant seeds and nurture.
- Have a wheelbarrow race.

GROUP/INDIVIDUAL STORY EXPERIENCES

- Create a "Tools Around School" *HyperStudio* stack. Take the children on a tour of the school to identify tools. Use a digital camera to take pictures or scan photographs. Place pictures on cards. Children can dictate stories about the different tools found around school. Add sound and animation to cards.
- Create felt board with tool pieces. Ask children to pick a tool and place on the board. Children can discuss the different purposes of the tool and what they could make with the tool.
- Make a tool dictionary. Use a digital camera and photograph a variety of common tools. Children can write the definitions and label the photographs. Help children put the tools in alphabetical order. Make a book or *HyperStudio* stack.

MUSIC AND MOVEMENT

- Make music using different tools.
- Build musical instruments from carpenter supplies (e.g., two wooden pieces, nuts and bolts in a container with lid, and various sizes PVC pipe and wooden dowel).
- Move creatively pretending to be various tools (e.g., hammer, jack hammer, power drill, chain saw, blender or mixer) and make tool sounds.

RELATED BOOKS, POEMS, STORIES

- *Hammers and Maps, Pencils and Pots* (Kelly, T.)
- *Houses* (Carter, K.)
- *I Can Be a Chef* (Tomchek, A.)
- *I Can Use Tools* (Kesselman, J.)
- *Mrs. McDockerty's Knitting* (Martinez, R.)
- My *Very First Book of Tools* (Carle, E.)
- *Pretend Soup and Other Real Recipes* (Katzen, M. & Henderson, A.)
- *Tim and the Tool Chest* (Beim, J.)
- *Tools* (Morris, A.)
- *Tools* (Shone, V.)
- *Tool Book* (Gibbons, G.)
- *The Toolbox* (Rockwell, A.)
- *Who Uses This?* (Miller, M.)

Curriculum Integration Ideas continued from pages 6 and 7

RELATED SOFTWARE

- *Big Job*
- *Busytown*
- *Crayola Art Studio 2*
- *Crayola Magic Wardrobe*
- *David Macaulay The Way Things Work*
- *EA Kids Art*
- *Gryphon Bricks*
- *How Things Work in Busytown*
- *I Spy*
- *Kid Pix Studio*
- *Preschool Success Starter*
- *Play-Doh Creations*
- *Tonka Construction*

SENSORY

- Fill the sand/water table with sawdust. Add a variety of toy tools and measuring containers.
- Play with wet and dry sawdust. Talk about the different textures of wet and dry.
- Make sawdust clay. Pound, cut, and mold clay. This recipe can be found in *Mudworks: Creative Clay, Dough, and Modeling Experiences* (Kohl, M.).
- Record the sounds made by various tools. Play a sound. Children can identify which tool made the sound.
- Make a *HyperStudio* card with various buttons containing tool sounds. Children can play with the sounds. Place a tape recorder by the computer and play music. Children can accompany the music with their tool sounds.

SCIENCE/MATH

- Set up an activity for hammering nails. Place a tree stump with partially embedded nails in a work area. Children can wear safety goggles and use hammers to embed nails into the stump.
- Place assorted nuts and bolts in containers for matching, sorting, and putting together.
- Cover a piece of 8 x 11 inch board with nails. Use pieces of yarn to form designs and shapes.
- Experiment with mixing water and dish soap using different kitchen tools. Make predictions about which tool will make the most bubbles. Conduct the experiment and chart results.
- Provide geoboards for children to make shapes and figures with rubber bands.

Cool Expressive Art Internet Sites for Kids

by Judy Potter and Amy Betz

Looking for sites on the Internet about the expressive arts? The *ArtExpress* staff view many Internet sites in our research and have found some that introduce children of all ages to the thrill of looking at works of art—close-up. Others also provide an introduction to art history and aesthetics, as well as suggestions for related activities and experiences. Following are some of our favorites.

A. Pintura: Art Detective
www.eduweb.com/pintura/

Be a 1940's detective to solve "The Case of Grandpa's Painting." Learn about art history, perspective, color, composition, and other art elements and principles to solve this mystery. Although the site was created for children in grades 4-8, both younger and older childer as well can enjoy the activities found on the site.

ArtsEdge
artsedge.kennedy-center.org

This site contains a "Curriculum Studio" designed to provide K-12 teachers with curriculum materials, programs, strategies, and other information relating to the performing arts and to national educational goals. It also features a "Curriculum Showcase" devoted to model programs in the arts and "Subject Area Resources" that includes units, lesson plans, ideas and resources for classroom teaching in the arts.

ArtsEdNet
www.artsednet.getty.edu/

The Getty Education Institute for the Arts offers lesson plan and curriculum ideas, image galleries, an ArtsEdNet Talk forum, and many more services supporting Discipline-Based Arts Education.

Crayola
www.crayola.com

Besides visiting the "Crayola Factory" and finding out how crayons are made, see "Online Art" to explore the life of a new famous artist each week. Included in the "Artist's Corner" are activity ideas children can do using processes similar to those used by famous artists.

The Art Institute of Chicago
www.artic.edu

See samples of their extensive collections and current exhibitions, as well as what's available in the museum shop and "Kids and Family Center."

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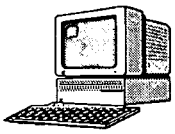

Curriculum ACTTivities

Introducing Stellaluna to Preschool Children

by Carol Schneider

Within the last several years, software companies (e.g., Living Books) increased the number of books on disk. That is, more familiar books are now available for your computer system. Software programs such as *Just Grandma and Me, Ruff's Bone*, and *Stellaluna* come with the accompanying book and/or puppets of the main characters. These programs help children gain early literacy skills by giving them the opportunity to explore the sound and meaning of words which appear on the screen. As the story is being read, the characters and objects come alive and provide meaning to children through the actions and storytelling. When the text is read, words are highlighted. All of this helps children learn that words and pictures have meaning.

Story/Software Considerations

Before selecting a story program with accompanying book, ask yourself some questions. Are the concepts in the book familiar to children or can they be made accessible through the introduction? Is the plot interesting for children? Does the text provide opportunities for children to use what they know? Do the illustrations support children's' search for meaning? Is the length of text appropriate for the experience and stamina of children? (Fountas & Pinnell, 1996).

The following activity provides suggestions on how to introduce a book or story software to the preschool classroom.

Materials Needed

Cannon, J. (1993). *Stellaluna*. Orlando, FL: Harcourt Brace & Company
Stellaluna and mother bat puppets by Harcourt Brace & Company
Stellaluna [Computer Software]. (1996). Random House/Brøderbund
Computer system; Color printer
Tape and staples
An external speaker for the computer system is recommended

First Day Reading

Introduce the book *Stellaluna* with a brief and lively discussion. Then read the book to the children. Change your voice when a main character talks. Introduce Stellaluna and mother bat puppets with the story.

Title Page

- Discuss the title, author, characters, and theme

Teacher: *Today we are going to read a story written by Janell Cannon. The story is called, Stellaluna. Does anyone know what kind of animal is shown on the front cover?* If they don't know, tell them: *This is a book about a baby bat and her mother. This is Stellaluna* (show the puppet) *and this is the mother bat* (show the other puppet). (Pass puppets around for the children to try.)

Pages 1-3

- Elaborate on the theme
- Relate topic to children's experiences
- Provide some of the language of the story

Teacher: *Have you ever been with your mom and gotten lost? You know, sometimes little brothers or sisters get lost from their parents.* Invite children to share their own stories.

Pages 4-6

- Relate topic to children's experiences.

Teacher: *She was lost and hungry and found a new home. They shared their food. She tried food that she hadn't eaten before. Have you eaten food you never tried before?* Encourage children to respond with their stories.

Pages 7-8

- Relate topic to children's experiences.

Teacher: *When you are a guest in someone's house, you need to obey their rules. What are some rules in our classroom?*

continued on page 10

Stellaluna continued from page 9

Pages 9-12
- Prompt children to predict.

Teacher: W*hat is Stellaluna trying to learn?*

Pages 13-16
- Ask children to predict what will happen, using pictures on the pages for meaning.

Teacher: *Look, Stellaluna found her mom. What is Stellaluna's mother doing? Yes that's right, she is giving her a big hug.*

Page 17-18
- Check children's knowledge of the story.

Teacher: C*an bats see at night? Can birds see at night?* Allow time for the children to respond.

Page 19
- Check children's knowledge of the story.

Teacher: W*hat do fruit bats eat? What do birds eat? What did Stellaluna eat when she was with her mom?* Allow time for the children to respond.

Page 20-22
- Provide opportunities for problem solving
- Pass control to the readers

Teacher: *Look at the bats. Bats and birds are different but they still can be friends and family.*

Second Day Reading

Read the story again, but from the computer. Prepare the computer environment ahead of time. Place the keyboard out of the children's view so it won't distract them. Use an external speaker for adjusting the volume of the story. Have a hard copy of the book and the puppets readily accessible at the computer center. Place the monitor at eye level for the children.

Before reading the story from the computer, engage children in a brief and lively discussion about the Stellaluna story. Tell the children they are going to hear the story from the computer today. Load the software program and select, L*et me play* option. Point along with the text as it is being read. Note: Because of the length of the story it may need to be read during two reading sessions.

Title Page
- Discuss the title, author, characters, and theme

Teacher: T*oday we are going to read again the story written by Janell Cannon,* Stellaluna. *Who remembers what kind of animal Stellaluna is?*

Page 2
- Elaborate on the theme
- Relate topic to children experience
- Provide some of the language of the story

Teacher: W*hat do you think happened to Stellaluna's mother?* Allow time for responses. Then click on the oval circle above the text. The computer will show the mother escaped safely from the owl.

Page 3
- Prompt children to predict.

Teacher: W*hat do you think the mother is doing?* Click on the oval circle above the text. Mother is calling for Stellaluna.

Page 4
- Prompt children to predict.

Teacher: W*hat do you think the mother is doing? Shall we see?* Click on the oval circle. Mother is calling for Stellaluna.

Page 5
- Prompt children to predict.

Teacher: *Stellaluna is a bat and is acting like a bird. What did Stellaluna have to do?* (1. hang by feet 2. slept in the nest 3. eat bugs without making faces) *What is the mother doing?*

Page 6
- Prompt children to predict.

Teacher: I*s Stellaluna just like the birds? What is mother doing?* Click on the oval circle.

Page 7
- Prompt children to predict.

Teacher: C*an you see the difference between Stellaluna and the birds? What is mother doing?* Click on the oval circle.

continued on page 11

Stellaluna continued from page 10

Page 8
- Prompt children to predict.
- Provide some of the language.

Teacher: *What is mother doing? What is she calling?* Click on the oval circle.

Page 9
- Prompt children to predict.

Teacher: W*hat will happen to Stellaluna? What is mother doing?* Click on the oval circle.

Page 10
- Prompt children to predict.

Teacher: W*hen Stellaluna behaved like a bird - what did she do? What is mother doing?* Click on the oval circle.

Page 11
- Draw attention to meaning in the picture.

Teacher: W*hen mother bat wrapped her wings around Stellaluna, what was she doing?*

Page 12
- Check children's knowledge of the story.

Teacher: W*hat kind of food does Stellaluna like?*

Page 13
- Draw attention to meaning in the picture.

Teacher: L*ook at the bats and birds. Are the same? Are they different?*

Page 14-15
- Leave opportunities for problem solving.
- Pass control to the readers.

Teacher: *Bats and birds are different but they still can be friends and family.*

After reading the story ask the children : *What does a bat look like? What does a bird look like? Are they the same? Are they different?* Or questions such as: *Can you notice anything different about me? How many people wore tie shoes? How many are wearing white socks? How many children are wearing glasses?*

Reread the book a number of times during the week. Leave the puppets and story in a convenient location (the library corner) for children to enjoy this activity again independently. Allow the children to explore the software program, *Stellaluna*, during center time.

More Literacy Connections

Make a Peek-A-Boo Stellaluna Book. The title could be, *Where is Stellaluna?*

Have the application open *(Stellaluna),* select the desired image, press **Command-Shift-3**. You will hear a "click" similar to the sound a camera makes when it takes a picture. The image captured is saved as a "Picture" onto the desktop. The file will be named as "Picture 1".

The number of graphics you can capture depends on the memory (RAM memory) availability of your computer. The graphic can then be opened in a program that handles graphics such as *ClarisWorks* (Claris Corporation). Once this image is captured and placed into a graphics program, save it as a PICT file. Clean and/or enlarge the image. This will allow you to use this image in several different applications.

Write on the top of a page or use a computer to enter the words, *Where is Stellaluna?* On another piece of paper print the image of Stellaluna with an oval circle around the image. Make enough copies of each paper for all of the children.

On the page with the text, *Where is Stellaluna?* Ask the children to draw an image of where they think Stellaluna is? When the drawing is complete, let the children tape the image of Stellaluna over their drawing. Tape the image so you can lift Stellaluna up and peek under the picture to look at their drawing. Make a front cover. Bind children's pages together for a book. Send the book home on a rotating basis. Attach a note to families saying, *We made this book in class. Please read it with your child and return it to school tomorrow. Thanks!* Then include a check off-list of the children's names.

A HyperStudio Book

Ahead of time

Create a basic template from *HyperStudio* for the book about Stellaluna. Use the graphic image captured from the Peek A Boo book. Once created, this template can be used each year.

Activity
- For the title page, record the class saying, *Where is Stellaluna?* The children can also record, *Turn the page* and *The End.*
- Each child will have two pages to this story. The first page will look like the cover page. Add a sound button over the graphic. Let the child record, *Where is Stellaluna?*. This page will also have a graphic button for *turn the page.*

continued on page 12

Stellaluna continued from page 11

- On the second page, using *HyperStudio* drawing tools, let children draw where they think Stellaluna is.
- Add a sound button over the drawing. Ask the children, *Where do you think Stellaluna is?* Record their stories. Type their responses onto the page. Add a graphic button for *turn the page.*
- Once the stack is created and saved, encourage children to talk about who made the pictures and whose voice is speaking?
- Print a copy of the *Stellaluna HyperStudio* book. Include it in the library section of the classroom.
- This book can also be taken home. Include a message such as: *We made this book on the computer and printed it. Please read it with your child and return it to school tomorrow. Thanks!*

Music and Movement

The music from Stellaluna can be played on the computer or on any home or car audio CD player. Songs include: *Stellaluna's Dance, Lullaby, Upside Down, Bat Pride, Reunion,* and *Friendship.* On the Macintosh computer, place *Stellaluna* into the CD drive. Under the Apple Menu select, Apple CD Audio Player, click the play button. Adjust the volume control under the Control Panel-Monitor/Sound. Play the music while children are drawing for the Stellaluna book.

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Mom Says Technology Made Daughter 'Come Alive'

by Joyce Johanson

Research shows that technology equalizes opportunities for young children with disabilities. I could go on and give you a long string of citations dating back to the early 1980's to support that statement, some from the research that we at Macomb Projects have completed and some from other researchers across the United States. But I won't. All it would prove is that I've done my homework.

Perhaps stronger than any lengthy list of references are the words of a mother whose young daughter, Megan, has a seizure disorder and cerebral palsy that confines her to a wheelchair. Carol, Megan's mom, was asked how using technology had affected Megan's life. She responded that the computer programs made Megan "come alive" and went on to say,

Just having her on the compter made her feel just like the other kids. She would be in with typically developing children and was the most involved in the class. It was a thrill to me and my family to see her at the computer. The other kids would be gathered around. They would be helping her and watching her. She learned to take turns, which is a big thing for Megan.

She is also visually impaired. It was exciting because you could see her eyes light up when she was looking at the screen. We don't know how much she is seeing, but she's seeing something.

[Technology] is helping her come out of her shell...she is socializing with other children. I think that was such an important thing for Megan—to feel she is part of the group. It's just another way for her to communicate because it is so difficult.

It is also carrying over at home. She is communicating with her brother who is 8 years old. He is starting to understand Megan's abilities. Everyday is a new thing for the two of them. He's saying, "Hey, she can talk to me." or "She can play like my friends' brothers and sisters." Even though it is different, he is excited about it. It is great and wonderful.

What more is there to say?

LitTECH Interactive Outreach Hosts Training

Teachers of children ages 3 -8 with disabilities are invited to attend LitTECH replication training on October 26 - 29, 1998 at Western Illinois University. Learn how interactive software and related curriculum activities can help children's literacy development.

University graduate credit hours are available for training participants.

For further information about the October training, or to arrange training at your school, contact Carol Bell, LitTECH Outreach, at 1-888/ LIT-4278 or 309/298-1634. Visit www.mprojects.wiu.edu/littech

Expressive Arts Internet Sites continued from page 8

The center has regularly scheduled activities like "Drawing on Stone: The Art of Lithography" and "Telling Images: Stories in Art."

Inside Art
www.eduweb.com/insideart index.html

Explore a painting from the inside out in this art history mystery game. View beautiful images and learn about concepts such as style, color, subject, composition, brush strokes, and more. For 4th grade and up.

JanBrett's Homepage
www.janbrett.com

This author/illustrator of *The Mitten* and many other wonderful children's books has activity pages and projects related to some of her books. Included is a recipe for making Hedgehog Cookies and making *The Hat* into a play.

Krannert Art Museum
www.art.uiuc.edu/kam/

View different kinds of art from all over the world from American and European paintings to Asian, African, Pre-Columbian, Near Eastern, and 20th Century art.

Masterprints Gallery
www.RAMS.COM/masterprints/

This site contains reproductions of the greatest works of Matisse, Monet, Picasso, Renoir, van Gogh, Degas, Rembrant, and others. Each reproduction lists the art work's title, the artist, the date, and the size of the work. Each can also be enlarged to full screen for a nice "close-up" look.

Metropolitan Museum of ArtForKids
www.metmuseum.org/htmlfile/education/kid.html

In one section called "What is it? The Fun is in the Details" children can choose from four close-up details of famous artist's work and decide what it might be—skin, cloth, or clouds. When one of the above is chosen, more clues are given and more parts of the painting are revealed. Another question asked is what medium the artist used—chalk, oilpaint, or camera. At the end of the game, the full artwork is revealed, along with the artist's name, the name of the work, it's date, size, and media. Included also is a written description of the work and where it can be seen.

The Official Eric Carle Web Site
www.eric-carle.com/

This author/illustrator of *The Very Hungry Caterpillar*, and *Brown Bear, What Do You See?* has a section on his site called "The Caterpillar Exchange: Bulletin Board." This is where teachers and families using Eric Carle's books in creative ways can submit their ideas. Ideas range from using the art processes of Eric Carle to extensions of the subjects in his books.

Web Museum
sunsite.unc.edu/wm/

Take a trip and tour Paris. Stop off at the Louvre Museum to view paintings, and learn about artists and art history.

Supporting Early Literacy Skills with *KidDesk*

by Carol Bell and Joyce Johanson

Placing my jacket on the hook of the coat tree, I take a look around the room and begin to actively make decisions on what the most appealing activity might be to start my day. Pulling out a chair at the computer, I decide this is the best place to start before moving to the resource center for research and then perhaps the kitchen area for a light snack.

After starting the computer, I check the calendar and make some additions. I change the desktop to reflect my mood, leave a voice mail message for a friend, and then send some e-mail messages. While working, friends from other areas drop by to talk, ask questions about my work, and suggest some changes. After sending my e-mail messages, I open the notepad, change my font size, write a letter to a family member, print the letter, and walk over to pop it in my briefcase. Oops! Make that my bookbag.

A bookbag? Yes. And this particular bookbag belonged to a 4-year-old attending an early childhood program. Thanks to the features on *KidDesk*, this child and her classmates were able to use software as a tool for developing literacy skills.

Originally designed and marketed as a child-friendly desktop protection and management program, *KidDesk* has developed into something that offers teachers and children much more. Its many clever and child-appealing features entice children to explore and experiment with tools they see their teachers and parents using. At the same time, they begin to develop literacy skills which can be built upon through other classroom activities.

KidDesk is special because it makes each child special. Each child has differing likes, abilities, and needs. *KidDesk* takes that into account by allowing desktops to be customized for individual children. Sandi's desktop may contain a picture of her dog, while Tasha's has a picture of her mom on it. Todd's desktop has a picture he has drawn and saved. A teacher can also customize the desktop to allow each child access to certain software programs or to set up scanning for a child who needs to use a switch instead of the mouse.

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KidDesk continued from page 13

Desktop Accessories Contribute to Literacy Development

KidDesk's many desktop accessories encourage the development of emergent literacy skills. Children read environmental print when choosing the accessories or software programs on the desktop. They develop concepts of word and story when they

- send e-mail to a classmate,
- communicate with family members by "writing" notes,
- produce calendars, and
- open their own electronic mail and "read" messages sent by classmates.

KidDesk features that support emergent literacy include the picture frame, address card file, phone/voice mail, mailbox/e-mail, note pad, calendar, and the name plate.

The picture frame contains an image that may be a child's photograph, an icon, or a picture drawn by the child. The photograph guides younger children as they manipulate the program. The young user can choose his/her own photograph to access his/her individual desktop and accessories. Icons or images drawn by children can also be represented in the picture frame. Children click on the picture frame and use the drawing tools and a palette of colors to make an image. Drawing is a precursor to emergent writing. Hutinger (1998) suggests that making marks relates to a child's ability to deal with representation and progresses to literacy skills. Over time, the meaning of a mark changes from an experimental scribble, to a house, a person, a mock letter, an identifiable letter, then a word.

Children have been observed using the *KidDesk* address card file to record their name and classmates' names along with special notes written using invented spellings. By encouraging such use, teachers put into practice recommendations from The Committee on the Prevention of Reading Difficulties in Young Children (1998): "Once children learn some letters, they should be encouraged to write them, to use them to begin writing words or parts of words, and to use words to begin writing sentences...Beginning writing with invented spelling can be helpful for developing understanding of the identity and segmentation of speech sounds and sound-spelling relationships."

KidDesk supports a variety of skills which form the basis of literacy, putting into practice research which shows that both oral and written language are best learned when used in purposeful contexts

KidDesk's phone/voice mail accessory can be used to record messages when a microphone is attached to the computer. Voice mail messages can be relayed between friends in a classroom. Oral language is as much a part of early literacy skills as reading and writing and is thought to develop concurrently. By offering children access to communication tools such as those used by adults, *KidDesk* promotes oral language in a purposeful context.

The mailbox/e-mail accessory lets children write and send e-mail messages within the classroom environment. Other children's photographs and names appear when a child prepares (and receives) electronic messages. Children select the photo icon of the intended recipient then, after composing a message, click on a 'send' button to mail the message and—just like any e-mail program, the message is gone! Providing such opportunities for written communication is important as early childhood professionals strive to structure an environment that offers children exposure to literacy-stimulating experiences. The following example portrays the thought, work, and motivation that young children bring to the writing experience. Sitting down at the computer one day, four-year-old Danny selected his icon in *KidDesk* to access his personal desktop. Choosing the e-mail icon, he proceeded to type a letter using "invented spelling." After a few sentences, he clicked the 'send' button, then chose the picture icon representing the classmate he wanted to communicate with. This scenario, although time consuming, was repeated over and over. After each message was sent, a new one had to be typed and sent. At the end of the day, closer inspection indicated that Danny had selected and sent messages to every girl in both the morning and afternoon sessions!

The *KidDesk* notepad accessory offers similar writing experiences. The notepad contains stationary that can be customized with icons, pictures, and photographs. The child's name appears on the stationary, and a child typing a note can select from four different font sizes. A printer icon offers a 'print' choice and an 'erase' or 'unerase' option. Although children use the notepad to communicate with peers, we often see children compose and print a message and then place the note in their bookbags or lockers to give to family members. This type of writing and communication with family members is often seen in classrooms where teachers use the computer for communication between school and home.

Many adults consult a calendar at least once a day. Providing children the same type of tool, *KidDesk* offers

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Book and Video Address Early Childhood and Technology

A new book and video about technology for young children with disabilities are available through PACER Center, Inc.

Kids Included through Technology are Enriched: A Guidebook for Teachers of Young Children provides the rationale for using assistive technology to include young children with special needs in the classroom. This 128-page book with full-color illustrations suggests practical strategies for integrating computers, communication aids, and other devices to help children with disabilities at school and at home. Resource lists as well as reproducible forms and questionnaires will help both parents and professionals choose technology appropriate for children with special needs.

Young Children and Technology, a 14-minute video for parents, early childhood professionals, and others, shows how assistive technology can benefit young children with disabilities. Various devices are demonstrated at homes and in preschool settings. The video also explains how to select technology for special needs and include assistive technology in the IEP or the IFSP. The video, which is closed-captioned, is available for rent or purchase.

To order either product, contact: PACER Center, 4826 Chicago Avenue South, Minneapolis, MN 55417-1098; (612) 827-2966 Voice; (612) 827-7770 TTY. Parents in Greater Minnesota may call toll-free 1 (800) 53PACER.

Video Provides Overview of Literacy Model

The Interactive Technology Literacy Curriculum Model is a brand new videotape available from Macomb Projects. The videotape is a 15 minute overview of our ITLC model which includes information on the three components, the ITLC Curriculum, Technical Assistance to Families, and Technical Assistance to Teachers.

Besides clips of the classroom environment and various literacy activities, footage of curriculum applications using interactive software, such as *Green Eggs and Ham, Pippi,* and *HyperStudio* are shown. Content also addresses the effects of the ITLC model on children, families, and teachers. The videotape is available for rent or purchase. Contact Linda Robinson, Coordinator of ITLC Project, 309-298-1634.

***KidDesk* continued from page 14**

an easy-to-use calendar that can be printed. Clicking the calendar icon takes a child to a screen that offers icon choices for illustrating a calendar and a message box for typing a corresponding message. Some children visit the calendar each day to choose an icon to place on the calendar; others add a few letters of invented spelling, while others begin to type names onto the calendar. Young children have varied reasons for using the calendar. For example, Jennifer diligently searched for the icon of a birthday cake. After finding and choosing the cake, she typed a few words and printed the calendar. As she picked up the calendar from the printer, she looked over at the early childhood teacher and said, "This is for my grandma's birthday."

The name icon found on *KidDesk* is a form of environmental print. Children who do not recognize their names begin to associate the spoken name with the written word. Children who recognize their names but do not know how to spell them have a resource to come back to as they match the letters of their names with the letters of the keyboard. And for all children, the desktop is a personalized desk that belongs to them, a place where each child has the tools he/she needs for personalizing a work area—just as their parents and teachers do.

Advantages of Using *KidDesk*

KidDesk offers versatility to the classroom. First, it offers hard disk protection—something important to the adults responsible for maintaining the computer center in the classroom. Secondly, and most importantly for the children, it offers interesting activities for building emergent literacy skills. By offering children opportunities to draw and write (picture frame, address card file, e-mail, notepad, calendar), to communicate orally (phone/voice mail), to listen (phone/voice mail), and to read (address card file, e-mail, notepad, calendar, name icon), *KidDesk* supports a variety of skills which form the basis of literacy. It also puts into practice research which shows that both oral and written language are best learned when used in purposeful contexts and when children have opportunities to observe and interact with others who write and read (Clay, 1975; Harste, Woodward, & Burke, 1984; Sulzby, 1990).

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Hehir Responds to Questions Regarding IDEA '97, Assistive Technology, and SEA Responsibility

Editor's Note: The Fall 1998 edition of TECHTALK, *the Illinois Assistive Technology Project (ITAP) newsletter contained a letter from Thomas Hehir, Director of the U.S. Department of Education's Office of Special Education Programs. Dr. Hehir was responding to three questions submitted by IATP: (1) What are the specific responsibilites of the state education agencies to assure school district compliance with the assistive technology mandate? (2) Are there minimum standards that state educational agencies must follow when they monitor school districts for compliance in assistive technology? (3) If yes, what are those standards? Pertinent portions of his response are printed below, with permission from IATP.*

Following information about the effective date (July 1, 1998) that the provisions relating to IEPs would take effect, Dr. Hehir pointed out that state education agencies have "...the ultimate responsibility and authority for ensuring that the requirements of Part B of IDEA, including compliance with with education standards of the SEA are met. IDEA '97 §612 (a) (11) (A).

"Under current law, public agencies must ensure that assistive technology devices and/or services are provided for children with disabilities who require such devices and/or services in order to receive a free appropriate public education (FAPE). The IEP team determines what, if any, assistive technology devices and/or services are required in light of the child's educational needs. There are no predetermined lists of assistive technology devices and/or services that relate to specific types of disabilities. The need for a specific assistive technology device/ service must be determined according to the individual needs of the child. IDEA '97 further clarifies these requirements by stating that in developing the child's IEP, the IEP team shall 'consider whether the child requires assistive technology devices and services.' See Section 614 (d) (3) (B) (v) (effective July 1, 1998).

"Thus, under prior and current law, SEAs must ensure that school districts have in place policies and procedures to ensure that a free appropriate public education (FAPE) is made available to all children with disabilities residing in the State mandatory age ranges. This responsibility includes ensuring the provision of assistive technology devices and services where such devices and services are necessary for a child to receive FAPE. Similarly, in monitoring school districts for compliance with Part B, SEAs must develop procedures and standards necessary to ensure that Part B requirements, including the provision of FAPE to all eligible children, are met.

OSEP is in the process of revising its current procedures for monitoring the compliance of SEAs with the requirements of Part B, including the new IEP requirements in IDEA '97..."

George Lucas Foundation Offers Technology Video

Learn & Live is a one-hour documentary video from the George Lucas Educational Foundation. The video, hosted by Robin Williams, focuses on school reform and the role of technology and is accompanied by a 300-page resource book. Blockbuster Video stores carry the copies of the video on their community services shelves. There is no rental charge.

The George Lucas Foundation is making plans to air the film on PBS in 1999.

More information about the film, the George Lucas Foundation, and a newsletter, *Edutopia*, can be found at www.glef.org.

Learn & Live is available for $20. Call 888/4RKIDS1 (888/475-4371) for ordering information.

What You Can Do....

As a result of the information in Dr. Hehir's letter, Donna Hutcheson, Funding Advocate at the Illinois Assistive Technology Project, recommends that parents, advocates, and schools conduct one or more of the following steps:

- Find out if your local school district has any policies or procedures on assistive technology. If none exist, develop a team to develop such policies and make sure parents have representation on the team.
- Make sure the IEP team considers assistive technology as one possible way to address a child's educational needs.
- Share the information in Dr. Hehir's letter with the district's Special Education Director or Assistive Technology Coordinator.
- Share the information in the letter with other parents, advocates, and schools. Parents, make a presentation to your local school board. Schools, send special notices home, etc.
- Notify the State Board of Education of any problems students may have in securing appropriate assistive technology devices or services.

Software Review

Be an Artist!! The Story of Tomie dePaola

by Amy Betz & Judy Potter

A favorite book of the staff of the Expressive Arts Project is *The Art Lesson,* by Tomie dePaola. Now this book has been brought to life on CD-ROM by MECC. A true story about Tomie's first school art experiences, *The Art Lesson* lets children read along with the story and explore different activities using a variety of art media, including crayons, paints, chalks, and numerous sculpting and collage materials.

The story begins with Tommy (Tomie dePaola) knowing that he wanted to be an artist when he was older. He drew all the time at home and his family proudly displayed his pictures in the house and where they worked. Things became different when he went to school. There were bad paint days, limits on paper, and "SCHOOL CRAYONS." An adult viewing the CD-ROM can pick up quite a few pointers on how an early childhood art program *shouldn't* be run. In fact, you might even hear yourself telling children not to tear off the crayon's paper.

Children can have the story read to them, choose an art activity, explore the story and activities, or select a specific page to explore. Text is highlighted phrase by phrase as it is read. Children can also click on a word to hear it being said.

In *The Art Lesson* CD-ROM, children can choose 14 art activities. They include drawing with eight or 16 crayons; painting; mixing paints; and drawing with chalk on the sidewalk, on plasterboard, and on a chalkboard. Colored pencils can be used to draw on paper and on the sheets (something Tommy did). Other activities include a crayon resist drawing, creating a Jack-O-Lantern, making a potato head, and using leaves to create a collage.

The icons in the drawing activities are fairly large and simple, making it easy for young children to use a TouchWindow or mouse to select their tools. Some of the features include an eraser and an undo button (in this case spilt milk). A really cool feature on many of the activities is a QuickTime version of how the picture was created.

One of the most exciting features is QuickTime video of Tomie dePaola. On the last page of the story, if you click on Tomie, he turns into a video, providing children with four video choices of "Tomie's Childhood," "Tomie the Illustrator," "Tomie the Writer," and "Tomie's Life Today." Children can "interview" him, learn about how he gets ideas, what he likes, and how he draws. Tomie also gives a tour of his studio. What fun!

A binder with classroom ideas accompanies the CD-ROM. These ideas are suggested for children in kindergarten through fourth grade. Some activities are better than others. Younger children will certainly enjoy creating their own masterpieces, printing them, and exploring the story. Resources and references are also included in the manual.

The Art Lesson is sure to be a favorite in your classroom. *The Art Lesson* is published by MECC and is available from Educational Resources for $36.95.

On-Line Assistive Technology Resource for Parents

The potential technology has for leveling the playing field for children with disabilities is great; however, before any decisions can be made, information is necessary. Parents can use an assistive technology (AT) resource sponsored by NICHCY. This resource offers several titles to explain AT and its potential:

- *Assistive Technology: A Parent's Perspective*
- *Effective Use of Technology with Young Children*
- *Integrating Technology into a Student's IEP*
- *Starting the Funding Process*
- *Technology: Becoming an Informed Consumer*

Persons interested in seeing the web site can visit www.parentpals.com/5.O newsletter/Newsletter.html, or contact with NICHCY, the sponsoring agency, can be made through e-mail at nichcy@aed.org

If a parent does not have access to the Internet, NICHCY can be reached by writing Box 1492, Washington, DC 20013 or by calling 800/695-0285.

Young Children and the Internet FAQs

In the Spring 1998 issue of *ACTTive Technology*, we shared questions asked by families and teachers of children involved in TEChPLACEs, a project involving teachers and children in four classrooms—a pre-k, two kindergartens, and a first grade—in four west central Illinois communities. As the children corresponded with children in other classrooms via e-mail, helped in the development of Web pages, and contributed to the construction of "Our Community" on the web site, their curiosity and need to know produced many questions. In response to those questions, we detailed the strategies the teachers used to make e-mail and the Internet part of the daily routine in their classrooms. What follows are more Internet FAQs from early childhood classrooms.

1. Doesn't e-mail in the classroom and use of the Internet interfere with established curriculum?

In a word, the answer is No. Even though it might seem likely that using e-mail and the Internet might be invasive, quite the opposite is true. In one class, sending and receiving e-mail supports an interactive method for discussing the parts of a letter and writing a letter. By using a large monitor (either a large computer monitor or a television monitor connected to the computer) all children will have the opportunity to see and participate. The form and structure of incoming e-mail can also be reviewed and examined, and the resulting discussions might target absence of some letter components, the various greetings and salutations used, and the inclusion of unusual "emoticons" such as :-) and ;o) and :-(in the letter.

Using the Internet has brought a world of resources right into the classroom. From zoos to Winnie the Pooh, web sites have been explored that support a child's curiosity and enhance the curriculum. As class members pose questions, the entire class has the opportunity to engage in research and become actively involved in the process of acquiring an answer.

2. How do you LET children send e-mail?

At first glance it seems unlikely that young children could author and send their own e-mail messages. The reality is that indeed, young children can successfully send e-mail messages with little real help from an adult. For three and some four year old children it may be necessary for the teacher or some other adult to type the message for the child. We received messages from those children in the exact words they used and know the teacher had to struggle to not "fix" what was dictated as she typed.

To facilitate their own efforts, an address book could be prepared (there should be one in the browser application [Netscape Communicator or Internet Explorer] used to access the Internet) that contains addresses for other classrooms and their family members. By trial and error and with a little encouragement, children will soon learn the process used to send e-mail. It is interesting to be on the receiving end of early messages, the ones that may challenge a person's interpretive skills, and then receive later messages from the same children that show some impressive changes.

3. How do I make the words in a letter bigger?

The default settings for font size in word processors is 12 point and the same is true for most e-mail options found in Internet browser applications. While 12 point is fine for printed text it is rarely suitable for viewing by a group on a computer monitor. To enlarge the size of the text, highlight the contents of the letter and then select a larger font size; 18 is good but 24 is better. What really works best is to form some sort of agreement with regular correspondents. Promise to send all messages to them in 24 point and ask them to do the same for you. If, by chance, you forget to use 24 point, don't be surprised if you receive a message reminding you of the agreement to use a larger type.

Text, in dark, bright colors, makes any message more exciting to read and possibly more likely to be remembered. That becomes very clear when a message becomes known by its color. (You know which one Mrs. C, the message you sent that was purple.)

If these FAQs arouse your curiosity about the TEChPLACEs web site, visit us at www.techplaces.wiu.edu. If you missed the Spring 1998 issue of *ACTTive Technology* and are interested in the first set of FAQs, you can find those at www.mprojects.wiu.edu. Once you reach the web site, click on TEChPLACEs to find the FAQs.

Software Review

Popular Fables in ASL

by Dawn Hughes

Aesop in ASL: Four Fables Told in American Sign Language(CD-ROM) features four Aesop fables in American Sign Language (ASL). The four fables include *The Tortoise and the Hare*, *The Milkmaid and Her Pail*, *The Fox and the Grapes*, and *The Lion and the Mouse*. At the end of each story, five activities enable the user to improve his/her skills in using pronouns, sequencing, reading comprehension, synonyms (English and ASL), and vocabulary.

This software package can serve a dual purpose. It can be used in the regular classroom as well as with students with hearing impairments that are familiar with ASL. The words are highlighted in phrases, not individually. However, the highlighting reinforces the concept of reading from left to right.

The pronoun activity allows the user to fill in the blank with the missing word using the printed word or a picture of that word. The vocabulary activity is totally ASL. The reading comprehension activity asks simple questions of the user. Only one question is about the moral of the story. Since the fables are retold in a simple manner, this software package could be used for grades K-3. However, the story activities require a higher level of reading and comprehension than the reading passages do.

Aesop in ASL: Four Fables Told in American Sign Language is published by the Texas School for the Deaf, P.O. Box 3538, Austin, TX 78764; 512/462-5353. The program can be purchased through Educational Resources for $69.95.

Breakfast Training **continued from page 3**

its content and begin to brainstorm ways of integrating the software into the curriculum. During discussion, participants take notes on a special curriculum integration form distributed by the Tech Team.

Lydia Okrant, Coordinator of the Tech Team, explains, "[at the end of the meeting] all creative ideas generated about the software are collected and categorized [by the Tech Team] according to learning areas: dramatic play, art, literacy, science, and so on. A write-up is then distributed to all which includes the collected ideas and basic information on that software program."

The Curriculum Breakfasts may have begun as a last resort for bringing teachers, staff, and therapists together for technology training, but its benefits have gone beyond that. The teachers, support staff, and therapists have formed a community that is comfortable sharing ideas and information and relying on each other and the Tech Team for technical support. Not only have participants become more comfortable using technology, they have also gained skills and confidence about integrating it into the classroom curriculum. Children, as well as the participants, have benefitted from a simple solution to the "when-do-we-find-time-to-get-everyone-together-for training" problem.

Copies of *Accessing Assistive Technology*, written by Protection and Advocacy, Inc., are available free of charge to parents. Call 800/776-5746.

Calendar of Conferences

October 5, 1998: Conducting Assistive Technology Assessments in Austin, TX. Contact Technology and Inclusion, 512/280-7235.

October 22 - 24, 1998: Closing the Gap in Henderson, MN. Contact 507/248-3294.

January 21 - 23, 1999: TAM 99/ACCESS NOW: Technology for People with Special Needs in Portland, OR. Contact Gayl Bowser, 541/440-4791.

February 22-24, 1999: Midwest Education and Technology Conference in St. Louis, MO. Contact 800/835-8282.

Playskool Puzzles **continued from page 5**

- Design a puzzle using *Playskool Puzzles* or *Kid Pix Studio*. Children can draw their own scenes or make adaptations to already created puzzles. Print the pictures. Glue them to the back of a file folder or other heavy paper. Children can cut up the pieces.
- Make a quilt. Each child can create a square using cloth scraps and other sewing materials. The class can work together to sew the pieces of the quilt together.

Summary

Given opportunities to explore in *Playskool Puzzles*, children may take what they learn and apply it to other areas in the room. From sewing with a needle to sawing with a saw, children can explore the real tools from the program in the classroom. After using the software, children who don't normally use puzzles in the manipulative center might begin to investigate puzzles off the computer.

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When Young Children Use the Internet: A Report of Benefits for Families, Children, and Teachers

by Letha Clark

In the Beginning...

In October 1997, four teachers and the children in their classrooms—one early childhood, two kindergartens, and one first grade—joined in a project that was a cooperative effort with Macomb Projects. The project, TEChPLACEs (an acronym for **T**echnology in **E**arly **Ch**ildhood **P**lanning and **L**earning **A**bout **C**ommunity **E**nvironments) focuses on the development of an Internet site for children that is largely the product of children. As a condition for participation in the project, each site was connected to the Internet and had e-mail capabilities providing opportunities for the children to send and receive e-mail.

The Internet site was designed in two parts. The first part, "All About Us," consists of web pages created and developed by the children and teachers in each of the classrooms. This site serves to introduce each group to the others through images, sound, and video of everyday occurrances and special events. The second part of the web site is "Our Community" and is accessed by way of an intranet between the four schools and Macomb Projects. The community is developed with child-crafted constructions representing businesses (like a vet's office) and places (like the post office) that the children in the classrooms consider important in a community. Each of the buildings and places are created and named by children and contain activities that correspond to that business or site.

When the project began, the teachers were slightly overwhelmed yet still willing to tackle the challenges. They were excited by the possibilities while being intimidated by the overall scope of the project. However, they embarked with enthusiasm on a project that asked them to explore and become familiar with the Internet and the use of e-mail and share that information with the children in their classroom. Of necessity, teachers had to learn a new language (the jargon of the Internet) and help the children in their classrooms become fluent in that language. They worked with their children to plan and develop their own web pages for the "All About Us" section of the Internet site. They became familiar with and used software to prepare and upload those web pages. They realized the importance and necessity of using new and unfamiliar technologies to capture and prepare images for classroom web pages. During this entire time, teachers also maintained journals documenting the processes they went through to develop their web pages. A review of those journals demonstrates that being involved in the project resulted in some unexpected outcomes for families, children, and teachers.

Families

One kindergarten was a half day program with more than 20 children in each class. The teacher was determined to involve both groups in the project because of the interest and involvement of the children and their parents. For her group, as well as in the other classrooms, the project became an important mechanism to strengthen the home-to-school connection. Children in all of the classrooms received e-mail messages from parents and families, some addressed to individual children and others addressed to the group. Messages contained information about parents' workplaces, bringing a new level of awareness to children about various careers. Some messages asked questions such as "How many children have pets at home?" which frequently resulted in an activity in which the children estimated the group's response and then graphed each child's actual response. Each classroom received "problems" of some type from parents or family members that needed solving. The result was an effort that engaged the children in the dynamics of solving a problem as a group.

While some children in each of the classrooms have computers at home, many do not. Even though several families had computers in the home, they did not necessarily have access to the Internet. The teachers have made the classroom computers available and provided time for parents to "check out" the Internet, experience the vastness and explore the possibilities it holds. Such experiences were the first opportunity for some parents to use a computer. For others it was their first chance to send e-mail messages. Some parents saw the value and importance of pur-

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From The Editors. . .

by Linda Robinson

In the past few months it seems that many people have been questionning the role of technology in the education of young children. The increased use of the Internet in the classrooms has some skeptics worried about the effects on all school-age children, and especially on the youngest ones. Why is it that when something new is introduced there are so many cautious people who are so vocal about anything negative they discover? And then there are other people, such as those at Macomb Projects, who are ever so eager and ready to try this new technology with young children and families.

If you have read the negative press, then you are in for a refreshing new perspective as you read about TEChPLACEs, our project which integrates the Internet into the preschool curriculum. Not only do these young children send e-mail between classrooms, they make the decisions about how their web page will look. If you think about all the skills it takes for you to use the Internet and to send e-mail, and all of the wonderful things you can learn each time you use it, then imagine how these children are benefitting. If you still aren't convinced that there is a very big positive side to all of this, then you are probably picturing the same type of classrooms as those who have written the negative articles on the subject. Think of all the people who did not think preschoolers could use a mouse, and now they are creating web pages!! And the best part of it is that they are learning about their community and communicating with others in the process.

It really comes down to one thing - HOW you use the technology. Just having it available in the classroom will not reap the same benefits as using it the way the TEChPLACEs teachers, children, and families have. It goes back to "integration," that term that is used so often in conjunction with computers and education. I know people are probably tired of hearing this term, but it must be revisited as we now talk about the Internet in education. Those observers who see the negative side of Internet use are not observing classrooms in which the Internet has been truly integrated into the curriculum. The only way that children at any age will see this technology as an educational tool is if teachers plan for its use in a variety of subject areas. TEChPLACEs' focus on community environments is just one example. Hopefully this will serve as a springboard for your own ideas on using the Internet in your classroom.

Of course we are not blind to the questionnable material that can be accessed through the Internet. We have addressed ways to deal with children's independent use and browsing here also. Instead of restricting Internet use we advocate setting up the computer so that children only have access to parts that you want them to use. In other words you can limit their choices so that they can still be independent.

As you read other articles in this issue, such as the *Amazing Animals* curriculum activity, think of ways that the Internet might be used to enhance children's learning. The animals unit is an excellent example since there are many web sites which center around children's museums and zoos. Children can visit the animals without leaving the classroom!

One tip if you are a "newbie" to the Internet—first become comfortable using it for yourself. It is a wonderful resource on any subject imaginable. Search for information related to a favorite hobby or a professional question you may have. Search for sites on "integration." Look at your own local sites, such as your city's or school's web pages. Needless to say, the examples can go on and on. The bottom line is become an Internet user yourself, then you will understand the possibilities it offers for children. If you are already using the Internet in your classroom, we would be interested in hearing your integration ideas. Visit us at www.mprojects.wiu.edu and let us know your impressions or ideas.

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When Young Children Use the Internet continued from page 1

chasing technology to extend the opportunities for learning into the home.

Children

The children participating in the project increased their level of communication and also demonstrated gains in language development. These occurrences were not surprising, but what was amazing was the children's acquisition of a "second language." Children of all ages and in every classroom became fluent in the vocabulary associated with technology, development of web pages, and surfing the Internet. They demonstrated their fluency in both the spoken and printed word. Two groups of children "flaunted" their expertise in their communications with school administrators. One administrator was impressed with the correct use of terminology and he positively commented about those children's future potential. He mentioned his awareness of the way the children had included their families and members of their school community in their active involvement with TEChPLACEs.

All classrooms seem to have some children who are more comfortable as "watchers" and others who are better suited to the active role of "doers." The children in the classrooms involved in the project were no exception. The teachers reported incidents where children stepped out of the watcher role and into the doer role. These children had spent weeks observing others sending e-mail and navigating the TEChPLACEs web site. The teachers were amazed to observe the watchers' confidence in their abilities as they sat down in front of the computers, navigated through their web site, prepared e-mail messages (complete with the address of the recipient), and sent those messages with little or no assistance.

Interestingly, the older children involved in the project realized that some of the children in the other classrooms were younger and "don't know as much as we do." As a group, they discussed the differences between what they could do and what the preschoolers could do, and they decided that the e-mail messages to the youngest children should be uncomplicated and short. They intentionally phrased their e-mail messages in a way they thought appropriate for the preschoolers.

The teachers were amazed to observe the watchers' confidence in their abilities as they sat down in front of the computers, navigated through their web site, prepared e-mail messages (complete with the address of the recipient), and sent those messages with little or no assistance.

In each of the four classrooms, the children have been involved in the development of their web pages. They have discussed the background, color and font for the text, content for each page, connections between pages, and any sites to which they might be linked. The children put a significant amount of time and effort into the planning process and have included images and information they find meaningful. It follows then, that they like what they did and do not tire of reviewing the results, returning again and again to view their web pages and make suggestions for changes and additions. Having been involved in the process, they are extremely proud of the product. Each teacher has shared, at one time or another, how the children in her class decided that they wanted to "meet" the children from the other classrooms. As a result, they have become acquainted as they navigated through the web site and explored the pages the other groups produced. Of course, the children returned to the safety of their own pages, but it was with greater frequency that they became curious about the activities of the other children.

Before TEChPLACEs was introduced, the children in the four classrooms were familiar with computers and the software in their library. Even though this was true, changed attitudes among the children when using technology have emerged. Teachers attribute the changes to the children's involvement with TEChPLACEs.

The teachers saw children more involved in the process of negotiating. Instances where the children reached a consensus outnumbered the occasions when a child made demands. They saw more cooperation within groups of five or more children, both at the computer and in activities away from the computer. They also thought that the incorporation of TEChPLACEs into the curriculum helped many of the children self-regulate their computer use. As the different classes of children made determinations about their web site, they developed a democratic procedure for making decisions that affected their group. This behavior has spread to other areas in the classroom, and now a large percentage of the classroom decisions reflect a majority vote.

Teachers

When the teachers were first contacted to participate in the TEChPLACEs project and their level of knowledge and degree of comfort using technology was discussed, it was learned that within that small group of four individuals, some thought their

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Broadcast Focus: Literacy, HyperStudio, Internet

Children as Storytellers to the World: HyperStudio, Literacy & the Internet will be presented via satellite on Thursday, December 17, 1998. The program is presented by Illinois STARNET Regions I & III and features Letha Clark and Carol Bell, two Macomb Projects' staff members who train teachers and families to use technology with young children with disabilities.

Clark and Bell will present an overview of *HyperStudio* techniques, demonstrate how the techniques can be adapted to individual classroom or student needs, and explain how an interactive story created with *HyperStudio* can be published on the World Wide Web.

Bell is currently the training facilitator and content specialist for LitTECH Interactive, an outreach project that integrates computers, adaptive devices, interactive software, and literacy. Clark currently coordinates the TECh-PLACEs project, which is developing an interactive community on the Internet.

Persons wishing to receive a packet of materials related to the broadcast should register for the program. Registration information includes name, mailing address, agency, day phone number, and location of viewing site. Mail registrations to STARNET, 27 Horrabin Hall, WIU, Macomb, IL 61455 or fax them to STARNET, 309/298-2305.

Children as Storytellers to the World: HyperStudio, Literacy & the Internet will be aired from 4:30 to 5:30 central time at any site that has C, KU, or dual band capabilities or from a home satellite system that has capabilities to receive C or KU band. For information about a downlink site near you, call STARNET at 800/227-7537 or 308/298-1634. Coordinates are GE3 Transponder 19, D/L FREQ 12080, Polarity (H), Audio 6.2/6.8, CH B.

Hearing Disabilities is Focus of Videotape

An open-captioned videotape addressing early intervention programming for families of children with hearing disabilities is now available for use by parents, educators, physicians, and social service agencies through Rochester Institute of Technology's Campus Connections Bookstore. The videotape highlights four families and their parenting and communication styles. Videotapes are available in either English or Spanish captions and sell for $14.95 plus shipping.

Contact 716/475-2504 for purchase information.

Facts, Features, Fun Packaged in *Amazing Animals*

Lions and tigers and lizards, oh my! Find lions, tigers, lizards, and other animals in Dorling Kindersley's *Amazing Animals*. If you are investigating animals or planning a trip to a farm, veterinary clinic, or zoo, check out this software program which is full of interesting facts, activities, and QuickTime video of animals and their babies.

The main menu of the program is a collage of menu items and symbols of the activities. Click once to zoom into a corner of the collage, move the mouse to the side of the screen, click and move to more menu choices. When the arrow turns to a magnifying glass, click to make a choice.

A wide array of activities include Scrambler, Match the Facts, Photo Safari, Amazing Masks, Animal Movies, Matching Pairs, Pixaltor, Copy Cat, and Stationary Folder. From printing animal masks for dramatic production to matching baby animals with a parent, children will find well-known domestic animals and not-so-familiar wild animals that will support learning.

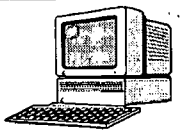
If your classroom is Internet savvy, a direct link in the menu will take young children to DK's Amazing Animals web site where they can find more information and activities.

Amazing Animals is published by DK Multimedia. The minimum system requirements (Macintosh) include a Macintosh processor 68LC040, 25 MHz, System 7.0, 8 Mb of RAM (12 RAM for PowerPC), a double-speed CD-ROM drive, a color monitor (256 colors), 4 MB of hard drive space, and 8-bit audio.

Requirements for PC include a PC computer, 486DX 33 Mhz, Windows 3.1 or 95, 8 Mb of RAM (12 Mb for Windows 95), a double-speed CD-ROM drive, a color monitor (256 colors), 11 MB of hard disk space, and an 8-bit sound card.

Speakers and microphone are optional.

Access First features the following resource book in its catalog:
Special Needs Reading List (1998) by Wilma Sweeney is a paperback, 300-page annotated guide to publications (books, journals, newsletters) for parents and professionals. The book sells for $18.95. Call 888/606-6769.



Curriculum ACTTivities

Editor's Note: The following curriculum activity is taken from *eMERGing Literacy and Technology: Working Together*, the new interactive technology and literacy curriculum developed at Macomb Projects.

Explore Animals and Habitats with *Amazing Animals*

Introduction:
Animals appeal to young children, and most children are familiar with pets and some farm animals. Beginning this animal unit with pets and ending with farm animals helps teachers and children to explore many animal habitats that are familiar. Children have fun learning about a variety of environments in which animals live.

Materials:
- Computer, Printer, Scanner (optional)
- *Amazing Animals* software program (DK Multimedia)
- Display books about animals in a variety of habitats and environments

Introductory Activity:
- Read a farm story that contains pictures depicting farm buildings, machinery, fences, and animals in their habitats. Ask children what animals live on a farm. Then ask what animals live in the barn, outside the barn in fences, and out in the meadow.
- Draw on children's prior knowledge about farm animals. Before children arrive, place a large piece of paper on the chalkboard to draw on. Create a picture from the children's descriptions of the farm. Ask the children what a farm looks like.
- Brainstorm with the children kinds of places other animals live such as woods, jungle, pond, ocean, desert, Africa, and arctic tundra. Spend one to three days of classtime on several of the above mentioned habitats. The children will come up with more and more habitats that are different from the ones already explored. Keep a list of children's responses and post in the circle time area.

Computer Activity:
- Children can view and interact with *Amazing Animals* freely during center time, individually, or in small groups. Questions to ask as children use the program might be: *What animal is this? Tell me about where it lives. What other animals live there?*
- Print puzzles from *Playskool Puzzles* that have animals and their habitats. Or print animal pictures from *Amazing Animals*. Glue the puzzle or picture to cardboard and cut into pieces. Place this activity in the table toy center or use as a take home, check-out item.
- For a large group activity, watch one of the animal movies found in *Amazing Animals*. Use the animal movies for introducing new habitats.
- For a small group activity, use the Scrambler and/or Matching the Facts games. Children can work together to complete the games.

Extended Activity:
- Create T-shirts to wear on the zoo field trip or pillowcases for home that have been decorated with an iron-on transfer of the animal a child wishes to see at the zoo (or favorite one they saw if the activity is done after the field trip). To make the transfer, children can draw their animal in *KidPix Studio*, at the art center, or make a three dimensional creation in

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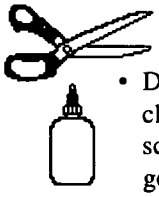
CURRICULUM INTEGRATION IDEAS

ART

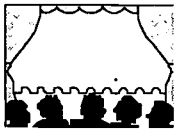
- Create animals and/or habitats. Provide the following materials: paper towel/tissue tubes, yarn, pipe cleaners, crayons, markers, paints, sequins, bits of fabric, play dough, and tissue paper pieces along with glue and scissors.
- Provide animal stamps, a variety of colored stamp pads, and paper for children to make pictures.
- Use a variety of tree and bush leaves to make leaf prints (jungle and woods habitats). These can be made in the following ways: 1) brush a light coat of paint on one side of a leaf and press that side to paper; 2) solar print with solar paper and sunshine; 3) use fresh, green leaves and place them between two pieces of white cloth on a hard surface then hammer on top of the leaf to cause a print from the stain made by the smashed leaf.
- Make crayon resist paintings of pond and ocean habitats. Use crayons to draw an underwater scene. Paint over the top of the whole page with blue watercolor.



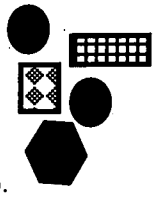
CONSTRUCTION

- Design and build a birdhouse. Use real child-sized tools (saw, hammer, nails, or screws) and wood pieces. Provide safety goggles.
- Build bird feeders using 2-liter pop bottles or milk jugs.
- Construct trees for the block area using paper towel/tissue tubes and assorted collage materials.
- Print animal masks from *Amazing Animals*. Children can cut out and assemble.

DRAMATIC PLAY



- Provide props for creating animal home environments such as a pet store, zoo, pond, or woods. Items can be made in the construction area.
- Supply animal puppets and make a stage from an appliance box. Make different backdrops to represent a variety of animal habitats. These can be made from old sheets or mural paper.
- Place animal masks in this area. Masks can be found in the program or created from paper bags and collage materials. Make tails from scrap materials and elastic pieces. Use fur cloth scraps for creating other props.



BLOCKS/MANIPULATIVES

- Provide a variety of toy animals and blocks for building animals' homes like the zoo or pet shop. Add different materials as the different habitats are introduced. For example: plastic aquarium plants and shells for the ocean; plants, rocks, and logs for the pond; tall trees for the jungle or woods (made in the construction area).
- Provide puzzles with animals and their habitats.
- Make an animal matching game and animal lotto activity and have available for children to play. Use either exact animal matches, animals and their babies, or animals and their homes.
- Provide pattern blocks for children to design animal shapes.

COOKING/SNACKS

- Eat animal crackers for snack. Look for the traditional and the new ocean animal crackers. Give each child a box; children can sort the animals before eating. Leftovers can be taken home.
- Make blue jello and put it in a clear cup for each child. When the jello is partially set, add the fruit snacks which come in ocean shapes (sharks, fish, diver, and treasure chest). Place in the refrigerator until done. Eat for snack! Children can help make jello and add the fruit pieces.
- Serve fish-shaped crackers (Pepperidge Farm) in a variety of flavors.
- Make deer crackers. Give each child 2 circular crackers, 2 mini pretzels, 2 raisins, and a maraschino cherry. Provide a can or two of squeeze cheese to pass around. Squeeze cheese on a cracker and press 2 pretzels into the cheese at the top. Place the second cracker on top and use cheese to glue down the raisin eyes and cherry nose.

EXTENSIONS BEYOND THE CLASSROOM

- Take a field trip to a nearby zoo, petting farm, or wildlife park.
- Visit a local pet store.
- Visit a local farm and/or dairy.
- Invite a farmer to visit the school and bring some of his animals.
- Visit Ag Day at a nearby high school where students bring their livestock for judging.
- Display a pet shop in the hallway. Each child makes the animal he/she wishes to have as a pet or just an animal to be in the pet shop. Invite other classrooms to visit the shop and get to know the animals.
- Use a globe to locate animal habitats. Mark locations with drawings and printouts of animals.

FAMILY CONNECTIONS

- Invite parent volunteers to help children print iron-on transfers and transfer images to t-shirts or pillowcases.
- Ask parents to attend the zoo field trip with their children.
- Have a Mask-Making Night for families. Families and children can work together to create animal masks. The animal masks can be produced from *Amazing Animals* or created from collage materials and paper bags.
- Invite families to bring pets to share with the class. Children can talk about what their pet eats, where it sleeps, and how they care for their pet.

GROUP/INDIVIDUAL STORY EXPERIENCES

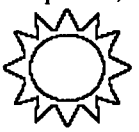
- Act out *Jump, Frog, Jump!* or *Goldilocks and the Three Bears*. An adult or friend can tell the story.
- Teach children the fingerplay, "Five Little Monkeys Swinging in the Tree." Provide props, five monkeys and a tree, for further retelling.
- Read *Polar Bear, Polar Bear, What Do You Hear?* Children can make their own *HyperStudio* stack of the animals they might hear. Children create the title of their stack. Each child draws a picture of an animal and tells what they might hear. For example: Bill, Bill, What do you hear? Bill says, "I hear a hippo hipping at me." Add children's words, sounds, and pictures to the stack.

LITERACY LINKS

- Label the pet shop display with a shop name, kind of animal each chose to make for the store, or which animal they really have as a pet.
- Chart what children think they will see at the zoo.
- Make a chart after the zoo trip of children's favorite animal or thing at the zoo.
- Create a class book or individual books about different animals, animal home environments, and/or pets. Children can draw pictures and dictate or write their words.
- Create a word box for use in the writing area. Children choose a word related to animals and their environments such as pond, woods, forest, farm, tundra, ocean, jungle, or desert. The children can look the word up in *My First Incredible Amazing Dictionary* and print entry then glue the illustration on a 4x6 card. Print the word that the picture depicts. Also, children can choose words of favorite animals and animals that live in a particular environment. Children may want to create their own pictures on the 4x6 cards to add to the word box. Ask the children to print the word that describes their picture or ask for help from an adult.
- Display printed entries of environments (works and pictures) from *My First Incredible Amazing Dictionary*.
- Make a book from information gathered in *My First Incredible Amazing Dictionary*. Children can print entries of animals and their habitats and bind them together into a take home book.
- Provide *Your Big Backyard* magazine as a resource in the library area. This publication for children is full of poems, activities, photographs of animals in their natural environments, as well as factual information.

MUSIC AND MOVEMENT

- Listen to Shari Lewis: Lamb Chop's "Sing-Along, Play-Along" CD. Set up the player for children to listen and play along with the CD in the music center.
- Provide Raffi's "Singable Songs for the Very Young" in the music center.
- Sing and move to the Hokey Pokey. Children can choose an animal and its body parts.
- Add an animal the children pick that fits today's environment in the song "There Were Ten in the Bed." The children can act out the song as they fill in their animal.
- Sing "I Had a Rooster." Provide instruments to play along with the children's singing.
- Use instruments to keep the beat to the "Crocodile Beat" story.



OUTDOOR PLAY/MOTOR

- Play 'Duck, Duck, Goose,' but substitute animals from a targeted environment. For example: Fish, Fish, Shark or Tadpole, Tadpole, Frog.
- Use animal actions while playing 'Simon Says.'
- Take a tape player outside and play "Walk Like the Animals." Children can do the animal movement activities. This will also work in a large motor area.

RELATED BOOKS, POEMS, STORIES

- *Amazing Animal Disguises* (Sowler, S.)
- *Animal Tracks* (Dorros, A.)
- *Animals at the Zoo* (Greydanus, R.)
- *Animals Born Alive and Well* (Heller, R.)
- *Counting Penguins* (Chessen, B. & Chanko, P.)
- *Crocodile Beat* (Jorgensen, G.)
- *Dolphin's First Day* (Zoehfeld, K.)
- *Emma's Pet* (McPhail, D.)

continued on page 8

Curriculum Integration Ideas continued from pages 6 and 7

RELATED BOOKS, POEMS, STORIES

- *Fish Eyes* (Ehlert, L.)
- *Franklin Wants a Pet* (Bourgeois, P.)
- *Grover's Adventure Under the Sea* (Cooke, T.)
- *Have You Seen My Duckling?* (Tafuri, N.)
- *Ice Cream Bear* (Alborough, J.)
- *In the Woods* (Cristini, E. & Puricelli, L.)
- *Inside a Barn in the Country* (Capucilli, A.)
- *Is Your Mama a Lama?* (Kellogg, S.)
- *Owl Babies* (Waddell, M.)
- *Squirrels* (Wildsmith, B.)
- The Farm Book (Pfloog, J.)
- *The Very Busy Spider* (Carle, E.)
- *The Zoo Book* (Pfloog, J.)
- *Who Lives Here?* (Barlowe, D.)
- *Wild Animal Babies* (Fulton, J.)

RELATED SOFTWARE

- *KidPix Studio*
- *Let's Explore the Farm with Buzzy*
- *Let's Explore the Jungle with Buzzy*
- *My First Incredible Amazing Dictionary*
- *Playskool Puzzles*
- *Stellaluna*
- *The Backyard*

RELATED WEB SITES

- Amazing Animals: www.disney.com/disneychannel/amazinganimals
- Discovery Channel-Animal Cams: www.discovery.com/cams/cams.html
- Lincoln Park Zoo: www.lpzoo.com/menu.html
- Los Angeles Zoo: www.cerf.net/lazoo/animals.html
- Smithsonian Institute National Zoological Park: www.si.edu/natzoo/

SCIENCE/MATH

- Bring in pond water (and plants) with tadpoles in it. Place in a glass container. Observe the life cycle of a frog.
- Place a collection of shells in the discovery area for sorting. Count how many are smooth, rough, white, have stripes, and so on.
- Make a graph of the children's pets and/or their favorite animals.
- Graph the different animals in a box of animal crackers.
- Print different environments (pond, forest, ocean) from *My First Incredible Amazing Dictionary* for an animal sorting activity. Have animal photos/cards/plastic figures available to place in the environment they are found in.

SENSORY

- Make an animal sack or 'feely' box. Cut openings in the box for hands. Place a curtain over the opening so children cannot see the hidden item. Children try to guess what animal is hiding in the box or sack by feel. Ask children to verbalize the attributes they are discovering such as it's long, short, bumpy, smooth, has legs, and/or no legs and then try to guess the animal.
- Fill the sensory table with water to make an ocean or pond. Add rocks and plants. Provide toy fish, frogs, turtles, and dirt for a pond environment. Provide sea shells, sand, toy sharks, whales, starfish, and more for an ocean habitat.
- Add ice cubes in the ocean environment to create icebergs.
- Fill the sensory table with sand to simulate a desert environment. Add toy lizards, spiders, prairie dogs, and other desert creatures. Put artificial cactus plants in the table and rocks.

Amazing Animals continued from page 5

another center. If drawn in the art center, the animal picture can be scanned. If it is a three-dimensional creation, take a photograph of the animal and scan it or use a digital camera. Be sure to type in the child's words about this special animal.

- Hide an animal in a box for "20 Questions Game." Let each child ask a Yes or No question about the animal. Review the answers; then children can guess the animal. The teacher might want to model how to ask questions that give clues. This will take some practice; at first children will want to just guess the animals.
- Play "I Went to the Pet Shop" game. One person starts by stating "I went to the pet shop, and at the pet shop I bought (or saw) _____." The next person restates what person #1 bought and adds a new animal. For example, "I went to the pet shop, and I bought a puppy (person #1's animal) and _____."

Summary:
Amazing Animals offers a variety of ways for children to explore different animals and their habitats that are fun, exciting, and challenging.

A Portfolio Book Created with HyperStudio

by Carol Schneider

A portfolio is a purposeful collection of a child's work showing the child's efforts, products, and growth over time. In addition to providing a means for tracking children's accomplishments which can be used for a summary evaluation (Hartman, 1995), portfolios have several functions (Gandini, 1997):

- to make parents aware of their children's school experience;
- to maintain parent involvement;
- to allow teachers to understand children better and to evaluate the teachers' own work;
- to facilitate communications and exchange of ideas among educators;
- to make children aware that their efforts are valued;
- to create a document that traces the history of a child's school year(s);
- to provide examples of the child's enjoyment of learning.

Early childhood staff, support staff, and families can maintain ongoing records of the amount of time activities are used by children and the nature of the activity. Records on family participation and satisfaction can be collected. Emerging symbols of writing that often accompany children's drawings can be analyzed (Dyson, 1986; Barclay, 1990; Jalongo, 1992) and collected for the portfolio.

Since the early 1980's, technology has become a powerful tool for children and educators (Hutinger, 1998). Technology can be used to document accomplishments in the classroom or create technology portfolios for the children. The computer and other hardware devices can effectively assist the teacher as s/he gathers children's work for a creative technology portfolio book. An article in a previous issue of *ACTTive Technology* described an effective way to use KidPix to create a child's portfolio (Potter, 1997). *HyperStudio* can also be used to create a child or classroom portfolio.

A Portfolio Book Created with HyperStudio

HyperStudio, an authoring program from Roger Wagner Publishing Inc., allows the user to construct software without any computer programming knowledge. (Nevertheless, basic computer knowledge is required to operate this program.) Creating programs in *HyperStudio* is fun. Each *HyperStudio* file is created with stacks. Stacks are *HyperStudio* files that contain one or more cards. A card is a screen (or page) within the stack. Cards contain buttons, graphics, sounds, or other multimedia elements such as video.

One of the first steps for the portfolios is to create a *HyperStudio* template. Plan and organize a number of pages for the book which will be saved as a *HyperStudio* stack. Consider the background, graphics, and actions for each page. The size of the portfolio is based on the storage availability of the computer system—external or internal ROM or the type of storage disk (e.g., Zip, 3.5" disk). Sixteen pages are an ample size for the portfolio. Once created, the template can be used for each child in the classroom.

The second step includes planning and collecting items for the portfolio contents:

- Create a disk for each child's data. Use a QuickCam or digital camera to take the child's picture then print the photo on label paper. Label the disk with the child's photo and name.
- Photograph each child periodically throughout the school year using a QuickCam, digital camera, or a 35

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Macomb Projects Announces Science, Math, Social Studies Project

ECCSPLORe-IT (Early Childhood Curriculum Support: Predicting, Listening, Observing, and Recording—Integrating Technology) is a new model development and demonstration project at Macomb Projects. The project was funded to develop, test and disseminate a math, science, and social studies curriculum that integrates technology.

ECCSPLORe-IT will use a wide range of interactive multimedia software applications along with off-computer materials and activities targeting science, math, and social studies concepts and skills young children need to acquire. Some of the software to be used with ECCSPLORe-IT includes *Sammy's Science House, Millie and Bailey's Kindergarten, HyperStudio, Amazing Animals, My First Amazing History Explorer, My First Amazing World Explorer,* and the Living Book Series.

Participating sites include early childhood special education classrooms in Macomb, Beardstown, and Rushville, Illinois. Site staff will receive training on technology applications centering on math, science, and social studies skills and the use of adaptive peripherals. More information about ECCSPLORe-IT will soon be posted on Macomb Projects' web site.

ECCSPLORe-IT was funded by the U.S. Department of Education's Research and Innovation Program to Improve Services and Results for Children with Disabilities. Federal funding for Year 1 of this four-year project is $149,999.

Portfolio continued from page 9

mm camera and scanning device. Place the pictures in a folder on the desktop labeled with the appropriate date.

- Scan children's written messages and store them in their folder on the computer.
- Scan children's artwork or save their artwork from drawing programs as a PICT file and store on disk.
- Use *HyperStudio* to record children's voices as they converse, say rhymes, perform plays, sing, recite poems, or read a book. Save the recordings to disk.
- Videotape class plays and save to the hard drive or external drive (see procedures below).
- Store *HyperStudio* stacks children made during the school year on disk or in a special folder on the desktop. With the child, select pages from each *HyperStudio* stack to be included in the portfolio.
- Collect all the *HyperStudio* stacks created during the school year. Save to disk. (Option: Press the *HyperStudio* stacks to a CD-ROM. Businesses and/or some school districts have the technology to press *HyperStudio* stacks to a CD-ROM. Check your local technology resources. Inform parents of the CD-ROM. Provide parents the opportunity to purchase the *HyperStudio* CD-ROM at cost.)

Once samples of the child's work have been collected, they can be placed onto cards of the *HyperStudio* stack. These samples may include photographs, drawings, signatures, samples of emergent writing, conversations of the child, or video clips of the child's activities in the classroom. Observational notes made by the teacher, including the child's progress in the specific domains can be included on a stack.

At the computer center, add buttons to the cards. Each child can record his/her name for the title page. Offer the children the opportunity to draw a cover for the front page of their individual portfolio book. They can also create a "The End" page with the *HyperStudio* tools and color palette.

Videotape and HyperStudio

QuickTime movies can be played or created from within *HyperStudio*. To add QuickTime movies to your *HyperStudio* portfolio stack, your system will need QuickTime in the extension in your System folder. To create a QuickTime movie, you will need a video digitizer and a video source connected to your computer.

A videotape can be created with *HyperStudio* to demonstrate each child's or classroom's progress. These videotapes are a great demonstration during family nights or presentations. To record your stack on a video cassette recorder your system must have a television, video cassette recorder, audio mixer, Presenter's Plus™ or TelevEyes Pro™ (NTSC Converter) (If your Macintosh is the "AV" type, you won't need either of these devices), and a computer system with a mini-phono adaptor (Radio Shack part #274-387). Follow procedures given in the *HyperStudio* Reference book for using QuickTime Movies.

Sample Portfolio

The Portfolio Book sample book, shown in Figure 1, contains repre-

continued on page 11

Use Technology to Study Nature

by Amy Betz

Many classrooms use the Fall as a time to study trees because of the changing leaf colors and the falling of the leaves. However, trees can be studied year-round, and your computer center is a valuable asset to this study.

Frequent nature walks give children opportunities to observe and notice changes. Some classrooms even adopt a special tree. When visiting the tree, provide children with opportunities to use their senses. What does the tree look like? Does it make any sounds? How does it smell? Do different parts feel bumpy, rough, or smooth? Other things to study are the different parts of the tree, changes that happen throughout the seasons, and animals that live in the tree. Be sure to take along a camera (digital, traditional, or video) when taking nature walks around the school grounds or neigborhood so children can take pictures of their tree(s) and other interesting objects.

If the pictures were taken with a digital camera, they can be transferred to the computer. Other photographs can be scanned with a scanner. When saving the images on the computer, save them as PICT files. The images can be added to a *HyperStudio* (Roger Wagner) stack. Children's drawings, text, video, sound effects, and animation can be added to create an interactive curriculum activity for your classroom. The *HyperStudio* stack can also be printed to create a book for the reading center.

Other software can supplement your integrated study of trees. *ArtSpace* (Macomb Projects) contains 24 images of a variety of trees. *Sammy's Science House* (Edmark) has a tree that goes through seasonal changes at Acorn Pond. *Storybook Weaver Deluxe* (MECC), *EasyBook Deluxe* (Sunburst), and *Storybook Maker Deluxe* (Hartley Coursweare/Jostens Learning) lets you create books the children created. Children can also create their own version of trees free hand or with stamps using *Kid Pix* (Brøderbund). Using technology in a variety of ways makes your classroom study of trees not only more interesting but also more fun!

Portfolio continued from page 10

sentative samples from Broderick, a child who has speech and language impairment. It includes selected drawings, writings, *HyperStudio* stack samples, and a sequence of photographs of Broderick. During the school year, images were taken with a QuickCam or Apple QuickTake 200 digital camera. Sample signatures and drawings were created in *HyperStudio* while other writing samples were scanned and placed into *HyperStudio*. Conversations were recorded in *HyperStudio*. A hard copy of the portfolio was printed and bound. On the last page, Broderick's teacher created a pocket to store a disk containing the portfolio file. The book and disk can be easily stored in the child's folder and a copy can be provided to the family.

Summary

Portfolio assessment compliments a curriculum that respects the individual needs, interests, abilities, learning rates, and learning styles of each child. A Portfolio Book created with *HyperStudio* will assist teachers in understanding and evaluating children's work in the classroom. The sample Portfolio demonstrates how much one boy has grown in his literacy skills and his love for the computer and technology in the classroom.

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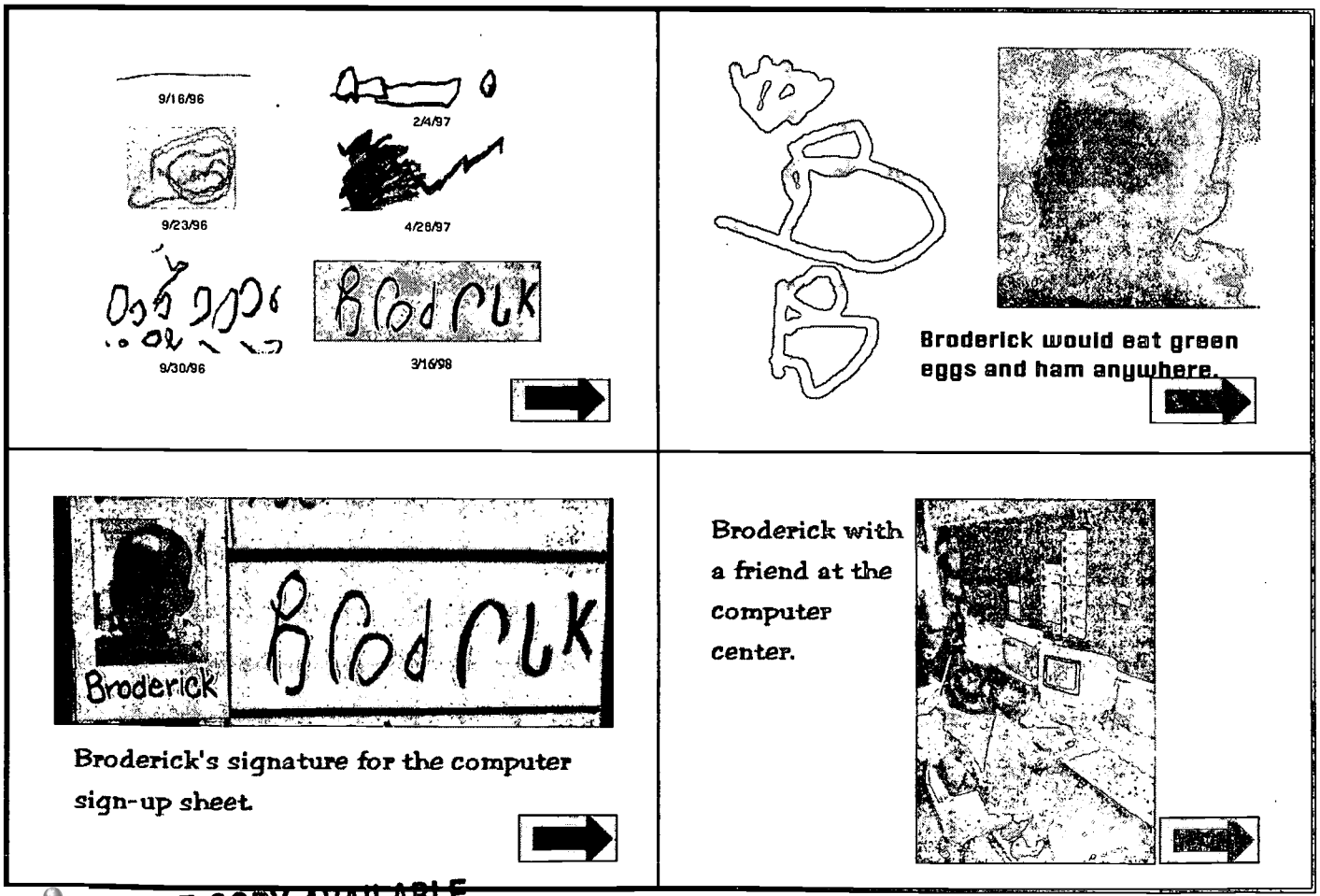
Figure 1. *HyperStudio* Created Book in Broderick's Portfolio



Companies Offer Statewide Licenses for Software Writing Tools

Don Johnston, Inc. and Woodlake Technologies, Inc. are coordinating a statewide purchase for two essential writing tools for Illinois students who struggle to read and write. *Write: Outloud* and *Co:Writer* are being offered to all schools in Illinois at reduced cost.

Write:Outloud is a talking word processing program that helps students produce and edit written communication. Those who struggle with reading and writing, those who are diagnosed with specific learning disabilities, and those who are beginning writers will find *Write:Outloud* beneficial.

Co:Writer is a word prediction program. As students type in the first letter(s) of a word, the program predicts words that logically fit into the sentence, based on correct grammar, subject-verb agreement, word relationships, and frequency of use. *Co:Writer* is designed for students who struggle with writing, those who have disagnosed learning disabilities, and those who are beginning writers.

The purchasing program is based on the number of users throughout the state. For example, a single user price is $99; however, if users across Illinois total 100, the price is $34.65. The 1,000 user price is $19.80.

More information about this offer to purchase one or both programs at reduced costs through the special Illinois statewide license program is available by calling Mary Lynn Curran at 800/ 253-4391.

Readers in states other than Illinois should call to request information about the statewide license program in their state.

When Young Children Use the Internet continued from page 3

skills were those of a neophyte and others considered their abilities to be close to expert. After a year of participation, all four teachers, even the experts, have become more confident and competent. By one teacher's own account, participation in the project has caused her to purchase a computer for her home, get private tutoring for word processing and graphics applications, and connect her computer to the Internet. All the teachers indicate that they have incorporated the computer more into the daily curriculum than they would have had it not been for their participation in TEChPLACEs.

One of the surprises of the project was the way in which the teachers adjusted their teaching styles. Once the teachers saw how the children used the TEChPLACEs web site, they recognized that their children were capable of much more than they had anticipated. They began to step back from direct instruction and provide opportunities for the children to control events. Because of the spontaneity often exhibited with the web site, the teachers became more flexible during all their classroom activities and not just those related to the computer and the use of technology. To a person, their teaching styles evolved into a more child-directed approach in which they became more inclined to use questioning techniques to guide children's thinking. They willingly relinquished some control and increased the opportunities for children to make their own choices.

Hesitant and reluctant at the beginning of the project, each teacher also became more willing to try and more adept at troubleshooting their own problems, both hardware and software. Open lines of communication between the TEChPLACEs staff at Macomb Projects and the teachers involved in the project supported their attempts to solve their own problems.

The teachers indicated that knowing the TEChPLACEs staff could be at their site in less than 30 minutes provided a "safety net" if they became too frustrated or if their own attempts proved futile. Their skills at troubleshooting improved to the point where fewer and fewer visits to the classrooms were necessary and most problems could be dealt with via e-mail or over the telephone.

Summary

Every year more children in early childhood classrooms have computers and an increasing collection of software titles from which to choose. Few children in early childhood classrooms have their own web site, and even fewer have one for which they have been encouraged to determine content or been actively involved in development. The TEChPLACEs project provided teachers the framework for children to be actively involved in the process of creating an Internet site and an intranet community.

Some unanticipated results were:

(1) parents and families became involved in the activities in their children's classrooms,
(2) children demonstrated a wide range of skills and abilities using technology that they transferred to other areas of their school lives, and
(3) teachers became more proficient in the use of technology and willingly adjusted their teaching styles to accommodate new learning opportunities.

More discussing, more negotiating, more agreeing, more guiding, more participating are all by products of a project that intended to bring together the children in four early childhood classrooms to create and develop an Internet site.

Take time to visit http://www.techplaces.wiu.edu and see for yourself what these children and their teachers have created. Send them e-mail. They'd love hearing from you!

Macomb Projects Offers Staff Development Workshops To Meet Your Needs

Are you looking for staff development workshops but have no idea where to turn or even what you might need? Call Macomb Projects at 309/298-1634 and our trained early childhood technology staff will help you select a workshop from those listed below or will work with you to design a workshop to meet the needs of your staff.

Technology Integration Workshops

- Technology for Tots
- Equalizing Play through Technology
- Technology Curriculum Application for Young Children
- Using Technology as a Tool for Communication
- Adaptive Peripherals for the Macintosh
- Empowering Children, Families, and Teachers with Technology

Technology Assessment Workshops

- Levels of Switch Progression
- Child Positioning and Equipment Placement
- Determining a Suitable Input Method
- Customizing Overlays to Meet Individual Needs
- Making Technology Recommendations

Technology Literacy Workshops

- Once Upon a Computer: Storymaking Activities for Young Children
- Emergent Reading, Writing, and Technology
- HyperStudio: Creating Software Unique to Your Classroom
- Technology and Early Literacy Development

Expressive Arts Workshops

- Children and the Arts
- Adapting the Arts
- Integrating the Expressive Arts into the Preschool Classroom
- Assessing Children's Art

Technology As a Tool Workshops

- Switch Construction
- Getting Started with Your Computer
- Plug 'n Play Peripherals
- Using the Scanner
- Using the Internet

Choices are not limited to these topics. If you have a need, or just an idea, call and speak to one of our technology experts to design a workshop that is just right for your staff.

Cooper Sells 3D Action Game

RJ Cooper & Associates sells *Wheels!*, a 3-D action game designed to work with a trackball, keyboard, mouse, IntelliKeys, or SAM-Joystick (available from RJ Cooper). The program has clowns, robots, humor, music, and sound effects. Children with disabilities or cognitive challenges can easily see and interpret the graphics. Two dimensional mazes have incremental levels. There is no blood and no gore. The program was originally designed for power-wheelchair/joystick training. Available for Mac or Windows, the program sells for $99. For information visit www.rjcooper.com or call 800/RJCooper.

New Button Actions Make *HyperStudio* Switch Accessible

by Carol Bell

Now children who access software with switches can use classroom or teacher-created *HyperStudio* programs also. Easy assessibility with *HyperStudio* can be found with four New Button Actions (NBAs) from Simtech Publications and Roger Wagner Publishing. The four NBAs—Button Lister, Button Runner, Button Stepper, and KeyMapper—can be downloaded from Simtech Publication at www.hsj.com/utilities.

Button Lister 1.0 NBA highlights buttons in the order in which they are listed, then activates the highlighted button after a predetermined delay.

Button Scanner NBA scans the names of the desired buttons on the current card, highlighting each one in sequence. When you press the mouse button, the space bar or one of the number keys 0-3, Button Scanner activates the highlighted button. Adaptive switches can be used along with a device that can emulate a mouse click or the number keys 0-3.

Button Stepper 2.0 NBA highlights buttons in the order in which they are listed.

KeyMapper 1.0 NBA allows you to activate buttons in your stack by pressing keys on the keyboard. You can map any key to activate a named button by entering the name of the key, followed by a backslash, then the name of the button and a return. This NBA works especially well with Intellikeys.

For more information, contact Bill Lynn, Simtech Publications, 134 East Street, Litchfield, CT 06759.

Need information about assistive technology? Go to serc.gws.uky.edu/www/resources/at.html for links to various assistive technology sites on the web.

Internet Offers Benefits to Children and Classroom Teachers

by Marisa Beard

Picture a group of children gathered in front of a television monitor, all eyes intently focused on what is happening on the screen. Children are smiling, laughing, and conversing with one another. Are they watching Saturday morning cartoons? No. They are participating in a lesson that involves using the Internet.

Teachers of students of all ages have begun to incorporate the Internet into their curriculum. "Why would a teacher want to do this?" "Isn't it more work for the teacher?" "Is it safe for the students?" are all questions asked by educators.

Why a teacher would want to incorporate the Internet into his/her curriculum is the first issue that needs to be addressed. Teachers from preschool to high school are expected to know an amazing amount of information or have the skills and knowledge to obtain current information for their children. Although educators try to involve students in real life experiences, sometimes this just isn't possible. Students in Chicago's inner city probably won't have the opportunity to visit a farm. Or rural students may not have access to an art museum. Should these students completely miss out on these experiences, or should the teacher try to bring the experiences to the classroom? One way to show children the world is through the Internet. Children can visit a variety of Internet sites that offer information about, as well as online tours of, farms, art museums, grocery stores, veterinary clinics, hospitals, and schools. Children can experience these places individually, in small groups, or as a whole class.

A teacher may wonder, "How can I effectively use the Internet without taking away from the curriculum my school district wants me to accomplish?" "Won't I have to spend more time preparing my lessons?" There are many ways an educator can use the Internet in the classroom without disrupting the current curriculum or spending an inordinate amount of time preparing.

In Amy Morris' first grade class in Macomb, Illinois, sending and receiving e-mail supports an interactive method for discussing letter parts and letter writing. A large monitor (either a large computer monitor or a television monitor connected to the computer) offers all children the opportunity to see and participate in the activities. The form and structure of incoming e-mail is reviewed and examined, and the resulting discussions target the absence of some letter components, the various greetings and salutations used, and the inclusions of unusual "emoticons" such as :o) and ;o) and :0(in the letter.

As Morris' class progressed in their e-mail writing skills, many of the children struck out on their own and began to send e-mail messages to family members, children from other classes, and classroom visitors. The children asked for a word chart to be placed by the computer so they could type often-used words without asking for help from an adult. They also requested that each e-mail that was received be printed and placed into a classroom book. Children are often observed reading these e-mail messages to themselves or friends in the classroom. Morris believes that all children in her first grade class leave at the end of the year with a greater understanding of the proper components in letters.

E-mail is not the only way for children to interact on the Internet. More and more sites written especially for children—from grocery stores to banks, from veterinary offices to family organizations—encourage children to look for information, share information, submit stories and pictures, and play games.

If a child asks a question that a teacher is unable to answer, the teacher can go to a predetermined "safe" site and search for the information. A few of these sites are http:/www.dcmrats.org/ (a museum), http://library.advanced.org/11922/index.htm (a virtual zoo), http://www.berenstainbears.com/ (berenstain bears), http://www.crayola.com/ (crayons). The sites allow users to search within a safe environment for specific information.

Internet safety is important to discuss with children who are capable of using the Internet independently. Without frightening children, explain that you want them to e-mail only classroom approved friends and go to the sites that you have already visited. If the browser (Netscape or Internet Explorer) is set up for e-mail and is formatted with an address book, children can use it for their e-mail correspondence. Even very young children are able to recognize and learn thenames of those people with whom they'd like to correspond. Including a key word in the name section of the address book to identify a person would also be helpful, such as, "Sally's mom," "the book lady," "Joe's dad," "the animal doctor." Bookmarks can be set up in a folder specifically for the students in the classroom. These bookmarks can be retitled in words that children can recognize or read. When children work in groups to go to a site, they will usually help each other find the right bookmark for a particular location.

As teachers become more proficient Internet users, they can do more to unleash the learning potential of students. Classroom web pages can be

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Tiger's Tale Encourages Verbalizations and Conversational Turn-Taking

Tiger's Tale, a new program from Laureate, encourages children to "talk" for Tiger, who has lost his voice. Throughout the program, animated characters appear and ask questions of the user. The child using the software selects the 'Record' icon to offer suggestions or opinions in response. The responses can be re-recorded until the child is satisfied with his/her answer.

When the program begins, the user decides how many scenes (5, 10, or 14) the movie being made will have. The fewer the scenes, the more simple the dialog. At the final scene, children click various objects to find Tiger's voice. Afterwards, they can watch the movie and hear their own voices speaking for Tiger. The movies can be saved and used to measure children's speech and language progress over time. If a child does not record an answer to the question, there is an option to click a character to continue the scene.

Laureate recommends *Tiger's Tale* for preschool and elementary students who have articulation, fluency, or language disorders. Benefits of the program include the following: encourages language production; promotes expressive use of words, phrases, and sentences; provides opportunities to practice fluent speech; develops narrative and discourse abilities; and builds confidence.

Tiger's Tale can be used with a touch screen, keyboard, single switch, mouse, or pointing device. Minimum system requirements include:Macintosh CD Version: PowerPC and 68k processors, System 7.5, and microphone; Windows Versions: Pentium 90, Windows 95, Soundblaster 16 compatible sound card Both Versions: 16 MB of RAM (32 recommended), 3 MB on hard drive with additional space for voice recordings (10 MB recommended), 4x speed CD-ROM drive.

Tiger's Tale is priced at $125 for a single copy. Contact Laureate at 800/562-6801 or visit the web site at www.LaureateLearning.com for more information about this and other Laureate software.

Internet Benefits **continued from page 14**

used to share information with parents and other students. Students can discuss what they have been learning or simply things they wish to share. For students with speech or language difficulties, Internet use can be a wonderful opportunity for them to use their language to share information that others can understand. Children can create *HyperStudio* stacks and upload them to be placed on their classroom web page. These stacks can then be viewed by friends and family, giving the student the opportunity to share with a broader audience. Simply put, the Internet has so much potential in being used in a positive and educational way. Information that children never had access to before and people whom they have never met are right at their fingertips.

Where to go on the Internet...

Looking for safe web sites for children?
Check out the links to hundreds of such sites at
http://home.revealed.net/albee/pages/SafeSurf.html

Calendar of Conferences

January 21 - 23, 1999: TAM 99/ACCESS NOW: Technology for People with Special Needs in Portland, OR. Contact Gayl Bowser, 541/440-4791.
January 28-30, 1999: 17th Annual International Conference for Technology, Reading, and Learning Disabilities in San Francisco, CA. Contact Diane Frost, 510/594-1249.
February 22-24, 1999: Midwest Education and Technology Conference in St. Louis, MO. Contact 800/835-8282.
March 5-6, 1999: 6th Annual Wisconsin Technology Access Conference in Milwaukee. Call 414/438-3623.
March 16, 1999: Early Childhood Technology Conference sponsored by Illinois STARNet Regions 1 and III in Macomb, IL. Contact 309/298-1634.
March 16-20, 1999: Technology and Persons with Disabilities, Northridge, CA. Contact 818/677-2578 or ltm@csun.edu.

Adapt Art Materials At Low Cost

Access to visual art activities is important for all children, but some may have difficulty holding or gripping the tools. Adaptive grips can be developed for little cost. For example, wrap tape around a paint brush handle to widen the grip, or fit the handle with a piece of dense foam tubing. Add extensions to paint rollers so children can floor paint from their wheelchairs. Cut a slit in a recquetball and insert a crayon or marker. Fit the art tool with a loop or strap device that can be attached to a child's hand. Such adaptations are inexpensive and easily done. Best of all, they offer children access to art activities. More information about adaptations is available from Expressive Arts Outreach. Call Judy at 309/298-1634.

Training Emphasizes Literacy and Technology

LitTECH Interactive announces training at Western Illinois University January 11 - 14 and June 7 - 10. The primary emphasis of the training is replication of a developmentally appropriate interactive technology literacy curriculum for early childhood or inclusive classrooms serving children ages 3 - 8 with disabilities.

Training content includes understanding basic concepts of emergent literacy, designing and managing the computer center to support literacy, choosing and using interactive children's software, developing programs with *HyperStudio* that connect children's life experiences to learning, involving families, and using adult applications that support the LitTECH curriculum.

LitTECH offers the training at no cost to participants whose schools or agencies have agreed to replicate the LitTECH model. However, participants who opt to take the training for 2 or 3 semesters hours of WIU graduate credit must pay WIU tuition and fees.

For more information about the training, replication agreement requirements, or course credit, contact Carol Bell at 309/298-1634 or 888/LIT-4278.

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