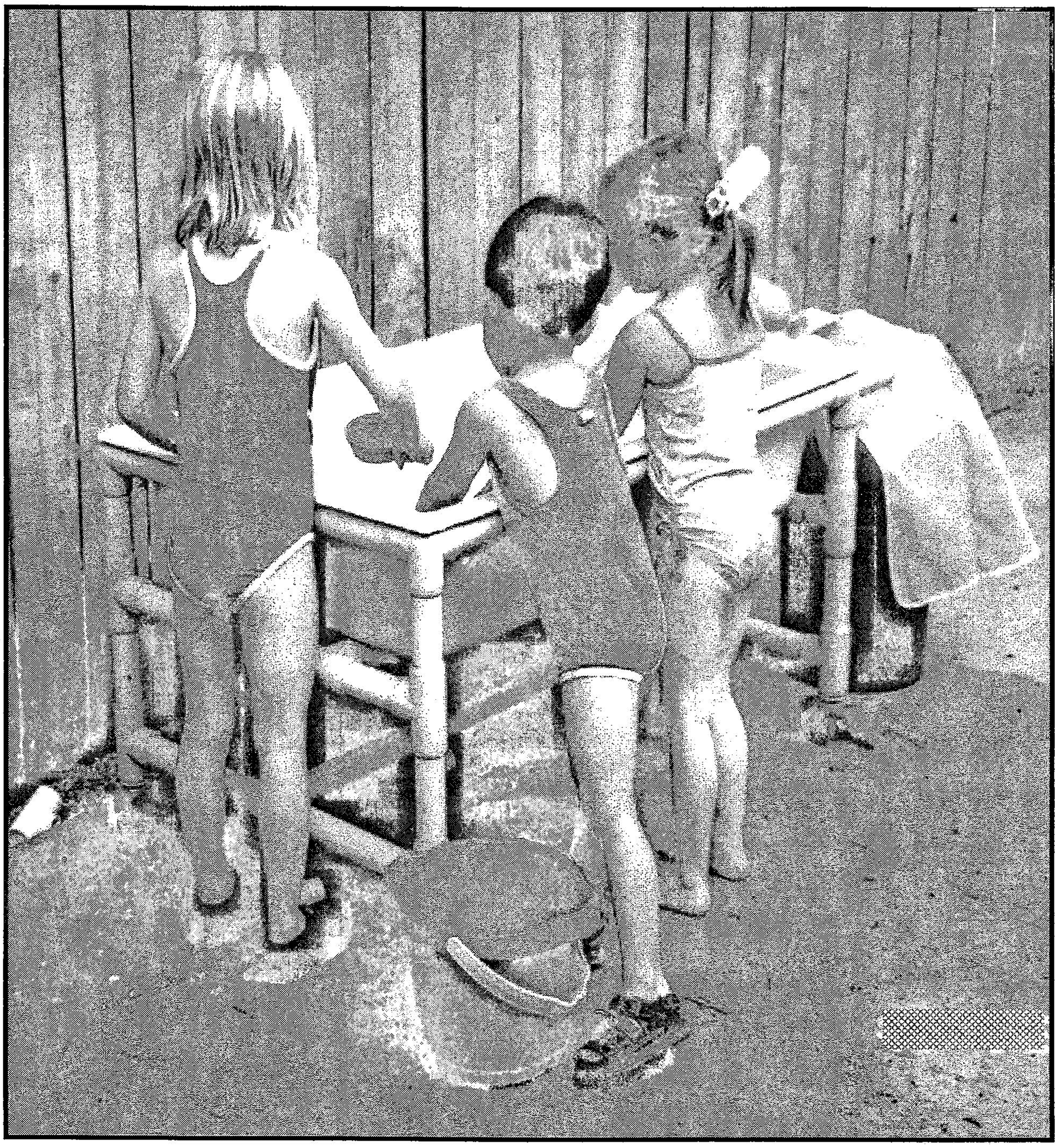
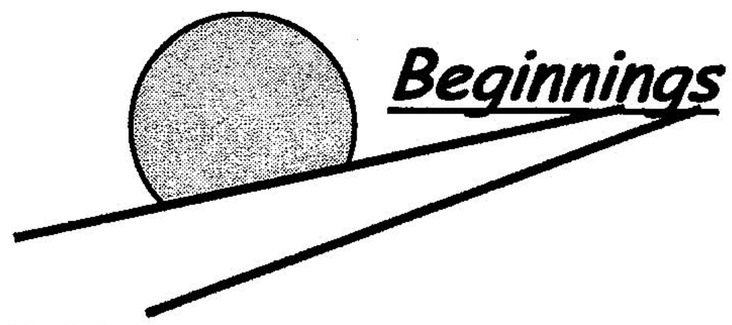


The Project Approach
The Wonders of Water!

Beginnings **2004-2005 (4)**
Arkansas Department of Human Services
Division of Childcare and Early Childhood Education, Little Rock, AR
School of Human Environmental Sciences, 1UA, Fayetteville, AR

Beginnings



Beginnings is a publication of the Arkansas Division of Child Care and Early Childhood Education and the School of Human Environmental Sciences, University of Arkansas, Fayetteville.

Comments may be addressed to:

Kathy Stegall, Administrator
Program Support Unit
Division of Child Care and
Early Childhood Education
P. O. Box 1437—Slot S160
Little Rock, AR 72203

or

Sue Martin, Professor
School of Human Environmental Sciences
118 HOEC
University of Arkansas
Fayetteville, AR 72701

Beginnings Committee: Laverne Nelson, Sue Martin, Vernoice Baldwin, Mardi Crandall, Marietta Baltz, NeCol Whitehead, Karen Beaton, Vickey Lloyd, Christina Barton, Elizabeth Mathew, Deloris Sterling, Fayetteville & Kathy Stegall, Little Rock.

The Project Approach

The project approach is just that. . . An *approach* to planning curriculum (activities, routines, programs) for pre-school children. It is not new! The term "project approach" originated from the community pre-schools located in Reggio Emilia, Italy following World War II. The project approach was based on the philosophy that children learn best when they are exploring and learning from things that are in their immediate environment. The family and community form a large part of the support for the schools. The ideas have spread rapidly into other regions as well, and there are many schools following these same principles that now operate in the United States. In this issue of *Beginnings* we are sharing experiences of the teachers and children at the University of Arkansas Nursery School at UA/Fayetteville when they explored the topic of water. A special thanks to Vernoice Baldwin and her students for sharing the documentation of their project.

Consider Trying Something New

!

It's easy to get stuck . . .
In the same old routine.

Life is dull. . . No matter how you scheme.
Wait, don't despair. . .

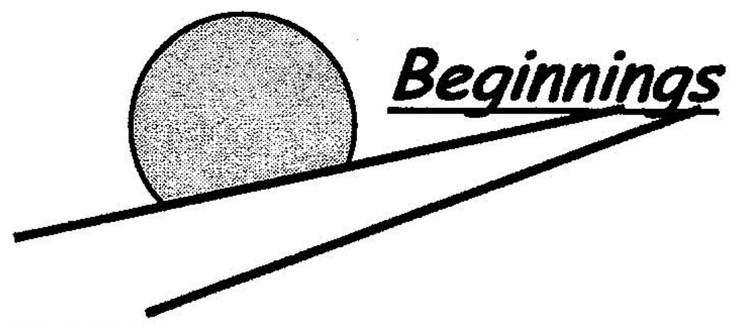
Read about the project approach
Use this issue for your coach.

Your class will revive.
Learning will come alive!

The Project Approach . . . Table of Contents

The project approach 5
KWL ..... 6—7
Clearing up confusing terms 8
The Water Project, UA Nursery School 9-39
Phase I—Beginning the project ..... 9—10
Phase II—Developing the topic 11
Sample letter for parents 12
Results from parent involvement activity 13
Documenting the project 13
Documentation of the water project 14
A field trip-to explore water 15
Weatherman John Patrick visits class 16
Field trip to the Farmer's Market 16
Visiting the fire station 16
LANGUAGE ARTS & DRAMATIC PLAY ..... 17—23
Starting with what we had 17
Do you use water in a beauty/barber shop? 17
A grocery store 18
Conversation is important 18
Poetry with preschoolers 19
Preschool poetry activities ..... 19—21
Make up rhymes 19
List poems 19
Write up the stories 20
Make up a little nonsense 20
Piggy-back familiar songs 20
Piggy-back nursery rhymes 20
Grow a poetry tree 21
Featured books about water + activities 22
Mrs. Wishy-Washy 22
Harry the dirty dog 23
MUSIC & MOVEMENT 24-25
Drink some water every day (song) 24
Raindrops are falling (song) 24
We use water to wash our hand (song) 25
Itsy-bitsy spider (song) 25
Pitter-pat (song) 25

MATH & SCIENCE 26-33
Ice + Salt-What happens? 26
Concrete and water get really hard 27
Concrete stepping stone 27
The water cycle—"Cloud" activity 28-29
More water projects 30
Practice in pouring 30
Discovering a tornado 30
Make a tornado for the science center 30
Sandbox volcano 31
Erupt a volcano 31
The power of water! 31
Andrew makes a river! 32
Plants drink water 33
CREATIVE ART 34-36
Paint with eyedroppers 34
Paint with ice 34
Bubble wrap design 35
Mr. Woody 35
Salt painting 36
Make a fingerpaint print 36
FOOD & NUTRITION 37-38
Blind taste testing 37
Apple sandwich (recipe) 38
Chicken feed (recipe) 38
Purple cow (recipe) 38
Phase III—Concluding the project 39
Re-web with the children 39
Have a special event 39
What did you learn about water? 39
Pros and cons of the project approach 40
References and Resources 41



Beginnings is a publication of the Arkansas Division of Child Care and Early Childhood Education and the School of Human Environmental Sciences, University of Arkansas, Fayetteville.

Comments may be addressed to:

Kathy Stegall, Administrator
Program Support Unit
Division of Child Care and
Early Childhood Education
P. O. Box 1437—Slot S160
Little Rock, AR 72203

or

Sue Martin, Professor
School of Human Environmental Sciences
118 HOEC
University of Arkansas
Fayetteville, AR 72701

Beginnings Committee: Laverne Nelson, Sue Martin, Vernoice Baldwin, Mardi Crandall, Marietta Baltz, NeCol Whitehead, Karen Beaton, Vickey Lloyd, Christina Barton, Elizabeth Mathew, Deloris Sterling, Fayetteville & Kathy Stegall, Little Rock.

The Project Approach

The project approach is just that. . . An *approach* to planning curriculum (activities, routines, programs) for pre-school children. It is not new! The term "project approach" originated from the community pre-schools located in Reggio Emilia, Italy following World War II. The project approach was based on the philosophy that children learn best when they are exploring and learning from things that are in their immediate environment. The family and community form a large part of the support for the schools. The ideas have spread rapidly into other regions as well, and there are many schools following these same principles that now operate in the United States. In this issue of *Beginnings* we are sharing experiences of the teachers and children at the University of Arkansas Nursery School at UA/Fayetteville when they explored the topic of water. A special thanks to Vernoice Baldwin and her students for sharing the documentation of their project.

K W L

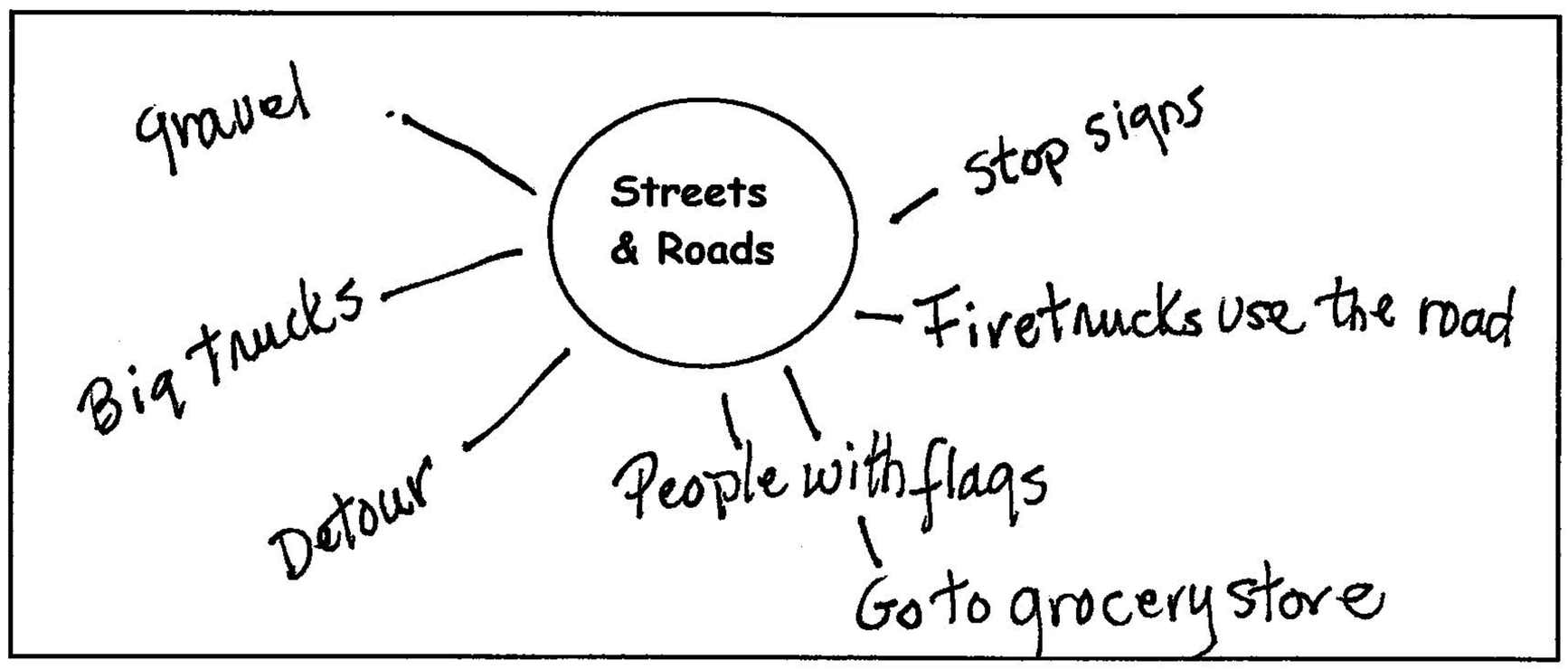
What you know. . .
What you want to find out. . .
What you learned. . .

The project approach is based on the KWL theory. First you determine what you and the children already know, then you decide what you would like to find out, and finally you document what has been learned. It's actually simple and many caregivers have been teaching this way for a long time. However, the project approach goes a little further than this. Family and community also have to become involved in the projects that the children are investigating.

WHAT DO YOU KNOW? When preparing to cook a meal, you need to first look in the refrigerator or the pantry to see if you have the necessary ingredients. It is equally important to find out what children know about a topic before starting a project. If there is no past knowledge on which to build, or the children have no interest, it may not be suitable to investigate. One of the best ways to do find out what children know, and want to find out is to have a brainstorming session or to CREATE A WEB.

For instance: If the children have become interested in the street repairs that are going on near their center, it might be time to start a project about STREETS or ROADS. First, however, it's necessary to find out what the children already know about streets and roads. So. . .it's time to create a web.

1. Write the words STREET & ROADS in the middle of a large sheet of paper.
2. Discuss the new street repairs that the children have seen on the way to school. Ask them to think of things they have seen and what they know about streets and roads.



After the children have finished the web, the teacher (and children) look at them and start grouping similar words/phrases together. For instance, if cars, trucks, adults, bicycles, motorcycles were mentioned, then they could be grouped under the idea of Who Uses the Road.

The teachers will take the categories and determine two or three big ideas or questions that children can investigate. For example:

Why do we need roads?
Who uses the road?
What is the road made of?

Teachers then think about the community. Are there any resource people who can help discover the answers? What about families? Are there parents who drive big trucks on the road? Does an uncle drive on the road to take his dog to the veterinary?

If it is determined that:

- The children have a real interest in finding out more about the roads.
- Resource materials are available.
- Families can be involved in the study.
- Community resources are available.

Then. . . . The teachers/caregivers may decide to start a project about ROADS and STREETS.

Who Uses the Roads	Who Makes the Roads
Mommy & Daddy	People with big machines
Fire trucks	Surveyors
Bicycles	Truck drivers
Big trucks	Workers with flags

Note: The Roads & Streets webbing is used as an example. The process will be shown more completely as the University of Arkansas Nursery School teachers and staff go through the process for the Wonders of Water Project.

Clearing up Confusing Terms

If working with a project is new for you, then it may be time to look at some of the terms you will come across when reading about the subject (at least this is the way they will be used in this issue of Beginnings!

Project approach — "an in-depth investigation of a topic worth learning about. It is a research effort deliberately focused on finding answers to questions about a topic posed either by the children, the teacher, or the teacher working with the children" (Katz, 1994, p. 1.) This investigation may take place in a small group, the whole group or by an individual child. The interest and curiosity in finding answers starts either with the children or the caregiver/teacher. It is based on Italian schools at Reggio Emilia, Italy. It stresses the importance of the immediate environment. Part of the process includes documenting the project by collecting work samples, taking photos, making recordings and reviewing these with the children and families.

Thematic approach —a method of curriculum planning that takes a main idea, concept or topic around which activities are planned for children. In the past themes have sometimes been chosen without addressing or assessing the interests of the children. Appropriate themes and units take into consideration children's needs, interest, abilities and focus on all areas of development.

Topics of study — organization of curriculum around a topic which includes the environment as well as *planned* and *spontaneous* activities. This approach includes knowing children, engaging families and community. The topic of study must be based on children's past knowledge, be of current interest to them and be suitable for exploration. You start with something the children know a little bit about and it should be something they want to know more about. Topics of study are similar to the project approach. They both differ from themes in that the children are included in the planning process, and connections are made from topic to topic. Children can use new knowledge and connect it to past experiences.

Webbing — brainstorming in a pattern or design around a particular topic. Words and phrases that come to mind when the topic is mentioned. You don't stop and really think about it. The goal is to find out what you know or think you know about a certain subject.

Assessment — the process of observing, recording and otherwise documenting the work children do and how they do it. This becomes a basis for educational decisions affecting the child. It includes, but is not limited to, planning for the individual child and groups as well as communicating with parents.

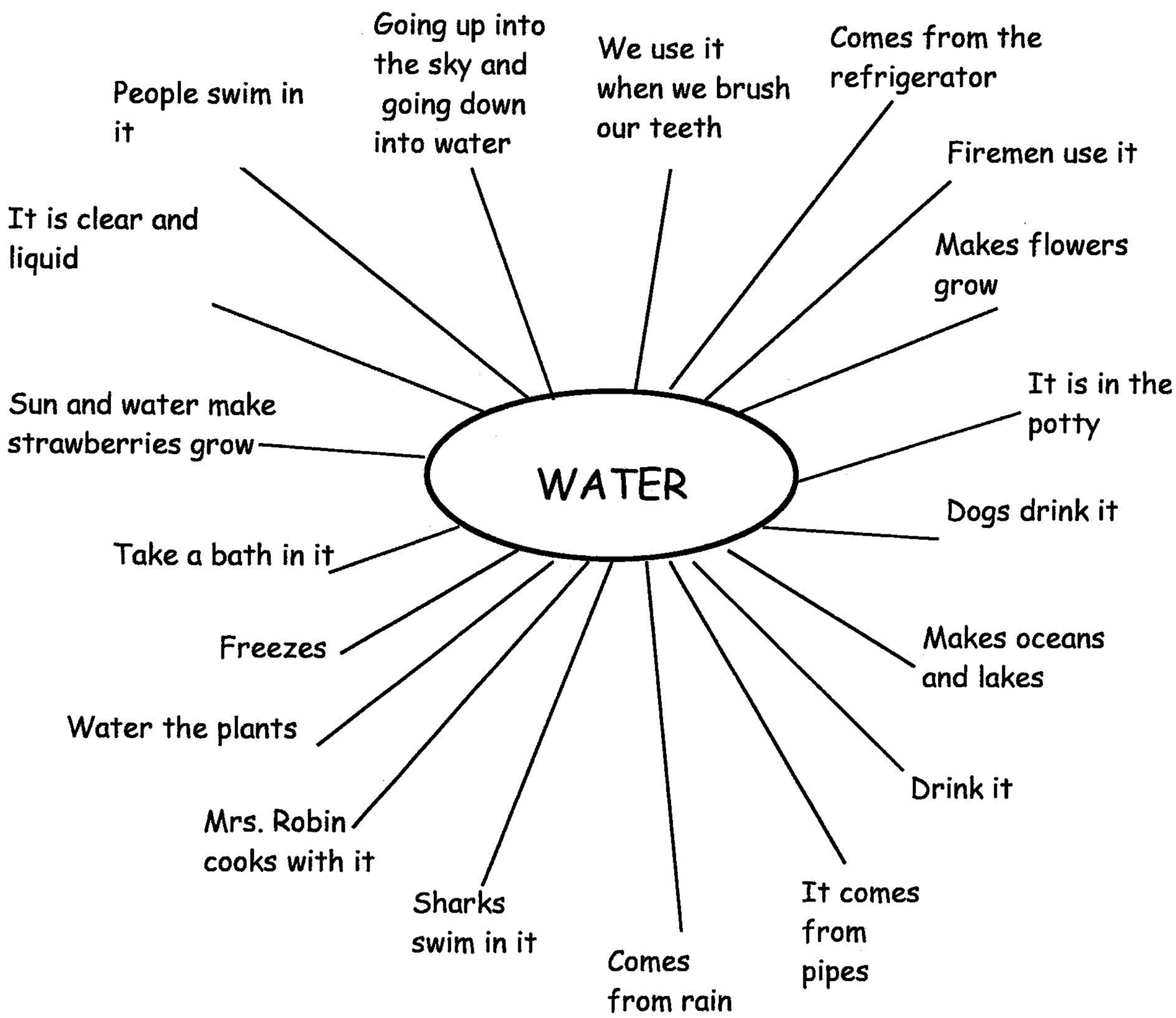
The Water Project

By the University of Arkansas Nursery School—Fayetteville

Vernoice Baldwin, Director

Phase I: Beginning the Project —

This project began with an idea from the teachers that the children could learn, see and experience several different things that involve water. The staff/ teachers came together and discussed possible questions, curriculum opportunities and field trip sites that might relate to the unit. Ms. Donia chose to create a web with the children to see what they knew about water. They came up with many things they knew about water.

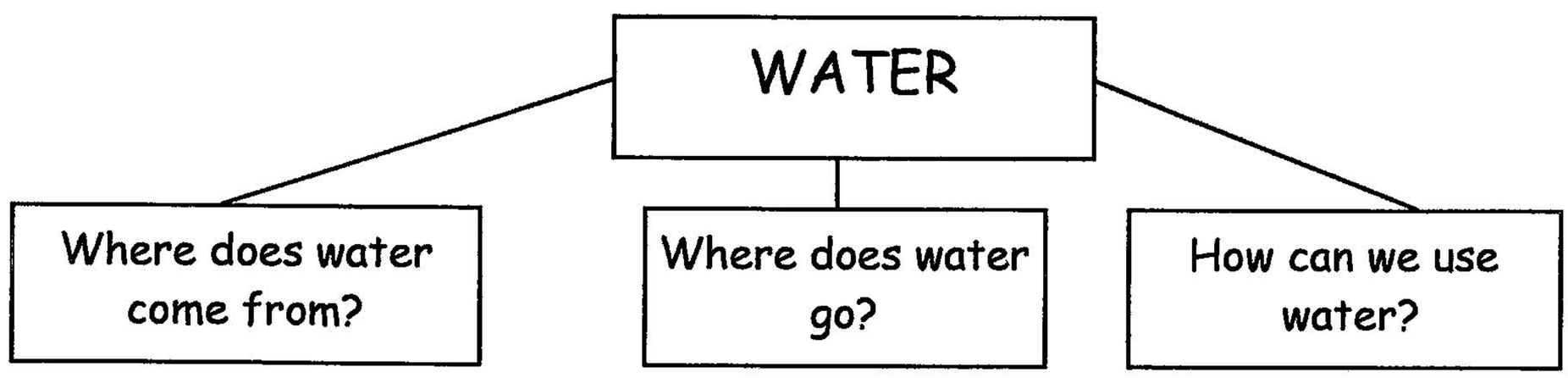


The children came up with many things they knew about water.

What do you want to know about water?
(sample of children's comments)

Brody: Sharks eat people and drink water.
Emma: Why does it go down a water tower?
Kylie: Sharks, Humpback Whale, sharks live in the water.
Ali: I'm going to eat fish.
Austin: Because the sharks bite.
Mani: Rain goes to the river.

We saw the interest among the children was high and decided that water could be a great topic that is practical and fun. Webbing with the children once again, "What do you want to know about water?" gave us the idea that the students were interested in ocean life, fish, rain, water towers, human use, etc. We then organized items from the webs and placed them under the three questions that we were going to investigate. This led us to set up our centers to provide focusing activities for the class that are practical to the unit—water.



Where does water come from?	Where does water go?	How can we use water?
Rain Clouds Rivers Lakes Springs Wells Ponds Water towers Sinks Faucets Pipes	Sewers Water treatment plants Lawns Flowers Plants Ditches Clouds Streams Rivers Oceans Drains	Drink, brush teeth, bath, laundry, shower, transportation, wash food, cook, clean (mop, wash dishes, clean car, etc.), wash hands, feed plants & animals, animal environments, toilets, and recreation (swim, fishing, scuba diving, tubing, snorkeling, canoe. kayak, sailing, skiing)*

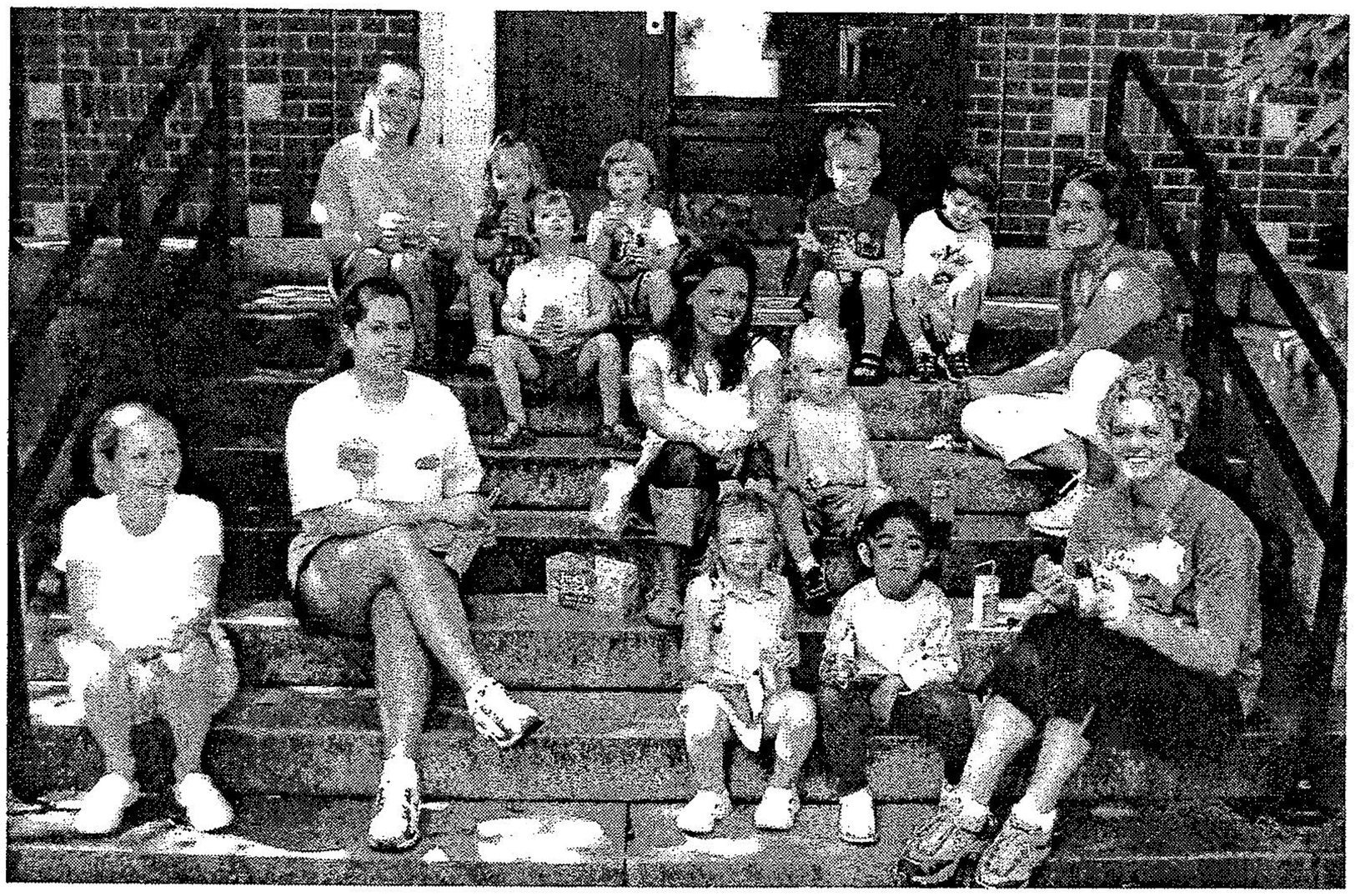
* children's answers

Phase II: Developing the Topic—

As a team, we re-examined the web that Ms. Donia did with the children. After we divided the study into three categories that we felt would be of interest to the children (see previous page), we began to plan experiences that would help the children find answers to these questions.

First we considered possible field trips. Where could we find water? After thinking about possible locations, it was decided to visit the Peace Fountain, the Fine Arts fish pond and look for water drains. These water features are on the UA campus and would be close enough for us to visit.

Next, we thought about the community and thought about experts on water who might be available to visit our classroom. Mr. John Patrick, a weatherman from Arkansas' NBC Fayetteville affiliate, agreed to come to our class. While there he invited us to visit his television station which is located on the Fayetteville Square. While visiting the square the children also explored the Farmer's Market, tasting fruit and purchasing vegetables. On the way back to the Nursery School, the firedog "Sparky" caught the children's attention so they stopped for a quick tour of the fire station. Both the farmer's market and the fire station are dependent on water.



Snack Time—at the Fayetteville Square

We enlisted the help of the families. In order to involve the parents in their child's investigation of the water project, we decided to send home a letter informing them about the water project and requesting their help.

(Sample letter for Parents)

Dear Parents,

This summer your child will be engaging in a project on water at the University of Arkansas Nursery School. We have divided the study into three categories that we felt would be of interest to the children. The categories are: *Where does water come from:? How we can use water? Where does water go?* We would like to ask your child to participate in the following activity so we may gain insight on your child's understanding of water concepts in order to further build on his/her knowledge. Listed below you will find two columns. Be sure to have fun, then write down your child's answers in the provided columns. Remember there are no right or wrong answers! Thanks, Shannon Hodges, Kristen Barlow, Jenny Garman and Donia.

Inside:	Outside:
Where does water come from?	Where does water come from?
How can we use water?	How can we use water?
Where does the water go?	Where does the water go?

The answers the children came up with revealed that the children were thinking about water and how it affects their lives.

Results from Parent Involvement Activity:
Answers from four children

Where does water come from?

Inside: Sink, hose, water fountain, toilet, showers, bath

Outside: Water fountain, heaven, the sky, clouds, valleys, shakes from bushes, in duck ponds, to put in the hoses

How can we use water?

Inside: Water plants inside, drink, goes in bottles, do wash, wash dishes, from water fountain, pour it in a cup, wash hands, washing machine, bath, sea monkeys, I don't know

Outside: From the water fountain, put in the sandbox, water the flowers, goes in pools, swim, hose for spraying flowers, spraying each other, cows drink out of the pond, Ranger (dog) drinks out of puddles, water tank, sprinkle it

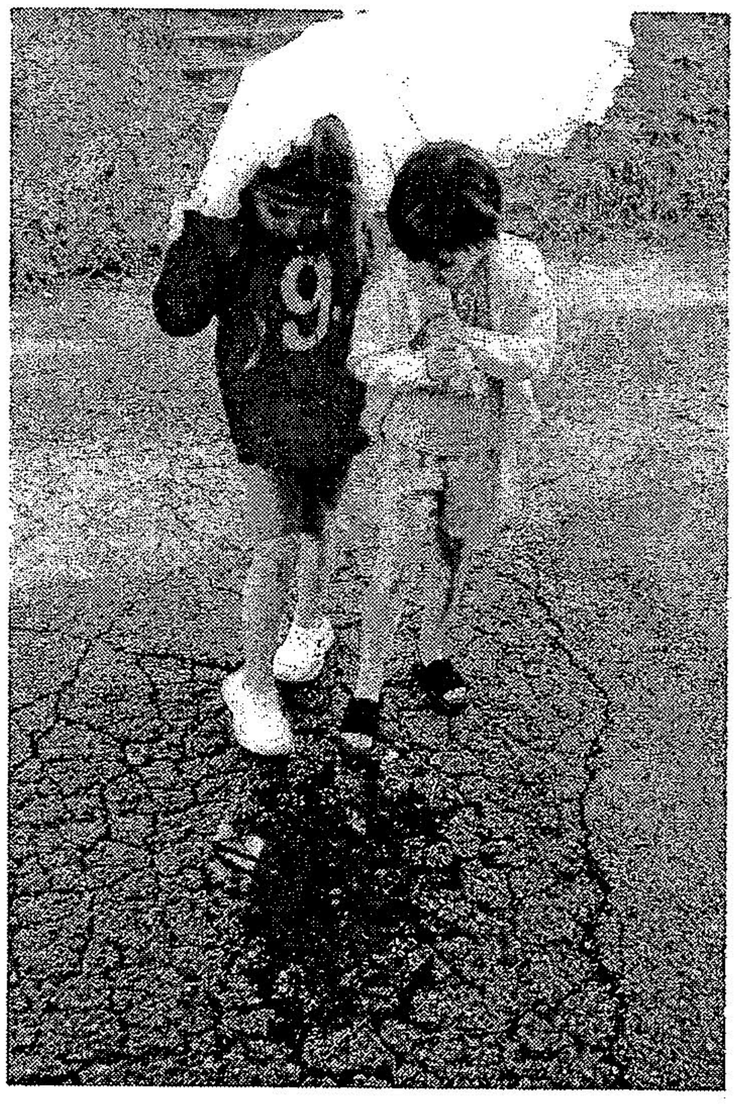
Where does water go?

Inside: In the water spout where it runs under the house, in the toilet it goes down down, the drain in the sink and the bathtub, down the water fountain

Outside: It goes to the sun, in the ground, down the drain, sun dries it up

Documenting the Project— An important part of the project approach is keeping records, work samples, and taking photographs in order to document what the children have experienced. The nursery school staff decided to take lots of photographs of special events, activities, and samples of work that the children completed (drawings, paintings, block structures, etc.) and put them together in a notebook. Interactive bulletin boards also helped to document the project. This documentation not only helped the child remember experiences and reinforce what they learned, but was invaluable in assessing the development of each child.

Documentation of the Water Project

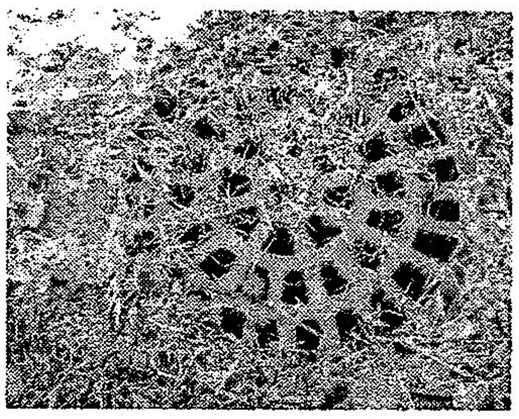


On June 9, 2004, Gretta and Emma take off to discover the course of water. Gretta points, saying, "Look a puddle!" Mrs. Vernoice asks, "What will happen to the puddle as it is on concrete and can go no where? Greta says: The sun will come out and dry it!"

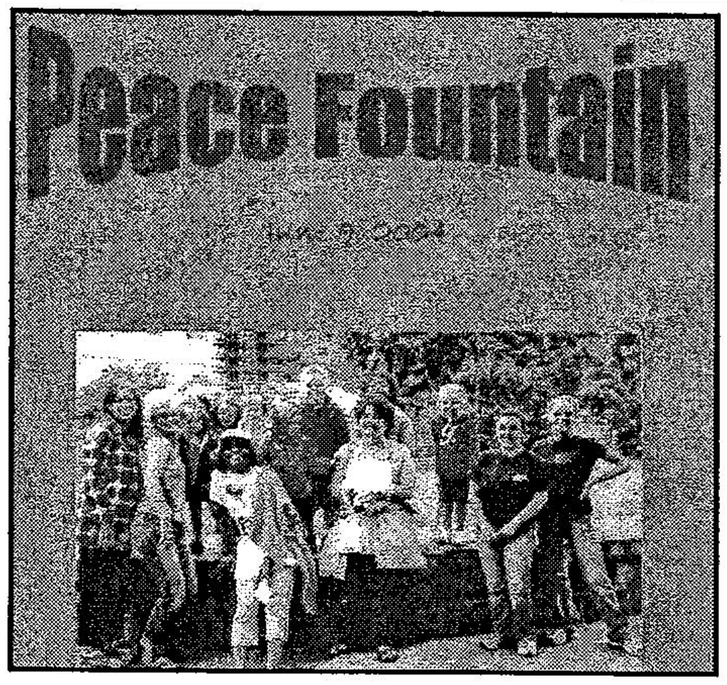
The group came upon a set of stairs When asked, "Does water come down stairs?" Gretta answers, "No. Water doesn't come down stairs regardless."
"What does that mean? asks Mrs. Vernoice.
Gretta says, "It means people know rain doesn't come down stairs."

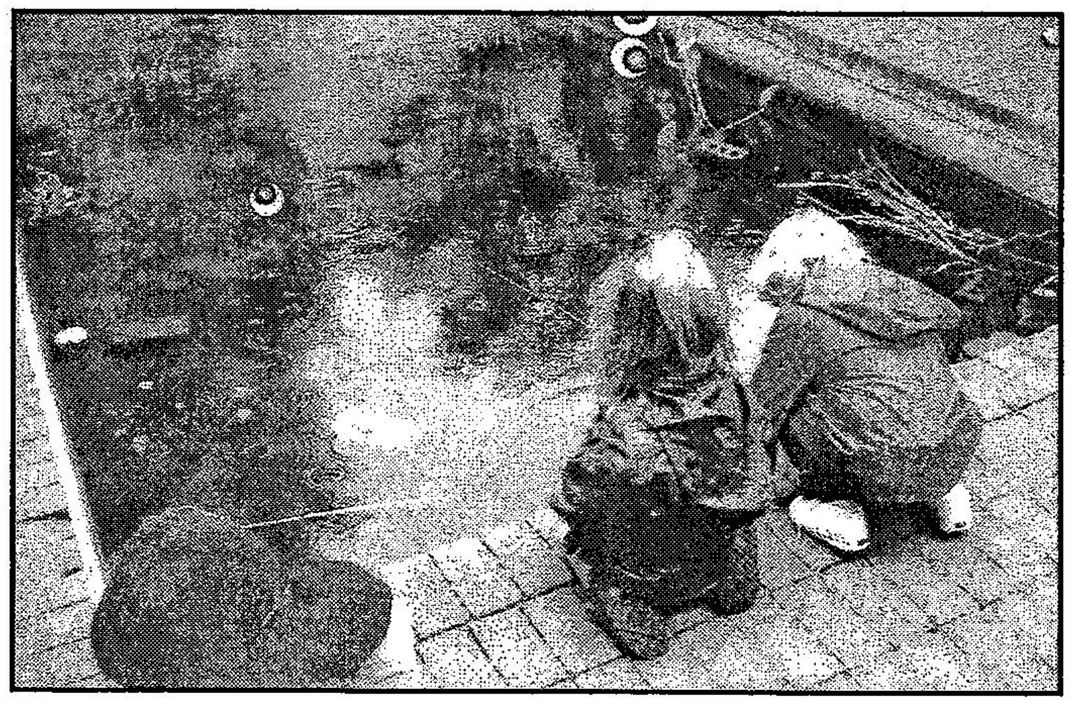
As they continued walking there was a small group of trees. Gretta says, "The trees are a forest!" She looks down and notices a brown pipe, which she refers to as a "log". That's where the water goes," she says.

At the bottom of the hill, we find a sewer grate. Mrs. Vernoice asks, "Where do you think the water goes?" Gretta answers, "Water in the sewer goes where the toilet water goes.



A Field Trip —To Explore Water





First was a visit to the Peace Fountain

Next stop was the Fine Arts Fish Pond

It is important to review what children have observed during their field trip. Here are some of the comments the children made during small group time. They were asked to recall what they had observed.

Kylie-The fishy, they were great.
Ms. Donia—What were the fish in?
Kylie—Swimming in the river.
Mani—Fish
Ms. Donia—What were the fish in?
Mani—The river
Emma—The water
Ali—Walking down the street
Gretta—Seeing grass floating on the water.
Ms. Donia—Why was the grass floating on the water?
Gretta-Because it is for the fish to eat.

Brody: "The water gets into the pond by the drain next to the pond."
Mrs. Luci asks, "How does the water get into the drain?"
Gretta replies "Someone pours it in there."
Donia asks, "Who pours it?"
Gretta then says, "The guy who owns it."
Brody—The water came from the tower (peace fountain)

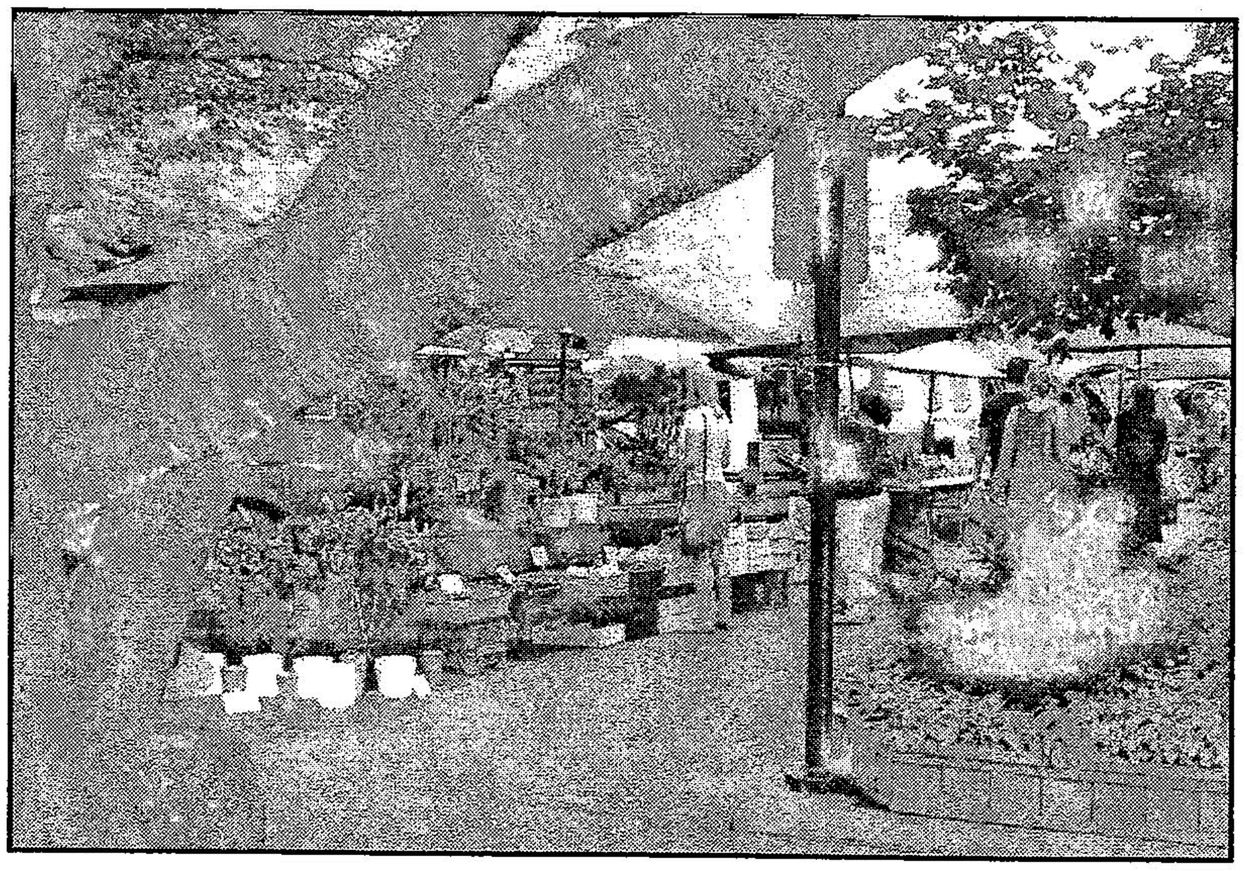
Note: Field trips are difficult for many centers; however, perhaps there are interesting places that are within easy walking distance. Plan carefully so there will be plenty of adult supervision, snacks and first aid supplies.

Weatherman John Patrick visits class

Before the visit, the children compiled a list of questions that they would like for him to answer. He answered Andrew's question about tornados, explaining them by using the Wizard of Oz as a point that most children could relate. When asked about rainbows, he encouraged the children to try to make one with a water hose in the yard.

Note: We did!

Field Trip to the Farmer's Market



On June 17, 2004, we took a trip to the farmer's market. The children were able to see how water correlates to the growth of flowers, vegetables and fruits. While touring the different booths, the children were able to taste blueberries and decide as a group the vegetable they wanted to purchase.

Visiting the Fire Station

When the children saw Sparky the Dalmatian at the fire station, they stopped to chat with the firemen. This resulted in an impromptu visit to the station and learning that firefighters use lots of water.

Language Arts & Dramatic Play

The project on the Wonders of Water created a lot of enthuasium among the teachers and care-givrers as well as with the children. In fact, one of the primary advantages of working on a project is the enthuasium that teachers enjoy as they come up with new ideas and plans. The dramatic play areas were especially fun. Here's more from the notebook!

Starting with what we had: The dramatic playroom was set up as a simple kitchen/house. There was a refrigerator, stove/oven, table and other common kitchen supplies. After week one, we came up with our project—water. We decided to keep the area the same but add different clothes. We added raincoats, hats and boots. The kids seemed to have fun and incorporated their concepts of rain and added new vocabulary words.

After a few weeks of changing out clothes and toys in the room, we made a drastic change and turned dramatic play into a **beauty/barber salon**. One day Brody was pretending to be the hair stylist. He washed Ms. Jenny's hair and then said he was going to cut it. He used two combs together forming a "v", which looked like scissors to pretend cut.

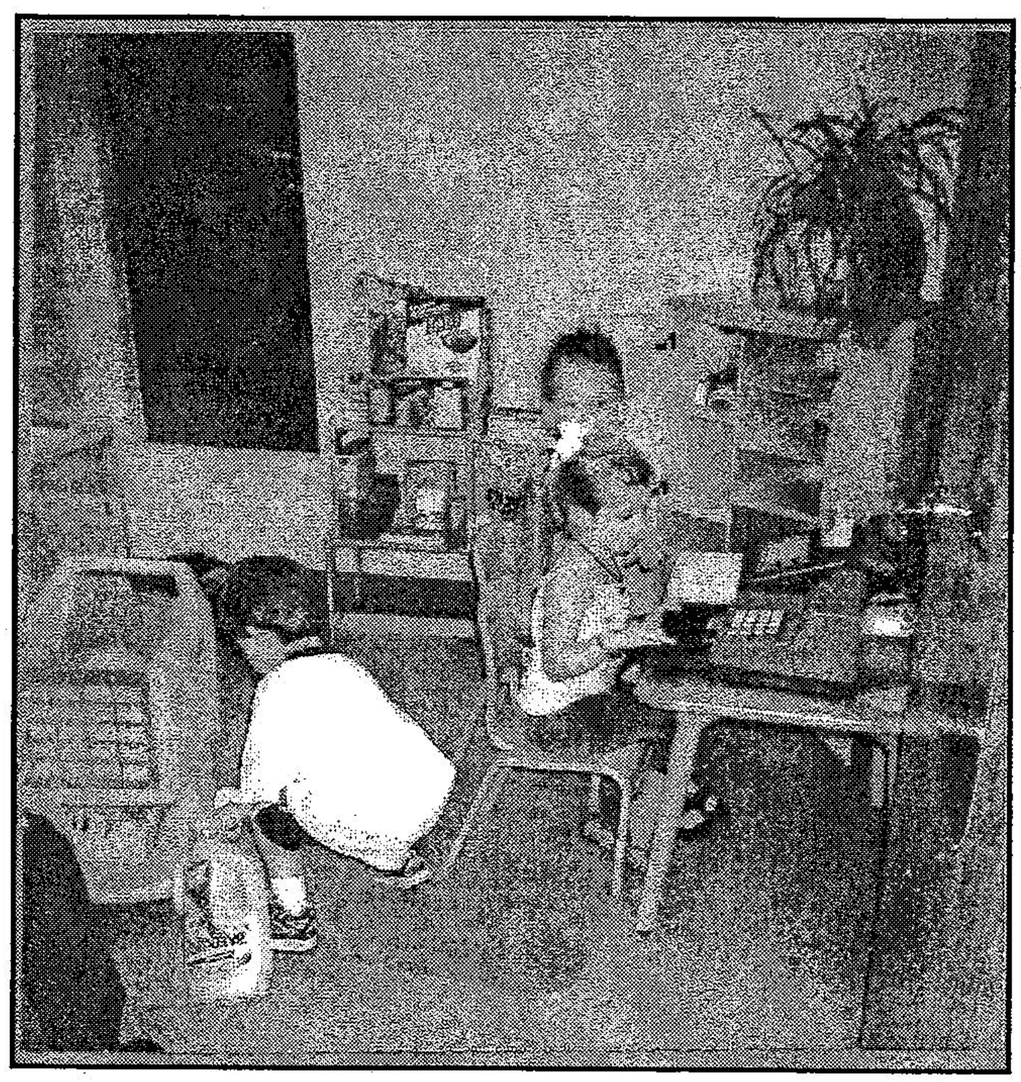
Props to add for a beauty/barber salon:

- Combs
- Brushes
- Hairdryer
- Curling iron
- Makeup containers
- Shampoo cape
- Magazines
- Razors (with all cords and sharp edges removed)
- Spray bottles

From Beauty/Barber Shop to Fire Station!

The children's natural curiosity led to the fire station. We placed a box in the room that contained props for a fire station. We also placed the steering wheels in the room. They, however, used the equipment in the prop box and the steering wheels as a fire truck. They put out fires all week!

A Grocery Store — During the last week of school the dramatic play area was set up as a grocery store. We collected empty food containers from our homes and brought them in for the children. They experienced shopping, checking others out, restocking shelves, bagging groceries, etc. This was a fun play area. The children had frozen foods, refrigerated foods, cleaning supplies, cereals, and crackers. During clean up time, they showed that they knew what items were cold and visa versa by placing them in the refrigerator, freezer or on the shelves.



Note: Not everything in each interest center needs to relate directly to a project.

Conversation is Important!

Children learn names, positions, places and other information by talking about them. It is important to help them acquire new vocabulary, learn to ask questions and how to make comments. Words color our lives and children enjoy the rhythm and sound of words and phrases. Be sure to take time to have conversations with every child every day! This means focusing on them, and **listening** to what they say.

Poetry with Preschoolers

Poetry is a wonderful way to help children enjoy language. Most of us remember nursery rhymes, and favorite songs from our childhood. Here are some ideas and tips on how to help poetry become important in the lives of both children and adults.

Collect Books of Poetry—There are lots of wonderful books featuring poetry for young children. Here are a few favorites.

- *Falling Up* and *Where the Sidewalk Ends*. . . By Shel Silverman
- *New Kid on the Block*. . . By Jack Prelutsky
- *The Cozy Book* . . . By Mary Ann Hoberman
- *Miss Mary Mack and Other Children's Street Rhymes*. . . By Joanna Cole & Stephanie Calmenson
- *Stopping by Woods on a Snowy Evening*. . . By Robert Frost
- *A Giraffe and A Half* . . . By Shel Silverman
- *Four Fur Feet* . . . By Margaret Wise Brown

Note: Check your local library and garage sales for additions to your poetry library.

Preschool Poetry Activities

Make up Rhymes—Listen for rhyming words in everyday conversation. Point them out to children. This may lead to thinking of other words that sound similar or end the same way.

"Ramon is singing."
"The bell is ringing."

List Poems— List poems are when each person adds something to a list. For example:

Henry can ride a bicycle.
Claire can do somersaults.
Ben can help his mother set the table.

Or: If I were an apple I'd be in a tree. (Henry)
If I were a duck I'd swim in a pond. (Claire)
If I were a dinosaur I'd roar really loud! (Ben)

Write up the stories -
Encourage the children to tell their own stories. Perhaps it will only be one sentence, but write it down. Then, read it back to them.

Make up a little nonsense —
Not everything has to make perfect sense. Create some nonsense or silly rhymes. Encourage the children to do the same thing.
For example:

Ms. Nelson's nose smelsen.
Joey, joey, all aglowey!
The dog likes fog.

They can be written down and put together to form a classbook of *Silly Rhymes.*

Niki, Niki. .. .So Picky!
This is a good example of nonsense words that make a fun rhyme.

Niki, Niki, so picky.
Fe, fi, fo icky niki.

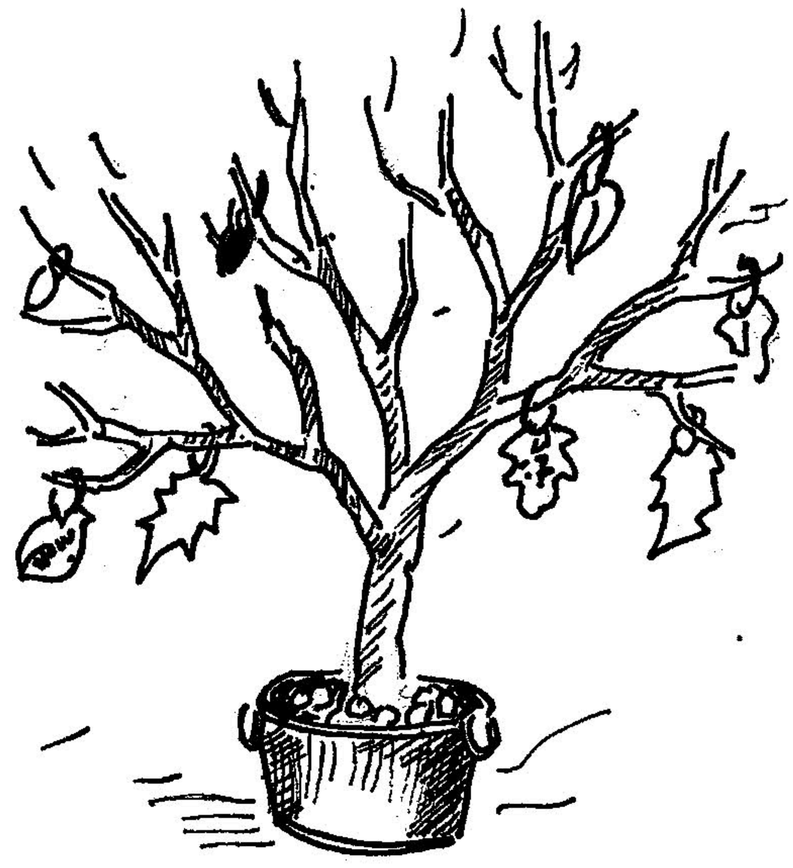
Piggy-Back Familiar Songs—
Songs are excellent teachers of rhymed poetry. Make up new verses to songs the children already know, such as Row, row, row, your boat, Shortenin' Bread or other children's songs.

"You can sing anything to "Here we Go Around the Mulberry Bush."
V. Baldwin

Piggy-Back Nursery Rhymes—
Make up new poems about yourself and the children, using the patterns in nursery rhymes.
For example:
Instead of. . .Jack and Jill went up the hill
To fetch a pail of water.
Make up something like. . . Karen and Vickey went to town
To fetch some silly songs.

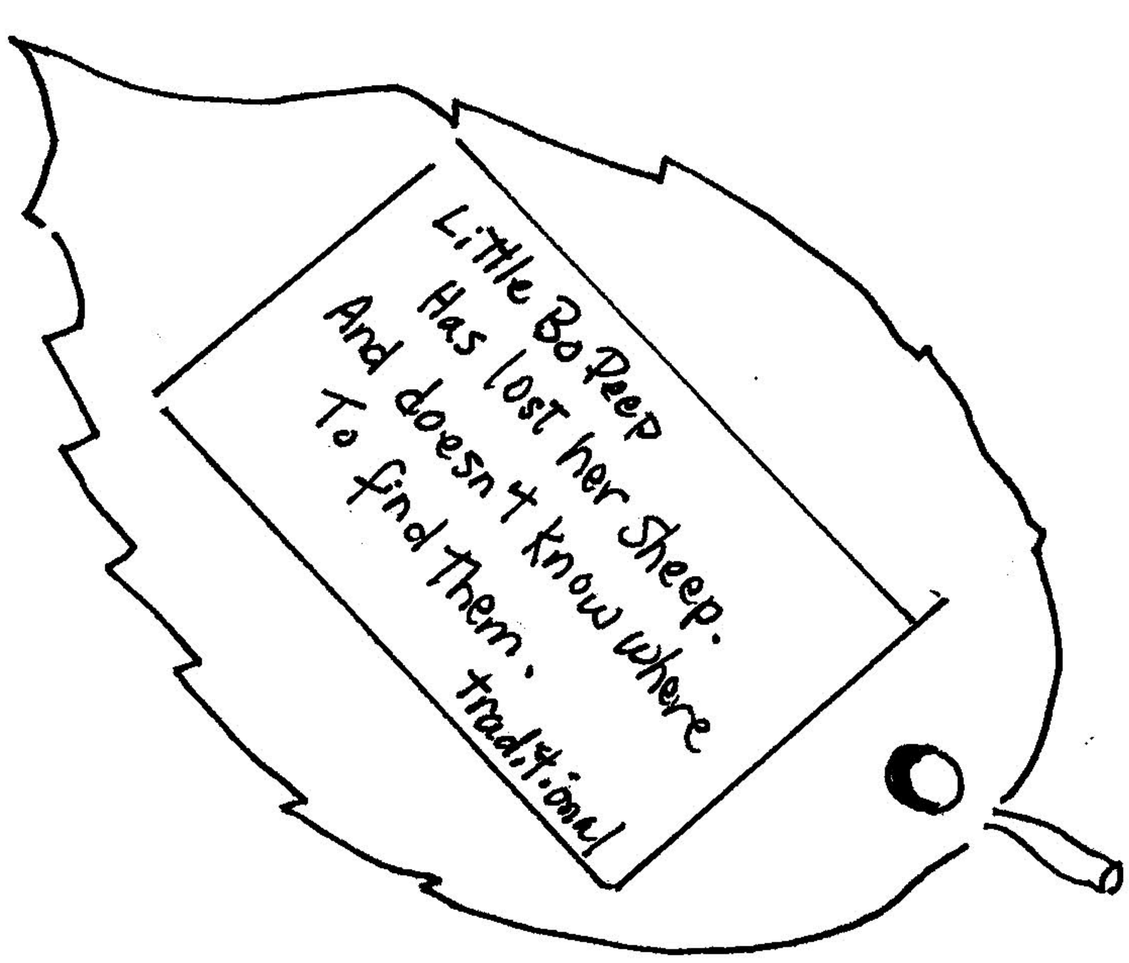
Grow a Poetry Tree

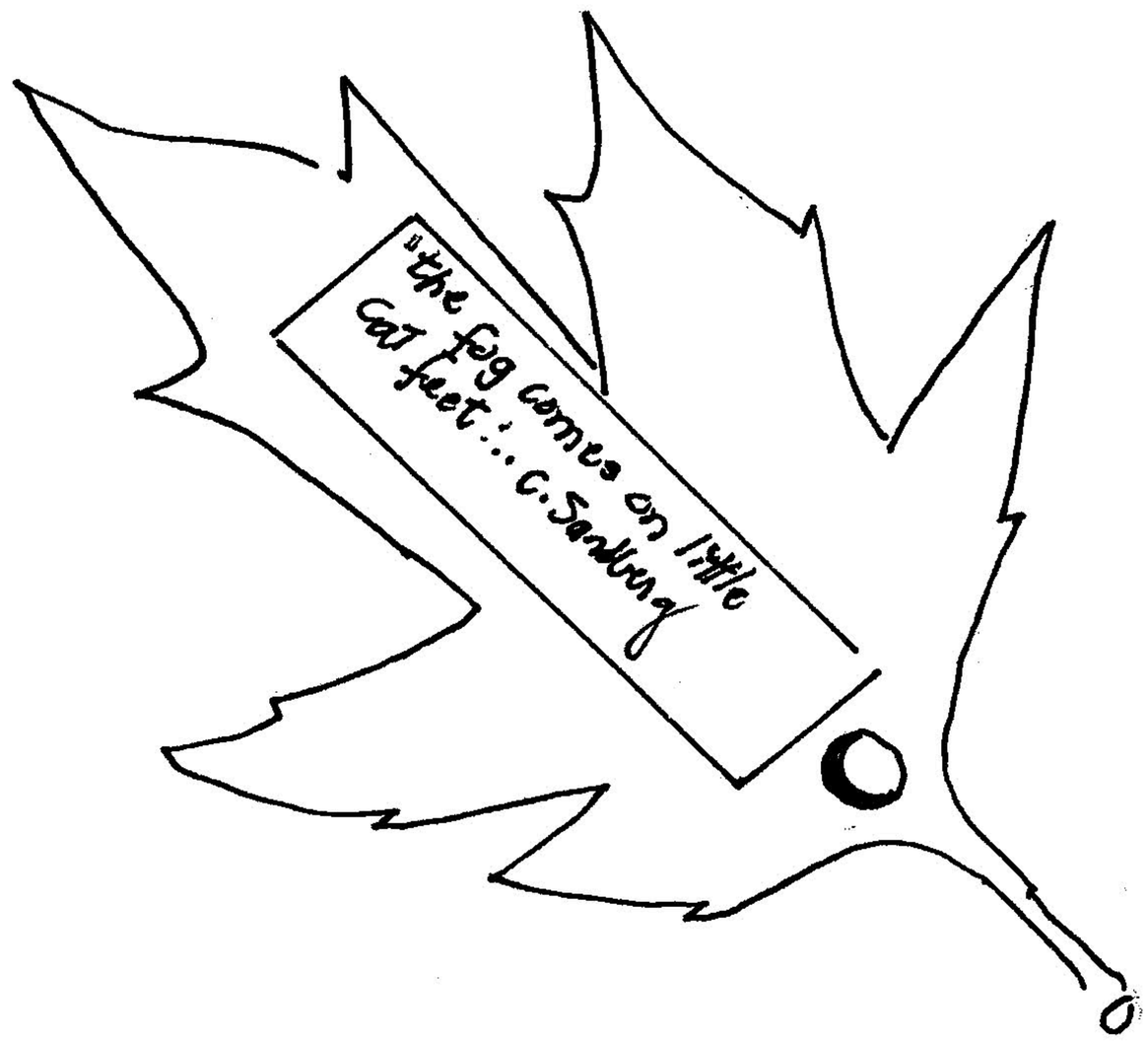
When a poetry tree grows in your classroom, poems and verses become familiar and fun!



- **You will need:**
- a large bare branch
- pebbles
- bucket or can
- construction paper
- printed copies of nursery rhymes and songs
- yarn

Place the branch in the can or bucket.
Support it with pebbles to make it stand.
Let the children cut out leaves in all shapes and colors.
Glue nursery rhymes and poems to the leaves.
When the glue is dry, punch holes in the leaves and attach them to the limbs of the branch with yarn, so they can be easily taken off and put back on.
At circle time, children can choose a leaf and recite the poem.





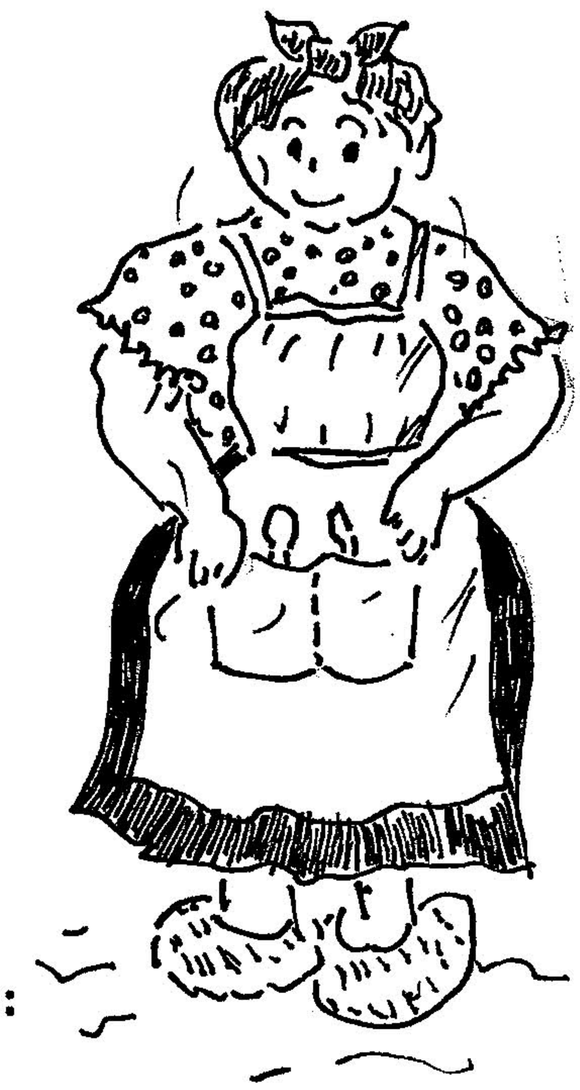
Featured Books About Water + Activities

Mrs. Wishy-Washy

By Joy Cowley

This book needs to be in everyone's library. It is the story of Mrs. Wishy Washy who loves to clean and her three animals (the cow, pig and duck) who love to get dirty. Mrs. Wishy-Washy gives each animal a bath. As she washes the different animals she says: "Wishy Washy, Wishy Washy". However, as soon as the animals finish their baths, they go back to the mud-hole saying, "Oh, lovely mud!" Children enjoy the repetitive phrases and will soon learn to repeat them. This book lends itself well to being acted out and is easy to add props to help with dramatization.

Cowley, J. (1999). *Mrs. Wishy-Washy.* NY: Philomel Books.



Activities for Mrs. Wishy Washy:

Make mud—

This is an outside activity! Let the children mix dirt and water together to make mud. Ask questions such as: "How does it feel?". . . "What color is it?". . ."What happens when you add water to dirt?"

Don't be afraid to get muddy! Bring mud clothes, and let children enjoy digging and playing in the mud. Keep the hose and old towels handy for clean-up.

Add motions to the story

When you read the verbs that describe the actions of each animal, have the children do that action.

Cow—jumped
Pig—rolled
Duck—paddled

Note: Free patterns for Mrs. Wishy Washy available at: http://www.tccsa.net/webquest/blanchard_smith/characters.pdf

Harry the Dirty Dog
By Gene Zion & Margaret Bloy Graham

This is a great book that has been fun for children all through the years. It features Harry, a white dog with black spots, who likes everything except taking a bath. This first book in a series of books about Harry tells about the adventures he has after running away from home to avoid taking a bath. He gets so dirty on these adventures that he changes into a black dog with white spots. When he is finally tired and hungry, he heads home only to be shunned by the family because they don't know who he is. As you can guess, the only way to become recognizable to the family is to **take a bath!**

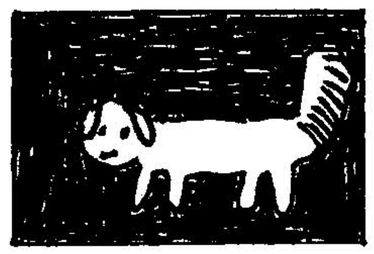
Note: Barnes and Noble have re-released the Harry books in a three-book treasury. The year 2006 marks the 50th anniversary of *Harry the Dirty Dog.* If you don't have this book in your library, it is still available at bookstores and online.

Zion, G. & Graham, M.B. (1956). Harry the dirty dog. NY: Harper-Collins.

Activities for *Harry the Dirty Dog*

Veterinarian Visit—
Have a veterinarian visit the classroom and talk about the importance of keeping a dog or other pets clean. Many veterinarians will bring a dog with them, if you ask.

Paint on black paper—
Place black paper in the art area and let children paint with white tempera



Doggie Tricks—
In the book Harry does dog tricks. Let the children act out the tricks as you reread the book.

Share pictures of pets—
Have children bring pictures of their pets. Make a mural or bulletin board display of the pictures.

Visit a dog wash—
If you live near a pet store, you may want to plan a visit. Many have dog washes in the store. Take a field trip to see the dog wash.

Music & Movement

Exploring the project of water leads to all sorts of movement activities. Splashing in puddles, listening to the sounds of falling rain, rowing pretend boats, pouring and digging in the sand area are just a few of the activities that help children build strong muscles and develop motor skills. Here are some musical ideas that may/may not relate to the water project.

One nice thing about music. . . You can always use the melody and write your own lyrics. This is especially useful when working with projects. If you can't find a good song about the topic (water). . . Make up your own. Here are a few samples.

Drink Some Water Every Day
(tune: Mulberry Bush)

Drink some water every day, every day, every day.
Drink some water every day. To make our bodies grow.

Idea: *Pretend to be drinking water. Take a sip each time you sing "day". On "grow" stretch as tall as possible.*

Raindrops are Falling
(tune: Skip to my Lou)

Raindrops are falling, won't you try to catch one?
Raindrops are falling, won't you try to catch one?
Raindrops are falling, won't you try to catch one?
Catch one if you can!

Idea: *Repeat the song while sticking out your tongue (if you can). This sounds really silly, but the kids love it.*

We Use Water to Wash Our Hands
(tune: Mulberry Bush)

We use water to wash our hands, wash our hands, wash our hands
We use water to wash our hand, Scrub, Scrub, Scrub.

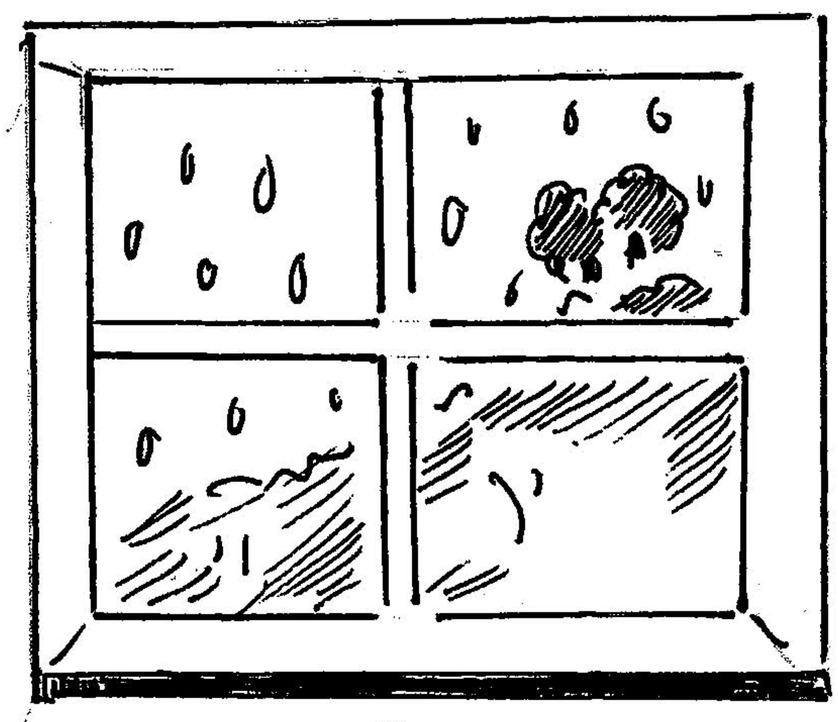
Importance of Handwashing: The number 1 defense against illness has been identified as hand-washing. Make it an important part of the daily routine. Singing songs will help remind children to wash hands before snacks, after toileting, and whenever they get dirty.

Itsy Bitsy Spider
Remember how the rain washed out the poor spider?

The itsy, bitsy spider, went up the water spout
Down came the rain and washed the spider out.
Out came the sun and dried up all the rain.
Then the itsy, bitsy, spider went up the spout again.

Idea: *Instead of the traditional actions try letting the spider creep up each arm. This cross-over activity helps children make needed brain connections!*

Pitter Pat
(tune: Mulberry Bush)



Pitter Pat, Pitter Pat, Pitter Pat, Pitter Pat.
Pitter Pat, Pitter Pat, Pitter Pat, Pitter Pat.
Pitter Pat, Pitter Pat, Pitter Pat ,Pitter Pat.
Down comes the rain!

Idea: *Use fingers to pretend the rain is falling.*

Math & Science

A project on water is a natural for science and math learning. There are all kinds of experiments to do, predictions to make, and conclusions to think about with water activities. The fact that water changes form, from liquid to solid (ice, sleet or snow) to steam (when heated), makes it ideal to investigate. Here are some of the activities that the UA nursery school included in their project report.

Ice + Salt—What happens?

What happens when salt is added to ice? This is what the children at the nursery school explored.

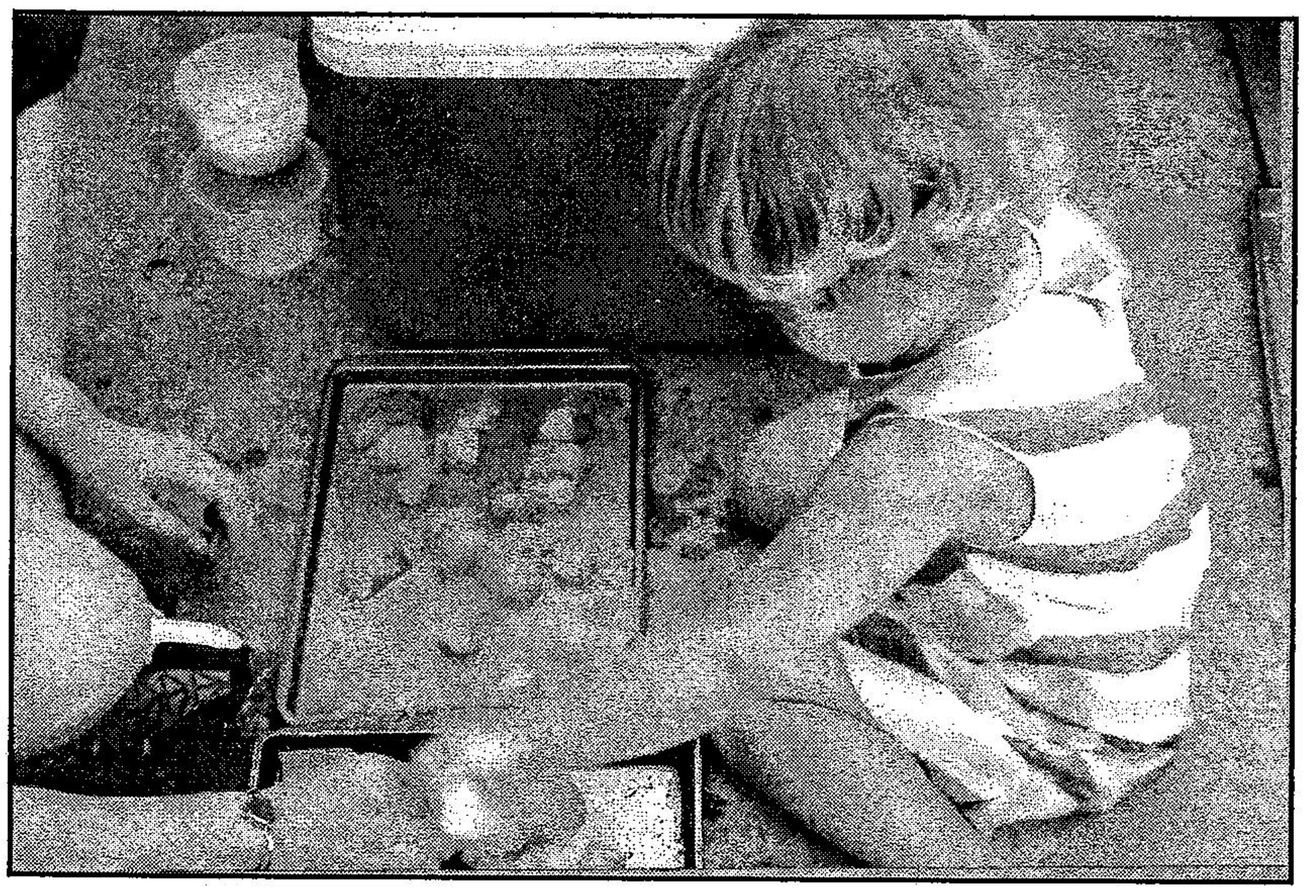
You will need:

- Flat baking sheets
- Ice cubes
- Salt

Place several ice cubes on the baking sheets.

Give the children access to salt (small bowls)

Encourage them to add salt to a few of the ice cubes? What happens?

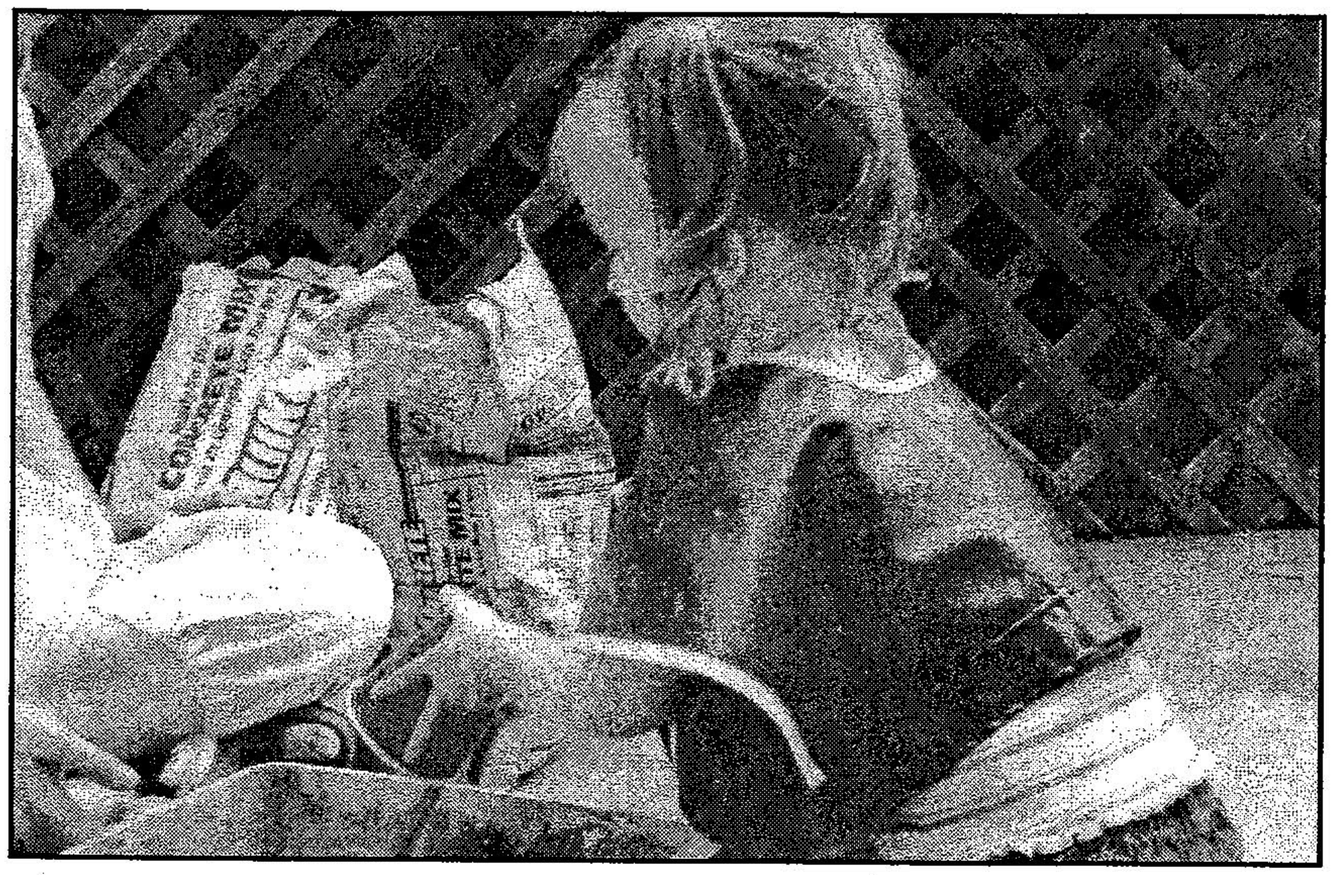


Kylie puts ice cubes together with salt. She uses the salt at first to make the ice cubes stick together but then realizes that salt and the temperature outside makes the ice cubes melt.

Idea: *This is a great activity for outdoors. Simply place the ice cubes in a cooler to keep until needed.*

Concrete and Water Get Really Hard!

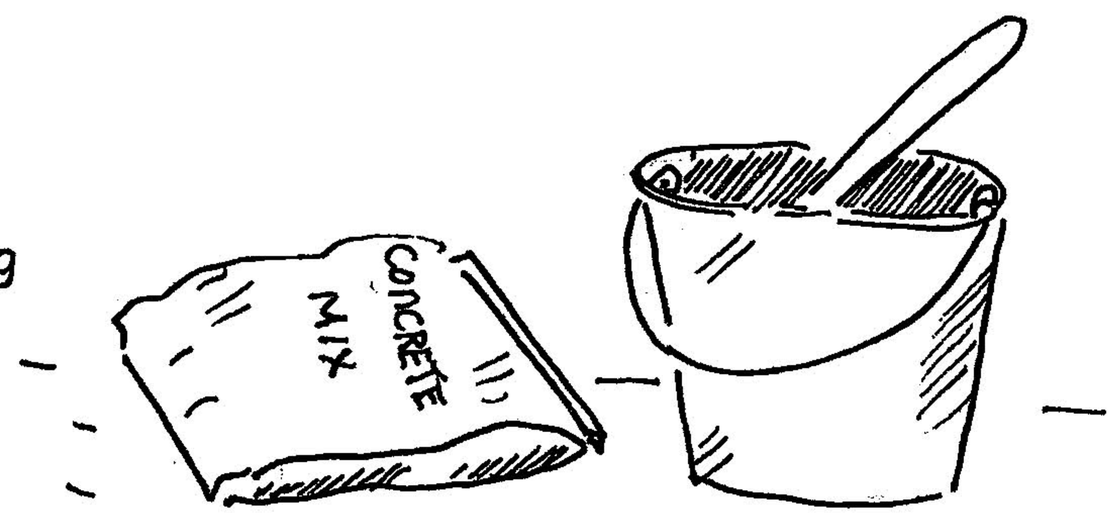
Ali carefully pours concrete mix and water together to make concrete. After concrete is made the children make their own imprinted stone to take home.



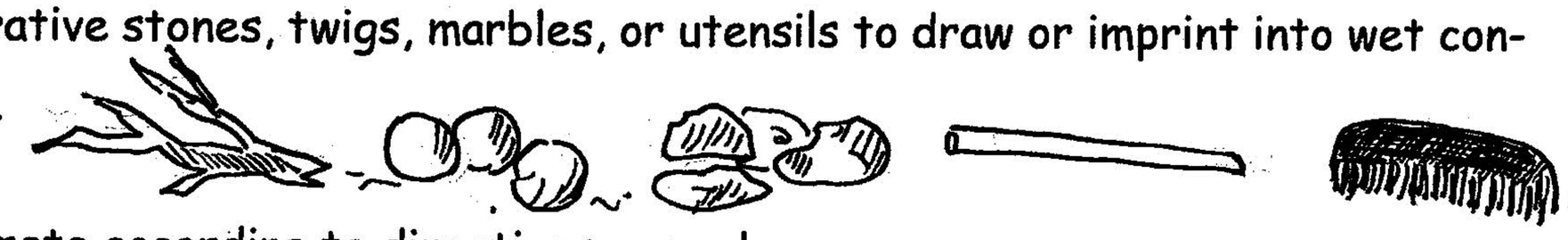
Concrete Stepping Stone

These individually designed "stones" make great gifts. They can be placed in flower beds, or even displayed indoors. Wear a paint smock.

You will need:

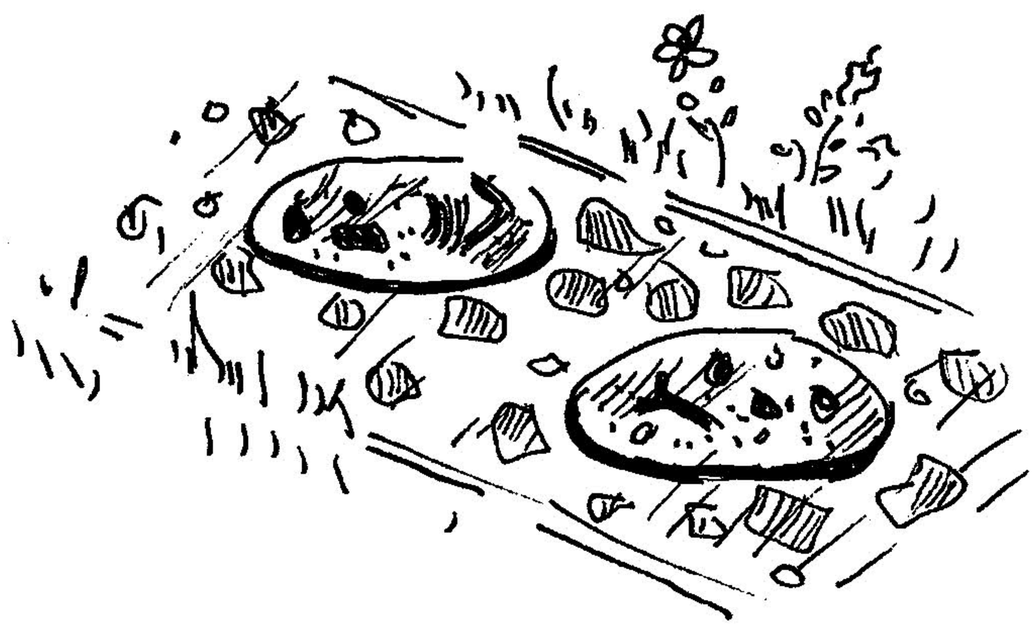


- Concrete mix
- Large container for mixing
- Large spoon for mixing
- Paper cups
- Water
- Frames (cardboard box lids and old baking cake pans are possibilities)
- Decorative stones, twigs, marbles, or utensils to draw or imprint into wet concrete.



Mix concrete according to directions on package.
Stir thoroughly, then allow children to dip and pour concrete into frame.
Add decorative items.
Let dry.
Remove from frames.

Place in garden or path.

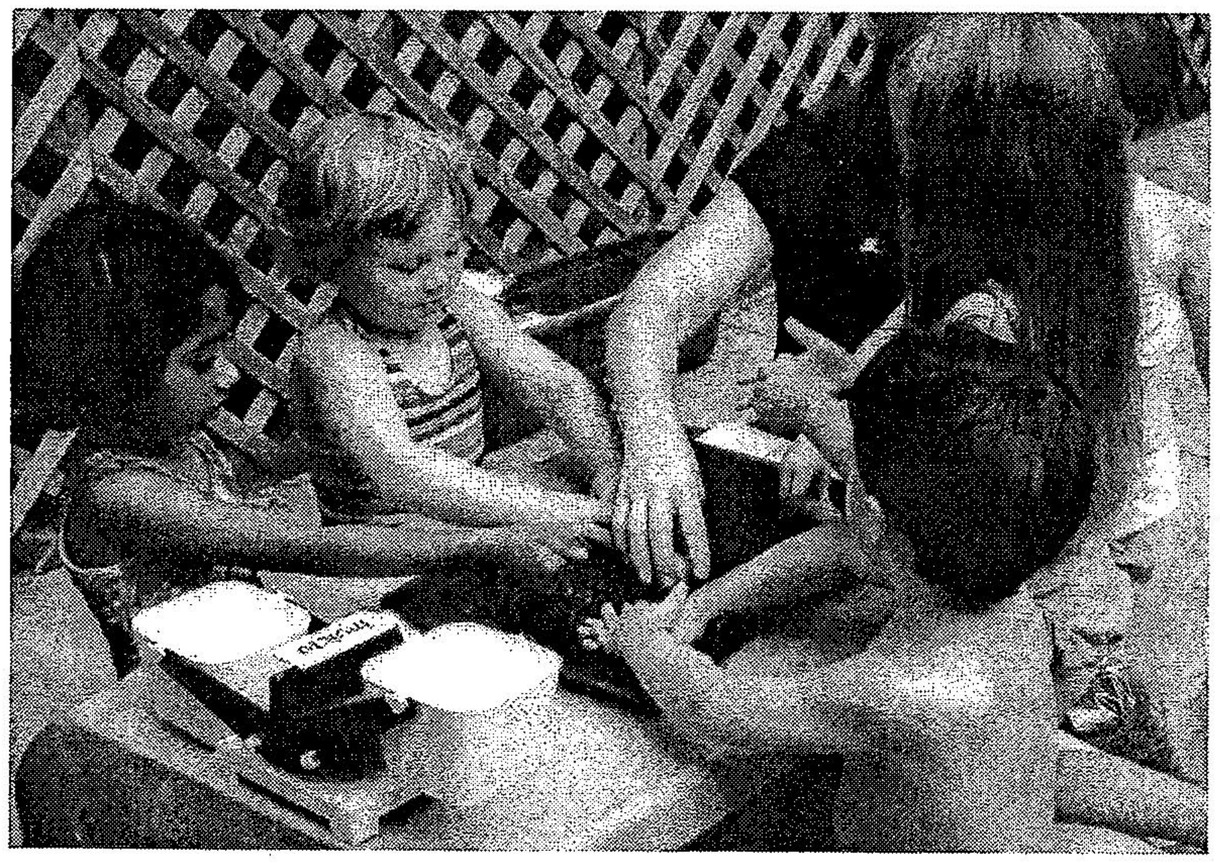


The Water Cycle—"Cloud" Activity

Following the visit from the weatherman, the children became interested in clouds. . . and why some of them turned into rain. The "cloud" activity was a lot of fun as children discovered different things about "clouds". Below are some of the children's experiences.

You will need:

- Baking sheets
- Cotton balls
- Water (colored gray)



Add water to the baking sheets.

Place the cotton balls where children can reach them.

Encourage them to dip the cotton balls into the water. Tell them that the cotton balls are pretend "clouds".

This is what happened:

Ms. Lucie says "Hey guys, what happens to the clouds when we dip them into water?
Mani answers, "Rain!"
Ms. Lucie asked, "What happens? Look!" As she dips a cotton ball into the water and holds it up to let the water run through her fingers.
Mani answers, "Rain!"
Andrew adds, "They get wet!"
Ms. Lucie replies, "They get wet. They absorb the water. They also get darker, don't they? Do rain clouds get darker?"
Mani says, "Yeah."
Andrew follows with "Yeah."
Ms. Lucie asked, "What happens when they get too full of water?" While demonstrating over the pan. "What happens when they get really full? What's happening out of my hands?"

Mani sings, "It's raining, it's pouring. Come again another day. Barney's friends all want to play. Rain, Rain, Go away!"
Ms. Lucie, "Hey, Kylie, what's the water doing when the cotton ball gets really heavy with the water?"
Kylie answers, "Uh—it rained!"
Ms. Lucie asks, "Andrew, which is heavier, the dry ones or the wet ones?"
Andrew answers, "The wet ones."
Ms. Lucie says, "The wet ones are heavier. Why?"
Andrew replies, "Because they have water. And that one has zero water."
Ms. Lucie says, "Zero water? That's right. It has zero water, and it's lighter isn't it?"

While pointing at the clouds in the sky, she adds, "Now do those clouds have zero water or lots of water? Look up at the sky".
Andrew: (looking at sky) "Zero!"
Ms. Lucie: "Why?"
Andrew replies, "Because they are staying up in the sky,"

Ms. Lucie says (as she demonstrates with a soaked cotton ball) "This one has lots of water: what is it doing?"
Andrew says: "It's raining!"

Note: It is important to help children understand why something is happening. In this case, they observed the cotton balls getting heavier and darker. When completely soaked, they saw the water dripping down, just like rain from clouds.

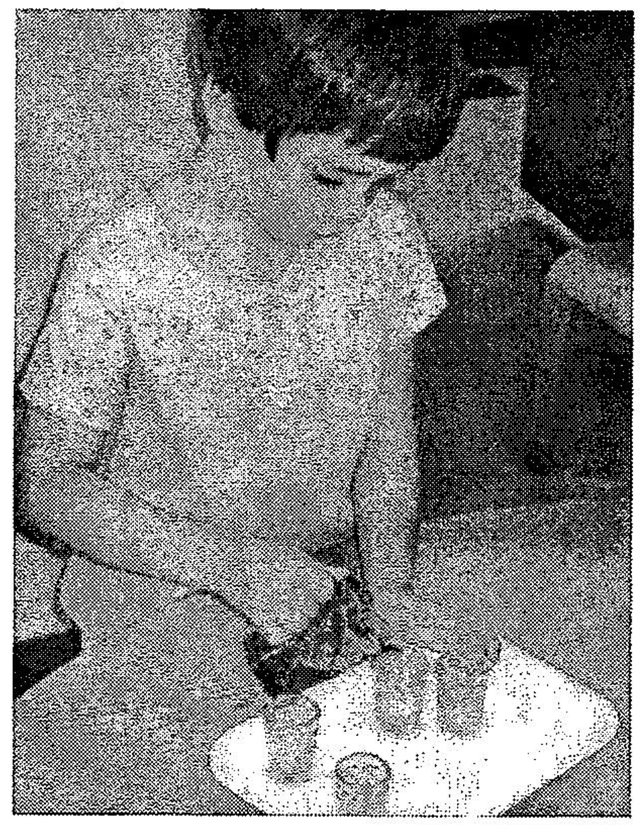
More Water Projects!

As they continued the water project, the children had many varied experiences. Here are some of them.

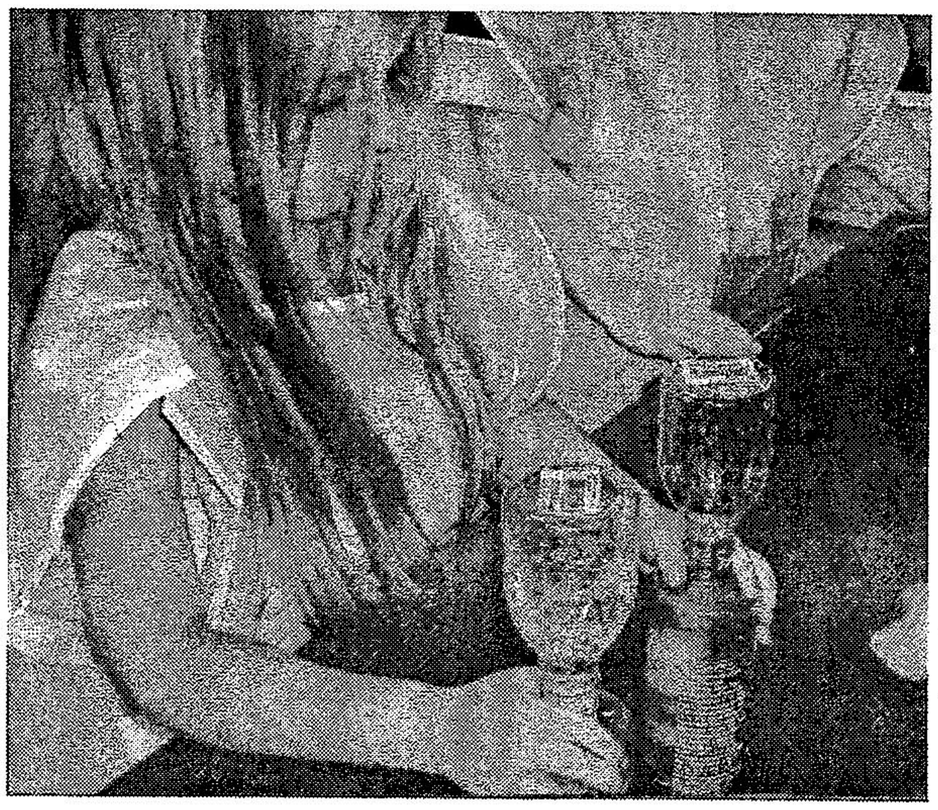
Practice in Pouring
You will need:

- Tray
- Water pitcher
- Small containers

Emma practices pouring and measuring water during center time. She uses fine motor skills and tries to be precise getting the water into the small openings. She has few spills.



Discovering a Tornado!



Gretta was playing at the water table and said, "Hey, Ms. Shannon, Look, I can make a tornado." She picks up the smaller bottle and places the top inside the larger bottle's top. Then she swirls **it around making the water spin.**
Ms. Shannon says, "That's like the tornados in the science center,"
As Brody approaches the water table, **Gretta** says, "Hey Brody, I can make a tornado." Gretta hands Brody one set of bottles. Brody pours out the bottles.

Make a Tornado for the Science Center
You will need:
Large & small bottles
Water

Note: Fill one bottle with water, place them together at the tops, and tape securely. Put the filled bottle on the top and watch the tornado form as the water flows to the bottom bottle.

Sandbox Volcano

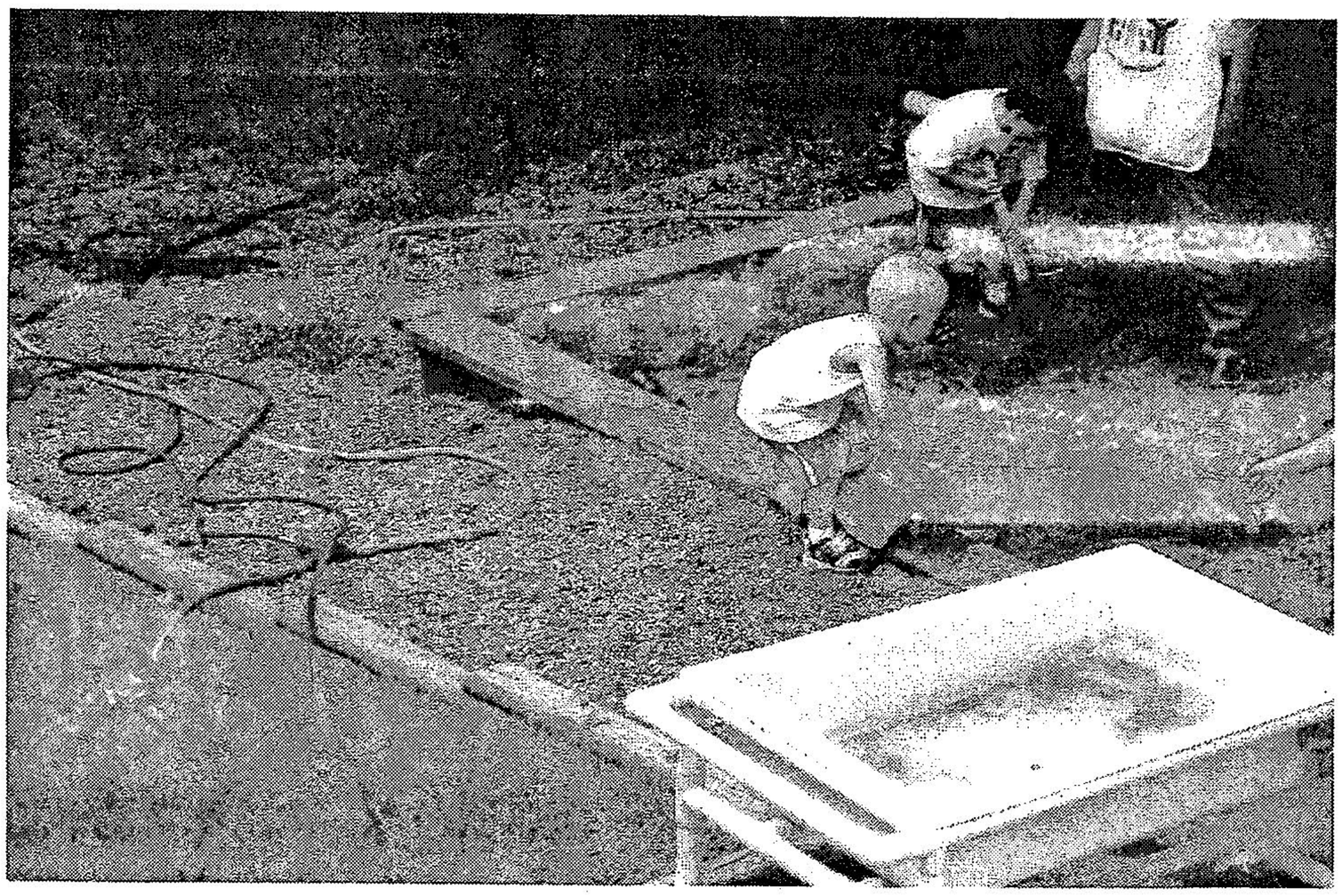
Mr. Zane and the children used baking soda, vinegar, food coloring and water to make a volcano in the sand box. The children made a mound with a hole in the top of the cup of mixture. Then, they each took turns pouring water into the cup to make the volcano erupt.

Erupt a volcano!

You will need:

Baking soda, vinegar, food coloring and water

Build a mountain in the sandbox. Then make a hole in the top. Add food coloring to the water and vinegar. Place some soda in the hole, then pour the liquid mixture on top. Oops! Here it comes!



The Power of Water!

Austin placed a toy truck in a plastic tube that was slanted into the sandbox. The truck stopped rolling down the tube at about the halfway point. Austin went to the water table and filled up a plastic jar with water. He took it back to the plastic tube and poured the water down the tube. He looked at the side of the tube—the truck has moved. He repeats the pouring of the water down the tube until eventually the toy truck came out of the end of the plastic tube into the sandbox.

Andrew Makes a River!

The hose at the Nursery School had a leaky hole in it. Andrew discovers this and decides to use it anyway. According to the journal, this is what happened.

Andrew holds the water hose with two hands and points the leaky hole toward the dugout area in the sandbox.

Ms. Lucie asks, "Is that how you fill it up, with the hole in the water hose? What is this in the sand?"

Andrew answers only one question, saying, "A stream where the water is going." Look at the water moving!"

Ms. Lucie exclaimed. She then asks, "Why is it moving?"

Andrew answers, "Because there is another part. And I got to go fix it. I have to fix this,"

Andrew picks up a sand shovel and starts digging the sand out of a section of his stream.

Engineers are at work!

The children then enjoyed playing in the river!

Plants Drink Water!

In order to demonstrate that plants need water to live, the children participated in an experiment. The children observed the colored water move into the veins of the celery!

The question was asked:

What will happen to the celery when it is placed in colored water?

Their responses were:

Austin—"Turn it red."

Gretta—"Grow into a tomato."

Kylie—"Make it a real ballerina."

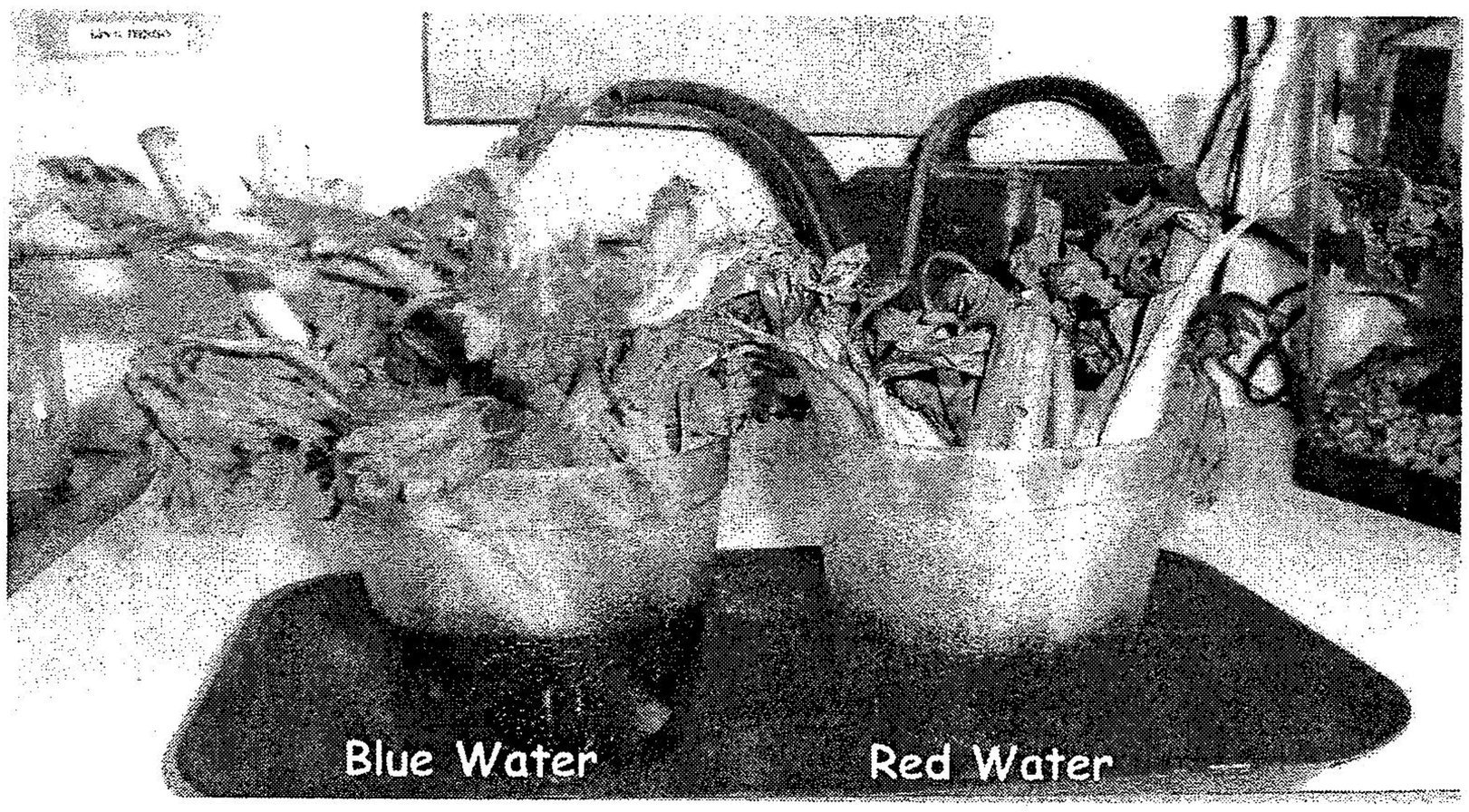
Emma—"Sick (sitting with Mrs. Vernoice).

Brody —"Turn it blue."

Ali—No response.

Mani—No response.

After guessing what would happen to the celery, children were able to see the results. They saw that water going up the celery, much like water in the root system. This activity helped correlate water to the Farmer's Market, showing the children that water makes our plants, vegetables and fruits grow.



The celery on the left turned blue-green when placed in blue; on the right leaves became red!

Idea: Sort by Color -

Sorting is a pre-math skill. Here is an idea to encourage children to sort by color.

You will need:

A collection of items with at least three colors. Encourage the children to select one color and see how many items they can find of that particular color, and separate them into a different area.

Creative Art

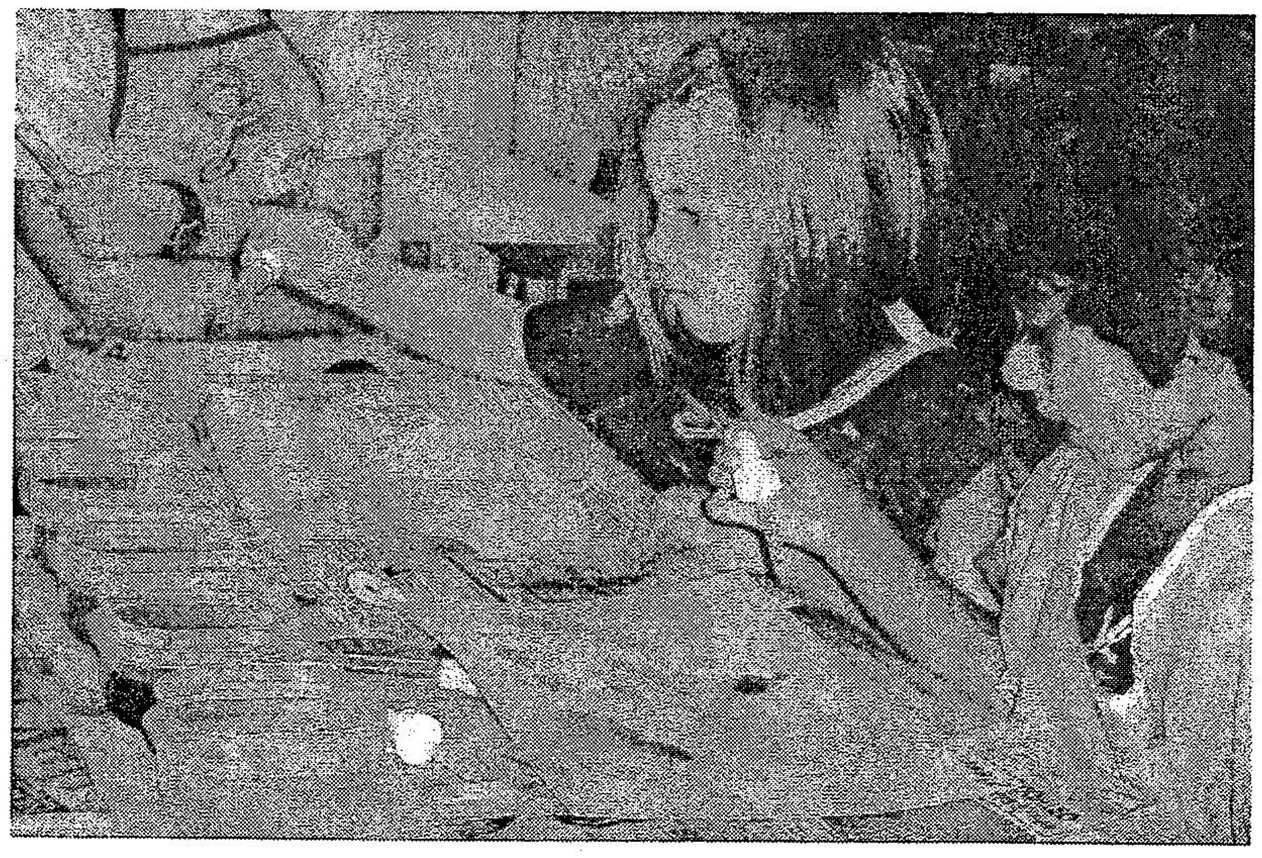
In the Reggio Emilia schools the art center (atelier) is very important. The founder of the schools, Loris Malaguzzi, is quoted as saying "The atelier, in our approach, is an additional space within the school where to explore with our hands and our minds, and where to refine our sight. . . "(*The Hundred Languages of Children*, p. 143). It would be ideal to have a large separate area where children could leave their "works in progress", but most centers do not have a large area to spare! However, even a small separate area or spare corner where children can have time to think, plan and carry out their ideas is more than worthwhile. Call it the "studio space", stock it with an assortment of supplies, variety of papers, and interesting "stuff" and enlist the children to help maintain it.

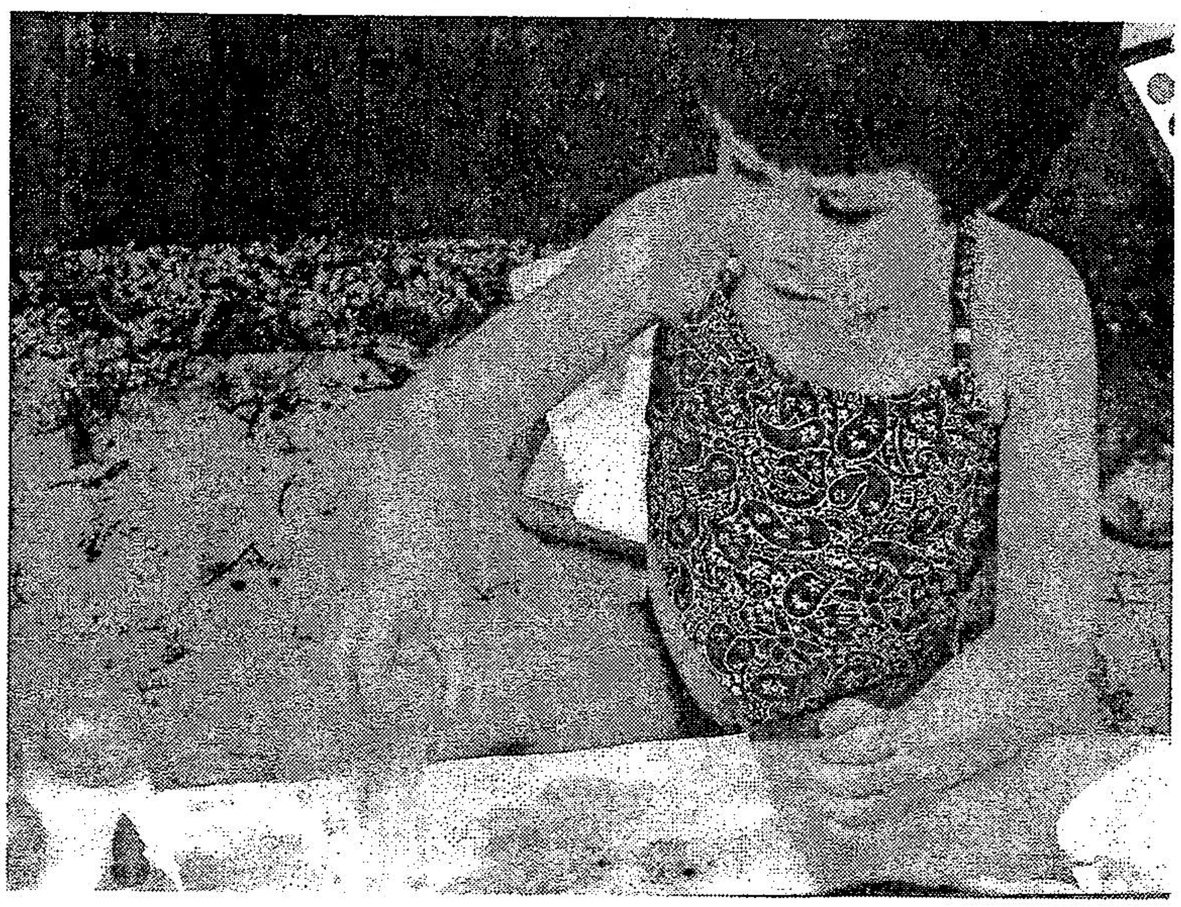
Paint with Eyedroppers
You will need:

- Paper
- Eyedroppers

Gretta and Mani use their fine motor skills to pinch the eyedropper in the colored water. They then squeeze onto paper to make beautiful artwork.

Idea: Use colored construction paper



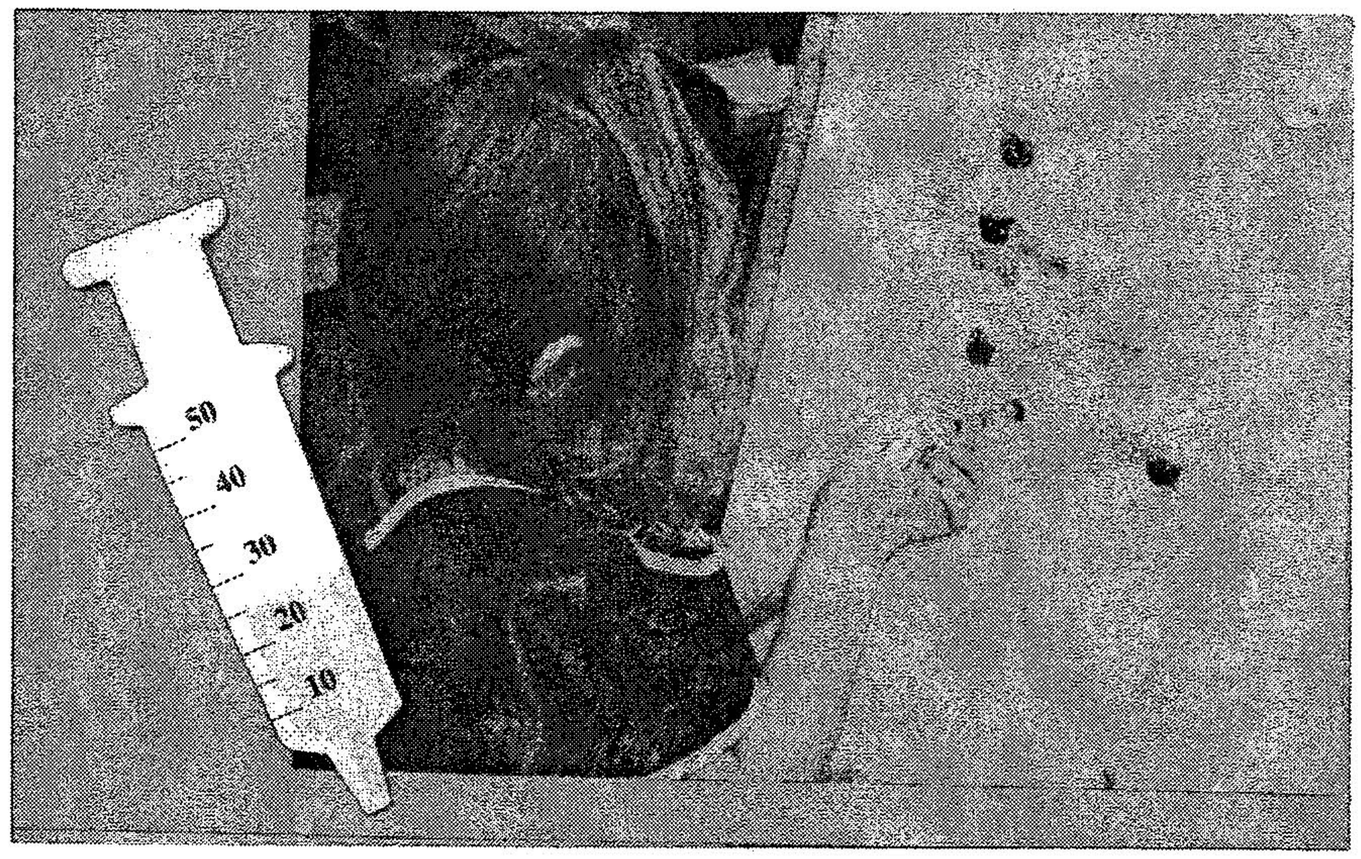


Paint with Ice
You will need:

- Frozen water (slender containers)
- Dry tempera
- Paper
- Sprinkle dry tempera on paper

Emma paints outside with the popsicles as they begin to melt in the sun. The water moves around the dry tempera painting making wonderful artwork.

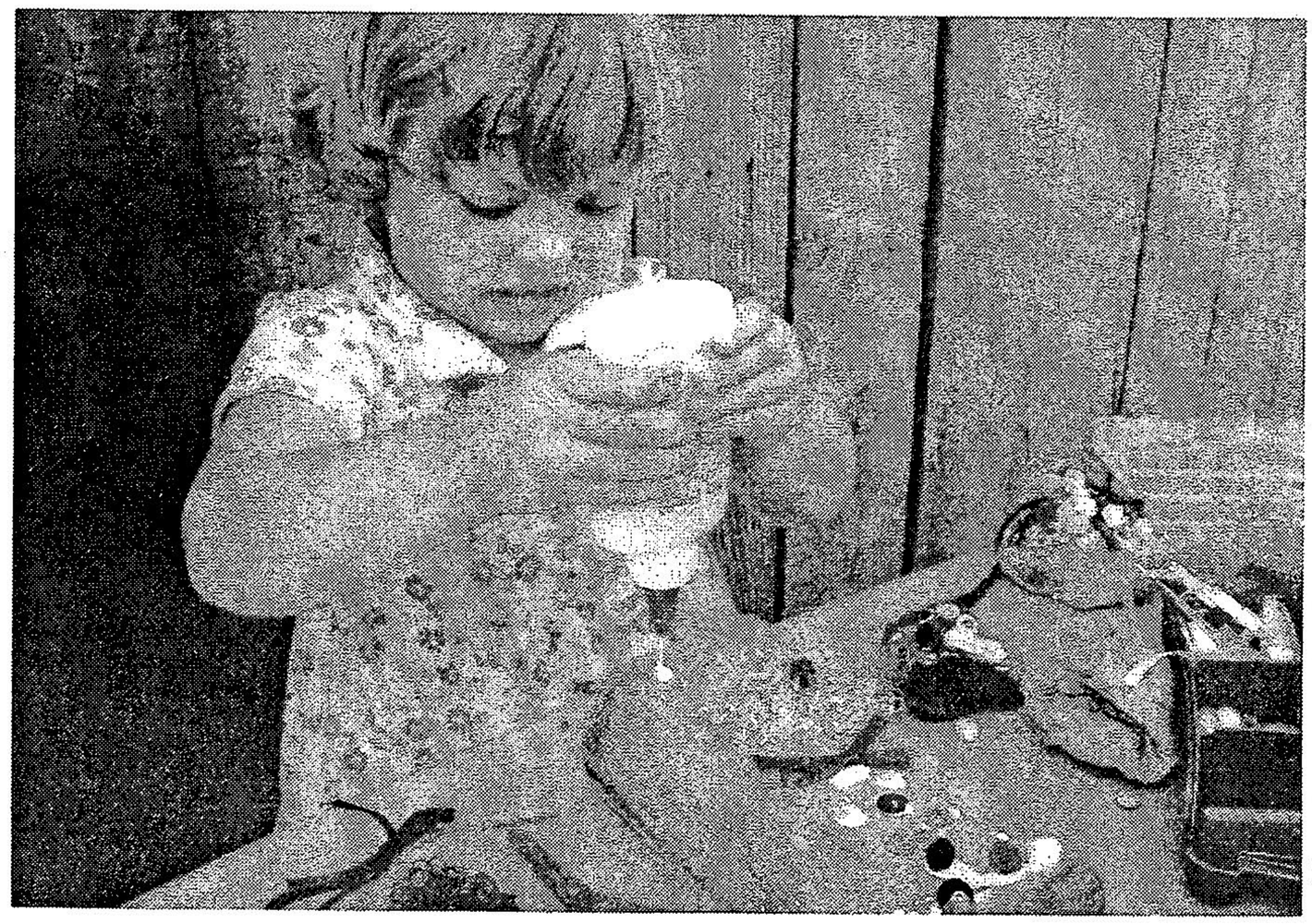
Note: *If you don't have dry tempera, substitute liquid tempera or watercolors.*



Bubble Wrap Design
You will need:

- Syringes (no needles)
- Bubble Wrap
- Tape

The children use syringes to fill individual sections of the bubble wrap with colored water. They use fine motor skills to suck the colored water into the syringe.
The syringe is then placed in a small hole in each bubble and the water is pushed out into the bubble. They all seemed to like this activity! The children made a design with the colored bubbles.

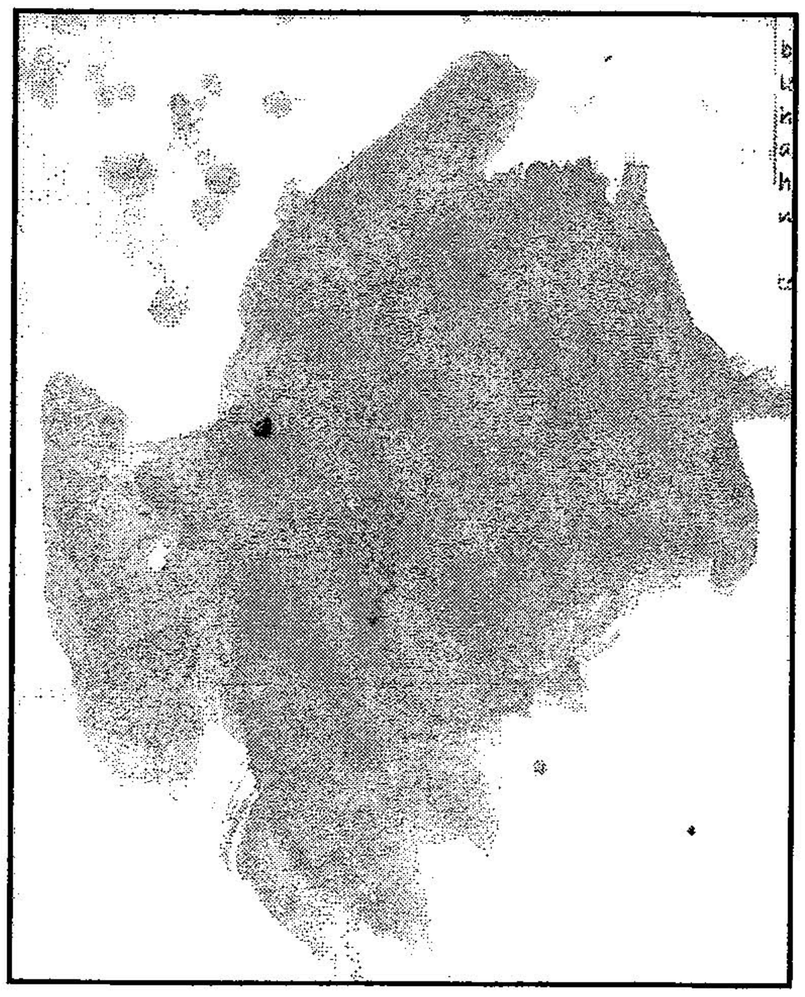


Mr. Woody
The nursery school has a collection of "Beautiful Junk" that is invaluable for many projects. Here, the children used items from the collection to create and decorate pieces of wood that had been donated. Kylie is totally engaged while squeezing glue on a piece of wood so that she can decorate it with different materials. (Hair, ribbon, balls, buttons, etc.). She named him Mr. Woody.

Items to collect for Beautiful Junk: old keys, feathers, beans, ribbons, lace, corks, bottle caps, remnants of fabric, leather, upholstery materials, shells, sponges, cardboard and paper, screws, small mirrors, film canisters, small boxes, old jewelry, etc. Sort and store in clear plastic containers.
SAFETY FIRST: Beware of sharp edges. Keep small pieces away from very small children.

Salt painting—
You will need:

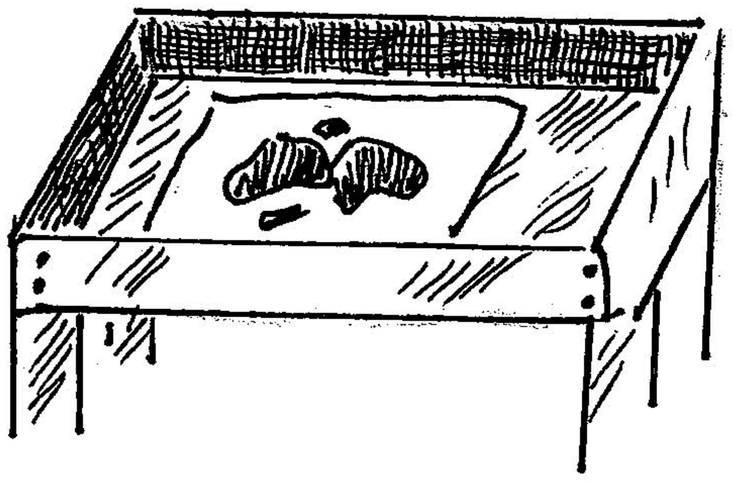
- Salt in shaker
- Paper
- Water based paint (tempera or watercolors)



There are two ways to use salt in painting. The salt can be added directly to the paint or sprinkled over the entire painting after it is completed, but while it is still wet.

Ms. Jenny watches **Emma** as she goes by the couch in the reading area. She is looking at the salt painting the children had done previously. **Emma** runs her finger along the picture and puts her fingers in her mouth. **Ms. Jenny** says, "Emma, we don't need to eat that, it is part of a picture,"
Emma says, "This is my picture," pointing to the edge of the paper.
Ms. Jenny says, "Tell me about your picture".
Emma answers, "It's a fish."

Make a fingerpaint print!
You will need:
Liquid starch
Empty water table or flat tray
Powdered tempera in large salt shakers
Paper

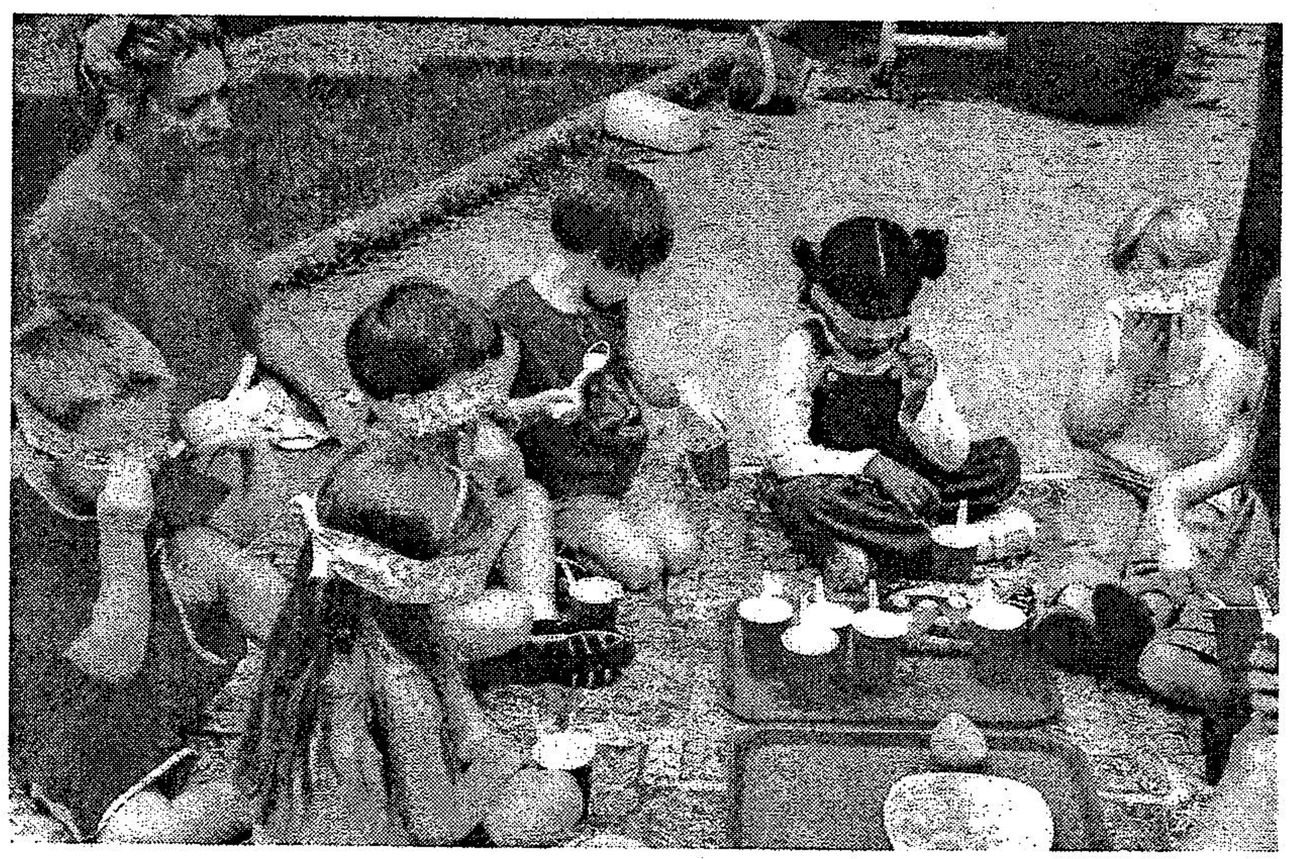


Place paper in the bottom of the water table or tray.
Pour about 3 or 4 tablespoons of liquid starch directly onto the paper.
Let children sprinkle the dry tempera onto the starch. Spread and mix it with their hands. Make circles, shapes, lines and squiggles. Another piece of paper can be placed on top of the wet painting and after smoothing the top the print can be "pulled".

Safety note: Dry tempera should be used carefully to prevent excessive dust. The adult should place the paint on the paper.

Food & Nutrition

In order to grow strong bones, muscles and brains, children need a well-balanced, nutritious diet. As simple as that sounds, it's sometimes not that easy to accomplish when dealing with a "picky eater". Many children pick up habits, likes and dislikes from parents and other family members. Then, when they learn that if they hold out and refuse to eat, someone will fix them what they want (macaroni & cheese, peanut butter and jelly on white bread) a really bad habit is formed. In the preschool setting, children can be introduced to new tastes and new smells which will, hopefully, help them include more variety into their diets.



Children at the nursery school participate in a Blind Taste Test!.

Blind Taste Testing

You will need:

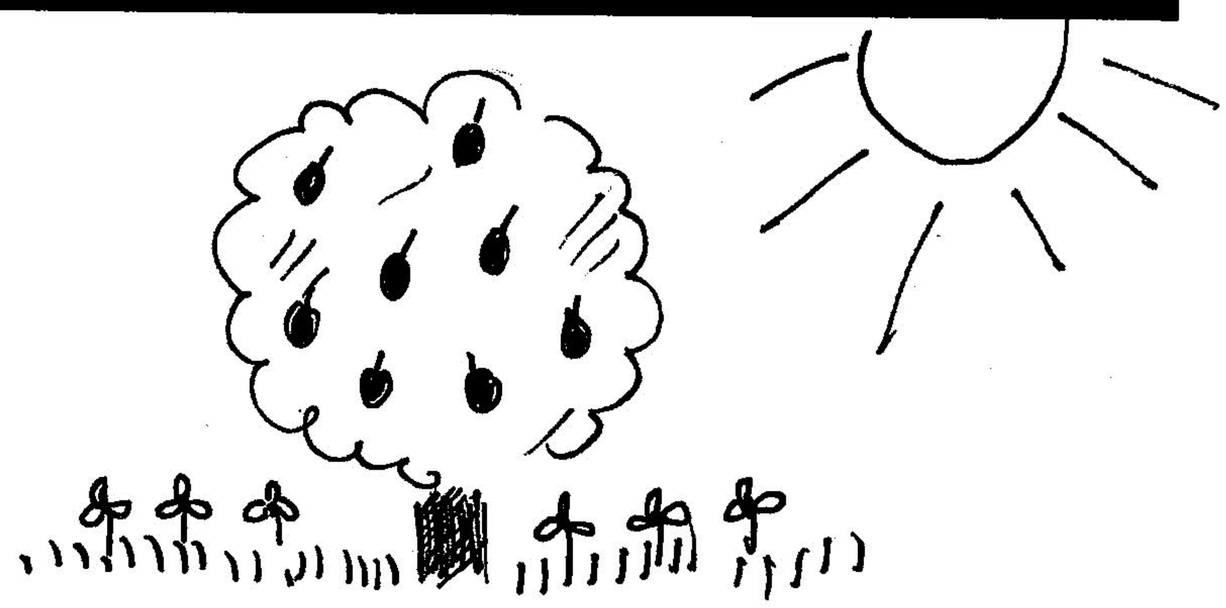
- A variety of foods, some sweet, some sour, some salty, some smooth, etc.
- Blindfolds (fabric pieces or bandanas)

Children participate in a blind taste testing activity. They put on a blindfold, if they want to, and taste: chocolate pudding, lemon wedges, orange slices, sour gummy worms and oyster crackers. The children tried to guess what they were eating. Someone in the group guessed most of the food.

Note: Some children may not want to cover their eyes. If so, let them participate without the blindfold.

Recipes

Apple Sandwich



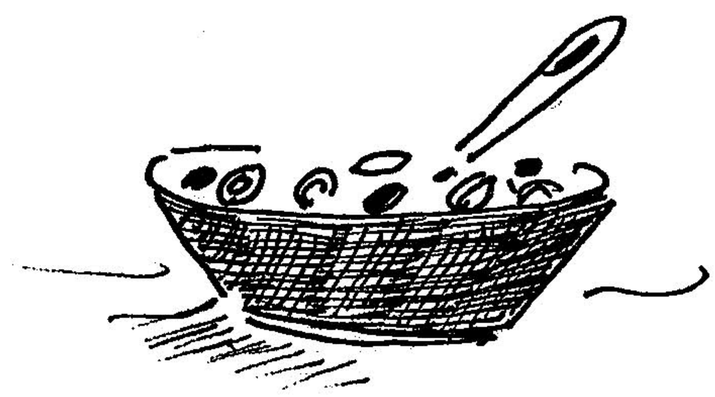
Ingredients:
Raisin bread (4 slices)
1/3 cup cream cheese
1/4 cup chopped apples
1 teaspoon sugar
1/8 teaspoon cinnamon

Toast the bread. Combine cream cheese and apple in a small bowl.
Spread onto toast.
Combine sugar and cinnamon in a small bowl, then sprinkle evenly over cream cheese/apple mixture. (serves four)

Idea: Use large cookie cutters to cut bread into fun shapes.

Chicken Feed

Serve this after reading Mrs. Wishy-Washy.



Ingredients:
2 cups Cheerios
1 cup peanuts
1/2 cup sunflower seeds
1/2 cup raisins
1 cup M&M's

Mix all ingredients in a bowl and stir gently. Serve in a paper cup.

Purple Cow

Delicious drink! Enjoy the nonsense poem while you sip.

I never saw a purple cow,
I never hope to see one.
But I can tell you anyhow,
I'd rather see than be one!

Ingredients:
Vanilla ice cream & grape soda
Frozen whipped topping & maraschino cherry
Cup & spoon & straw
Mix together with blender or spoon.

Phase III—Concluding the Project

When the project appears to have run its course, children may be ready to move on to something else. Then it is time to plan a special event, or activity that will lead to closure. This is when children and teachers re-visit the project and focus on what has been learned. Steps to concluding a project include debriefing the staff, planning a culminating event for students to share, and a way to tell the story of the project. After completing the closure activity or event, teachers and staff should review the project and assess achievement of their goals.

Re-web the topic with the children

Sometimes it is helpful to create another web with the children about the topic, or to simply look at the original web with the children and see what they know now that they did not know at the beginning of the project.

Have a special event

The children may want to have a special event to share what they have learned with parents and/or community members.

- Exhibits
- Reports
- Plays
- Scrapbook

What did you learn about water?

The University Nursery School teachers and staff debriefed the children to see what they learned about water.

Ms. Donia: What did you learn about water?

Andrew—"Wood floats on water.
Water guns sink in water."

Kylie—"One day I went scuba diving and saw sea animals."

Brody—"It comes from a water hose."

Gretta—"For all these years we've been using it, always going through it. We use it for swimming and feeding our pets."

Austin—"Water is used to put out fire."

Emma-"Fish live in it. Dogs drink it. We drink it. Frogs use it. Rain comes out of it."

Pros and Cons of the Project Approach

Here are some things to consider before deciding to try the project approach. Although it may not be too different from what you have been doing, there are certain requirements. It would be difficult for an inexperienced teacher to have the expertise to plan and conduct a successful project. However, a new teacher could be paired with an experienced mentor.

The Project Approach—

- Requires experienced teachers
- Requires community/family support
- Requires flexibility
- Requires teachers to do research on their own
- Requires site visits or visitors

The Project Approach—

- Focuses on children's interests
- Includes children in planning and implementing
- Involves family and community
- Allows children to learn methods of research
- Requires documentation—products are not primary, but result from process that is well planned and carried out

The Project Approach —

IS FUN FOR BOTH CHILDREN AND TEACHERS

PREVENTS BOREDOM WITH THE SAME OLD THING!

References and Resources

There is a wealth of information about the project approach available in journal articles, books and web-sites.

Edward, C., Gandini, L. & Forman, G. (1995). *The hundred languages of children.* Norwood, NJ: Ablex Publishing.

Helm, J. H. & Katz, L. (2001). *Young investigators: The project approach in the early years.* NY: Columbia Press.

Helm, J. H. & Beneke, S. Eds. (2003). *The power of* projects. NY: Columbia Press.

Thompson, S. C. (2005). Children as illustrators: Making meaning through art and language. Washington, DC: National Association for the Education of Young Children.

Topal, C. W. & Gandini, L. (1999). *Beautiful stuff! Learning with found materials.* Worcester, Massachusetts: Davis Publications.