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ABSTRACT

This document is a collection of 21 newsletters, produced by the Maryland State Department of Health and Mental Hygiene between 1964 and 1972, which cover a wide variety of activities and issues involved in day care for children, aged 2-5. The following topics are included: outdoor play, art, music, block building, science, eating, trips, readiness, scheduling, observing children, teacher expectations, and children's play. Discussions of 2-, 3-, 4-, and 5-year-olds in day care settings are presented, along with teaching suggestions, child development information, and equipment needs. Guidelines for observing children, creating effective indoor and outdoor physical environments, using trips, incorporating holidays, and coping with new children are included. Extensive bibliographies of science activities and story books are provided. (ED)

CHILD DAY CARE GUIDELINES: A COLLECTION

Maryland State Department of Health and Mental Hygiene
Division of Maternal and Child Health

CHILD DAY CARE GUIDELINES

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A NOTE ON OUTDOOR PLAY

by Pamela R. Moore, M.D., Chief
School Health Services
Anne Arundel County Health Department

"Outdoor activities are just as important and just as necessary as your indoor program. Both are essential to the health, education and development of children." (Child Day Care Guideline #1, Let's Go Outside.)

Particularly in the winter with heated and dried air inside, the outdoor play time, other than providing the usual change of scenery, chance to run off energy and chance to express oneself freely with less disturbance of others, also has actual physical benefits. The untreated air allows irritated and dried membranes in the nasal passages to return to normal and thus they are more able to resist and fight off colds and other infections. Children with allergies also frequently benefit from a "break" from dust and particle laden air.

Parents should be advised that you are going outside, except under hazardous conditions, and children (and staff) should be equipped with boots, scarves, hats, mittens, raincoats, etc. depending on what would be appropriate for that day.

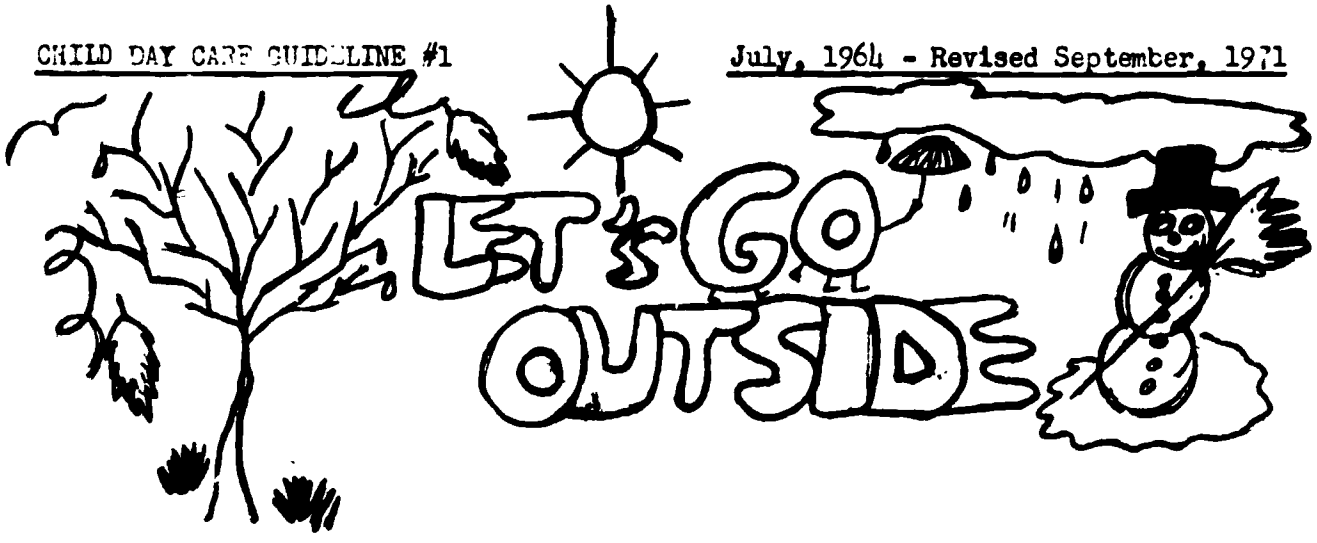
It is important to stress the need and benefits of outdoor play, Certainly there are times when a child should be kept in - and probably should be kept at home and taken to see his own doctor, but there are parents who seem to be scared of a breath of fresh air. A member of your Health Department will be happy to discuss outdoor play with a parent who may present a constant problem on this score.

njc
8/29/74

MARYLAND STATE DEPARTMENT OF HEALTH AND MENTAL HYGIENE
Division of Maternal and Child Health
301 W. Preston Street
Baltimore, Maryland 21201

CHILD DAY CARE GUIDELINE #1

July, 1964 - Revised September, 1971



Outdoor activities are just as important and just as necessary as your indoor program. Both are essential to the health, education, and development of children. Most activities that can be done indoors can also be done outdoors. Plan each with equal care.

Take advantage of the weather and the seasons and what each has to offer.

Include activities for quiet as well as active play.

Make provision for shade. All children need the shade of a tree, building, or a man-made shelter to protect young, sensitive skin from too much heat and sun.

Have you easy access to an indoor area to cool off in summer or warm up in winter?

Take advantage of all opportunities for children to explore and play spontaneously. Circle, relays and other organized games can wait for later years.

Variety and placement of equipment and materials encourage children's play.

A plan for clean up and storage is important.

Supervision - outdoor activities need the same careful and intelligent guidance as indoor activities - to enrich children's ideas, to insure safety.

The suggestions on the following pages are for outdoor activities all year round. Many are related to creating the kinds of interest areas outdoors that you have indoors. Some are special ideas which are best carried on outside.*

*For suggestions for home-made outdoor play materials see guideline "Do It Yourself, Outdoor Improvised Play Materials #6.

DRAMATIC PLAY

Almost any housekeeping activities children enjoy indoors can be done outdoors. Some centers have a shed or tent that children can use as their "house." However, hollow blocks, cardboard or wooden cartons, a table covered with a blanket can be a start for children to create their own house. A climber supplemented with a few boards and ladders becomes a house, a boat, a hospital, a theater, a filling station, a doctor's office.

Doll carriages and dress-ups encourage "traveling," "visiting," and "moving."

Mixing flour and water for dough is fun out of doors. Don't forget mud pies, or just the plain old garden hose with or without water.

Wash the doll clothes and the doll too. Make a clothes line. Wash the dishes.

Go "camping." Use the tricycles and wagons for transportation.

ART

Painting and pasting can be done outdoors. Easels and tables in a shady place are inviting to children. Rolls of shelf paper spread on a hard surface with paint, collage materials and other media close at hand encourage children to create murals. Paper in unusual shapes spurs imagination. Portable drawing boards may be brought outside if there is no hard surface.

Clay and dough take on new interests when children can use sticks, pebbles, flowers, and grass to enhance their work.

Spatter paint to children's heart's content. Use an old window screen and tooth brushes.

Finger paint. Keep buckets full of water and large sponges for cleaning up.

Water paint. Large paint brushes and water for make-believe paint. "Paint" the house - watch it dry without a trace, or paint designs on the sidewalk.

Paint and finger paint to music.

SCIENCE

Allow time to collect, examine, classify, and display - flowers, stones, leaves, bugs, worms. See what each four-year-old can find in one square foot of ground marked off with string.

Clean plastic pill containers are just the size to hold that one flower a child brings you - keeps it special and not mixed in with someone else's bouquet.

Science (cont'd) . . .

Egg cartons can be used to hold special stones and seeds.

Baby food jars with squares of cheese cloth stretched over the tops held by a rubber band provide temporary homes for visiting bugs and worms. Remember to let them go after the children have had a chance to see them.

Keep a can outdoors to collect rain water. Children love to see how much rain really comes down. It is a good way to learn about evaporation and the weather cycle.

Plant and care for a vegetable garden. It is satisfying to wash and prepare home-grown vegetables for lunch - beans, tomatoes, lettuce, radishes. Enclose the plot with a low chicken wire fence to keep animals out.

Plant a flower garden. Bring a flower inside. Let the children take a blossom home.

Watch the sky - look at clouds - they tell about weather - how do they look - on a sunny day? Before a storm? Lie on the ground and see.

Take the rabbit or guinea pig outside and let him enjoy the plantain and clover, or watch him hop or scurry about on the pavement.

Plant a tree - see it change with the seasons.

What are animals and birds doing?

What are the trees and other green things doing?

What's happening in a nearby pond or stream?

What sounds do you hear?

SAND

A pile of sand or earth is good for many happy hours of play - if placed far enough from the door most sand and earth shakes out of clothes before children get inside.

Do you have an all paved playground? Mark off a large area with railroad ties, fill with sand.

Use sturdy hardware store shovels for digging (not thin metal or plastic). Let children dig a hole. Wagons and wheelbarrows encourage "engineering" and real building. Have a pile of boards nearby. See what happens. A pebble box is useful too.

Empty plastic containers have many uses in this digging area.

Sand that is slightly damp sticks together better for building projects. Dry sand is best for pouring and sifting. Brown construction sand costs less than white.

Have spoons, buckets, muffin tins, pans, trucks, cars, screens for sifting, etc., available in this area. A set of containers - half pint - pint - quart - will give children an idea of size and weight.

Sand (cont'd) . . .

A small box with "treasure" inside can be buried, dug up and buried again for hours of fun for young pirates.

Tunnels are fun to dig in deep damp sand. It's fun to touch the fingers of someone who started digging from the opposite end of the tunnel.

PHYSICAL DEVELOPMENT

Have some climbing equipment firmly set in the ground with plenty of space around it.

In all pavement playground, place climbing equipment in a large sand area.

Large sturdy logs are good for climbing.

Use large hollow blocks, or if you have none yet, use sturdy cardboard boxes or wooden packing cases of various sizes.

Add small ladders (4', 5', 6') smooth cleated boards, lengths of hose, wooden nail kegs, tricycles, tires, inner tubes.

A rope ladder can be suspended from a tree - or a swing.

Building, climbing, jumping, walking, lifting, pushing, pulling, tugging, balancing, carrying - all kinds of large muscle activities happen in this area.

WOODWORKING

Woodworking is at its best outdoors. Supply a sturdy workbench that can be left outside or work directly on the ground. Constant direct supervision is a must indoors or out.

Get free lumber scraps from a lumber yard. Get soft wood, either white pine or knotty pine. Plywood is too hard to nail through.

Store scrap lumber in bushel baskets, or large boxes - cheap lumber is usually in manageable sizes.

Use real hammer (12-13 oz.) and nails - (choose carefully for size, weight, and ease of use). Broad heads are a must.

Use saws only if you have a level bench and a sturdy vise for holding wood.

Let children make what they wish, even if it looks strange to you - or use the tools without making anything.

Let children add paint and trim to their woodworking projects. Keep supply of accessories handy - string, spools, fabric scraps, etc.

STORY AND SONG

Children may lie on the grass in the shade with their favorite books. No grass? Make "seats" out of newspapers for sitting on ground or pavement.

Have story time outside.

Children may dramatize stories spontaneously using the trees, shrubs, play equipment as props.

Sing your favorite songs under your favorite tree. Use the guitar, autoharp, and rhythm instruments outdoors. Sing whenever anyone spontaneously starts a song. This frequently happens in the sand box or on the swings.

Bring the phonograph and records outside.

Dance with scarves and streamers on a breezy day.

Let the children take off their shoes and dance on the grass or pavement.

Singing adds to the rhythm of swinging - riding - balancing - painting - jumping rope.

WALKS

To places - bakery, market, construction site, etc.

Just for fun - for a change of scene - to walk in the rain.

Collection walks - let each child carry a paper bag with his name on it (he can decorate it with crayon or paint, if desired). The bag is to collect whatever "looks interesting" or "are nice stones" or colored leaves, pine cones, etc. The children may keep their samples.

Walks to find out - how many different kinds of sounds do you hear? How many "helpers" we find - street cleaners, servicemen, mailmen, etc. What can you find lurking in the corner field? In a stream? Look for signs, different kinds of architecture, etc. Who lives in this house?

Make walks as pleasant as possible. Children benefit greatly when they can help plan how and where they will go. (Adults should take the walk first to be aware of things of interest to see, and any possible hazards.) Go in small groups. Then children do not have to walk in lines or hold hands. Grown-ups don't walk in lines. Help children learn important rules of safety, but preserve their freedom to walk as individuals. A child in a small group with you can be close enough for conversation and help in observing things, for asking what he needs to know, and for comfort if he is unhappy or confused.

For more suggestions for trips - see Child Day Care Guideline "Trips With Young Children" #20.

WARM WEATHER FUN

Remember:

Plenty of fluids to drink: offer them to children frequently.

Plenty of rest: heat makes children tire easily.

Take advantage of warm weather occasionally to:

--turn snack time and lunch time into outdoor treats,
--have a picnic - go for a walk and eat bag lunches in the park or field,
--go on a field trip to pick vegetables - cook them in the center,
--let children shell peas, snap string beans, husk corn, scrub carrots and beets, pull their own root vegetables, or
--visit a farm - see piglets - look at a setting hen.

Remember - children learn through real experiences.

WATER PLAY

Use a hose on hot days.

Let children wear old bathing suits, shorts or underpants outdoors - everyone can get clean with the hose before going inside. Plan ahead for your drying procedures.

Encourage children to find out about water. What floats, what sinks? How do things look when wet? When dry?

Keep cans and buckets for pouring and filling - for water painting - for cleaning - for experimenting - for the sand box.

Have a sprinkling can - for toes - for the garden - for sidewalks.

Have sponges with soapy water for things to wash - the doll - the doll clothes - the housekeeping furniture. Children love this kind of cleaning. Scrub the porch - the patio.

Fill glasses with water and tap them with a metal spoon to create music. Different water levels cause different tones.

Blow bubbles - with straws, pipes, empty spools and soapy water. Use mild soap or dishwashing detergent only. Do not use laundry detergent. It is harmful if swallowed.

COLD WEATHER FUN

Although most people enjoy the outdoors more in the Spring, Summer, and Fall than in the Winter, cold weather is invigorating and promotes general good health.

Children should come to the center prepared to go outside: boots, scarves, hats, mittens, rain coats, etc., according to the weather. A walk in the rain can be fun. Puddles and mud or ice and slush are interesting too - provided you have your boots on. Let parents know that you go outside in this kind of weather and that children must come appropriately dressed.

On a winter walk you may find a cocoon hanging from a dead stalk or other winter sights that spark scientific inquiry. You may discover:

--that ducks will stay on the pond until it is completely frozen,
--that rope is stiff and wet rope will freeze,
--that the water in the rain can is frozen,
--that the birds are looking for food and will visit the feeders,
(What else can they find to eat in winter? How do they get water?)
--that water does not evaporate as quickly in the winter,
--that snow flakes have different shapes (use your magnifying glass),
--that snow is made of water.

Things to do -

Build a snow tunnel - make snow sculpture.

Watch icicles form and melt.

Throw snow balls at the gate or a tree trunk.

Make "angels" in the snow. Lie down carefully in the snow and spread your arms - push them up close to your head and down close to your side, making impressions in the snow. Get up carefully and see your "angel."

Ice skate on the icy lawn in boots.

Go sledding - let children slide down the hill on sleds, or use large trays to slide on, or short skis.

Running and climbing, jumping and hopping are fun in winter, too. Be sure that you are prepared. Keep warm pants, jackets, boots at the center for yourself. If you are warmly dressed you will enjoy outdoor activities with the children.

Outdoor programs not only bring many hours of happiness to children but also promote sound growth and development.

Produced by the Child Day Care Center Coordinator Staff
Maryland State Department of Health and Mental Hygiene
Division of Maternal and Child Health (383-2669)
John L. Pitts, M.D., M.P.H., Chief
Division of Maternal and Child Health

DEPARTMENT OF HEALTH

William J. Peeples, M.D., M.P.H., Commissioner

STATE OF MARYLAND 301 W PRESTON STREET • BALTIMORE, MD. 21201 • Area Code 301—Phone 383-3010

MEMORANDUM September, 1964

TO: ALL NURSERY SCHOOLS, KINDERGARTENS AND DAY CARE CENTERS

FROM: John L. Pitts, M.D., M.P.H., Chief,
Division of Maternal and Child Health

Judith Bender, Educational Supervisor in Day Care
Division of Maternal and Child Health

CHILD DAY CARE NEWSLETTER

Number 2

September, 1964

Please read this newsletter carefully.
Refer to it for ideas.
Keep it in your file for future reference.
Show it to your staff.

MARYLAND STATE DEPARTMENT OF HEALTH

Division of Maternal and Child Health

CHILD DAY CARE NEWSLETTER Sept., 1964-No. 2

THE NEW CHILD - THE IMPORTANCE OF A GOOD START

All of you have had the experience of a new child coming to your school or center. Often he comes with a group of other new children (as in the case of a kindergarten where the new class starts in the fall). Often he enters alone later in the year; or, as in the case of the day care centers, whenever his parents must both be away from the home. In every case, this first experience of being in a strange new place is a very important one for the child. The way this separation is handled by both parents and teachers will often determine the way a child is able to accept all of his future new experiences.

There are several ways through which we can help a child to have a comfortable start away from home, to help him look eagerly toward new experiences and not fear them. We hope that you will follow these suggestions if you are not already doing so:

BEFORE THE CHILD COMES

1. Plan to meet the parents. Explain about your program, show them your facilities. Let them tell you something about their child so you will know if there are any special problems. In this way you can both decide if your center is the right place for their particular child.

2. Plan a time for the new child to visit the center with his parent before he starts coming regularly. Let him become familiar with toys, books, playground, etc. Have the parent remain with the child during the visit, but let him get to talk with his teacher and play with her so that when he starts attending school he will feel he really knows her, that she is a friend. Invite him to join in the children's play if he wishes to do so.

3. Preparing the child. The parent should make it clear to the child when he will start, how long he will be in the school or center, and how he will come home (who is to call for him, will the center bring him home, and who will be there when he arrives).

4. Before admittance, the child must be examined by a physician. Also, immunizations against diptheria, whooping cough, tetanus and poliomyelitis, as well as smallpox vaccinations are required. Forms regarding this information should be kept on file by the day care operator.

THE BEGINNING DAYS

1. During the beginning days parents should be "on call" so that if the teacher feels that the parent should be with the child at the center for a day or two, or even more, this can be arranged. A gradual separation, when this is possible, is of utmost importance. It is to the advantage of the child, and to you, in the kind of easy and lasting adjustment it encourages. When the child has enough interests and happy feelings about you and your program, he will easily let his parents leave. Most parents do not need to remain with five year olds, but it is always better to play it safe by telling the parents that you may wish them to stay with their child a while rather than risk damaging the close, trusting feelings a child has for his mother.

2. By no means should you ever allow a parent to SNEAK OUT on the child. She should always say goodbye and tell him when she will be back even if it means tears! If children feel that they cannot trust their own parents, or teachers, we cannot expect them to grow into responsible, secure human beings. They, too, will become untrustworthy. DON'T LET PARENTS SNEAK AWAY

3. Let a new child enter into activities at his own speed. He may just wish to watch at first. Adults must be sensitive to waiting for children to observe and explore. A child cannot be pushed into anything which he has not made meaningful, and important, to himself. Place familiar toys where a new child can easily use them, the kinds of things he may be used to from home; he may feel more comfortable with these before less familiar kinds of materials. Encourage him to bring something of his own from home if he wishes (and if he is not yet ready to share this with the other children you can explain this to the others - "Tommy wants to play with his own truck for a while. After he has been here longer he may want to share it with you"). GOOD FEELINGS COME BEFORE GOOD SHARING.

4. Try to provide him with a place of his own (a cubbyhole, a locker, someplace all his) where he can put his "treasures", his coat, etc. This is a wise and convenient system for all of your children.

5. If a new child is unhappy, let him know that you are aware of his fears and his feelings and that you accept them, you understand them. Only when a child knows that he can talk about his feelings and that the adult will listen, only then can the child and the adult do something about the feelings.

6. Help children feel secure by discussing things with them, by PLANNING WITH them, not always FOR them. Arrange for times when they can sit down with you and help plan an activity, a trip, a party, even a meal or the rest of the day's schedule. It helps children to accept new experiences when they can help to plan them. You will not always be telling them what to do, but you will be helping them to make wise decisions themselves. Your children should never feel that you are ever trying to "put something over on them" whether it is a pleasant experience or an unpleasant one.

7. Give your new child, along with all your children, plenty of physical freedom-time, and room for running, jumping, walking, climbing, getting his own materials to play with. A child who is physically constrained, who must sit in a chair or at a table for long periods of time just feels constrained all over! He needs to relax, to use his energetic body. This is how he learns, explores, expresses his feelings, learns about the world.

CHILDREN'S REACTIONS TO NEW EXPERIENCES

All children react differently to new experiences. Even newborn babies do. You will notice this in the new children who enter your group. Many may have no difficulty at all in accepting you as a warm, friendly, loving adult and they will start really having a good time from the very first day. Many others are still somewhat uneasy, angry or resentful about this new experience. You will see many different kinds of behavior from the children who are still unsure of the situation. Here are some of the reactions you will notice:

(In all cases let the child know that you understand how he feels)

1. Children who show their fear and anger -
   they cry
   they say "go away!"
   they try to run away

2. Children who cover up their feelings (withdrawal) -
   they "turn their back on the situation"
   they follow directions, but never spontaneously or eagerly enter into an activity. They react to nothing. They almost pretend they are not alive.

3. Children who "act silly" -
   they are afraid they have been forgotten, ignored.
   they need to keep the attention of an adult
   (give them plenty attention so they do not need to act like a clown)!

4. Children who act like "bullies" -
   these children must prove to themselves that they are "big and strong"
   they are trying to prove that they are really not afraid.
   these children often try to damage the school property
   (they need plenty of assurance so they will not be afraid)

5. Children who return to earlier, more immature behavior -
   these children react to new situations by thumbsucking, lying on the floor, tantrums, nightmares at home, bedwetting, etc.

You will see for yourself many other kinds of reactions in your new children. We can help them best by giving them plenty of affection and understanding. We can give them a good start in a group when they are away from home. We must remember that a child's whole attitude in accepting new experiences influences his curiosity, his ability to learn, and his trust in people.

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We hope that all nursery schools and kindergartens are having a good start this fall, and that all day care centers are continuing their important job of caring for children whose families must work.

WHATEVER THE REASON FOR YOUR SCHOOL OR CENTER, ALL CHILDREN MUST HAVE THE SAME OPPORTUNITY TO GROW TO BE INTERESTING, HAPPY, EFFECTIVE INDIVIDUALS.

We hope, through these bulletins, that we can be of some help to you in this task.

STATE OF MARYLAND

DEPARTMENT OF HEALTH

William J. Peeples, M.D., M.P.H., Commissioner
301 W PRESTON STREET • BALTIMORE, MD. 21201 • Area Code 301—Phone 383-3010

MEMORANDUM

November, 1964

TO: ALL NURSERY SCHOOLS, KINDERGARTENS AND DAY CARE CENTERS

FROM: John L. Pitts, M.D., M.P.H., Chief
Division of Maternal and Child Health

Judith Bender, Educational Supervisor in Day Care
Division of Maternal and Child Health

Jean Berman, Educational Supervisor in Day Care
Division of Maternal and Child Health

CHILD DAY CARE NEWSLETTER

Number 3

November, 1964

Please read this newsletter carefully.
Refer to it for ideas.
Keep it in your file for future reference.
Show it to your staff.

MARYLAND STATE DEPARTMENT OF HEALTH

Division of Maternal and Child Health

CHILD DAY CARE NEWSLETTER November, 1964 - No. 3

SUGGESTED SCHEDULE

This schedule is suggested for a center which has children present for the whole day. Centers with only morning groups will wish to note only the morning program which will correspond with their hours.

There are several things to ask yourselves in planning your schedule:

1. Is it flexible enough to allow for changes?
2. Does it suit individual children as well as the whole group?
3. Am I alternating active periods with quiet periods?
4. Am I allowing time for the children to talk to me and to each other, to plan daily and special programs?

(The times given here are just to show about how long a period lasts. They can be changed to suit your own needs.)

7:00 - 9:45 -- Activity Period (9:00 - 10:00 half-day sessions)

Get Ready - Air out your center. Provide paper towels, soap, and paper cups. Set up your center to provide for a variety of activities.

Get Set - Greeting each child with warmth, friendliness, and keen observation. Stop to Look and Listen! Whether daily health check-up is formal or informal, be sure each child is free from any sign of illness before he begins the day's activities.

This activity period (often called "free play" or "work period",) is a time in which children decide for themselves what they want to do and move freely from one activity to another using the materials as they wish to use them.

1. Block building (combined with toy trucks, animals, people, etc.)
2. A "housekeeping" center with dolls, doll bed, a tea table and small chairs, doll dishes, stove, refrigerator, empty cans, cereal boxes, etc. Also a dress-up box containing old grown up clothes to dress up in!
3. A shelf for art materials (paper, crayons, paste, scissors, etc.) placed where your children can reach them and get their own supplies when they want to use them.
4. Other materials as you wish to present them - paints, clay, finger paints, etc.
5. A table or shelf for collection of such things as magnets, magnifying glass, shells, leaves, etc. so that children can experiment with these science materials on their own.
6. A book table for looking at books (don't forget to make use of your good, free library books).
7. A place for woodwork (real hammers, nails, soft wood -- free scraps from any lumber yard).
8. A spot for music - phonograph, instruments, etc.

Adults are always present to observe children in these kinds of activities. At the end of this period children should be given a few minutes to finish their work and then encouraged to help put everything back in its place.

9:45 - 10:00 Clean up room, wash hands

10:00 - 10:15 Snack

10:15 - 10:45 Rest on rug or mats for those whose age or activities indicate need
Conversation time

A time for discussion, informal conversation, sharing of ideas, "show and tell", music and rhythm activities, or making up plays.

10:45 - 11:30 Outdoor Play

Have children dressed appropriately so they can play outdoors. This often means boots, snow pants, etc. Much of the best outdoor equipment is free. Collect large wooden boxes, large wooden boards, logs. Provide a spot for digging plus some climbing equipment. (For other outdoor suggestions see issue number 1 of Child Day Care Newsletter.)

11:30 - 11:45 Story

Encourage children to sit comfortably on the floor in front of the adult. Tell a story or read a story. Use story which will develop your children's interest in many real life things (for example: life in the city, on a farm, a new baby, the seasons, animals, children's experiences, etc.) Let children contribute as you go along, and at the end, talk about the ideas which the story brings out.

11:45 - 12:00 Preparation for Lunch (or dismissal for half-day centers)

12:00 - 1:00 Lunch (an attractive, well balanced hot meal), Toilet

1:00 - 3:00 Rest (a sheet and/or blanket for each cot)

3:00 - 3:30 Snack

3:30 - 4:30 Outdoor Play

4:30 - 6:30 Activities Indoors, such as:

Music
Stories
Let children use art material as they desire.
Play with indoor toys.
A pleasant goodbye from the adults

On rainy days when you cannot go out:

1. Feel free to lengthen some of your periods if children are not restless.
2. Have a special "cooking project" (instant pudding, easy cookies, jello, etc.)
3. Play some simple inside games.
4. Introduce a new activity (sawing up large cardboard boxes to make play houses, stores, and new doll beds, etc.) or just "make something" from boxes to take home.
5. Finger paint, clay, let children help make new playdough (flour plus water plus salt), etc.

You will think of many other things that are fun to do!

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Remember: Whether you have a school or a day care center, the day's schedule should be quite similar because it is based on what is important for young children.

MARYLAND STATE DEPARTMENT OF HEALTH AND MENTAL HYGIENE
Division of Maternal and Child Health
301 W. Preston Street
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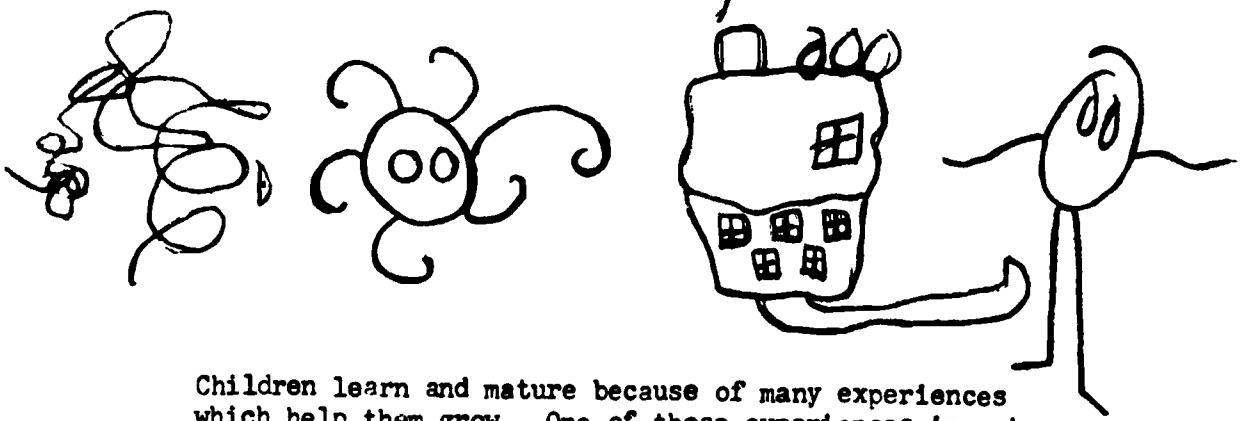
CHILD DAY CARE GUIDELINES #4 January, 1965 - Revised, 1972

CHILDREN and ART



Children learn and mature because of many experiences which help them grow. One of these experiences is art. Working with art materials contributes to a child's development.

WHY SHOULD A CHILD HAVE ART EXPERIENCES?

Understandings

To help him clarify and understand the world that he is learning about. When he tries to draw an airplane or a tree or a person he must rely on what he knows, or what is important to him; he is digesting his facts when he tries to reproduce them. He is understanding them better.

To help him be sensitive to his environment and notice the world around him - things, ideas, people and their relations to each other.

Thought Process Development

To help him develop independent thinking - to do things in his own way, to develop confidence in his own abilities and ideas.

To help him express his feelings as well as his understandings.

To help him weigh choices, solve problems, plan and organize his own ideas, make thoughtful personal judgements.

Skills

To give him experiences with all the many kinds of materials which make it possible for him to state his ideas.

WHAT DO WE NEED TO GIVE A CHILD FOR HIM TO GROW THROUGH ART?

Materials - We should provide him with a great variety. Each child will be interested in using different kinds of materials. Provide him with a chance to use materials over a period of time (consecutive days, weeks), so his ideas and skills can grow and he can discover new ways of working. The important thing is for him to discover for himself how many ways he can use a material.

Space - He will want plenty of room on tables and floor; room to look at what he is doing from all angles (using the floor to work is an advantage here).

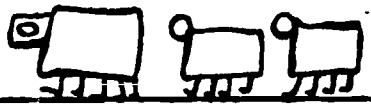
Time - A child wants to have time to start while an idea is fresh and exciting and time to finish work once it is begun. It is "finished," not when it looks pleasing to us as adults, but when he feels he has had a complete experience and is ready to go on to something else.

Techniques - He will want to learn to manage materials such as wiping brushes, using new media, etc., at the time he is actually working with them. Giving him instructions beforehand is often confusing. Keep them very simple.

Real life experiences - He will draw, paint, or model what he knows and what he feels. Therefore, he needs living experiences to recreate in art.

Freedom - Let each child work out his own ideas the way he wishes. Don't have him copy an adult's ideas.

Acceptance - We should give each child a feeling that whatever he creates is appreciated. A child will feel he can state something of himself, express himself, only when he is secure in a warm, friendly atmosphere, when adults and friends appreciate him for himself and will not compare his work with others or criticize it according to their own "taste."



" . . . He lives through a series of experiences as he paints or models and his final creation might be compared to a motion picture of which we see only the last frame. The finished product reveals very little, of the variety and richness of experience the child has gained in the process . . . "

James Cooper Bland
Instructor
Art Center of the Institute
of the Museum of Modern Art
New York

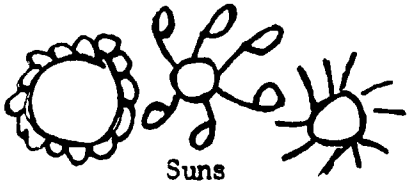
WHAT KIND OF WORK WILL WE SEE FROM YOUNG CHILDREN?

At whatever age a child is first given art materials, he goes through certain stages of art development. You can expect, therefore, to see some of the early forms in the work of older children.

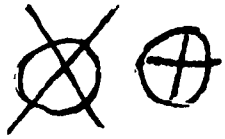
Scribbling. A child's first attempts will be drawing with a scribbling motion. Scribbling is spontaneous. It just happens! He has discovered ART. His future growth in art is based upon this first stage of random scribbling. Movements will become more and more controlled and organized as he is permitted freedom to scribble. Gradually he starts to experiment with lines, circles, motions, and lots of his own special shapes. You may not recognize anything.

Manipulation and Experimentation. First he wants to get the feel of the material itself (whether it is with paints, clay, crayons, paste, etc.) Every child will approach new materials this way. Such experimenting may not result in a final product. Later, interesting designs will start to appear. And he will change his ideas as he works. He will repeat ideas. He may paint his hands as well as the paper just to see how it feels.

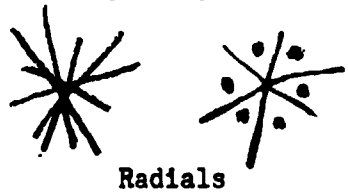
Early Forms. Have you ever noticed these forms in early drawings or paintings?



Suns



Mandalas



Radials

Look at any little child's drawings closely and you will see these early forms. They are the forerunners of many new art forms to come, as well as the beginnings of the skills used in writing letters and numerals.

Naming of Objects (Symbolism) When a child is four or five years old he will often start "naming" his pictures. They may not look like anything yet to you, but they stand for something to him. You might say "that's interesting," or "tell me how you did that," rather than ask "what is it?"

Realism. Some five year olds, and a few fours, will start to make recognizable objects. Most children are vitally interested in people. Usually a child starts by drawing a head and legs and this is the beginning of drawing people.

Through art young children are discovering themselves. This must happen. Art is a way of saying: "This is ME."

"I have pounded this clay" OR
"I sawed this wood" OR
"I touched my paper with this brush"
"I have made something that never was before."

It is a way of saying "I am capable," "Look what I have done!" "See what I have discovered!"

WHEN, WHERE, AND WHAT

You should not reserve "art" just for a period set aside for "making things."

Offer art materials as one of many activities to choose from throughout the day. Keep your basic materials at his height so he can help himself to what he needs when he needs it (see list No. 1 of this guideline). Set up special activities for a small group, such as finger painting, wood or collage.

You can plan for many outdoor art activities, such as, easel or flat surface painting, modeling, collage, or drawing on tables or small portable boards. You can relate art to something else a child is working with - science activities, such as mounting shells or drawing the snake someone brought for a visit, dramatic play such as painted fabric curtains for the housekeeping area.

Some experiences are for individual children. Some, such as murals or a large cardboard carton construction, are for small groups.

DAILY CHECK LIST FOR SETTING UP AND CLEANING UP

SETTING UP

☐ Is your basic art center clear, neat, ready to go?
Could a child find just what he needs and know just where to return his materials when he is through working with them?

☐ Does your art center have low shelves containing the items listed as "Basic Materials for Daily Use."
Check list #1 of this guideline.

☐ Are all extra quantities of materials (paper, paint, etc.) stored away elsewhere in order to avoid clutter and confusion?

☐ Have you all the materials needed for any other art activities (e.g., wood collage, finger painting)? Are they set out clearly so children can see what the possibilities and choices are?

☐ Have you arranged for large areas where children can comfortably work -- tables, floor?

☐ Do you need any special protection for work surfaces? (newspaper, drop cloth, oil cloth, etc?) Do you have these items?

☐ Can any art activities be taken outside?

CLEANING UP

☐ Is there a place where children can put their work when they feel they have finished? (drying rack, or clothesline, wide shelf, cubbies?)

CLEANING UP (cont'd) . . .

- ☐ Is there a place to keep any unfinished work?
- ☐ Are your clean up materials handy? (sponges, mop, broom?)
- ☐ Are there clean-up jobs which the children can do?
- ☐ Are there certain jobs which adults must do?

EXPERIENCES THROUGH WHICH CHILDREN MAY EXPLORE ART MEDIA (Ideas, Recipes, Useful hints)

Encourage children to participate in the entire sequence of art activities - the preparation, the use, the clean up.

Familiarize yourself with each media before using it with children. Use each media with a small group (3 - 6 children) never the entire group. Keep the media available over a period of time, - days, weeks - so the children can experiment and grow. Provide them with opportunities and encourage them to combine media. Children will think of lots of new ideas to add to the list. Ride along with these ideas. Watch their ideas expand.

The amount of adult supervision will depend on the maturity of your children and/or on the type of materials in use.

PAINTING WITH TEMPERA

I. Tips on Paint Preparation

Dry powdered tempera

---mix to consistency of heavy cream (about 2 parts paint, 1 part water). Paper should not show through paint

---a few drops of rubbing alcohol will help colors to mix immediately with the water.

---liquid dishwashing detergent may be added for thick, richer color

---homemade liquid starch made from dry starch (commercial liquid starch is toxic) plus 1 Tbsp. soap powder per quart of liquid may be used as a base. Add color.

---dry tempera plus clear shellac, lacquer, or varnish = enamel paint

---dry tempera plus linseed oil or turpentine = wood stain

Prepared tempera - a very small amount of water may be added for thinning if paint will not spread.

II. Brush Painting

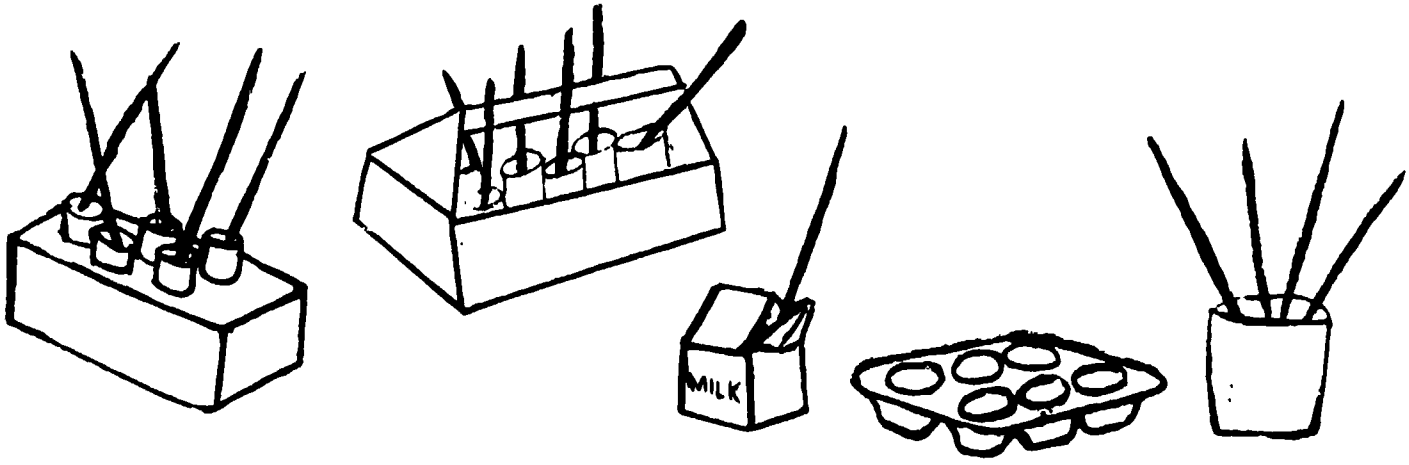
You will need:

1. Easel brushes - wide, 1" or 3/4"; and narrow, ½" or ¼"

VI. Brush Painting (cont'd) . . .

2. At least four containers of different colored paint for each child to work with at any one time (e.g. jars, plastic or tin cans, paper cups, small milk cartons, muffin tins, large frozen juice cartons, syrup pitchers, etc.).

3. A system to prevent spilling. Paint containers may be stabilized in a variety of ways -



Containers set in shoe box lid or inverted shoebox

6 Pack with juice cans

Small milk carton

Muffin tin

Wide-mouth can or plastic container for water

4. Places to paint - tables, or floor, or easels. Indoors or outdoors.

5. Surfaces to paint

Papers - newsprint (18" x 24"), construction paper, manila, etc.

Wood:
- Just plain wood!
- Wood scraps which have been glued together
- Wood scraps used as a collage
- Products from carpentry bench

Cardboard:
- Flat or corregated cardboard as background
- Cardboard box sculpture
- Large cartons used in conjunction with dramatic play

Clay:
- Moist clay - paint while wet or dry
- Cornstarch, when dry, or salt dough mixtures

Murals: children sometimes like to paint on a shared project.

Painting rocks that have been found

Hard water colors and tiny brushes in small paint boxes are not satisfying or suitable for young children.

Other Ways to Use Tempera Paint with some of your older children.

Use sponges, cotton, felt, sticks, etc., to paint with.

Straw painting - Pour a small puddle of paint on paper. Blow into the paint puddle with a large straw to make a design.

String painting - Dip a string about 12" long into the paint, drop the string on paper, lift, and you will get a wiggly pattern.

Spatter painting - Dip a toothbrush, or small scrub brush in quite thin paint. Rub the brush across a comb or screen, or use your fingernails across the brush to spatter the paint.

Self-portrait - A child can draw around another's body on a large paper. Then the child can cut out his own figure and paint it as he wishes.

Drip painting - Drip colors from an overly wet brush, or squeeze thick paint or finger paint from plastic mustard or catsup containers on paper. This makes lovely colors and textures.

Paint and crayons (Crayon Resist) - Draw a crayon design very heavily on paper. Paint over with diluted tempera (paint won't adhere to the waxed crayon surface). Or draw on dark colored construction paper. Cover with diluted white tempera. This is best with children at least 5 years old because it can be disappointing to a child who cannot press heavily enough on the crayon.

Printing - Try dipping some of the following objects in thick paint, then print on papers, cardboard, wood, etc: a small sponge cut into shapes, corks, blocks, gadgets, leaves, cut fruits and vegetables or designs cut into plasticine. Try printing designs on one side of a piece of paper. Fold the paper over to get a "double design" or place one sheet of paper over another to pick up the still wet design.

Textured paint - Add some white glue, plus sand, coffee grounds, etc., to the paint before using.

OTHER KINDS OF PAINT

Rubber base paint - for creating waterproof, washable surfaces on such materials as wood, cardboard, etc. A child can use this paint easily and it washes off his skin, floor, etc., with water. It is good for woodwork boats which can then be used in water; or for large cardboard carton building blocks, or paint holders, or ANYTHING.

Soap painting - Do not use laundry detergent, it is dangerous if ingested. Beat soap flakes with some water until consistency of whipped cream. Add a color if desired, then paint thickly on sturdy paper or cardboard. Soap paint may also be used for finger paint, or as a background for a collage.

FINGER PAINTING

A child may squeeze the finger paint from plastic bottles, or shake dry tempera from large shaking containers or to homemade finger paint recipes. Encourage the use of his hand and ever portions of his arm for painting.

Although finger paints may be used on large glazed paper, at least 12" x 18", try using them directly on a washable table top. Prints may be made by placing paper over a wet design, then lifting off the paper. You may also want to try painting directly on oil cloth, on a plastic drop cloth, on glass or on a ceramic tile wall (bathroom or elsewhere).

FINGER PAINT RECIPES

Finger paints may be purchased economically in large quantities or made by the following homemade recipes:

1. Soap flake finger paint. Beat soap flakes with water until consistency of whipped cream, add color if desired.

2. Laundry starch and soap flake finger paint - (NO child participation in preparation)

1½ cups laundry starch	1½ cups soap flakes
1 qt. boiling water	paint or food coloring (optional)

Mix the starch with enough cold water to make a paste, add to the boiling water, stirring until clear and glossy. Cook, add soap flakes stirring until evenly distributed. Mixture should be thick. Cover, keep in cool place.

3. Cornstarch finger paint: (NO child participation in preparation)

3 parts boiling water	1/Tbsp glycerine
1 part cornstarch	food coloring or paint

Dissolve the starch in a small amount of cold water, gradually add boiling water. Stir, cook until clear. Add glycerine and coloring. Cool. Store in cool place.

4. Flour finger paint #1 (NO child participation in preparation)

2 cups flour	1 cup cornstarch
1 cup sugar	

Mix ingredients to a thick paste in cold water. Pour enough boiling water to make a thick, heavy starch, stirring constantly until clear. Add color.

Flour finger paint #2

2 cups flour	salt
5 cups cold water	

Cook until smooth, add some salt. Let cool. Add food coloring or paint.

5. Salt and flour mixture

2 parts flour	1 Tbsp soap powder per quart
½ part salt	of liquid

Add enough colored water for proper consistency.

MODELING WITH CLAY AND OTHER MEDIA

Again, notice the stages of art development: manipulation and experimentation; early forms (balls, "snakes", coils, "pies"); naming; and lastly realism.

Let each child model what he wishes. He may just want to play with the mixture and not make anything. He may not like the feel of some, may enjoy others. Provide each child with a grapefruit size portion to work with. To add interest later, try providing implements such as cookie cutters, blunt knives, rollers, tongue depressors or decorations such as buttons, seeds, stones, pipe cleaners, etc.

1. Moist clay, (natural clay, not plasticine) is the most satisfactory modeling material since it can be reconditioned easily even after hardening. It may be purchased from art supply stores or ceramic studios.

   It may be purchased in prepared or powdered form. Natural clays may often be found along river banks.

   Put a waterfilled hole in each grapefruit sized hunk and store in an airtight container.

2. Salt and flour playdough: (not commercial playdough)
   2 or 3 cups flour and 1 cup salt
   Enough colored water for a pliable mixture made from tempera paint or food coloring.
   2 Tbsp salad oil keeps mixture from hardening.

   This recipe is best used simply as a play material and does not harden easily if kept in a coffee can.

3. Cornstarch modeling mixture:
   1 cup cornstarch 2 cups salt
   1½ cups water

   Combine in a saucepan and cook over medium heat stirring constantly until it "congeals." Knead when cool. Keeps indefinitely in plastic container or bag. Article may be painted when dry. Dries satisfactorily.

4. Soap-flake modeling: (Do not use laundry detergent: it is dangerous if ingested). Add water to soap flakes or powdered soap until the mixture is the correct consistency for modeling. Color with food coloring or paint if desired. Model into shapes. This can be decorated with beads, shells, etc.

5. Paste modeling mixture
   3/4 cup flour ½ cup salt
   ½ cup cornstarch

   Mix in bowl. Add warm water gradually until mixture forms stiff dough. Dust with flour to reduce stickiness. Roll into shape for beads, pierce with toothpick and dry. Then string with needle and thread. May be painted.

Modeling (cont'd) . . .

6. Paper mache modeling
Soak old newspapers or egg cartons in water. Reduce the paper to pulp by tearing it into bits and stirring. Make a heavy paste with flour, water and a little salt. Mix the paste with this pulp. Stir until it is soft and feels like mud or clay. Should be modeled immediately and may be painted when dry. You may add plaster of paris and some glue to basic pulp for quicker drying.

7. Sawdust modeling #1
1 qt. sawdust
1 cup wallpaper paste powder (wheat paste)
enough water to model

Sawdust modeling #2
1 qt. sawdust
2 c. flour
1 Tbsp glue
hot water

Sawdust modeling #3
1 qt. sawdust
1 qt. plaster of paris and enough glue to hold together

Objects dry slowly and are very lightweight and very hard.

8. Tinfoil modeling
Crumple and shape as desired.

PASTES AND GLUES

Commercial pastes and glues can be purchased in large quantities.

1. Commercial white glues are excellent for collages and may be thinned when you are using light weight materials.

2. White paste can be purchased in quantity from school supply firms. It is excellent for paper and fabric pasting, but will not hold heavy collage materials (seeds, buttons, etc.).

3. Rubber cement is good for collages, but sticky and expensive. It is excellent for preventing wrinkles when doing fine paper pasting.

4. Beaten soap flakes make a thick white background for a collage.

5. Flour and water make a good paste.

6. Wheat paste: (NO child participation in preparation)
1½ cups boiling water
Add 2 Tbsp wheat flour. Stir well.
Add ½ Tbsp salt (as a preservative)

7. White of egg is a little known but very handy substitute paste.

8. Paste that will keep: (NO child participation in preparation)
1 cup flour
2¼ cups boiling water
3/4 tsp. oil of wintergreen
1 cup cold water
1 tsp. powdered alum

Mix the flour with cold water. Stir until smooth. Add boiling water, stir. Cook in a double boiler over low heat until smooth. Add alum, stir until smooth. Remove from fire, add oil of wintergreen when mixture is cooling. Store in covered jars in a cool place.

Pastes and Glues (cont'd) . . .

9. Caseine Glue - a powerful home-made glue. (NO child participation in preparation)

1 pt. skim milk
6 Tbsp vinegar
½ cup water
1 Tbsp baking soda or borax
oil of peppermint

Place the skim milk in a glass or aluminum pan. Add the vinegar. Heat slowly stirring constantly. Remove from heat as soon as lumps form (curds). Strain off liquid. Add ¼ cup of water to the curds and baking soda or borax. Stir vigorously (or put in blender). Add oil of peppermint as a preservative. It is now ready to use.

CONSTRUCTION PROJECTS

Clay mixtures may be used with materials added for textural and structural interest (pipe cleaners, dowels, pebbles, shells, colored stones, etc.).

Styrofoam may be used with dowels, wires, straws, etc.

Natural plant arrangements made of dried weeds, flowers and ferns which have been collected by children may be mounted on a base of styrofoam, plasticine, clay, etc.

Wood needs time, practice, and supervision but contains invaluable learnings.
---Using wood, hammers, saws and nails to make things
---Using wood and glue for wood sculpture (white glue is fine)
---Wood scraps collage. Wood scraps glued to a background of wood, heavy cardboard or masonite. The following may be painted or shellacked if desired.

Wire: Bend flexible wire into any desired shape. Hang as mobile, or stabilize with wood or wet clay base. Make holes with a nail in a wood block. Poke wire ends into the hole with a little glue.

Pipe cleaners: Bend and connect varied sizes, colors, textures.

Cardboard boxes, tubes, etc., may be glued, taped, fastened with paper fasteners as cardboard box sculpture. Try dishwashing detergent mixed with powdered tempera to cover waxy surfaces.

COLLAGE

A collage is anything glued or pasted on anything: scrap materials, fabrics, seeds, papers - anything. For an adhesive you may use paste, white glue, beaten bran flakes, rubber cement.

CRAYON

Remove the paper from the crayons so children can use the sides of the crayons as well as the points. Use large kindergarten size crayons with children under 5. Add a few of the narrower size for 5's. Purchase a large variety of colors.

CHALK AND PASTELS

Use dry or dipped in water. Use on paper which has been moistened with water or buttermilk. Use on ridged corrugated cardboard squares. Spray chalk or charcoal pictures to prevent smearing, with hairspray or artist's fixative, but keep spray away from the children.

FELT TIP PEN DRAWING

Use the water color type since it won't stain. These are excellent for drawing.

PHOTOGRAPHY

An inexpensive camera is an excellent classroom investment. Children can take:
--snapshots
--slides
--motion pictures (8 mm is fine)

DRYING FLOWERS

These can be used for collages or arrangements. You should strip the leaves from the flowers immediately after picking. Tie the flowers by the stem with a string and hang them with their heads down in a cool, dry, dark place. Darkness is essential to preserve the color. Five year olds can do all of this. Dry for about 2 weeks.

STITCHERY

Large blunt end needles! Colorful wools! Burlap, or other easily penetrated materials. Each child can create his own design. Burlap squares may be stretched and thumb tacked on a frame for easy stitching, or use a potholder frame or embroidery hoops.

SAND CASTING

Sand casting may be done directly on the beach; or you may put two inches of damp sand in tapered containers such as baking pan or a mushroom basket. Start by creating indented impressions in the sand. Add shells, pebbles, pieces of smooth colored glass, leaves, beans, etc., if desired. Cover your design with a BASE COAT plaster (from lumber yard) poured about 1 inch thick. Let dry 24 hours. Remove the plaster from the container. You will have a reverse pattern of your original indented design. The pattern will be decorated with the shells etc., which you added and which adhere to the plaster.

If you wish to create a fossil-like impression of the shells, etc. (an imprint of them in the plaster) you may cover them with oil or vaseline when you place them on the sand. Then they will not be picked up by the plaster.

If you wish to create a method by which to hang the plaster design, you may lay a piece of HARDWARE CLOTH (this is ½" wire screening) over the wet plaster and insert a loop of picture wire for hanging. Then cover the hardware cloth with an additional coat of poured plaster, leaving your picture wire loop exposed. The hardware cloth also provides extra strength. The wet plaster may be colored with tempera paint while you are mixing it.

TIE DYEING

Tie sections of material very tightly with large rubber bands. Dip the material in liquid dye. Unwrap. Dry. Cold water dyeing works well for an art activity. Use a hot water recipe only if you wish dye to be color-fast. In this case an adult must be responsible for the actual dye process.

MOBILES

Mobiles are fun to hang on a clothesline across a section, or corner, of your room. Each child can hang his mobiles as he makes them.

BLOCK BUILDING

This may certainly be considered an art activity and will reflect the same developmental stages as other art activities.

SKETCHING (Mature 5's)

Take some crayons and large sheets of manila paper along on a walk (at least 12" x 18", or 18" x 24").
"How many different kinds of roofs can you find?"
"My school."
"Our class sitting under the tree."
"Cars and trucks."
"A pretty lake." etc.

SOME DO'S AND	SOME DON'TS
Allow each child to develop his own techniques and experiments. During the time a child is working at art he is acquiring important experiences.	Don't feel that the final product is the only important part of the art experience.
Allow a child to solve his own problems. Art means a child thinking and communicating in his own way.	Don't believe that projects requiring exact teacher direction or patterns or "samples" really promote individual growth, creative ability or problem solving in the arts.
Look at each child's art work as a record of his own personality.	Don't "correct" the child in his work by imposing your personality, your standards or samples of your work.
Think of a child's feeling toward his art as different from yours because he sees things differently.	Don't expect a child's art always to be pleasing or understandable to you.

SOME DO'S	AND	SOME DON'TS
Help each child to be confident and proud of his own work and encourage the children to enjoy and respect each other's ideas.		Don't compare your children's work or show that you prefer one child's work to that of another.
Hang samples of each child's art work even those which you feel are not the "prettiest."		Don't hang only the "best" examples of your children's art work on the wall or for the benefit of visiting adults.
Display art work in its original form and as close to the children's eye level as possible.		Don't hang or display works sloppily or too high.
Help your children to be sensitive in observations of their environment.		Don't present children with coloring books or pictures to color as patterns. These make him insensitive. He is only coloring someone else's work.
Remember that a child's coordination and muscle skills will improve as a result of creating his own art, and as a result of growing up.		Don't believe that "coloring between the lines" will improve coordination.
Understand that when a child uses "wrong" proportions, or leaves out things which you consider essential, he is emphasizing what is important to him at the moment. Accept his art work as he presents it.		Don't correct or add to what a child has created.
Provide each child with plenty of space and the proper kind of materials to work with.		Don't restrict your children's work or discourage them by not giving them what they need - plenty of space, large paper, crayons, good quality paints, clay which is really workable, etc.
Believe that a child's personal selection of materials is basic to growth of judgement and taste.		Don't choose for him.
Understand that personal growth takes place through repeated experiences with materials. A child needs continuity.		Don't present a material just once; for then a child can make no further discoveries.

Do help your PARENTS to understand both their children's art and your art program. Only if a child's art experiences are understood and accepted will he grow in his desire to use materials and will he develop sensitivity and skills.

CHECK LISTS OF ART MATERIALS

Most of these suggested materials are free or very inexpensive. Basic materials are purchased most economically in quantity from a school supply firm.

#1. Basic Materials for daily use. To be kept out at child-height.
- --Drawing paper, 12" x 18" Manila paper recommended for crayons, chalk, paint, collage, cutting, pasting, etc.
- --Crayons, large size
- --Scissors (include a few left handed)
- --Colored construction paper, several sizes.
- --Attractive scrap box of odds and ends, (see list no. 3)
- --Paste and/or glue
- --Paper punch
- --Newsprint paper (18" x 24") for painting (this is unprinted newspaper and often free or low cost from newspaper publishers as roll ends)
- --Easel brushes, 3/4" - 1"; and ½" - ½" wide.
- --Tempera paints, dry or prepared, cheapest when bought in large quantities. Keep 5 or 6 colors prepared and ready for daily use.
- --Some variety of modeling material

#2. Basic Materials for periodic use:
- --Finger paints (see recipes)
- --Modeling doughs (see recipes)
- --Clay, moist water clay is best
- --Plasticine, an oil clay, use only if kept very soft.
- --Water to paint with outside. Use with cans or buckets and large household type brushes.
- --Wallpaper books, to paint, cut, paste, etc.
- --Lumber and real tools for woodworking: saws, vise, hammers, nails, free wood from lumber yard.
- --Colored chalks - 1" diameter is recommended.
- --Felt markers.

#3. Scrap Materials:
Mostly free, just start collecting! Good for collages, murals, sculpture or 1000 other uses!"
- --Scraps of fabrics (many different textures, solids and prints), ribbons, rick-rack, fur, etc.
- --Scraps of fancy papers (wrapping papers, cellophane, etc.)
- --Corregated cardboard, shirt cardboards.
- --Buttons, beads, broken necklaces.
- --Feathers, broom straws, wire
- --Wool, string, cotton
- --Pipe cleaners, straws, wires
- --Lace, paper doilies, old greeting card pictures.

Things from nature:

Seeds	Pussywillows	Pebbles
Leaves	Egg Shells	Shells
Acorns	Weeds	Petals
Dried Flowers	Nutshells	Grass
Bark		

Foods

Dry Cereals	Beans
Macaroni	Rice
Spaghetti	Colored sugar, salt
Split Pea	Cookie decors

#4. Useful for many activities
- --Cardboard boxes, all sizes, for sawing, and making boats, houses, trains, etc.
- --Paper bags - for dolls, puppets, containers.
- --Toilet paper rolls
- --Ice cream, cottage cheese and french fried potato containers - from drug stores, restaurants.
- --Spools and popsicle sticks.
- --Cans and jars
- --Sawdust - for collage and modeling (free from lumber yard)
- --Soap flakes - for painting, for modeling. (cont'd)

DEPARTMENT OF HEALTH

William J. Peeples, M.D., M.P.H., Commissioner

STATE OF MARYLAND 301 W. PRESTON STREET • BALTIMORE, MD. 21201 • Area Code 301—Phone 383-3010

MEMORANDUM March, 1965

TO: ALL NURSERY SCHOOLS, KINDERGARTENS AND DAY CARE CENTERS

FROM: John L. Pitts, M.D., M.P.H., Chief
Division of Maternal and Child Health

Judith Bender, Educational Supervisor in Day Care
Division of Maternal and Child Health

Jean Berman, Educational Supervisor in Day Care
Division of Maternal and Child Health

CHILD DAY CARE NEWSLETTER

Number 5

March, 1965

Please read this newsletter carefully.
Refer to it for ideas.
Keep it in your files for future reference
Show it to your staff.

MARYLAND STATE DEPARTMENT OF HEALTH

Division of Maternal and Child Health

CHILD DAY CARE NEWSLETTER March, 1965 - No. 5

TIME TO EAT!

This announcement is heard with joy, trembling or indifference depending on your children's attitudes toward eating. Since many children spend a long part of their day at a school or day care center, it is the responsibility of the school or center as well as the responsibility of the parents to help children enjoy their food, to provide for their nutritional needs, and to develop lifelong healthy and happy eating habits.

CONSIDER CHILDREN'S NEEDS:

Children need snacks, mid-morning and mid-afternoon. (Because the capacity of their stomachs is small; they can't hold much food at any one time.) This should be a regularly planned time and should consist of a variety of foods contributing to a child's food needs:

fresh fruit	simple sandwich
raw vegetables	puddings, ice cream
milk	cereals
crackers, cookies	fruit juice

Morning school groups, please note: why continue the monotony of juice and crackers <u>every</u> day???

Often the snack can be some simple food the <u>children</u> have prepared (see page 3 for ideas). This experience encourages new knowledge about foods, their preparation, texture, odor, consistency. It requires skills in measuring, mixing, following directions.

Children need drinking water always accessible, from a fountain or disposable paper cups.

When a child is in your center over the noon hour he will need a regular meal, preferably hot, which shall supply at least one-third of his daily food needs. The following pattern will meet this goal:

6-8 ounces of fresh milk
2 ounces of protein, (meat, fish, eggs, cheese, poultry, baked beans, peanut butter)
1 or 2 servings of vegetables and/or fruit
bread and butter or margarine

It is the parent's responsibility to see that the child has a nourishing and peaceful breakfast and dinner at <u>home</u> with his <u>family</u>. On the rare instance, however, when a child arrives at the center without breakfast, the center must provide for this meal since a child certainly cannot function properly if he is hungry.

Children need child size tables and chairs (feet should touch floor). Provide plates and cups that are sturdy and heavy enough to discourage spillings - but be prepared for spills by young children! (Have you plenty of sponges, and easily washable table tops?)

Children's appetites vary from day to day and meal to meal. Don't expect them to gobble every meal with the same enthusiasm! Therefore, serve food in small portions (1 tsp. to 1 tbl.) and let them know that they may have seconds. Many children are discouraged by large portions; yet, some fear they are not getting <u>enough</u> to eat. Our best suggestion is to serve food, or seconds, family style (in large bowls) at each table so that children can help themselves.

Young children need a quiet time just before lunch and enough rest during the morning so that they will not be so tired by lunch time that they cannot eat well!

Children must be relaxed in order to eat. Snack time and meal time should be happy and social. Put the emphasis on the pleasant aspects of eating together. These are no times for over-stress on manners, or stern discipline. Encourage interesting and friendly table conversation, in an attractive dining area.

Eating time is learning time! Chat about:

where foods come from
what cooking is
what different people and animals eat, etc.

HELPING CHILDREN ENJOY EATING - DEVELOPING GOOD FOOD HABITS:

Serve food as soon as children are seated; they look forward to eating but get restless if they must wait.

Prepare food that looks good and tastes good. Children have a very keen sense of taste; therefore, beware of too much seasoning! Most children prefer food in separate servings rather than casserole style.

Make eating as easy as possible. Serve foods in forms which are easy for children to manage:

finger foods (things which can be picked up with fingers)
food served in bite size pieces
have plenty of spoons on hand
soups may be served in cups or glasses

Serve food at appealing temperature, neither too hot nor too cold.

It is helpful for cheerful, interested adults to eat at the tables with the children, sharing the same menu, and being right on hand to help when needed.

Eating must be fun if children are to eat well!

- Never offer rewards or punishments for eating or not eating.
- Withholding desserts or other foods as punishments or giving them as rewards causes future eating problems since children are then made to feel that these foods must be "something special". Desserts are a part of the meal, not something special, and should contain nutritional value. They should not be denied.
- Do not insist that children "clean their plates".

Children should be encouraged, but never forced, to try a new food. Offer it in very small quantities along with familiar and well liked foods. If children refuse it, don't be discouraged. Wait awhile, try again, (or this time let them help with its preparation!)

Children eat at different speeds. Therefore, allow plenty of time, without hurrying. Children who have finished eating may clear their dishes away and go into another room, to their cots, or to some quiet activity.

PLANNING TIPS:

Plan menus to suit your budget, kitchen staff, and equipment. Be sure that the children's parents are notified of your menus by posting them or sending copies home.

Plan for variety! It is important to consider:

Color - include a variety of color in your foods, (even if only in the garnish); for example, a bit of redberry, apple slice, carrot wheel, parsley, etc. Combine foods of different colors (e.g. broccoli, mashed potatoes, ½ peach, etc.).

Flavor - bland plus strong flavor combinations.

Texture - plan a variety (crunchy, smooth, chewy, etc.)

Shapes and sizes - try different kinds.

Food combinations - don't always serve the same vegetable when a certain meat is served.

Family food habits - try to include favorite dishes suggested by children and/or parents; consider the cultural tastes and habits of your family in food presentation.

Plan for foods children especially enjoy, for individual food tastes, for individual needs.

Plan for special occasions, holidays, birthdays, etc. Let children help plan - half the fun is in the planning!

Plan for refrigerated storage space if children bring lunches.

LET CHILDREN HELP!

With setting the table - children love taking turns

Placing the chairs
Arranging the dishes, utensils, napkins
Arranging flowers or making a "centerpiece" for the table
Making placemats for special occasions

With serving food

Helping self to food from large bowls
Passing seconds, and taking some too
Filling glasses from small pitchers

With cooking

Cut up (or tear up) the salad
Mix up the hamburger
Make an instant pudding or jello
Make lemonade, orange juice
Spread sandwiches
Make easy cookies or cakes
Help make applesauce

With planning the menu

With parties at meal time

Suggestions concerning food purchasing can be obtained from:

Your local health department
Maryland State Department of Health
County Extension Service, U.S. Department of Agriculture
University of Maryland Department of Agriculture

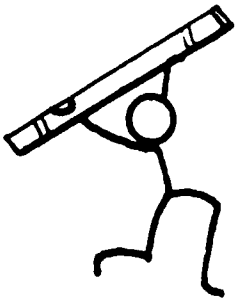
For more complete information please refer to the following publication:

Food For Groups Of Young Children Cared For During The Day, Helen M. Hille

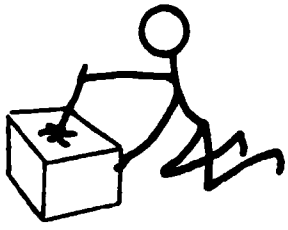
Children's Bureau Publication #386 - 1960
Superintendent of Documents
U.S. Government Printing Office
Washington 25, D. C.
Price - $ .25

MARYLAND STATE DEPARTMENT OF HEALTH AND MENTAL HYGIENE
Preventive Medicine Administration
Division of Maternal and Child Health
301 W. Preston Street
Baltimore, Maryland 21201

CHILD DAY CARE GUIDELINES #6 May, 1965 - Revised August, 1973



DO IT YOURSELF



Outdoor Improvised Play Materials

THE VALUE OF IMPROVISED MATERIALS

From time to time we recommend specific things that centers caring for young children should include in their equipment or their activities. However, each center reflects the individual personality and ideas and imagination of the adult in charge.

Each center is different because each of you is different and has different ideas. Many of you are making your own equipment instead of waiting until you have enough money to purchase commercial equipment. You may copy a good idea from a catalogue, or collect odds and ends from all kinds of sources. You may ask a tire dealer: "What are you going to do with those big tires?" Or a lumber man, "How about some wood scraps for the children to work with?" Or the grocer, "Do you have any wooden crates today?" "Cardboard cartons."

Homemade and original equipment does more than just save money. It may be more interesting and appropriate, and the children can have an important part in making it. Unusual materials for both indoors and outdoors encourage your children's imaginative responses and potential.

Commercial materials often are similar to what the child plays with at home or, are much too "elegant" for him to identify with or enjoy. Thus, they do not stimulate a child's thinking or imagination.

A piece of equipment made for only one use (for example, a seesaw) may lead children to only one discovery. If it can be used in many ways, new ideas and new plans develop; new problems arise and new solutions must be found by individuals or small groups of children. Innovative

equipment will encourage your children's natural curiosity, set the stage for new learnings, invite creativity, and help them develop new skills.

How often can children find a small, shaded secluded spot where just one or two can play, a spot that adults haven't yet "ruined?" Is your yard designed to extend possibilities for growth, play, and intellectual development?

Have you ever noticed how dull most play yards are, how restless children become and how bored? How many times have you seen two swings, a slide, and perhaps a small sandbox as the total equipment in a play area? Each child is different. Why is play equipment always the same?

NEW HOPE

Because much play equipment is so dull, some manufacturers now are branching out into more varied designs. Many educators and recreational planners are designing new and exciting "adventure" playgrounds.

In Denmark, Professor C. T. Sorrenson, a landscape architect, designed a waste material playground. He was impressed by the fact that children prefer playing in junk yards to the sterile, immovable equipment placed in official children's centers. Since that time a great many very interesting play areas have been developed all over the world using inexpensive but really challenging materials, many of which are simply taken from the natural surroundings.

Many materials may seem to be nothing of value until a child "discovers" and wants them for his play. Then a barrel, an old lantern, a log, a 2' x 4', an old baby carriage wheel, become excitingly alive as its young inventor finds a new reason for its being.

MATERIALS AND YOU!

Consider how each child differs from every other - in interests, in ability, age. Have you a large enough variety of materials? When you provide for individual differences, remember that you and your children are continually growing and changing. This means that you must continually

- provide new things, old things
- use them in different ways
- paint them a different color
- put them in different places
- bring them inside; take them outside

But, above all, as you work with the children, you must feel inspired to add exciting things to your equipment, must believe that the "unusual," the "junk," the "white elephant" can have a creative use. (If you can't think of the use, your children will!)

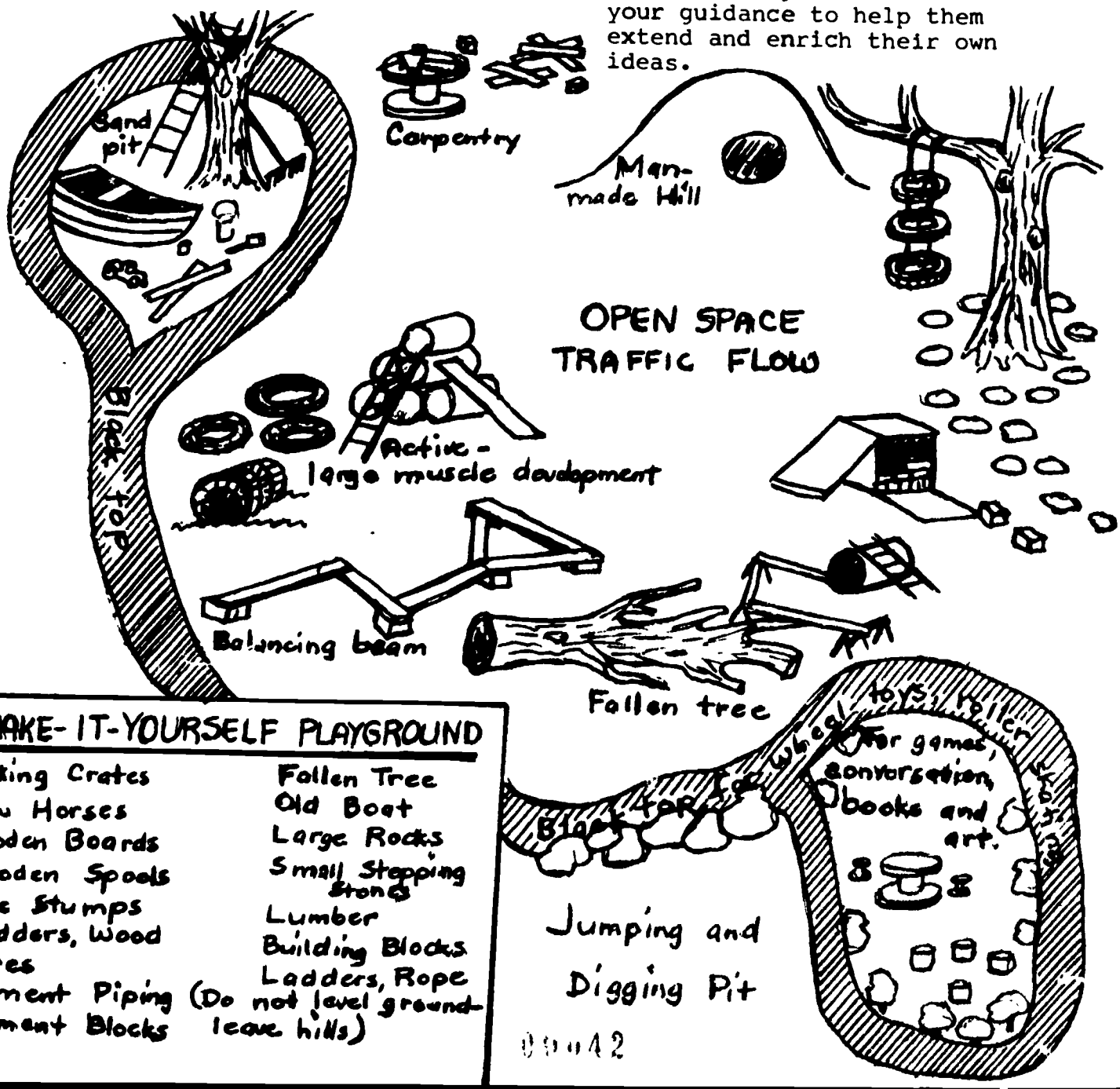
Be imaginative; be patient with your children's imagination. Enjoy it. Nothing is more exciting than listening to your

children's desires and their abilities to use and create things in their own way. Realize that some children love dirt even if you hate it; that they may like a bit of disorder even if it makes you uncomfortable. After all, for whom is your program designed - YOU or the CHILDREN?

Some suggestions follow of the kinds of original and homemade materials that you can try. The list is as endless as OUR imagination and YOURS.

Remember to inspect all materials regularly and check them for safety. Make sure climbing apparatus is safely bolted or sunk in concrete. Discard items when they are no longer safe to use.

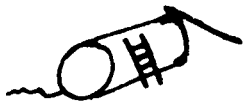
Provide for storage of outdoor equipment when not in use. Provide for easy availability when interest is high or renewed. And most important, regardless of the nature of your equipment, children will need your supervision and your guidance to help them extend and enrich their own ideas.



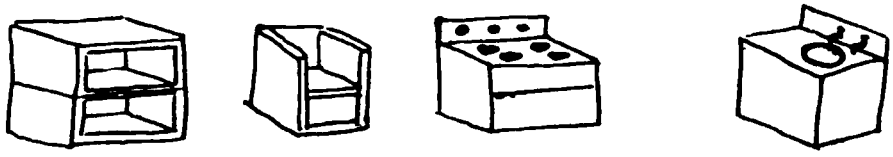
MAKE-IT-YOURSELF PLAYGROUND

Packing Crates
Saw Horses
Wooden Boards
Wooden Spools
Tree Stumps
Ladders, Wood
Tires
Cement Piping
Cement Blocks
Fallen Tree
Old Boat
Large Rocks
Small Stepping Stones
Lumber
Building Blocks
Ladders, Rope
(Do not level ground - leave hills)

SUGGESTIONS:



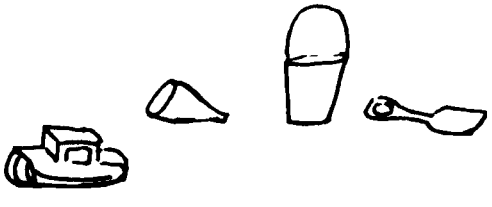
Tunnels to crawl through - made from round &/or square stationary concrete pipe, barrels or a row of tires on edge set in sand or earth.

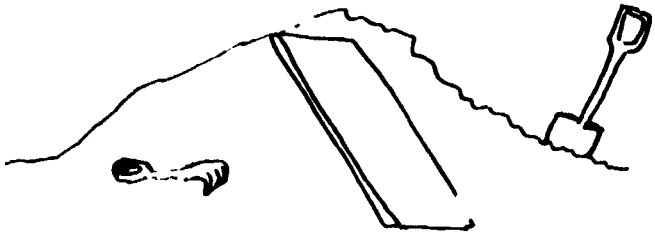


Outdoor play housekeeping furnityre - made from wood crates or discarded furniture.

Tree Stumps may also be used for small tables & chairs. Good for quiet activities such as books, games, art, or a tea party.

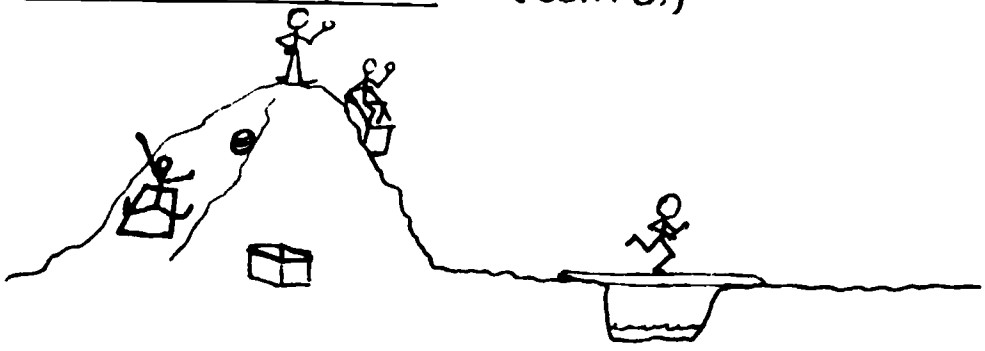
Stepping stones - made from large rocks or tree stumps placed in interesting patterns - may be painted bright colors.



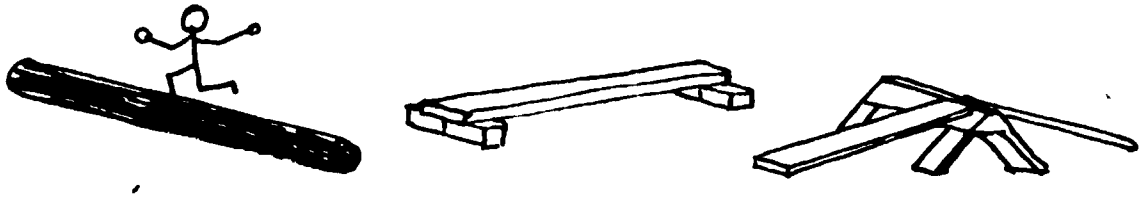


Digging space - any soft ground, sand pile or sawdust pit Add buckets, spades, funnels, boards, watering cans, etc. Also trucks & tractors.

SUGGESTIONS: (Cont'd.)



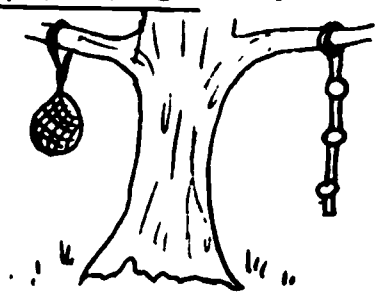
Man-made hills - made to form interesting land contours for climbing, sliding down on a cardboard carton, imaginative play, rolling things down, creating jumping pits, etc.

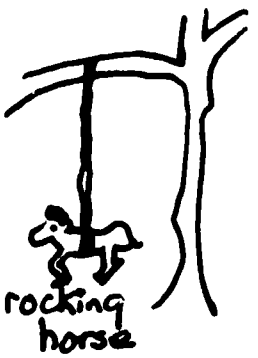


Balancing equipment - discarded telephone pole makes excellent balancing beam; boards (4" to 12" wide) raised on bricks or concrete blocks, sawhorses or wooden crates.

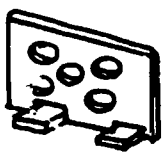
Climbing equipment - fallen trees, standing trees, a sturdy packing box with a ladder up to it, ladders are very useful. (Make your own ladders by nailing wooden cleats (cross pieces) to a board.)

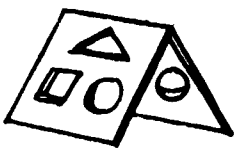
SUGGESTIONS : (cont'd)





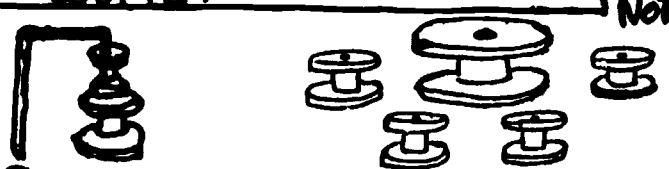
From a tree - suspend a mesh onion bag for punching (stuffed with rags), or a thick knotted rope tied to a limb for climbing.





Beanbag toss board - made of heavy cardboard or plywood.

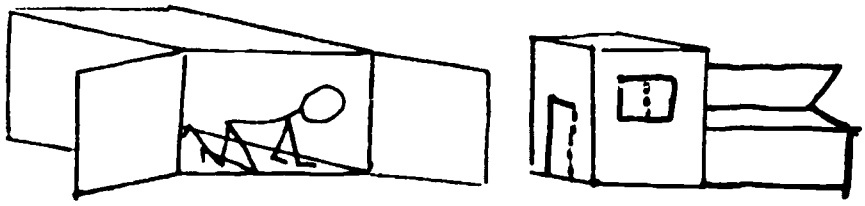
A raised platform or treehouse - children sometimes like to tower over the grown-up world.



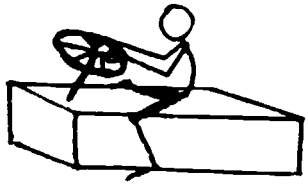
Notes Also: Good for quiet outdoor activities, ie, books games, etc.

Cable Wheels - (from telephone + electric companies) great for tables, chairs, carpentry bench, climbing, rolling, balancing. Also, empty nail kegs, large drums.

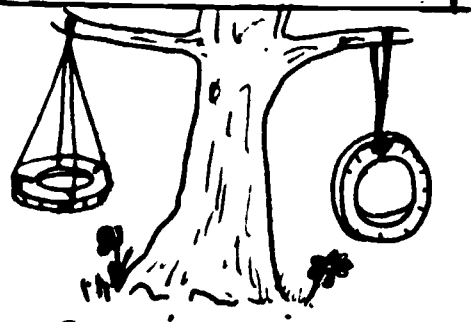
SUGGESTIONS: (cont'd.)



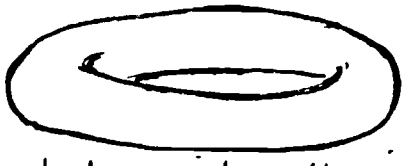
Large cardboard cartons - to make things out of or just play in.



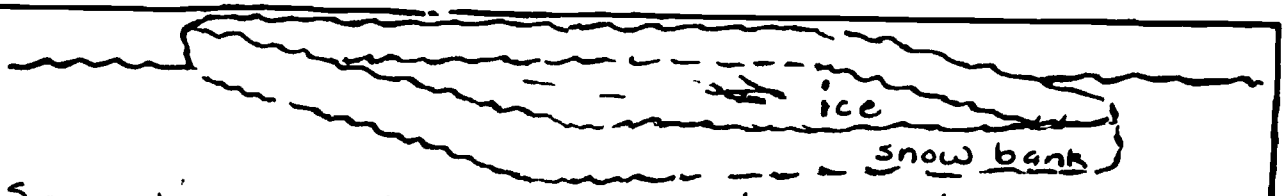
Steering wheels - from automobile junk yards.



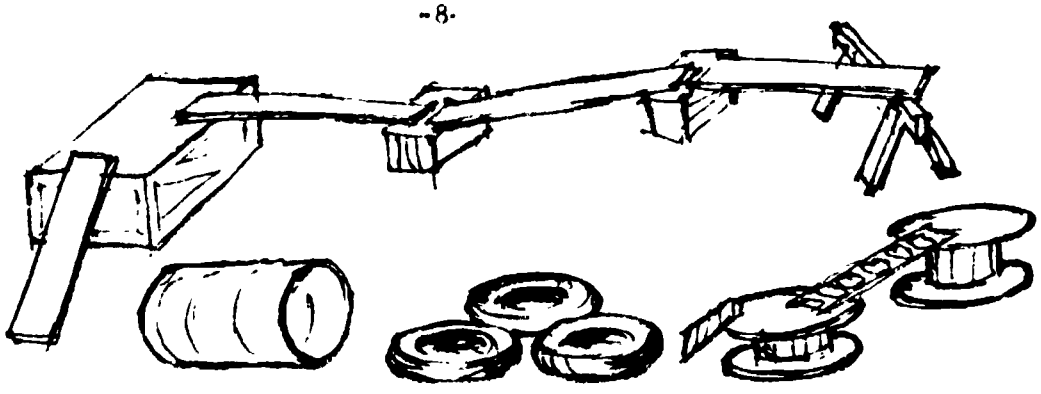
Discarded tires - laid flat for jumping into, onto and out of Also hung from trees to swing in, for balancing for chasing after



Truck inner tube - it rolls, it spins, it makes a bouncy bench. It's a trampoline, a drum. You can hug it!



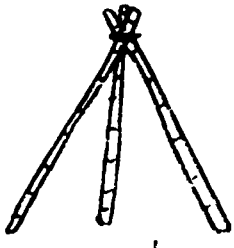
Snow time activity — help children build a snow-bank enclosure several inches high and fill with water - great ice rink for sliding and skating when the water freezes.



Up and Down
Over and Under
In and Out

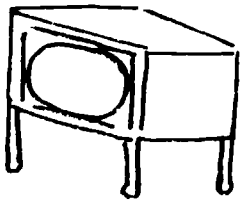
Surprise the children with new arrangements. Let them surprise you!

or a table



or tent

Indian Teepee - bamboo poles (from rug company) tied together at top, add blanket to make a "hide-out."



Empty TV console - for all types of dramatics: puppet show, movies, TV commercials, etc.

A Health Note: Creative playground materials increase interest in spending longer periods outdoors — all year 'round!

SUGGESTIONS: (Cont'd.)

Sound-making materials

garbage can lid - a gong
tin cans - drums
sealed containers filled with pebbles - shakers

Dress-Up costumes for role-playing - adults clothing, all kinds of accessories including cameras, binoculars, clocks, leis, fans, old suitcase, large paper bags, discarded curtains for costume-creating, etc.

Be On the Look-Out for:

A discarded small car chassis - remove battery & doors, check for any potentially dangerous parts.

A used rowboat for a pretend voyage.

Riding saddle - nail to a barrel or sawhorse.

Plumbers piping - to take apart, screw together. Fun to attach to a water supply.

Parachute or sheet - for a tent, or may be waved up and down by holding edges while children run under, or toss leaves in it.

To add to imaginative play - discarded generators, spark plugs, motor parts, old hubcaps.

Gardening tools for spring and summer, rakes for Autumn leaves.

Winter snow play - snow shovels, containers, mallets for cracking iced puddles.

Summer water play - hose, sprinkler, plastic tub, utensils for discovery such as funnels, containers, basters, old paint brushes, sponges, water pumps, soap suds, etc.

Construction materials - odds and ends of safe lumber to build with. When adequately supervised add carpentry tools, nails. Large blocks may be made by cutting up 2 x 4's into unit sizes.

Hoses - as props for dramatic play.

Cargo nets and twisted ropes - for use as climbers. (from surplus stores or harbor facilities.)

Plastic garbage cans - for use as catch-all for equipment; and as storage container for clay

Tire Pumps - good exercise!

Railroad ties - for defining areas, balance beams, climbing and jumping constructions.

Improvised shade - umbrella, awning attached to building, arbor or sun shelter - attached or free standing - (covered with slats or snow fencing), overhanging eaves.

DEPARTMENT OF HEALTH

STATE OF MARYLAND 301 W PRESTON STREET • BALTIMORE, MD. 21201 • Area Code 301—Phone 383-3010

M E M O R A N D U M July, 1965

TO: ALL NURSERY SCHOOLS, KINDERGARTENS AND DAY CARE CENTERS

FROM: John L. Pitts, M.D., M.P.H., Chief
Division of Maternal and Child Health

Judith Bender, Day Care Consultant
Division of Maternal and Child Health

Jean Berman, Day Care Consultant
Division of Maternal and Child Health

CHILD DAY CARE NEWSLETTER

Number 7

THE TWO-YEAR-OLD IN DAY CARE

The two-year-old is very busy! The world is so large - so full of fascinating things to touch, and see, and taste, and smell and try for the first time! The day care center is a friendly, safe and healthy place where the two-year-old can begin to learn what the world is like. It is important to remember that a two-year-old is very young for an all-day program; he requires careful attention to his individual needs.

WHAT IS THE TWO-YEAR-OLD LIKE?

First of all, he's bigger than he was last year.

He's vigorous, enthusiastic and energetic and is outgrowing some of his baby ways.

He plays among a group of others but not yet with them.

He tires very easily and then misses his Mother.

Around two and a half he becomes rather independent. (They have been known as "the terrible twos.")

He says "no!" whenever he has the chance.

He dawdles.

He often wants what he wants immediately - no waiting.

Every procedure has to be a ritual - just like yesterday.

He is suspicious of new situations.

He has difficulty in making up his mind.

He is not yet able to share.

By the time he's three, he's calmer, happier and more flexible.

continued

WHAT CAN THE TWO-YEAR-OLD DO?

He can move quickly, and without help -

He is losing his "toddler" walk.

He runs, but isn't ready for rapid stops and starts.

He can go up and down stairs alone, holding on to the wall or railing. He lingers to "mark time" on each step.

He can climb and push and pull and dig and carry.

He expresses his happiness by smiling, jumping up and down, clapping his hands and screeching.

He is becoming better at holding a spoon and can hold and drink from his cup with real confidence.

He can push a chair and climb up on it to reach a high shelf.

He can stay dry for longer periods, is learning to use the toilet and is sometimes very upset by an "accident."

He usually can talk.

He understands more than he can express.

He puts two or three words together:

"Mommy go bye-bye"
"I (me) do it"
"Mine!"
"See daddy coming"

Sometimes his language is hard for adults to understand.

He can use materials in an exploratory fashion - purely for the joy of experimenting.

He can hit or bite or cry when he's angry. He needs understanding more than punishment.

WHAT ARE HIS NEEDS?

Warm, loving, attentive adults who are with him each day and who can understand, help, and guide him -

Adults who know how difficult it is to make a choice - who say, "Now it's time to...," instead of "Do you want to...?" when there really is no choice.

Adults who stoop down to a two-year-old's level to talk to him.

Adults who say "Now it's Johnny's turn. You'll have another turn after Johnny," and then make sure that he has his turn next.

Adults who provide plenty of materials for all so that too much stress need not be put on sharing.

Adults who approach him individually or hold his hand to catch his attention - shouting across the room is loud and scary.

Adults who speak slowly and use words that are easily understood, such as "Where does your coat go?" "It's time to...", "Let's do something together."

Adults who understand that a tired, cranky, whiny, two-year-old may not feel well, or he may miss his Mommy very much.

Nourishing food and frequent periods of rest and quiet throughout the day.

Small groups of no more than six of his age-mates.

A routine of activities that he can count on from day to day.

Enough time to complete a task, heed a command, do it himself.

Time to explore, to experiment or just to watch - this is how he learns and develops.

To learn to trust adults. Parents must tell the child when they're leaving and when they're coming back. Don't try to "fool" him.

Sometimes a familiar toy from home to carry around or keep nearby.

Many chances for success to promote confidence.

continued

SETTING THE SCENE FOR WORK AND PLAY

The day care center is a child's world, where everything is just the right size. Tables, chairs, sinks, toilets are small enough and low enough to encourage independence. Soap and paper towels should be easy to reach.

The rooms for work and play should be large and clean and cheerful -- painted in a light color and maintained at a comfortable temperature.

Decorations can be examples of the child's own art work and simple pictures of familiar objects placed at his eye level.

Clear, bright colors are most appealing.

A variety of work and play materials are arranged on low, open shelves where everything can be easily reached and easily put away by the children.

Trucks, blocks, dolls and all play equipment are kept clean and in good repair because children work more effectively with materials that are in good condition.

There should be plenty of open floor space to allow for all kinds of activities -- children become fussy in cramped spaces.

WHAT DOES HE USE FOR WORK AND PLAY?

Homemaking play

- Dolls - soft, squeaky ones; realistic baby dolls
- Pots and pans with lids
- Eggbeaters
- Spoons, dishes of metal or soft plastic
- Brooms and mops - child size
- Doll carriage
- Doll bed, blanket
- Telephones
- Ironing board, iron
- Rocking chair

Dramatic play

- Pocketbooks and hats - big, Mommy's size

- Sandbox
- Blocks - big and little, hollow cardboard or plastic
- Cars, trucks, trains
- Water paints, large brushes
- Wagon - small enough to pull and push

Art experiences

- Magazines for turning and tearing
- Crayons, large
- Play dough
- Finger paint

Music experiences

- Bells
- Drums, tom-toms
- Maracas
- Shakers
- Record player - simple singing, rhythms which he creates

Books and stories

- Picture books - of sturdy quality, simple bright colors, showing familiar objects
- Simple stories about himself and his activities

Science experiences

- Short neighborhood walks to collect pebbles, nuts, cones
- Leaf raking, tumbling
- Shells
- Pets

Small muscle play

- Simple wooden puzzles with 2 or 3 pieces
- Stringing big wooden beads

Large muscle play

- Rocking boat
- Something to climb on
- Something to pull and push
- Water play

DEPARTMENT OF HEALTH

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September, 1965 Number 8

THE THREE YEAR OLD IN DAY CARE

The three-year-old is interested in people and things and ideas. He really is growing up now. He is no longer a "toddler," yet he needs to act like one OCCASIONALLY. He no longer plays all by himself, but he needs to do so OCCASIONALLY. Many threes are ready to be in a group setting. They will enjoy a gay, relaxing day with you. And you will enjoy it with them. Know and accept them as the three-year-olds they are and don't rush them into being an age which they are not.

WHAT IS THE THREE-YEAR-OLD LIKE?

He wants to please. He is more co-operative than he was at two; he understands words better, and you can explain things to him.

He is "jet-propelled" -- full of energy, enthusiasm!

He still dawdles, too, and resents being hurried.

He sucks his thumb, sometimes.

He is becoming aware of himself as an individual -- and aware of others.

His family is his main interest, but all people are important to him. He loves companionship and making friends; he may even have a "best friend!"

He loves to laugh; he wants you to laugh with him.

But he also cries and hits out to stand up for his rights -- he is just beginning to "argue with words."

He is developing independence, likes to try new ways of doing things. He says, "I can do it myself!"

Undressing is easy; dressing is harder.

He enjoys helping YOU. It makes him feel important. He needs this now.

He is very tidy, very neat.

He is even starting to take turns, to share.

But he considers himself a great artist; he may not want to share one piece of paper.

He usually announces when he must go to the toilet, but he can take care of himself and is starting to be dry at night also. Of course, there are still "accidents."

Sometimes he is fearful -- of an unfamiliar object, a noise, the dark, a new experience.

A few other children are fun to play with, for a short time. But when difficulties arise he returns to play by himself.

He is really not ready for <u>much</u> group participation.

However, he is curious! He asks, "why?" "when?" "what?" -- he tests, he touches, he watches -- and so he learns.

WHAT CAN THE THREE-YEAR-OLD DO?

He walks, runs, jumps, and gallops.

He can use a tricycle now.

He still is scribbling but it's becoming more controlled. Sometimes he tells you what it is -- but the next minute it may be something else!

continued

He knows color differences but he does not name them yet.

He sings, and sometimes on pitch!

He can accept simple responsibilities, such as pouring from a pitcher, using both hands.

He can catch a large ball (about one time out of three!)

He is ready to respond when you talk to him -- he "learns to listen" and "listens to learn."

He speaks in sentences; talks to himself. Most words you will understand, some you won't.

He can feed himself pretty well but there are still many spillings, and he likes playing in the food. It is hard for him to "stay at the table."

He uses the floor to play on; tables and three-year-olds do not mix well.

He helps put away toys now -- if adults help, too!

WHAT ARE HIS NEEDS?

Watchful adults who can create an orderly environment, free from accident hazards.

A careful health check each morning by someone who knows the signs of illness.

A GRADUAL introduction to a group - a visit before regular attendance, his mother to stay if he needs her a while.

A small group -- of children his own age.

Plenty of space to wander and explore -- with adults close at hand.

Plenty of time to learn on his own, to follow through his own ideas.

Plenty of materials with which to experiment and learn to understand his environment.

Very short, personal story and conversation times with just a few children. A place to sit close to the adult.

Someone to laugh with!

An affectionate adult to console him when he cries.

A nap.

Nourishing meals and snacks to meet his growth needs.

An adult to offer help when help is needed.

Comfort for his fears. Tears are soon replaced by interest and curiosity.

Help in answering his questions; by conversations, observations, nearby trips and simple books.

Adults who use clear simple speech with him, since language ability is developing rapidly now.

A feeling of importance -- of being worthwhile.

Encourage -- don't ever shame him.
Require only what really matters.
Be consistent.
Provide continued opportunities for success.

WHAT DOES HE USE FOR WORK AND PLAY?

Homemaking play

Child size stove, refrigerator, doll bed, etc.; plus all of the equipment for a lively housekeeping corner.

Dramatic play

His interests are centered on family and occupations:

dress-up costumes -- for indoors and out.

cars, airplanes, trucks, boat, trains.

A digging area, with things to play and dig with.

Water play, of all kinds.

Outdoor equipment to encourage imagination, learnings and skills (e.g. homemade tent, large boxes, long boards).

continued

Blocks

You will notice that a three-year-old lines up his blocks rather than building them high. This is the beginning of buildings taking form.

His unlimited imagination may turn a block into a doll, a train, a piece of food, etc.

Musical activities

He starts to sing.
He dances -- joyfully.
He uses instruments.
Sometimes for one minute, sometimes for 30 minutes.

Books and stories

Simple picture books about familiar things.
And, he will ask you to read them again and again.

Art experiences

Wet clay and dough; to manipulate to pat, dig holes in with fingers, to squeeze - maybe to make "balls" and "snakes."

Cutting -- he is starting to.

Pasting.

Crayoning.

Hammering and nailing.

Paints -- tempera, with large 18 x 21 inch paper and 3/4 to 1 inch wide, long-handled brushes. He paints in large blobs of color.

Plus, more of the two-year-old experiences.

Puzzles and games

Keep them simple and sturdy.

Science experiences

He loves to examine bugs, worms, seeds, flowers.

He loves to watch and help care for pets.

He still loves to jump in leaves and play in water -- and this is learning, too.

Large muscle play

More things to pull and push, to carry around, to crawl through.

Things to ride, to load.

Some rocking, some climbing, and plenty of space for running, jumping, building.

CHILD DAY CARE NEWSLETTER Number 8

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M E M O R A N D U M

January, 1966

TO: ALL NURSERY SCHOOLS, KINDERGARTENS AND DAY CARE CENTERS

FROM: John L. Pitts, M.D., M.P.H., Chief
Division of Maternal and Child Health

IMPORTANT

The Health Department is the only agency which can grant a license for the operation of a day care center in Maryland. This license is granted annually after inspection proves that the center is currently meeting standards set up by the State Board of Health and Mental Hygiene. The State Board of Education is the only agency which can grant official approval or accreditation of educational programs in private pre-school facilities. Please do not be misled by any literature you receive from private organizations offering "approval" of your center. There is no substitute for the license you obtain from the Health Department or certificate of approval from the Board of Education.

It is not possible to buy an "approved" insignia for your day care center that will suffice for a Health Department license, or Board of Education approval.

January, 1966 Number 9

THE FOUR-YEAR-OLD IN DAY CARE

There's not a chance in the world that you can overlook the four-year-old in your center! He's the busiest, noisiest, most active child anywhere. He talks the most and sings the loudest. He really is ready for group life, he is ready for the companionship of his own age, he is ready (almost aching) to use those big muscles for running and jumping and climbing and pushing. Sometimes he is very hard to understand - one minute he is the blustering, self-confident man of the world, and the next minute he is crushed, dejected and "babyish" because someone ignored him or forgot to praise his latest project. As the saying goes, "He may sometimes be a headache, but he'll never be a bore!"

WHAT IS THE FOUR-YEAR-OLD LIKE?

He is exuberant, enthusiastic and sometimes exasperating.

He wants far more independence than he really can handle.

He is beginning to go beyond the confines of his backyard for friends and adventures.

He is interested in adults and all of their activities.

He is not as strong s he looks; he tires easily and still needs an afternoon nap.

He is fascinated by words - the sound of them and their effect upon others. He experiments with "naughty" words as well as poetry.

He "shows-off."

He runs, he does not walk.

He is testing his whole world and the people in it to see how much he can control.

He is bossy.

He is beginning to know about himself as a separate person, apart from his family.

He loves loud noises if he makes them himself; but he can become frightened of sirens, bells and whistles that are unexpected.

He is beginning to plan his work and play and often knows what he is going to do before he starts.

His small muscles still lag behind the large ones in development and coordination.

He is beginning to understand "yesterday," "today," and "tomorrow," but other designations of time are still vague.

About 4½ he is starting to understand about "real" and "pretend."

He is developing a sense of humor - he loves to hear and tell silly stories, and is delighted when you "get the joke."

This may be a year of lots of colds and earaches and sore throats - adults must be watchful.

continued

WHAT CAN THE FOUR-YEAR-OLD DO?

He can TALK and TALK and TALK; and he needs the chance to do so.

He can dress himself if he has plenty of time, but he still has trouble with shoes.

He can run and jump with real dexterity and daring.

He is willing to try new foods if they are interesting and attractively served.

He can count four or more objects and touch them at the same time.

He loves to ask endless detailed questions. Often he really is not interested in detailed answers.

He can be comfortable with a group of children for most of the day.

He sometimes tells an adult about his art work. Usually it looks like something to him.

He can chat during meals and eat at the same time.

He can carry on long, involved conversations but rarely sticks to the subject. He will learn this as he grows.

He can put his materials away by himself but does a better job with adult help and adult encouragement.

He can run short errands if the directions are simple.

He has a hard time stopping activities in the middle - he wants to finish. Try to let him. (This does not mean that he is stubborn; he is interested and learning.)

WHAT ARE HIS NEEDS?

He needs other children his own age to play with, talk with, learn with.

He needs independence equal to his abilities, with firm and definite limits surrounding this independence.

He needs adults who:

know how to guide a four-year-old in learning at a four-year level

help him if he is afraid of the dark, afraid of dogs, afraid of some people

can divert his "out-of-bounds" behavior into constructive channels without punishing

can interpret the actions and intentions of one child to another

tell him when to stop and rest.

He needs simple, direct and honest answers to his questions.

He needs praise for his efforts and success in his endeavors.

He needs routines that he can count on, but flexible schedules to allow for sudden enthusiasms.

He needs careful supervision of his health and safety, because this is an "accident prone" age. Tired children are doubly susceptible.

He needs first-hand experiences in touching, tasting, seeing, hearing and smelling.

He needs a variety of materials that allow for experimentation and manipulation.

He needs the freedom of outdoor play without the restriction of organized games.

He needs plenty of time to complete his activities without rushing - whether they are eating, dressing, building, or painting.

WHAT DOES HE USE FOR WORK AND PLAY?

He uses all the materials he enjoyed when he was a three-year-old. Now he uses them with renewed vigor and a sense of imagination and creativity that shows an added year of growth and learning.

Homemaking play materials

The sink, stove, refrigerator, doll beds, etc. plus:

dress-ups for boys (men's hats, neckties, fireman hats, policeman hats, vests, shoes) as well as clothes for girls

mirror

chest for storage

clothes lines and clothes pins

continued

Dramatic play materials

Sand with spoons, shovels, buckets, trucks

Water with funnels, sieves, small boats, pitcher, straws, soap flakes

Typewriter (a real one)

Store-keeping equipment - cash register, play money, cans, boxes, etc.

Tricycles, wagons, boxes, short ladders, barrels, for outdoors

Lengths of hose for playing "fireman" and "gas station"

Art materials

Modeling materials - papier maché, clay, sawdust, plasticene

Hole punch

Chalk, charcoal

Scrap material of various sizes, shapes, textures

Gadgets for printing

Varied size paint brushes

Literature materials

Flannel board, pieces and shapes

A variety of story, picture and reference books

Poetry

Music materials

Records for activity and listening

Rhythm instruments - bought and made

Blocks

More variety in shape and size

Accessories:

colored cube-blocks

realistic figures of animals and people

small cars, trucks, airplanes

Science materials

Aquarium

Bird feeder

Cages, boxes and jars for animals and insect pets

Magnets with accessories

Magnifying glass

Prism

Seeds and bulbs

Thermometer

Large batteries, insulated wire, small light bulbs and sockets

Carpentry materials

Work bench

Real tools, child size

Soft wood

Nails, screws, etc.

CHILD DAY CARE NEWSLETTER Number 9

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M E M O R A N D U M

March, 1966

TO: ALL NURSERY SCHOOLS, KINDERGARTENS AND DAY CARE CENTERS

FROM: Doctor John L. Pitts, Chief
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CHILD DAY CARE NEWSLETTER

Number 10

March, 1966

THE FIVE-YEAR-OLD IN DAY CARE

The five-year-old is a slightly older, more mature version of the delightful three-year-old. He has reached a serene but temporary "coming-of-age." The boastful, aggressive, exasperating four-year-old has given way to a companionable, self-contained person convinced of his own dignity and comfortably aware of his own identity. He is everybody's favorite -- until he begins to "turn six."

WHAT IS THE FIVE-YEAR-OLD LIKE?

He is conscious of his new maturity; he senses that he is growing up, and he seems to like it.

He is more likely to tell strangers that he is "five" than to tell his name!

He observes grown-ups carefully and wants to do everything they do.

He is deeply interested in family relationships and is beginning to make a distinction between masculine and feminine roles.

He is interested in babies and will express curiosity about reproduction and birth unless his questions have been answered earlier.

He is affectionate toward adults, friendly and talkative. (In his sociability, he often innocently tells family secrets.)

He is developing a sense of humor and enjoys tricks and jokes, but he cannot yet laugh at himself.

He is leaner and more agile than the four-year-old; he has a good sense of balance.

He loves movement and noise.

He tires easily because he is so active.

He likes simple foods and may refuse to eat mixtures - stews, for example.

He looks forward to "school" with enthusiasm and excitement.

He is aware that "writing says something" and is beginning to recognize some letters and words.

He often pretends to read and write; he does not like to admit that he cannot.

He loves stories, either read or told - especially those with action and movement and repetitive phrases.

He is filled with curiosity and is eager for facts; he is ready to extend his community experiences much further than the four-year-old.

He has a keen interest in numbers and counting.

He is beginning to distinguish truth from fantasy.

He is imaginative, but his imagination is close to reality.

He strives for reality in his drawing and painting (houses, cars, people). However, he is not always capable of realism, yet, and his art work shows all levels of maturity.

He tends to be socially conforming and is critical of children who are not.

He is embarrassed by his mistakes or accidents and blames the nearest person.

He tries to "be good" to please adults; he is delighted by their praise.

He is beginning to show respect for group property and for the rights of others.

He plays comfortably with other children in small groups, with relatively little conflict.

continued

As a general rule, he is irritable and cross only when tired, hungry or sick.

He begins to lose his serene disposition as he nears the age of six, and his moods then are contradictory and often unpredictable.

WHAT CAN A FIVE-YEAR-OLD DO?

He can take care of his personal needs almost without adult help - bathing, toileting, dressing (except difficult fastenings), eating (except cutting meat).

He can climb with ease, run, skip, and dance with abandon.

He can do easy chores and clean-up jobs.

He can speak clearly - but he may misuse words he does not understand.

He can remember his address.

He can identify pennies, nickels and dimes.

He can cooperate in making and carrying out simple and immediate group plans.

He can listen and take turns speaking in a group discussion (skillful guidance from an adult is needed to keep fives on the subject).

On a trip, he can ask for information he wants (from a farmer, a fireman, etc.)

He can organize his play with careful concern for facts gathered from trips or from his observations of adult activities. (This is dramatic play, and his is elaborate and lively.)

He can work with several children to lay out simple "maps" with blocks, showing streets and buildings in their relative locations.

He can make up new stories; he can suggest different endings for old ones.

He can use creative materials, tools, and play equipment with a fair amount of competence; he mixes new colors, he builds with wood, he makes elaborate block structures, etc.

He can pick out familiar tunes on the piano and "compose" his own; he can sing.

He can settle most of his disputes with words; he can bargain for what he wants.

WHAT ARE HIS NEEDS?

He needs:

Adults

who know that he will learn from his activity, not theirs

who know when to teach and when to let him find his own answers

who will not push him toward reading and writing when he is not ready

who will take their cues to his readiness for any new experience from him

who respect and openly approve his creativity, his thinking

who watch for his safety without being too protective

He needs:

freedom to move about, to choose his own activities for a large part of the day

freedom to talk, to ask questions, to express his ideas, to be noisy

freedom to use his own language without being told, "You say it this way..."

plenty of space in which to move, to play, to build

much equipment, many materials, many sources of information

opportunities to use his skills, to assume the responsibilities he is equal to

quiet, restful times in his day's program with a cot-rest after lunch (although some fives do not sleep)

quiet places where he can be alone - to look at a book, to watch an animal, to paint a picture, to solve a puzzle

He needs:

trips into the community - to find answers to questions

continued

to encourage curiosity
to acquire new concepts
to become aware of the wonders of nature

WHAT DOES HE USE FOR WORK AND PLAY?

Much outdoor equipment for large muscle activity; (see Newsletter Number 6, May, 1965)

All the indoor materials he used at four (see Newsletter Number 9, January, 1966) with some new materials to be added:

Homemaking play

A dressing table with mirror
Jewelry box with costume jewelry
Many costumes - the fancier the better: scarves and ribbons, big hats and long skirts, shopping bags

Pencils, desk pads
Flashlights
Paper punch and "tickets" for conductors and bus drivers

Blocks

A larger supply of unit blocks

Many small cars, busses and trucks for the roads, particularly those with special uses - gas trucks tow trucks, delivery trucks, etc.

Several trucks large enough for hauling

Construction toys - dump trucks, steam shovels, cranes, steam rollers

Boats and barges, planes

Freight train set with various cars

Art materials

Add to the variety of colors and textures in paper, colors of paint, materials for pasting; a collection of boxes and materials for three-dimensional construction

Extra jars for mixing "new" colors

Enamel and shellac or rubber base paint for finishing clay and wood products (used only under supervision)

Carpentry materials

Add:

dowel sticks (for masts, smoke-stacks)

wheels (button molds, jar lids or checkers with holes drilled through middle)

a hand-drill with set of points, brace, jigsaw, C-clamps, files, rasp, screw drivers

plenty of wood in varying widths, lengths, and thicknesses (soft wood that children can saw)

bottle caps, string, material scraps, etc. (for decoration and other purposes)

(All carpentry should be carefully supervised to avoid accidents.)

Miscellaneous materials

Table games (Lotto, for example) which require counting or matching

Measuring cup, pint and quart bottles (plastic)

Kitchen scale

Teakettle and hot plate (used by adult to demonstrate experiments or cooking)

Rulers (inches, half-inches)

Yardstick and tape measure

Clock and calendar

Pulleys (large and small) with ropes, clothesline or strong twine, baskets or small pails for hoisting

This concludes a Newsletter Series on recognizing normal behavior. We have outlined the probable changes that you may expect as children grow. They may go through all the stages, but not at the exact ages. Each child is a unique being. And this, above all, we must remember.

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CHILD DAY CARE GUIDELINES

October, 1966 - Number 12
(Formerly the Newsletter)

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SECRETS TO BLOCK BUILDING: ENOUGH BLOCKS, ENOUGH SPACE, ENOUGH TIME, ENOUGH IDEAS

I. AN ADEQUATE AMOUNT OF BLOCKS

A. Regulation Unit Building Blocks -- scaled sizes plus varied shapes, wooden, uncolored, indestructible.

1. Ten children, minimum -- one quarter school set (about $50.)
2. Fifteen children -- one half school set (about $100.)
3. Twenty-five children -- full school set (about $200.)

* Unit blocks should be a "must" in your budget.

B. Large Building Blocks (see school catalogues for a variety of choice).

* Money invested in these is well spent.

C. Other Kinds of Blocks -- various sizes, varied materials, usually destructible. These do not have the values of unit blocks but can be used for building.

1. Commercial: "red brick", sold flat, cardboard must be assembled.
2. Homemade: boxes or cartons of all sizes can be used as building blocks.

a. Reinforced cardboard cartons or cigar boxes. Obtain free at food markets and leave flaps on. Stuff with newspaper for extra weight. Close with masking tape or cover with "contact." May be painted by children.
b. Cut two by four lumber into varied sizes.
c. Wooden crates: obtain pear crates, melon crates, etc. at food markets; may be sanded and painted. Use with boards (three feet long and longer). Especially good for outdoor manipulative play.
d. A pile of safe scrap lumber for your playground makes a good building material.

D. Accessories

1. Transportation and freight toys, small figures of people and animals, bought or homemade.
2. Pieces of fabric, linoleum, wire, cord, etc.
3. Box of one inch colored cubes.

Block building promotes essential learnings, but it may be a NEGATIVE experience unless there is an ADEQUATE NUMBER of blocks for the group.

Difference in play between large and unit blocks: with large block building the child is the actor; it is he who builds the "bus" and becomes the "driver". With unit blocks he is NOT the actor, he is the manipulator of people or animals or just blocks in dramatizing situations.

II. PROCEDURES

A. Provide enough time for building; children usually use about ten minutes to plan, thirty to build, fifteen to put away. So use blocks during your long free choice periods.

B. Store unit blocks on low open shelves, lengthwise according to size.

C. Provide as much open floor space as possible in which to build, away from traffic areas and other activities.

D. Help children to build away from block shelf (chalk or tape or block line on floor may help) so that shelves are always accessible for more blocks.

E. Older children take blocks from shelves as needed, a few at a time.

F. Help children to respect each others' structures.

G. Help children put blocks away in proper stacks.

H. Structures should be left up and saved once in a while!

I. Make put-away time FUN. Put-away techniques:

1. Give children five minute warning before it is time to put things away.
2. Children can divide up the chores (some put away some shapes, others another, etc.)
3. John can put away two blocks at a time; Mary three, etc.
4. Make up put-away songs such as "Johnny knows where each one goes, etc."
5. Some blocks can be piled on others and pushed to the shelf.
6. A small wagon is useful; large size cars, trucks or boats can also be used for hauling.

III. ROLE OF THE ADULT IN BLOCK BUILDING

A. To provide the materials, space, time and ideas.

B. To be interested and enthusiastic herself about the values and enjoyment of blocks.

C. To sometime help children who "can't get started" by talking about familiar experiences they have had, by starting block structure herself -- slowly, thoughtfully.

D. By helping to solve the problem when a structure "always falls down".

E. To help older children plan for large, ambitious projects.

F. To help expand the child's own wishes or ideas, but help only when necessary. An adult does not set patterns to copy.

G. To provide supervision so that children value their block structures and "knocking down" is controlled.

IV. CHILDREN USE BLOCKS DIFFERENTLY

A. According to age -- ranging from two year olds who just carry them around, to five year olds who build very complex structures. In between comes "piling", "lining up", "building simple enclosures", etc.

B. According to background -- blocks are used to represent different things according to children's environments. An individual block may represent a bus to a child in Baltimore City and a tractor to a child from a farm community. Children's block structures reflect what they understand and observe about life around them. We must help them make sensitive observations.

V. VALUES OF BLOCKS FOR CHILDREN

A. Unit blocks provide a basis for:

1. Concepts of number, shape, space and weight relationships.
2. Concepts of balance and support.
3. Sensory discriminations; visual, tactile

B. Children don't have to sit still when block playing; they can change positions often, move around.

C. Plenty of chance for muscle coordination.

D. A sense of achievement is quickly gained (block work stands up TALL!)

E. Respect for achievements and ideas of others.

F. Ideas are shared; problems are posed, discussed and solved.

G. Relationships of community living are played out and better understood from use of blocks with related accessories.

H. Vocabulary is increased by using correct names for blocks (square, oblong, pillar, half unit, etc.), and by conversation while planning and building between children, and between children and adults.

I. Opportunities for individual experimentation.

J. Creation of own real and imaginary worlds, thereby deepening understandings.

K. Chance to escape from the human inter-personal world for a while into a world of materials.

L. Blocks are fun! Blocks are adaptable; they can be used for many things at many times.

You will learn much about each of your children as you watch them "speak" through the language of block building.

MARYLAND STATE DEPARTMENT OF HEALTH
301 W. Preston Street
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CHILD DAY CARE GUIDELINES

December, 1966 - Number 13
(Formerly the Newsletter)

A healthy child is a child who is physically and emotionally free to grow and mature in a way that is right for him. You, who provide day care for children, know how important it is to work with families in a planned effort to protect, maintain, and improve the health of children in your care. An important part of this effort is the adult's role in observing children in the center.

WHY OBSERVE CHILDREN?

How many times have you thought, "Johnny just isn't himself this morning"? Perhaps he is cranky when he is usually agreeable; perhaps he wants no lunch when he is usually the first one to ask for seconds; perhaps he is coughing frequently. You have been observing Johnny and you realize that something is wrong - this behavior is not normal for Johnny.

Observation means the act of noticing or paying attention to things. Observation of a child is one way of beginning to appraise a child's health status. It is usually the first way, since the way children look and act tells a great deal about them. Observation is one of the methods of detecting change in a child, and all changes are important. Sometimes the changes are dramatic as in the onset of sudden illness. Often the changes are part of the slow development of a child which indicate the presence or lack of physical and mental health. You who work actively with young children in day care are in a special position to note these changes.

Many young children are not able to tell you when something is wrong. Sometimes they do not yet have the vocabulary, but more often they know that something isn't just right, but they don't know exactly what it is. Sometimes they are not really aware that something is the matter, for example with sight or hearing deficiencies. For example, there is Mary who is four years old; she cries when she arrives in the morning; she cries whenever she has to change activities; she cries and seems fearful when another child approaches. You have been observing her for some time and she appears unhappy most of the time. Something is wrong, but she can't tell you what it is.

Therefore, it is your job to look at and to listen to young children and to share your knowledge gained from observation

with parents. You will want to share Johnny's successes as well as his difficulties with his parents. A word of caution here: What you observe about Johnny and his family and the conclusions you reach are private, privileged information. Avoid any temptation to discuss Johnny with a friend, a neighbor, another day care mother. Professional ethics demand that you discuss Johnny's progress only with Johnny's family or those who have a "right to know".

WHAT TO LOOK FOR

Health observation involves, first of all, understanding of the general signs of good health and it also involves getting to know each individual child. Children differ in size, shape, color of skin, appetite, energy and sociability. Mary cries bitterly when the day care adult leaves her side. It may be that she is new to the group and feels uneasy, or it may be that there is some physical problem; maybe Mary is "coming down with something". In spite of individual differerences, general characteristics of a healthy child include:

- energy for nursery activities
- an alert interest in the people and materials about him
- clear and bright eyes
- good coordination for his age
- communication at a level appropriate for his age
- clear skin
- gains in height and weight
- dependent and independent behavior that is appropriate for his age

Adults who provide day care for children should be alert to the signs of physical illness. Some of the following signs may mean the beginning of a communicable disease:

- flushed face
- "watery" or "glassy" appearance of eyes
- frequent sneezing or coughing
- excessive "crankiness" or crying
- rash, "bumps" or other unusual appearance of skin
- swollen glands of neck or throat
- diarrhea
- unexplained profuse sweating
- sudden chill
- vomiting
- body temperature above 99° F.

When any of the above symptoms appear in a child, he should be removed from the group in order to protect other children from exposure. His parents should be contacted, and he should be made as comfortable as possible while he is waiting to be taken home or to his physician.

Identification of acute illness is not the only purpose of observation. Certain conditions that persist may indicate the need for parents to consult their family physician for possible treatment or referral to a specialist.

Eyes - squinting, inflamation, frequent rubbing, blinking, styes or crusted lids

Ears - inability to hear, frequent inattention, pulling at or picking in ear, discharge from ears

Teeth - unclean, decayed, bleeding, sensitivity to hot, cold, or sugary foods or drinks; inability to chew hard foods

Speech and Language - no speech at three years of age, stuttering, stammering, excessively loud speech

Nose and Throat - mouth breathing, unusual noises in nose and throat, chronic nasal discharge

General Appearance - undue fatigue, very thin or very fat, peculiar gait or other evidences of poor coordination, sores over the body

General Behavior - frequent falling down or bumping into things, frequent temper tantrums, unusual nervousness, total lack of interest in others, excessive destructiveness, extreme shyness or boldness, frequent need to go to the toilet, total lack of appetite.

HOW TO OBSERVE

In order to observe with the sensitivity and understanding that is so necessary, the first step is to get to know each child in the group. First of all, talk with the parents about the child before he starts coming to the center. What is he like at home? Has he been away from home often before? Does he fall asleep easily? Is he active or quiet? Is he talkative and social, or is he shy? What other children and adults are part of his home life? What kinds of activities does he like? What foods are his favorites? Answers to questions such as these will help you form an opinion about what is "usual" for this particular child.

When the child begins coming to the nursery regularly, watch, listen, talk with him. Each time you observe him, you will notice characteristics of behavior and general appearance which will grow into knowledge and understanding of "Johnny" as an individual.

A daily formal inspection in which the child stands before an adult while she shines a flashlight down his throat and into his ears and nose is neither necessary nor desirable. An adult who knows her children as individuals can decide about their health as she observes them in their daily activities.

Since observation is not only watching for signs of illness each day, but also is awareness of healthy growth and develop-

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CHILD DAY CARE GUIDELINES

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MUCH ABOUT MUSIC

"It is skill in understanding children and not skill in music techniques that is important." - Sheehy

YOU DON'T HAVE TO BE A MUSICIAN!

Children are not "critics!" All they ask from you is your understanding of how they learn and grow, your own satisfaction in joyful experimentation - both yours and theirs - and your PLEASURE in helping them to experience music. If you have fun with music in its many forms, so will your children. PLEASURE is contagious!

THINK FIRST OF THE CHILD, NOT OF THE MUSIC

What does the child do with music? How does he make sounds? How does he move? What is he chanting? Listen to his own rhythms as he claps two blocks together and as he sings at the workbench: "bang, bang; nail, nail; go, go!" He is making music. His imagination is greater than ours, less self-conscious, less "schooled." Watch your children for hints - music is happening all the time.....BUT

"WHAT SHALL I DO AS A TEACHER?"

Realize that music is not just for "experts." "It is not something so special performed only in a "music period." On the other hand, exciting music doesn't just happen, it is the result of sensitive teaching. Think of music as a combination of sound and movement and song and story. Think of music as being present throughout the day as children play, hum, run, wave their scarves, pound their clay. Children DISCOVER rhythm and sound and they must discover these THEMSELVES before we can successfully present what we as adults usually believe is "music." Therefore we must provide lots of SPACE, varied MATERIALS for sound making or dramatization; and TIME AND FREEDOM to explore personally the possibilities of "music." Then we must watch, listen, appreciate and cherish any creative idea, however fleeting, when it comes. We must have faith in the capacity of our children to respond to and "feel" music within them. We must guide and support without providing the kind of overpowering leadership which will make children either dependent on us for their ideas, or promote the rebellious behavior which often seems "ready to explode" in adult-led "music periods." We must start where our children are, not where we might wish they were. We must start with their lives - with what they know and like for our ideas, our material.

EACH CHILD MUST BE HIMSELF

What each child does with music should be just as individual, different from every other child as is his language or his art work or his personal appearance. Music, just as art and play and science, is a way of discovering and personally interpreting the world. We are more used to accepting "exploratory" methods in other fields than we are in music. What are we afraid of? Are we afraid of things when we aren't sure how they will end up? Are we more concerned with the end "musical product" than with the child's growth while he is exploring?

IN THE BEGINNING.....

Just as a two year old plays alone with his toy, so he dances alone and experiments with his sound instruments alone - with little interest in what his friends are doing. Then, just as he grows and starts to play alongside of friends and to talk with them as he pounds his clay, so he starts to noti . their dance ideas and try them himsel , or make a trade with his instruments. As he grows older (3 or 4) and starts to play with one child at a time, so he may dance to another child's drumbeat, or they may dance together. Gradually, as in play and art and language, several children are able to work together, really sharing ideas and putting them into a related whole. (Five year olds are ready for group rhythms, dancing; in art they can all work on a mural, in language they can hold group discussions; in play several children contribute to each others ideas.) Often children are not comfortable participating in music activities. Let them join when they themselves are ready. Encourage, but do not insist. They may watch, or do something else. And perhaps in a moment you may suggest just the musical experience that appeals to him. And so, as a child grows, so do his interests and abilities. And we must remember this natural growth in music also, and not insist on pushing our ideas onto his being. Again, watch and listen and provide every opportunity for musical growth at each child's level. Watch! And take it from there!

MUSIC HAS MANY FORMS

I. BODY MOVEMENTS

"There are children whose normal urge to movement has been repressed; children who have been told to sit nicely, to be quiet, to stop running, to stop jumping - in short to stop being children." - Rudolph

A. Every Little Movement Has a RHYTHM All Its Own

We must help children to know that freedom of movement can be good and right, natural and pleasurable.

Accept the ways in which a child can find satisfaction and joy in responding to music without imposing our adult concepts of rhythm on them. There is often no need for musical accompaniment to a child's movements, nor should there be any until the child's own pattern of movement has established itself then follow his lead. A child establishes his own rhythm. Help each child become aware of his own rhythms, to feel his own beat. Children cannot be forced to keep time to music; this improves with development, not training. A child reacts as he senses the rhythm, therefore, constant musical accompaniment is often confusing and unnecessary. The rhythm of body movements is present throughout the day.

Children like to explore movement using materials such as ankle bells, paper streamers, silk scarves, hats with long plumes, hoops, balloons, waving capes, dress-up clothes from the costume box, instruments to dance with (tambourines, maracas, bells, drums, blocks knocking together). Watch new rhythms and dance forms emerge!

When working with groups of children you can set up your "ground rules" so they are reassured that they will not get out of hand, and you are reassured that you have

control (establish convenient signals, if necessary, for "up," "down," "come to teacher," etc.)

B. Encouraging Exploration of New Movements (Try some of these; make up others)

1. Can you move your head up and down? Side to side? In a circle?
2. What can you do with just your arms? (Lots of things!)
3. Can you wiggle your toes? How about your feet?
4. Can you turn without leaving your sitting position?
5. How could we get from here to there? (Many ways!)
6. How did you get to school today?
7. How would you get small? Tall? Heavy? In a box?
8. How would you melt? How would you shake?
9. How many ways can you walk? Run? Jump?

C. "Feeling" the Concept of Motion (May be accompanied by drum beats or gongs, or beats of two wood blocks)

1. Of fast and slow (running, walking, twirling, etc.)
2. Of motion and still
3. Of different directions: round and round, back and forth, up and down, high and low
4. Of twisting, rolling, whirling, creeping, pushing, pulling, tripping, etc.
5. Of a deflating balloon, a dripping faucet, salt pouring, etc.

D. Exploring Space (Work with small groups so there is plenty of space.)

1. Lying on the floor: "What can you do?" (Roll? Rock? Lift legs? Head? Etc.)
2. Sitting: (Children will spin, bend, sway.)
3. Now - try standing on your knees. (New ideas: bouncing, etc.)
4. And standing (More ideas)
5. Now - move out into space! (In so many ways!)

E. Dramatization Through Movement

1. Stories or Personal Experiences Suggesting Dances

Let children "dance out" stories as the make them up with you in a group. Dances may be based on real experiences which they have had. Dramatize "building a house," "what cowboys do," (they get up, they eat, they round up cattle, they sing around campfire, they go to sleep, etc.) "what spacemen do," "going to the zoo," "what we do in school," etc.

2. In the Jelly Jar

Children imagine they are sleeping on the bottom of a jelly jar. The jar is just large enough for them to touch its sides in every direction by stretching as hard as possible. After exploring the jar with their bodies children might break out by kicking the sides and breaking the glass.

3. Pictures Suggesting Dances

Show a series of pictures of a variety of familiar subjects (a house, a farm, a schoolhouse, etc.) Encourage children to dance out some action related to the picture,

e.g., a picture of a house might suggest responses with such movements as mowing the lawn, sweeping the floor, rocking the baby, brushing teeth, eating breakfast, etc.

4. Exploring Directions

Teacher asks children which direction they might go if they were looking for something (forward, backward, sideward, diagonal, around); if they were picking up apples (up and down).

5. Percussive Movement (Sharp, quick movements)

Teacher and children explore and dance out ideas, which translated into movement would have a percussive quality, such as knocking on a door, hammering a nail in a board, stamping a peg into the ground, or jumping on something to break it.

6. Things That Swing (Or things that creep, or things that fly, etc.)

Teacher and children talk about and maybe list things that swing -- elephant's trunk swings, tree branches, etc. (or things that creep, fly, etc.)

Children could explore swinging, using different parts of the body:

a. Swing body from side to side.
b. Swing arms as though throwing ball underhand, forward and back.
c. Swing arms from side to side.
d. Swing leg forward and back, side to side.
e. Swing head from side to side. Children could discover different ways to creep, to fly, etc.

F. Using Sounds

How many different sounds can you make with your mouth?
How many different sounds can you make with your hands?
How many sounds can you make with other parts of your body (arms, legs, etc.)?

Remember: It is hard for children to do two things at once; for instance, sing and dance, or sing and clap.

II. SONGS AND SINGING

Children sing all the time - happily, naturally, alone and in small groups! As teachers we want to keep this joy. We are not now interested in mechanical skills.

Let's observe in Mrs. Barton's room for a few minutes:

Mrs. Barton is sitting on a low chair. She calls the children from their active play to come and sit on the rug in front of her. They are tired and ready for this relaxed activity. Since Mrs. Barton is not a good pianist (she feels she has to devote more attention to it than to the children) she rarely uses equipment for singing. She relies on a smile and her own voice. Some days she plays a few guitar or autoharp chords. But she keeps all instrument music soft so the children can hear their own voices.

Today Teddy, who is three, says "Sing me a song about me in my fire engine"- Mrs. Barton makes up a short gay song, using Teddy's name. Children love to hear themselves mentioned! Mrs. Barton keeps many songs as personal as possible using their names and singing about actual experiences which her children have had. She also allows plenty chances for the children to make up their own songs. Some she writes down so they can repeat them.

John, age five, asks to sing "Miss Jenny Jones." Miss Jenny Jones is one of the folk songs to which children can contribute new words and ideas as it goes along. They love it. Mrs. Barton uses many folk songs because they can be improvised, personalized, changed to meet the situation! Folk songs are easy to sing and invite par'icipation. They don't "talk down" to kids. They are all very different and many of them are very funny. Children adore a sense of the ridiculous! ("Sing a song about sox, sox, sox; I put my sox in a box, box, box.") Today Mrs. Barton has a new song to introduce. She has been singing it by herself out loud informally for a few days just as she walks around the room. Now she sings it through for all the group. They laugh at its humor and pretty soon start joining her as she sings it again. She does not divide the song into sections. It is sung as a whole. Since everyone seems to enjoy it, they will soon be singing it again!

Sometimes children don't sing - they sort of chant - they experiment with rhyme and with rhythms. You'll hear it happening on the playground, in the doll corner, at the sinks: "No girls allowed, no girls allowed" and "Red, red, gingerbread" or "Pancakes for sale, pancakes for sale, put 'em in your basket, pancakes for sale."

This is all the beginnings of song and poetry, language and story. And, it is MUSIC!

III. INSTRUMENTS

A. Why?

Instruments both commercial and homemade, are for the purpose of discovery and experimentation with seeing, hearing, handling; for discovery of vibration, ptich, tone quality, different techniques of usage; for experimentation with rhythm and sound.

Since music for young children is, to a great extent, the discovery of SOUND, we must give them a wide variety of good, clear SOUND making materials - available for discovery. (Don't put everything out at once; discuss each instrument and its use; change the instruments.)

B. What is in Your Music Corner?

A drum? Bells? A record player with records? Cymbals, rhythm sticks? Good. The possibilities are endless! And make sure these kinds of materials are OUT, on open shelves, so the children can USE them! They are useless behind closed doors. They are useless when children can use them only at teacher's direction.

C. When?

The free use of these instruments will help a child to interpret music and dance at the time the idea is fresh, and in his own

manner. They are not for the purpose of formal "rhythm bands" with polished performances. They are available during free activity periods to be used individually or in small groups, indoors or out!

D. Where Should My Music Center Be?

Find a spot where the sound will not interfere too much with other activities (a separate room, a far corner). Instruments may be used out of doors. Children enjoy a cozy place to sit by the record player. When instruments are available they will have many uses which go beyond music for its own sake - such as, tone blocks combined with unit blocks (what a surprise when one makes a noise!) - a bell could become a telephone in the doll corner - a ukulele becomes part of a cowboy drama! Children may use instruments when and where and how they wish as long as no harm is done to them and as long as they do not disturb others. You might have TWO centers -- one for sound making materials, and one for real musical instruments.

E. How to Control the Noise

Put out instruments which you yourself enjoy the sound of - guide the child individually, if needed, as you would with any behavior. Again, use out of doors when necessary.

F. When Mary's Mother Brings Her Violin.....

Wonderful! Let's provide as many experiences as possible with real orchestral instruments. But don't let Mary's mother give a long "concert." Children need active participation. Have the children sit close to Mary's mother. Show and talk about the instrument. What makes it work? Play highest and lowest notes, etc. Let the children try it if this is all right with Mary's mother!

G. How to Play the Piano Without Knowing How

If you're not a real pianist don't worry about the mechanics, don't try to read music - be free! If you have to "stop" with children, the moment is lost! Play a few chords, try a few "slides" or trills, use a few one finger "sharp" notes just for effects! And by all means if you have a piano, let the children use it too!

H. The Instruments

1. Have ENOUGH children's instruments.
2. Keep instruments simple, no technical problems, portable, and of good tone (not second rate toy instruments).
3. Instruments which can be bought:

Drums and tom toms	Cymbals
Tambourines	Maracas
Bells (many kinds)	Tone blocks
Rhythm sticks	Xylophones
Sand blocks	Triangles, etc.

4. Sound making materials which can be made (good activity for children):

Drums:

large tin cans (leave one lid on)
waste paper basket (turn over)
wooden salad bowl (turn over)
garbage can lid

Beaters:

dowel rods
wooden sticks
broom handles (cut to size)
spoons
shoe horns, etc.

Shakers:

Fill and seal any of the following containers with pebbles, marbles, dried peas or beans, nails, shells, dry sand, buttons, rice, macaroni, etc.:

plastic bottles
tin cans
band-aid boxes
two strainers taped together
paper plates or cups taped together
small cardboard boxes

Instruments to strike:

Bells tied to a string and hung (remove knockers for better control)
Cans tied to a string and hung
Horseshoes, hung
Water glasses, filled to different levels
Cymbals, made from jar or can lids, saucepan covers, aluminum plates

IV. RECORDS

Helpful Hints:

Check record player for clarity of tone and volume - so records can be heard clearly.

Keep record player available during free choice periods for children to listen individually or in small groups.

Listen to the complete record before playing it with group to see if it is appropriate for your purpose.

Use a wide variety of good quality music for dancing and singing and listening (folk music, classical, jazz, African, Japanese, Israeli, etc.) This helps children to understand, appreciate and participate in many different kinds of musical experience. It helps to broaden their experiences with many kinds of rhythms so that their own music making and dances will be more interesting.

Don't depend on "activity-type" records with recorded directions. It is much more effective to talk to children yourself.

Use records sparingly with large groups. Most records are too long for entire group attention. Records with long complex songs and stories are often unnecessary in a group setting where there is so much going on already.

Select records appropriate to age, vocabulary and experience of your children.

V. LISTENING

Listening is really a sense of AWARENESS. And young children develop this sense of awareness in many ways. We try to help children use all of their senses during all of their day (seeing things, smelling things, tasting things, feeling things and HEARING things). We try to help children to become AWARE of everything they come in contact with.

Listening, however, is not a passive process with young children. It is hard to "sit still and listen." They must move, or sing, or discuss or in some way make the experience meaningful to themselves. They can be helped to listen to music just as we help them listen to sounds of life all around them - to wind and rain, to dogs and trucks, to laughter and words. "Close your eyes; listen! Can you tell whether Jane is running or skipping?" - "Listen carefully! How many instruments do you hear playing?" "While we're walking down this street, listen to how many different sounds you can hear?" "Listen to this music; what does it make you feel like doing?"

When we develop the sensitivity to and the interest in, all things around us, the interest and power to listen will naturally follow.

DO	DON'T
It yourself!	Depend on records with spoken directions, or special music teachers.
Enjoy yourself!	Worry about not being a musician!
Provide plenty time for sound-making (with voices, instruments, bodies).	Always say "Stop making that noise!"
Help children feel real inner satisfaction with their musical activities.	Be concerned with the "end product."
What you can do spontaneously, easily!	Get tied up in the mechanics of records, pages, papers!
Participate with the children!	Stand by like a policeman!
Watch how each child does things differently.	Make all children be alike or do alike.
Let children watch; seek their real interests and needs.	Force participation!
Help children discover their own rhythm and timing.	Stress "keeping time" - this comes with growth.
Be personal, creative, natural.	Overdo monotonous finger plays to "pass the time."
Let children suggest what music sounds like to them, and make requests such as, "I've got an idea - let's have some tadpole music."	Say "This is walking music" or "This is tadpole music; here is how to be a tadpole."
Keep instruments out for children's use.	Use instruments only under teacher's direction.
Stress music for enjoyment.	Stress "performance" for others.
Work with small groups of children.	Let large groups necessitate overdoing discipline so that it takes away from pleasure.
Trust your own sense of fun, of nonsense!	Be so serious!

B I B L I O G R A P H Y

RECOMMENDED READING BOOKS AND PAMPHLETS ON MUSIC

Adventures With Children in Nursery School and Kindergarten - Barnow and Swan
American Folk Songs for Children - Seegar, Ruth; Doubleday, 1948
Children Discover Music and the Dance - Sheehy, E.; New York, Holt, Dryden, 1959
Children and Music - A.C.E.I. Bulletin; Washington, D.C.
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Creative Rhythmic Movement for Children - Andrews, Gladys; Englewood Cliffs, New Jersey, Prentice Hall, 1954
Creativity-The Step Beyond - Heffernan and Burton; N.E.A., 1964
Dance in Elementary Education - Murray, Ruth; Harper Brothers, New York
Guiding Creative Talent - Torrence, Paul; Prentice Hall, 1954
It's Fun to Teach Creative Music - Preschools Assoc.; 120 W. 57th St., N.Y., N.Y.
Kindergarten, A Year of Learning - Rudolph, Marguerita and Cohen, Dorothy H.; Appleton-Centure-Crofts, 440 Park Avenue, New York
Learning Through Movement - Rowen, Betty; Bureau of Publications, Teachers College, Columbia University, New York, 1963
Make Your Own Musical Instruments - Mandell and Wood; New York, Sterling, 1957
Music for the Classroom Teacher - Buttolph, Edna; Bank Street College of Education, 69 Bank Street, New York, 1958
Music for Fours and Fives - Landeck, Beatrice; N.E.A., Washington, D.C., 1958
Music for Preschool Children - Montor, Joan; Available through the Anne Arundel County Health Department, Annapolis, Maryland, 1966
Music of Young Children - Pillsbury Foundation for Announcement of Music Educ. Box 1109, Santa Barbara, California (4 pamphlets as result of research study)
Music With Young Children - Buttolph, Edna; Bank Street College of Education, 69 Bank Street, New York
Understanding Children's Play - Hartley, Ruth E., Franke, Lawrence K., and Goldenson, Robert M.; IX-Columbia University Press, New York, 1952
What Is Music for Young Children? - Jones, Betty J.; N.A.E.Y.C., 3700 Massachusetts Avenue N.W., Washington, D.C.
Workshop in Music - Werneken, Jane; Episcopal Church

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Animal Folk Songs for Children - Seegar, Ruth; Doubleday, 1950
Echoes of Africa in Folk Songs of America - Landeck, Beatrice; D., McKay, 1961
The Fireside Book of Folksongs - Boni (Editor); Simon, Schuster, 1947
Lullabies and Night Songs - Wilder, M.; Harper, 1965...Ill: Sendak
More Songs to Grow On - Landeck, Beatrice; Markes, Sloane, 1954
Music for the Family - Sheehy, Emma; Childcraft, Volume II, 1954
Music Time - Hunt, Evelyn; Viking, 1947
Playtime With Music - Abeson and Bailey; Liveright, 1952
Singing Holidays - Brandt, Oscar; Knopf, 1957
Songs Children Like - Assoc. for Childhood Education, Washington, D.C., 1954
Songs for the Nursery School - MacCarteney, E.; Willis, 1937
Songs to Grow On - Landeck, Beatrice; Markes, Sloane, 1950

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CHILD DAY CARE GUIDELINES

September, 1967 - Number 15

R E A D I N E S S

"The trick is to teach when someone is able to learn and when he wants to be taught." Hymes, The Child Under Six

Readiness has been a factor in every child's life from birth. He walked when he was ready; he talked when he was ready. He ate new foods and he fed himself; he buttoned his sweater and he tied his shoes when he was ready. He found new friends and he shared his toys when he was ready. There is physical readiness such as when a child climbs the jungle gym by himself; there is social readiness such as when a child is ready to be with a group of children; there is emotional readiness such as when a child can leave his mother easily for short periods of time; and there is intellectual readiness such as when a child recognizes the difference between a big cup of juice and a little one.

Nature and environment determine when a child is ready for any new learning. Nature produces in him physical growth and change. When the adults around him provide opportunities for him to use new skills and encourage him to look ahead with confidence to further learning, "readiness" results. Children thrive with encouragement; they wilt under pressure. Children grow at different rates; some mature rapidly; others develop slowly. Nature gives to each child his own pattern, his own timing. Different children will be ready for new experiences at different times. Therefore, activities and materials must be varied and each child must have sufficient time to learn at his own pace and in his own way.

The most basic requirement for being ready for any learning is physical development. This is physical readiness and it is basic to all human functioning. You cannot teach physical readiness. You wait for it - as you wait for the first tooth; and you wait for the first step! Hand in hand with this physical readiness is the DESIRE to do the learning. And it is the job of the adult to make life so exciting that the desire to participate in it - to learn - becomes part of the child. To a young child life is primarily play and the wise adult knows that play is the child's work.

PROGRAMS FOR YOUNG CHILDREN ARE NOT "READINESS" PROGRAMS. THIS IS A TIME TO PROVIDE WHAT THE CHILD NEEDS NOW BECAUSE SATISFYING EXPERIENCES NOW WILL ASSURE SUCCESS LATER. ALL OF THE DAILY ACTIVITIES IN YOUR PROGRAM, WHEN THOUGHTFULLY PLANNED, LEAD TOWARD THAT SUCCESS.

READING READINESS

"Reading readiness" refers to that time when a child can learn to read with ease, and without strain. Research shows that children with a mental age of between six-and-a-half and seven years are more successful in first grade reading than less mature children. And, in general, girls tend to mature faster than boys and may learn to read earlier than boys who are of the same chronological age.

Although most children in preschool programs are not ready to actually read, you may notice some of the following signs of readiness as a child develops. However, all of the following abilities must be present before he reads:

wants to read:

He has had enough experience to understand that written words are symbols for spoken language: they are "talk written down".

He is curious about what writing says.

He is interested in books for the pleasure they give and the information they contain; he can listen to stories and look at books with attention for more than just a few minutes at a time.

He may use pictures for reference.

He naturally speaks in sentences; he can tell short stories.

He has the emotional stability and social maturity necessary for learning in a group.

His vision is good.

His eyesight must have matured enough to focus on printed words. (Most five year olds are still farsighted.)

He must be able to recognize likenesses and differences.

He hears sounds distinctly.

REAL EXPERIENCES

Reading is more than a skill to be taught or learned mechanically; reading is understanding the meaning behind the printed words, and meanings come only from real experiences. Before the "symbols" of reading (actual words, letters and numbers) are meaningful, the idea which the symbol stands for must be familiar and a part of the child. B-O-A-T means little to a child who has never had an experience with a boat. Real experiences is the base for successful reading.

Experiences which contribute to a child's understanding of himself, of other people, of how people live together in communities, of the natural world and its laws; experiences which help a child understand relationships and cause-and-effect; experiences which broaden a child's span of concepts and increase the vocabulary he can use with genuine understanding - THESE EXPERIENCES CONTRIBUTE TO "READING READINESS".

Neighborhood trips and visitors to the center build concepts and broaden vocabularies, thus increasing children's understanding of the stories they will read in first grade, and later. To young children pictures are a poor substitute for the real thing. Seeing a real cow that can also be touched, heard, fed and milked, for example, is worth far more to a city child as an aid to "readiness" than any number of pictures of cows. A walk through city streets can make new words come alive for a child who knows only country roads and farming communities. THESE EXPERIENCES CONTRIBUTE TO "READING READINESS".

The experiences of dramatic play - indoors in the doll corner or with blocks, and outside in the play yard - can give the alert and listening adult clues to the child's view of the world. Some of his concepts may be confused and should be changed or extended with adult help. The more the child's world makes sense to him, the better prepared he is for new school experiences. Also, this conversation, which is part of play is a necessary ingredient for later reading.

There are experiences with materials. The manipulation and experimentation with such structured materials as: puzzles, locks and keys, nuts and bolts, and "fit-together" materials, which provide for judgments of size and shape while encouraging eye-hand coordination. Experiences with unstructured materials such as large hollow blocks, unit blocks, sand, water, art materials and woodwork present visual and scientific problems for children to solve. Recognizing colors can be a vital experience for young children if their teacher calls attention to colors in their paintings, colors children mix, colors in clothing, colors in book illustrations, colors in nature, colors in glass, colors in reflections and the rainbows made by a prism hanging in a sunny window. THESE EXPERIENCES CONTRIBUTE TO "READING READINESS".

Rich experiences with language strengthen the ability of a child to grow into an enthusiastic reader. First - children must TALK. The ability to communicate, to express ideas, comes before reading. Children must feel that talk is healthy, not something to be suppressed. They must TALK, and they must be LISTENED to. Small group discussions with children close around an attentive adult should be frequent and a part of each day's program. But, the adult must really LISTEN so that children will know that their ideas and judgments are of value. Then they, in turn, will want to listen to others. Informal conversation among children and between children and adults should be encouraged.

ildren love to hear stories and poetry, and look at books. They learn ..rough these experiences that books give pleasure and answer questions; nd that to read is an important and an exciting part of growing up.

As children become four, five and six years old a well planned center provides many other specific introductions to reading which have meaning and real use in children's lives:

Referrals to recipes printed on large charts for cooking experiences
Opportunities for children to dictate original stories and short poems so that they can see these in printed form
Opportunities to make their own books
Opportunities for the use of numerous "props" related to dramatic and block play ("stop" and "no parking" signs, tickets for the bus conductor, play money, clocks, signs for "grocery stores" and "restaurants", price tags for the "department store", signs for structures such as "zoo", "garage", etc.)
Names on cubbies and lockers
Names on clothing and other possessions
Labels on storage containers or shelves for materials

en children help to make or use letters and numbers for these important nd necessary activities, the "symbols" are meaningful. Successful reading frequently follows.

Children can become familiar with the alphabet and numbers by using large letters and numbers cut from cardboard, plywood, plastic or sandpaper. They use them as play materials - in ways significant to them - not as direct lessons.

A resourceful adult can find many inexpensive materials for matching and sorting, thereby fostering visual discrimination, the ability to note likenesses and differences, and further familiarity with the symbols of reading. Materials should be varied and changed, so that many sensory impressions are involved:

Words (in varying sizes) cut from cereal boxes
Pictures of people, animals, cars, foods, etc. to be put into categories
Greeting cards - valentines; birthday; Christmas or Easter cards, etc. to be put into categories
"Shapes" (geometric or other) made from various materials
Pieces of fabric to identify - cotton, silk, wool, velvet
Nuts and bolts and nails in assorted sizes
Lotto and bingo games (may be purchased or homemade)

The advantage of these materials is that the child handles them actively as part of play; he uses them by himself or with other children at his own pace according to his interest in them, not as a formal lesson.

WHAT ABOUT WORKBOOKS

In recent years there has been much anxiety among parents and teachers of five year olds about "readiness tests" and whether a child will or will not be admitted to first grade. As a result some fives in kindergartens and nurseries are having formal lessons in the 3 R's. Other fives spend much time with written drills and "readiness" workbooks as a preparation for the formal lessons which come later.

Using a workbook is not a five year old's natural way of learning. He is an active person, filled with curiosity and eager for information. Since his information should come through real experiences, he learns by using his senses and his muscles. Workbooks do not satisfy this urge to investigate and experiment, to find out first-hand "what happens if - ". At best workbooks can only offer repetitive drills in matching colors, shapes, sizes; in making connecting lines between pictures; in counting and copying pictures of trees, houses, birds, etc. (drawn according to an adult concept of what is "childlike"). For those children with special learning problems, and for children in grade school who need and want practice in a particular skill, workbooks may serve a useful purpose, but there is always the possibility of destroying the average five year old's fresh delight in learning and of stifling his natural curiosity and spontaneity through the use of these drill materials. A child should not have to compete with his good friends to "see who can do it right" just for the teacher's approval. Furthermore, he cannot understand the goal of this artificial method of learning. If, as adults, we assume that only isolated reading skills, such as those presented in a workbook, are what a child should learn in his early school years, we are ignoring the fact that learning takes place in many ways. Since a child must understand fully what he is doing - and why - we must be careful that stress on these specific mechanics of reading does not create people who are able to read, but never do!

THE OTHER 2 R'S

WRITING

About the time a five year old asks, "What does this say?", he also may ask, "How do you write my name?" or other words that interest him. The teacher should give him immediate help. However, this does not mean that he is ready for or wants drill in writing. Many fives do achieve printing without strain, and enjoy printing on paper or a blackboard. Fingerpainting, easel painting, drawing with crayons, pencils, and many varied art materials are all steps toward the control needed for writing.

EXPERIENCES WITH MATHEMATICS

It is more important to establish the meaning of number concepts by actual USE than to spend time on rote counting and recognition of figures. Merely "reading" numbers is not the same as understanding numbers. Merely "counting" to ten or twenty or one hundred does not mean that the child has any understanding of what each digit stands for. As with reading, numbers should be a part of the young child's everyday living. Counting has meaning as he helps determine how many cots are needed for rest, how many plates are needed for lunch or how many apples are needed for snack.

He gains concepts of time as he discusses his world:

"Lunch is at twelve o'clock."
"Let's take a walk this afternoon."
"Tomorrow is Saturday; we don't come to school."
"Thanksgiving is coming soon."
"We went to see my grandmother Sunday."

He learns measurements:

Comparing heights and weights. Filling plastic jars (pints, quarts, half-gallons) with water. Using rulers and judging nail sizes in his carpentry. Following simple recipes in cooking. He learns about money by shopping for needs items. He learns about fractions by cutting bananas in ½'s or ¼'s for snack.

Math in the block corner:

Through play with unit blocks, young children can gain very fundamental number concepts without ever knowing they are using arithmetic! Two "units" equal one "double"; a "double" is twice as large as a "unit"; a "unit" is half as large as a "double"; two "doubles" or four "units" may be substituted for one "quadlong" - and so on. And concepts of weight and balance: two "units" balance and weigh the same as one "double", etc.

C O N C L U S I O N

When our centers can help a child to:

value himself as a worthwhile person
understand the world around him
attain good physical health
develop good physical coordination
feel comfortable with adults and other children
find learning a source of delight and satisfaction

Then we have contributed to READINESS for all future learnings.

"ONE LEARNS FROM LIFE AND THEN FROM BOOKS"

Marguerite Rudolph
Kindergarten, A Year of Learning

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S C I E N C E

"The lasting pleasures of contact with the material world are not reserved for scientists but are available to anyone who will place himself under the influence of earth, sea and sky and their amazing life."

Rachel Carson*

WHAT IS SCIENCE FOR YOUNG CHILDREN?

Science is helping children to know their world, to feel comfortable in it, to be able to walk around in it and to look at things and WONDER about them and try to understand them.

This is a way of thinking, and it starts with the WONDER. In early childhood children are at the peak of their powers to explore, to experiment, to question, to want to know. The wonder, therefore, suggests the problems needing answers; the puzzling and experimenting and examining suggests the possible solutions. And through this curiosity, this exploration, a child draws his own conclusions. Isn't this the scientific method of thinking?

Are children's conclusions always right? Are anyone's conclusions always right? With the rapid growth of knowledge in our world, answers may change frequently. So we must help children not only to check answers, but also to be able to discard the answers as new knowledge is discovered, to relearn if an answer is proved false, and not to be afraid to face questions which may have no known answers.

Science for young children is a beginning. . .beginning to build concepts upon facts that are learned in a setting designed to meet curiosity and suggest answers.

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*Carson, Rachel, The Sense of Wonder, Harper & Row, New York, 1956, Library of Congress Card #65-18934.

Science helps to build security. To feel secure, a child needs to feel loved; but he also needs to understand what the world around him is all about . . .he needs to understand what he is experiencing.

Science helps to build confidence. What a lovely feeling of suspense when you are trying to find out something! and what a lovely sense of success if you are proved right!

> A child's world is fresh and new and beautiful, full of wonder and excitement. It is our misfortune that for most of us that clear-eyed vision, that true instinct for what is beautiful and awe-inspiring, is dimmed and even lost before we reach adulthood. If I had influence with the good fairy who is supposed to preside over the christening of all children, I should ask that her gift to each child in the world be a sense of wonder so indestructible that it would last throughout life. . . .
>
> Rachel Carson

HOW CAN WE HELP YOUNG CHILDREN WITH SCIENCE?

Although we are not training the children in our groups to be scientists and many of us feel "unsteady" about this field, we may say to ourselves, "What do scientists need in order to BE scientists?" (And actually many of us probably do have future scientists in our center.) Can we provide for these important needs?

The wonder, the curiosity ("What's that? What's that for? How does it work?")

The attitude of "What would happen if?"

The time and materials for experimenting, for questions, for checking their facts . . .materials and activities which will invite children to feel, to see, to hear, to taste, to smell . . .materials to be manipulated according to children's own desires and plans. This involvement with real things is the basis for such learnings as how things function, how they are related and how they relate to our world!

The freedom to explore natural phenomena (the wind, ice, puddles, mud, snow, growing things).

The ability to appreciate the ideas of others.

The freedom to think for one's self in an atmosphere of LISTENING and uncritical adults.

AS ADULTS:

We must keep up our own curiosity and our desire to find answers. We must take the time to look up information and obtain materials, and to plan for simple, exciting experiences (making vegetable soup, raising tadpoles, growing bulbs).

We must also be aware of all the unexpected, spontaneous happenings that make our programs rich (the discovered caterpillars, mold found on the old bread, the thrill of the first snow).

We should encourage children to find out things for themselves and to report accurately what they see and do and what they think about it. We can help them to make guesses about their questions and then try to make it possible for them to see if their guesses are right.

But mistakes will be made. Adults uncritically accept mistakes as part of learning so that children can develop the kind of confident, adventuresome seeking that is vital to discovery.

And we must really listen to what children say to us so that they know their ideas have value. We should clarify, explain or discuss with children both the ideas and the objects which they share with us.

AND ABOVE ALL, DON'T TURN OFF THE QUESTIONS!

Answers will always change as knowledge grows. But questions will always be necessary, and science is often <u>taught</u> best by not immediately supplying all the answers. Sometimes by giving too much information we turn off children's questions. And then they stop asking!

When we can't answer a child's question we musn't be embarrassed to say "I don't know"--but then we must help him to a way of finding the answer. We must recognize and encourage the thinking that went into his questions. We must also be very careful not to give him wrong information.

> It is more important to pave the way for the child to want to know than to put him on a diet of facts he is not ready to assimilate.
>
> Rachel Carson

WHERE IS OUR SCIENCE?

<u>In the room</u>. . . . . .

A science center should always be available for observation, manipulation and experimentation. Keep the center attractive so children will want to stay a while and feel and listen, and smell and look at the varied objects. Appropriate books and pictures for reference and/or just for fun should also be available at this center. The center could include many aspects of science, for instance:

Thermometers, magnifying glass, rulers, measuring cups, an egg beater, a pulley, machines, prisms (this is physical science)

Tree barks, leaves, rocks, shells, wild flowers, seeds (natural science)

Pets, an ant colony, insects, bones (biological science)

Children contribute to the center, so do adults. There is a constant feeling of surprise about this center -- just as there is with science.

Children discover science all through the day.

During block play -- many science concepts are formed and put to use. Concepts of: space, shape, weight; balance and support; the use of levers, pulleys, rasps, bridges

During art activities --

Jane adds blue paint to yellow. What happens?

"There's too much water in the clay today!"

"How such can I bend this wire?"

"Will this piece of wood bend?"

"What made the plaster dry up?"

The free use of varied natural materials for pictures, sculpture, mobiles (e.g. clay, sand, seeds, twigs, etc.) gives children a familiarity with their properties and possibilities.

Music -- the wonder of sounds and how they are made: "Listen to that high note come out of my flute." "What makes the music in the piano?" "How will this jar sound when I tap it?"

Science in conjunction with water play -- many chances for measuring, testing floatation, setting up currents, observing the characteristics of wetness vs. dryness, water vs. ice; the questioning of where the water comes from, where does it go, of absorption, of pressure, of rust, of bubbles. Use such materials as funnels, cones, strainers as part of water play.

And cooking experiences --

Observing the importance of chemical changes of such things as: wet dough to spongy cake, cream to butter, liquid to gelatin, sugar (a solid) dissolving in lemonade (a liquid)

Using the senses of smell, taste,,touch, sight, hearing

Mechanical experiences with beating, sifting, grating, cutting, stirring, kneading, heating, etc.

And dramatic play -- it is possible that there is a future engineer building those bridges out of large hollow blocks and boards

And those four-year-old nurses in the make-believe hospital are wondering just what kind of care and medicine will help the patient.

The battery-connected bell tells the family in the housekeeping area that visitors are arriving.

And out of doors. . . . .

Your outdoor area provides an actual science laboratory. There may be:

Insects and birds to watch, properly feed, identify

Seasonal changes of weather, grass, of trees, earth

Growing things to observe, collect, care for (weeds, grass, plants, trees)

Sand, earth, water, light and shadows, clouds, mist, rain, snow

Chances for sound making -- the difference between bells, gongs, hitting a tire, or hitting a metal drum

Equipment suggests experimentation with physical forces of rolling things down, pushing things up, balancing boards, using pumps, springs, wheels; of heavy vs. light weights

And into the community. . . . .

Trips around the neighborhood to see new things: to discuss familiar things; to collect; to hear the sounds of insects, birds, animals, cars, trucks, buses, machinery; to feed the pigeons.

A trip to a pond to feed ducks or watch for frogs or feel the icy spring water

A visit to a farm to try a hand at milking a cow, to watch a sheep sheared, to hold a baby pig

A trip to a nearby museum with displays of interest to young children

Trips to note methods of transportation, communication, and community services (horse cart vs. cars vs. airplanes; telephone wires, electric signs, manholes and water pipes) (gasoline station). How do these things work? Children will ask. We must help them find the answers.

Trips to observe and identify service machinery -- disposal trucks, snow removal machinery, bulldozers, tow trucks, garbage trucks.

Have you ever visited the office of a dentist, a doctor, a veterinarian?

> Science is a more familiar part of our lives than we often believe. It is everywhere around us. All we need do is open our eyes and ears and accept its invitation to wonder at its beauty and its mystery.

> For most of us, knowledge of our world comes largely through sight, yet we look about with such unseeing eyes that we are partially blind, One way to open your eyes to unnoticed beauty is to ask yourself, 'What if I had never seen this before? What if I knew I would never see it again?'
>
> Rachel Carson

The Health Department has a list of specific science activities for young children. An extensive list of books in the area of science is also available. If either of these would be helpful, please contact this office and they will be sent to you.

For a starter try these:

Snow outside? Bring in a pan full. Keep an eye on it. Ask the children what happens to it. Boil it on the stove and watch the steam rise; hold a glass over the steam. What happens? If it is cold enough, put a small amount of the water in the pan outside, or in the freezer. What happened? Let the children feel it and tell you. This is a good experience with the idea of CHANGE!

"Where there is air. . ." Blow up colored balloons, everyone! Poke them -- what's inside? Let the air escape across the child's cheek, hair or hand. You can't see air -- can you <u>feel</u> it? Tie strings on the balloons and let each child take one to his cot at nap time. What kind of science is this?

In February, early March. Is there a stone, or a fallen log near your center -- one that has been there all winter. Look underneath. Can you identify the larvae? Scoop it up; earth, bark and all, and bring it back in a fishbowl covered with plastic wrap. Put it on your science table with a magnifying glass close by. Keep it moist and watch it every day.

MARYLAND STATE DEPARTMENT OF HEALTH AND MENTAL HYGIENE
PREVENTIVE MEDICINE ADMINISTRATION
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SCIENCE EXPERIENCES FOR YOUNG CHILDREN

SUPPLEMENT TO CHILD DAY CAPE GUIDELINE #16, SCIENCE

CHILD DAY CARE GUIDELINES

SCIENCE SUPPLEMENT

The following experiences in the area of science are meant to serve as a supplement to Child Day Care Guideline No. 16, Science. The guideline presents the approach to working in the field of science with young children. This supplementary material includes some further activities which are related to science and which are appealing and understandable to young children. It is not meant to be a curriculum guide, as much as a collection of science-related experiences which can be reproduced in your center. It is an attempt to encourage initial understandings upon which further learnings will depend.

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SCIENCE EXPERIENCES

GOALS:

GOAL #1--TO HELP CHILDREN FEEL COMFORTABLE IN AND UNDERSTAND THEIR EXPANDING WORLD

GOAL #2--TO BUILD ON CHILDREN'S NATURAL CURIOSITY AND WONDER, AND TO SATISFY THEIR CURIOSITY IN APPROPRIATE AND SIGNIFICANT WAYS

GOAL #3--TO BUILD CERTAIN BEGINNING SCIENTIFIC CONCEPTS, SUCH AS THE CONCEPTS OF CHANGE, VARIETY AND ADAPTATION

Factors in Accomplishing These Goals

1. A climate of inquiry created by:
   - --A general feeling of warmth and acceptance for each child, regardless of where he is in his development.
   - --A variety of materials to encourage problem solving, creative thinking and imagination.
   - --Time and freedom to explore and experiment independently.
   - --Opportunities to talk with friends and adults, to express feelings, to compare ideas.

2. An awareness of everyday situations that occur with some regularity and are of genuine scientific interest to young children:
   - --paint drying
   - --blocks falling
   - --toilet flushing
   - --the puddles
   - --the shadows
   - -- the child who wears glasses

3. An alertness to incidents which relate to science and which may happen spontaneously:
   - --The insect that flies into the room
   - --The child who scrapes his knee
   - --Juice that stains the napkin

4. Purposeful experiences with scientifically meaningful materials which adults or children could introduce, such as:
   - --pets and insects
   - --terrarium
   - --magnifying glass, magnet, prism
   - --garden space and tools
   - --measuring containers for water and sand play, various sizes
   - --the discoveries -- feathers, rocks, birds' nests, bones, etc.

GOAL #1--SCIENCE EXPERIENCES TO HELP CHILDREN FEEL COMFORTABLE IN AND UNDERSTAND THEIR EXPANDING WORLD.

THE WORLD CLOSE BY

Themselves, Families and Friends

A child of two or three is concerned with himself and his family, but he watches actions and reactions of all the adults and children around him -- just as he watches a kitten at play or a moving car. He needs to have the actions and reactions of others gradually interpreted for him as he encounters many kinds of behavior. He needs to know that the adult working with him can be trusted to be honest with him.

He will want to know why Gary bites, and he will worry, "Will Gary bite me?"

In play he will imitate his father, mother, sister, brother, in an effort to understand what and who they are in relation to himself.

He will be interested in all visitors to the center, from the telephone man to the parents of his friend.

He will enjoy hearing short, simple stories about himself. Short simple stories with large clear pictures point up and clarify familiar experiences (see bibliography). Pictures which reflect family and child life can be purchased or cut out of magazines. Place them at the child's eye level.

The Classroom

The younger children (two's and three's) go quickly from one object to another -- therefore a variety of materials must be provided for their exploration. Continue to add new materials to familiar ones. For instance:

With water play, add different shaped, sized, and colored containers.

With moist clay -- try poking it with rods or tongue depressors, adding small amount of water, and using cutters and mallets.

With paint -- start out with at least four clear colors. Use 3/4" brushes and 18" x 24" paper. Add a few extra containers so that children may mix colors together.

All of the children -- if they have never done so -- need to get the feel of such materials as water, sand, clay, paint, before they can go on to the next step of controlling these material in order to make things.

Four and five year olds are busy collecting and organizing information about their world and the people and things in it. After children have experienced the materials in the center, they go on to use materials to express and organize understandings of the world around them.

On your playground, or on short, unhurried walks -- stop, look, pick up things, smell, feel and talk about what you find.

Examine an acorn, a turtle, a flower. Collect shells, pine cones, leaves. Walk on some ice. Throw pebbles into puddles. How many kinds of trucks, street signs, lawnmowers, airplanes do you see? Compare shapes of windows, roofs, doors.

Walk with your children to a nearby construction site. Let's see how this works! The children see trucks, cranes, bricks, unfinished stairwells, workmen, and a building going up.

Back at the center, you may want to read them: Mike Mulligan and His Steam Shovel or The Workmen Build the House.

You may show pictures of buildings. You may point out the types of building materials in your room. Maybe not today or tomorrow -- but next week or the week after that -- if you have succeeded in fostering a climate of inquiry and exploration in your center, the children may react to such a trip in a variety of ways:

--Creating buildings, indoors and out, using large blocks, unit blocks, boards and ramps. Adding play accessories such as human figures and trucks to unit block construction.

--Constructing walls for houses and buildings with large cardboard boxes that children can get inside.

--Constructing roads in the sand area for trucks, cars, buildings.

--Painting and drawing of buildings.

Space Exploration. In addition to your permanent outdoor equipment, provide sawhorses, cleated boards for walking, balancing, jumping. Crawling through pipes and into boxes gives a feeling of interior space. Try a rope swing for the feeling of moving through space. Up and down, under and over, in and out have to be experienced to be understood.

Four and five year old children are still interested in themselves and their families, but they are ready for more. Their friends and other adults are becoming more important to them. They like to go more places and do more things. It is still important to go in small groups so that you can easily talk with children about what is happening.

A scientist learns by exploring the properties of materials and by using them according to his own ideas. A scientist learns through new ideas and experiences.

THE WORLD OUTSIDE (Cont'd.)

Science Experiences that Develop from Trips

The inspiration for a trip can come from anywhere. It can be spontaneous. It can be the result of careful previous planning, but always the purpose is the same -- to answer a qestion, to bring new questions, to find out more, to add to what we already know -- the basis of a scientific attitude.

Science can be a part of every trip planned for young children. Even though the emphasis of trips may be "social science" -- for example, a study of how we get our food -- the opportunities should be used also for adding to the children's beginning knowledge of natural and physical sciences.

As the children explore further from home, they could visit a dairy. Perhaps the inspiration for the dairy trip comes at lunchtime. Somebody begins to wonder about the food -- it could be you. Where did the lunch come from? Milk, for example, where did we get our milk? Country children may know about cows, but city and suburban children may not. Where will the children find their answers? Trace the milk to its source until you and the children are really visiting a family farm with a few cows or a dairy farm with many cows.

Now there are many more questions to be answered:

How are cows milked?
How often are they milked?
How does the cow make milk?
Do all cows give milk?
Does the farmer pour the milk into bottles and cartons?

Encourage the children to find answers by direct observation

THE WORLD OUTSIDE (Cont'd.)

Sample Follow-up Experiences After a Dairy Trip

How can you set the stage for more questions? What has this trip to do with science?

Learning Measurements.
Start with a few milk cartons. You will need half pint cartons from lunch or snack. Bring in some others: pints, quarts, half gallons, and gallons.

It's fun to pour and measure, and some mathematics will be learned. After all, a child doesn't have to wait until third grade to find out that if he drinks two small cartons of milk for lunch, he's had a whole pint.

Separating Milk.
Fill a glass with whole milk (not homogenized) and leave it in a cool place until the cream rises. Show the children (unless they notice it first) the separation between the cream and the milk, the difference in color. Let them skim off the cream.

The cream comes to the top of the milk because it weighs less than milk. Cream will not stay mixed with the milk unless it is "homogenized." Children will enjoy using the new, big word even if they don't fully understand what it means. And, of course, you may want to try to explain what homogenizing is.

Souring Milk.
Put some milk in a warm place until it sours. Let the children observe the changes in form and in odor. Let them taste it, if they want to.

What made the milk change? (Heat allows bacteria to develop)

Why doesn't the milk mother buys sour this quickly? (She puts it into the refrigerator.)

How does the farmer keep his cans of milk from souring before he gets it to the dairy plant? (Refrigeration.)

Why doesn't milk spoil on the milk truck? (Refrigerated milk truck.)

At another time, put a glass of milk in a warm place and one in a refrigerator. Keep a record of the time it takes each glass of milk to sour.

Making Butter.
Make butter in the classroom by churning soured whole milk in a jar, or by whipping fresh cream until it "butters."

Spread the butter on bread or crackers for snack.

Buttermilk is the liquid formed by the churning of the sour milk. Let the children who are willing taste it.

Is buttermilk used for anything except drinking? (Yes, for cooking.)

Show what happens when baking soda is mixed with buttermilk. (It bubbles as the gas forms.)

Baking with buttermilk.
Mix and bake buttermilk biscuits or cornbread. Do not use a ready-mix because it is important for the children to see the ingredients. What did the milk and soda do to the biscuits? (Made them rise.)

You are teaching chemistry

The following books are among those that may be used after the trip to reinforce the children's information:

Milk for You, by G. Warren Schloat, Jr. Illustrated with photographs showing entire process of dairying. Simple text. Excellent for pre-schoolers.

Tell About the Cow-Barn, Daddy, by Jean Merrill.

Grandpa's Farm, by Helen and Melvin Martinson. Good illustrations, long text. Use for teacher's information and read selected parts to children.

National Dairy Council publications are free and may be ordered from:

National Dairy Council
111 North Canal Street
Chicago, Illinois 60606

I Want To Be A Farmer, by Greene.

When The Cows Go Out, by Dorothy Koch.

Wake Up Farm, by Alvin Tresselt.

GOAL #2--SCIENCE EXPERIENCES TO HELP CHILDREN BUILD ON CURIOSITY AND WONDER--AND TO SATISFY THIS WONDER IN APPROPRIATE AND MEANINGFUL WAYS.

All children are, to some degree, curious. If a child does not appear to be so, you must ask yourself -- what's wrong? Were his experiences too stifling before he came to you? If he seems afraid to explore, it is your job to arrange your room and unlock your attitudes so that exploration is safe, fun and "all right." Are you curious about things? When was the last time that you examined a butterfly? Or opened a seed pod to see what was inside? Do you have any reference books in your room? Your enthusiasm is contagious.

ANYTHING AND EVERYTHING IS A SOURCE OF WONDER

Rocks -- Can be felt for smoothness or roughness. They are multi-colored. They change color when they are wet. There are heavy stones and light stones -- weigh them and see. Big rocks and little rocks. They can be measured, and sorted for size. Cut out pictures of rocks and stones and tack them up at child's eye level in your science area. Check your public library for picture books.

Leaves -- Shapes of leaves can be compared and contrasted. Leaves can be used in art work. Leaf colors can be named. Leaves can be strung in necklaces. Leaves can be piled and jumped in. In the early spring watch leaf buds unfurl. Observe leaf growth from week to week. There are many good pictures and books about leaves. (e.g., Johnny Mapleleaf by Tresselt)

Living things --

"Look under a tree, look under a plant.
What do you see? A little black ant."
All kinds of bugs.

Nearly all children like cats and kittens. Arrange to have a mother cat and kittens visit your center -- or puppies or rabbits, or frogs or snakes.

Other interesting science-related activities that satisfy curiosity of young children.

Playing with unit blocks -- balancing.
Lifting heavy and lightweight material.
What will float in the water basin?
What sinks?
Manipulating locks and fastenings on a gadget box, or on appropriate doors or cabinets, etc.
Opening and closing doors.
Turning faucets off and on.
Turning lights off and on (hard on adults, but good for children to know about.)
Pounding nails into soft wood, soil or styrofoam.
Watching a carpenter or plumber at work.
Watching the lawnmower.
Handling safe cooking utensils (pots and pans, silverware, eggbeater, funnels and strainers)
Handling garden tools such as trowels, small shovels, rakes.
Watching appliances such as the toaster, vacuum cleaner.
Watching machinery -- the bulldozer, cars, trucks, moving vans.
Providing things that can be "taken apart," (and maybe put together?)
Handling things that bounce; that stretch!

AS CHILDREN GROW OLDER THEY BECOME INTERESTED IN THE WHYS
(They really want to know about cause and effect).

Why are there shadows?

Stand in the morning sunshine. Try it later on in the afternoon. Has your shadow changed? Draw around someone's shadow.

What does your shadow do?

Plant a stick in the ground. Let the children watch its shadow move as the day progresses. Some people tell time this way.

Trees have shadows -- so do fences, clouds, houses. Shadows happen only when there is light and the light is blocked out.

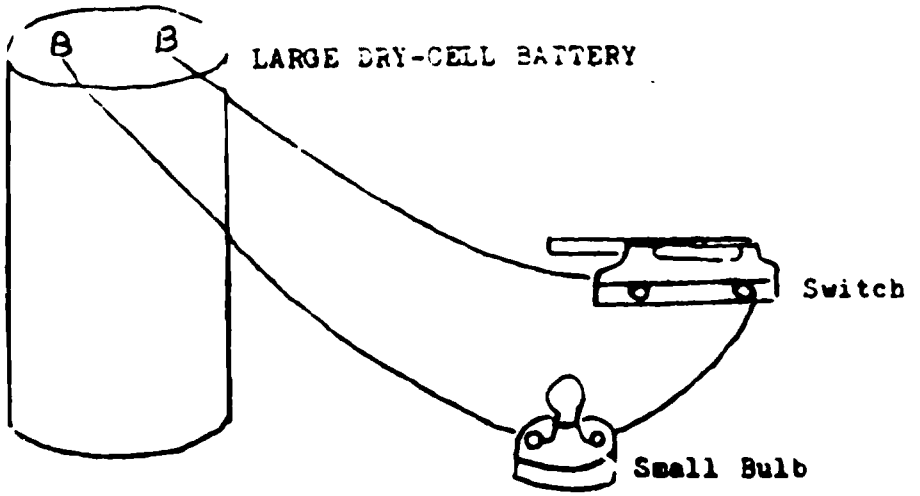
Supplement your study of shadows with the following books -- get them from the public library before you introduce the subject of shadows:

Shadow Book, by DeRegniers
Groundhog and His Shadow, by Kurt Weise
Light and Shadow, by Alan Leitman
Sunlight and Shadows, by John and Cathleen Polgren

Why does the light go on?

Find out by a beginning experiment in electricity.

Ask your hardware dealer for a large dry cell battery, a miniature light bulb and a porcelain base socket, a knife switch and a small roll of electric wire. Connect battery socket and light switch as shown in the following diagram.



(Be sure to cut away one inch of insulation at the end of each wire. Tighten all screws for good connections.)

Let the children see what happens when the switch is closed. What happens when it is open?

The light comes on when the circuit is closed. It goes off when the circuit is broken.

Buzzers may be substituted for light bulbs, and used as "doorbells" in play.

The electric switch at home breaks the circuit when it is "off" and completes the circuit when it is "on."

The generating plant is the source of the electricity in homes, just as the battery is the source of electricity used in the experiment.

Other Curiosity Satisfiers

Watching wheels and the work they do on machinery, on vehicles, in clocks, etc.

Using wheels in play -- as pulleys for lifting, gears for turning other wheels, making water wheels and windmills. Use meat grinder for chopping nuts and candy sticks to sprinkle on cookies.

Using tools -- for pounding, for cutting, for prying, for twisting, for turning, for lifting. (Hammers, saws, shears, screwdrivers, etc.)

Using batteries -- flashlights, making bells work, making electromagnets. What else runs by electricity?

Put a prism in a sunny window. Watch the rainbows. Read Pitidoe, The Color Maker by Glen Dines.

Bring in a stethoscope -- let the children listen to each other's hearts. They may listen to their own hearts -- or that of a pet.

Make paper airplanes. Fly kites. Watch how the air holds them up.

Use a hand-pump to inflate inner tubes. Visit a service station and see the garagemen mend a flat tire.

Provide an assortment of magnets -- what do they attract?

Use telephones in dramatic play. Get real phones from the telephone company. Remove speaker disc and look inside.

Use scales (preferably those that work on the balance principle) to find things of equal weight.

Freeze ice cream in a freezer (preferably hand turned). What makes the paddle go around? What makes the ice cream mixture freeze? How has the texture changed? What does the salt do? (Lowers the freezing point of water.)

Use thermometers -- in cooking, in water, and in checking the temperature indoors and outdoors. Why does the line go up or down? (The liquid inside the bulb -- either mercury or alcohol -- expands with heat and contracts with cold.)

How can steam do work? Bring in a model steam engine, if available. Boil water in a "whistling" kettle, or in a closed pot and watch the lid jiggle.

Use simple magnifying glasses, and binoculars.

You purposefully help children to compare and contrast, to categorize, to verbalize, to order their thoughts, to test their ideas for cause and effect.

GOAL #2: SCIENCE EXPERIENCES TO BUILD CERTAIN BEGINNING SCIENTIFIC CONCEPTS, SUCH AS THE CONCEPTS OF VARIETY, CHANGE, AND ADAPTATION.

THE CONCEPT OF VARIETY

Variety is a basic scientific concept. It is not taught all at once, but is the basis for both beginning and advanced scientific learnings. As young children grow, whatever their environment, they gradually become aware of the many differences in all aspects of life -- differences in people, in animals, in climate, in movement, in styles of living, in the life spans of living things, in shapes and in color. Because of their natural curiosity, children sense these differences easily and accept them, particularly when the adult rejoices in, rather than rejects, variety.

VARIETY: INDIVIDUALITY

From birth on, children become more and more aware of people as individuals. Later, they begin to notice likenesses and differences. Children who are putting sentences together may indicate their awareness by noting superficial similarities associated with clothing: "Mary's got a red sweater and I've got a red sweater." "Me and Johnny are twins. We both got yellow raincoats."

Encourage these conversations. You may even contribute to them yourself: "Let's see how many other people have red sweaters" . . . or yellow raincoats or plaid dresses, etc.

This is part of a young child's early attempts to identify with someone else, with belonging to a "group."

Later the identification may be on the basis of physical similarity: "Harry and me, we're the biggest, we're the same tall."

Young children may notice physical qualities that are somewhat different from their own... skin color, hair characteristics, unusual height or weight, and physical handicaps of various sorts. Natural acceptance of differences is healthy. People differ in appearance, but they are alike in many other ways.

Valuable teaching can take place in a group where children from different races, nationalities, religions, or cultural backgrounds are welcomed. Differences are interesting. It is good to know people who have ways of living not like our own.

You are teaching anthropology

VARIETY: SEX DIFFERENCES AND REPRODUCTION

Children's curiosity about sex differences should be accepted and their questions answered factually and honestly, just as you answer questions on any other subject. Parts of the body should be called by their correct names.

Such curiosity can be naturally answered when young children of both sexes share the bathroom. Children who receive satisfactory answers from adults do not have to rely only on whispered sex information from their peers -- information which may be wholly incorrect and even frightening.

You may want to use animal and human examples of how the baby grows inside the mother.

For discussions on how babies are born, the following books may help adults find appropriate ways to talk with young children:

> A Baby is Born, by Milton LeVine, M.D. and Jean Seligman.
>
> The Wonderful Story of How you Were Born, by Sidonie M. Gruenberg.

Both books are illustrated simply and the pictures may be used during the discussion.

> You are teaching biology.

VARIETY: ANIMALS, INSECTS, FISH

The variety of animals, insects and fish is staggering. Each has its own pattern of behavior, its food preferences, its distinctive habits. Moreover, each creature within a certain species differs from his brother in some degree.

Children are fascinated by creatures so unlike themselves in appearance, yet alike in their functioning.

Adults may make use of children's fascination in order to sharpen observation, promote language development, and clarify biological distinctions.

Guinea pigs are easy to obtain. Most pet shops sell them along with cages. They can also be kept in cardboard boxes lined with newspaper and heavily layered with cedar shavings. They need an additional box or piece of newspaper to hide under, and a drinking bottle which can be attached to the side of the box.

Children enjoy:
--Caring for them (preparing the cage, feeding).
--Petting and holding them.
--Making up stories about them.
--Observing their movements, looking at teeth and toes, noting color and coat texture and watching the babies grow.

How long will he live? Where does he live? What does he eat? How big will he grow? Does he like to be alone?

Observation is the basis for comparison. "John, you like carrots and lettuce. So does the guinea pig. But you don't like the pellets and you chew differently. Let's look at our guinea pig's teeth."

"Mary, show me how the guinea pig moves." At music time this remark produces a roomful of scurrying guinea pigs. A visiting box turtle provides a contrasting effect.

Set up a table near the blocks and cover it with newspaper. The children may make a wall and a maze for a guinea pig. Children will be able to make observations about the guinea pig's actions. This is an activity which will need to be well supervised.

Insect cages are easy to make and good to have on hand for visiting bugs.

Take a round cookie tin. Remove the top. Insert rolled screening inside the base of the cookie tin, extending above the base. Put the top of the cookie tin on the screening, and you have a cage for moths, worms, garden snakes, a praying mantis, beetles, crickets, or a place for a cocoon to hatch.

It is a good idea -- if you can afford it -- to invest in a fish tank. It has a variety of uses, is sturdy and will last a long time. For instance, it can be used as a terrarium or semi-aquatic terrarium, as well as an aquarium. With a good wire top, hamsters find it escape proof, as do lizards and toads.

Your choice of fish will depend upon the local pet shop. If you intend to keep the fish for a time, it is best to get a good filter pump.

Frogs' eggs are an easily identified jellylike mass near the surface of the water. In February, or early March, take your children to a stagnant pond. Bring along both long and short handled nets, plus a supply of glass jars. After you place the eggs in a jar, be sure that you fill the jar with the pond water. Before going on your trip, prepare an acquarium or fish bowl. Tap water must be dechlorinated before introducing the eggs -- or any fish. Let the water stand for twenty-four hours, or use a dechlorinating solution which can be purchased at pet stores. Place the eggs, pond water and all in the prepared water. Add a water plant or plants, also purchasable at pet stores, plus a piece of log or rock rising above the surface of the water. The plants provide a clinging place for emerging tadpoles. The rock or log is necessary for the young frogs to climb onto.

Periodically introduce fresh dechlorinated water into the bowl or tank. Keep in a cool place.

When the tadpoles begin to emerge, feed with small amounts of fish or turtle food, lettuce and hamburger. When the tadpoles become frogs, it might be wise to take them back to the pond and release them -- or keep one or two, if you can keep them in live food. Bring your children back to the pond during the summer and hunt for frogs. You might catch one of the babies.

VARIETY: PLANTS, SEEDS, VEGETABLES

Making a terrarium for plants. A variety of plants can be found in your neighborhood and gathered together in a terrarium. You will need a fish tank or bowl, or large glass receptacle such as a mayonnaise jar.

Take the children on a walk to gather pebbles and small stones, and find one attractive good sized rock. Purchase a package of washed sand and one of sterile potting soil. (You can use soil that you find outside, but sterile soil cuts down on the possibility of mildew).

You are now ready to build your terrarium. Cover the bottom of the tank or bowl with pebbles and small stones. Add a layer of sand; then landscape your soil so that you have hills, gullies, etc. For an interesting terrarium, use the large rock for dramatic effect.

Take the children on another walk to collect moss, partridge berries, small ferns, grass, ivy, small weeds, a tiny pine tree. Plant. Water with a clothes sprinkler. Cover top of tank with plastic wrapping. The terrarium also makes a good temporary home for worms, insects, garden snakes.

Seeds. In the Spring, try planting seeds inside either to take home or to transplant outside in your garden. The children will enjoy having both a flower bed and a vegetable patch. Put in some tomato plants so that the children can pick and eat food that they themselves grow. Corn grown to a very satisfying height, as do sunflowers. Sunflower seeds can be collected, toasted and eaten. And don't forget to plant seeds for a Halloween pumpkin.

Vegetables. In the early Fall bring in an exciting looking squash or gourd -- one that is interesting in shape, size, or color (or take the children to a garden to pick one). The children will feel it, talk about what it looks like. The next day add some other varieties of this squash family (summer squash, zuccini, acorn squash, etc.) or just any vegetable. Cut a few open with the children to see the variety of insides. Squash can be eaten raw or cooked. Pass around some samples.

Variety in foods can also be experienced with potatoes. (Note the differences in sizes, shapes, colors, etc.) Let each child bring in a potato to see what an assortment you get. Then your group can make potato salad or mashed potatoes, which will lead to experiences with the concept of change.

Much of the best experiencing of the concept of the variety of foods is achieved by providing a natural variety at your snack and meal times. Morning and afternoon snacks become a real learning experience when we include a variety of peaches (fresh, canned, dried), or tomatoes (red, yellow, cherry), or pears (Sickle, Anjou, hard, soft).

You are teaching natural science.

Other Experiences With Variety

Some other natural experiences with variation which can be recognized and which are found in the everyday environments of young children, are the variety:

--of adults (how they look, how they act, what they do)
--of houses in the neighborhood
--of materials from which children can make things (wood, clay, paper, foil, fabric)
--of styles in which children work -- each in their own way, they invent with crayon, paint, blocks, metal, clay, etc.
--of ways one can move one's body -- smoothly-jerkily, high-low, gracefully-silly, slow-fast
--of languages, pronunciations
--of customs in children's homes.

There are many experiences with recognition of things that are alike and things that are different:

--Shells of seashore animals
--Soils (muddy, sandy, clay, fine, coarse)
--Outdoor temperature, in food temperatures, in indoor temperatures
--Weather (rain, snow, fog, hail)
--Transportation (walk, run, cars, taxis, trucks, trains, boats, planes, etc.)

There are variations in natural phenomena. Sit on a grassy lawn, or in a weed patch. Notice how many kinds of insects you see -- or grasses, or stones, or weeds. You might collect samples. Compare them as to shape, texture, color, size, and ways of adapting to their environment.

THE CONCEPT OF CHANGE

IMMEDIATE CHANGE

The changes which took place in some of the previously listed experiences were not instantly apparent, e.g., tadpoles to frogs. For the very young child, change needs to be immediate in order to be fully grasped. Later, he will work up to an understanding of the process of gradual change, as in the growth of seeds or human beings.

Some experiences in which you can point out immediate or almost immediate change:

Place a large clear glass pitcher on a low table. Open a packet of flavored gelatin and ask the children to feel and taste the dry substance. Empty the packet into the pitcher and follow the directions -- hot, then cold water, mix, stir, serve in paper cups; or pour into paper cups, let gel and serve. New words -- "dissolve," "gel."

While the children are playing with moist clay or play dough, point out that they are changing the shape of material by pounding, squeezing, cutting.

Provide an opportunity for children to mix paint colors together -- or add powdered paint, or food coloring to water or snow.

At lunch time, make instant pudding at the table -- or cook some hamburger or pop some corn.

Make ice cubes -- let them melt. What else melts when the temperature rises? (Ice cream, snow, wax, butter.)

Comment about the changes in the weather and the temperature. You should have both an indoor and outdoor thermometer.

Keep a supply of water pails and large inexpensive paint brushes on hand. In good weather, let the children paint with water outside. Notice what water does to the color of cement, brick, wood, rocks, and what happens when it dries.

MORE COMPLICATED CHANGE

Are you growing? Is that shirt getting too small for you? Does your hair need to be cut? Your fingernails? Toenails? Just as we water plants to help them grow, we need water, too, and food and sleep and rest and sun.

Hunt for a caterpillar. Bring it back to the center. Cage it and keep it supplied with fresh leaves. Watch it spin a cocoon and hatch. Read Terry and the Caterpillar.

Watch for man-made changes like the road dug by the bulldozer. Point out to children that they, too, make changes when they build with blocks, make roads in the sand, or paint a picture.

Foods change in form, texture and taste when heated or cooked.

Cook rice some day for lunch. Let the children feel the hard rice and see it being put into the water. Where does the water go?

Children are very alert to sounds that change in pitch. Strike your musical instruments one at a time and note the change in tone. Find high and low on the autoharp or piano.

There are changes due to energy and movement. Watch a turtle move -- watch a truck roaring past.

Changes occur in moods and emotions. "Right now, Peter is mad at John. He will feel better in a little while."

Provide many different costumes for changing roles in dramatic play.

Death. Four and fives begin to be aware of death and to wonder about it. They may experience it in relation to people, animals, or plants. They need the reassurance of an adult who will help them accept death as a natural process.

Weather

--What makes it rain?
--How does the water get up in the sky?

Before doing this experiment, the children will need to understand the concept of "evaporation." Clothes drying in the sun or near a radiator -- water drying up in puddles -- water evaporating from a saucer -- a pot "boiling dry" on the hotplate.

--Where did the water go?

Boil water in the kettle. Hold a cold glass jar or milk bottle near the steam. See how the vapor turns to water again.

Water from the earth evaporates into the warm air. Masses of vapor form clouds. When the clouds rise into cooler air, the vapor turns to water again and falls as rain.

Notice that in your terrarium the garden waters itself. A potted plant covered with a large plastic bag for several days will demonstrate the same principle.

Encourage experiences with the many forms of water -- ice, snow, steam, liquid, frost, dew, rain.

"Raindrops falling all around,
On the roof and on the ground
On Mary's head and on her nose
On her knees and on her toes."

And for change with just a touch of magic, make a chemical garden:

6 Tbsp. Salt
6 Tbsp. Bluing
6 Tbsp. Water
6 Tbsp. Ammonia

Several small pieces of coal or coke or pieces of old brick. Place coal, coke or brick in foil pie tin. Mix above ingredients and pour over coal or brick. Sprinkle with food colors. Put in warm place. Watch the garden grow and change.

THE CONCEPT OF ADAPTATION

Of all creatures, the human being is the most helpless at birth and is given the most prolonged care in infancy and childhood. Human beings, alone, change the environment to suit their needs. It is our way of adapting for survival.

Other forms of life are born with instincts, physical features and food gathering mechanisms which enable them to survive in the environment.

Use the resources in the center and in the neighborhood to compare and contrast human adaptation with that of other living things. The variety of living creatures is related to the adaptive devices present in differing life forms.

Cold Weather

We wear extra clothing. . . . . .Fur bearing animals grow thick coats.

We heat our homes and buildings . . . . . .Snakes and worms burrow deep in the ground where they won't freeze.
Flies hide in cracks.
Trees shed their leaves and are dormant until spring.
Bears, turtles, frogs, toads and snails hibernate. Their body temperature drops. The need for food decreases.

All mammals and birds are warm blooded. Creatures like fish, frogs, snails, earthworms, are cold blooded. Their body temperature is not constant, but varies as the temperature of the air or water around them varies . . . . . .Some birds fly South in the winter because they depend on insects for food. Those that remain North find other things to eat.

Bring in a cold blooded animal. Have the children touch first a warm blooded, then a cold blooded animal. Feel the difference.

To determine which birds remain during the winter, make a bird feeder and place it where it can be seen from a window. Cut out pictures of these birds and place them at the child's eye level. Learn the names of the birds.

Warm Weath

We take off our heavy clothing. . . . . .Fur bearing animals shed their h
and like to lie down in cool pla

We go barefoot. . . . . .Animals don't have to take off the
shoes.

We wear sunglasses to protect our eyes.

We learn how to swim. . . . . .Ducks and geese have special webbed
feet and do not have to learn how to
swim.

Protection

We protect our bodies from . . . . . .Animals have fur coats and birds
the weather by wearing clothes have feathers for protection.
and building houses.

Beavers build lodges. Ants, birds, and
mice build nests to protect their young.

When we go camping, we take . . . . . .Creatures that are slow moving or have
a house with us -- tents and trailers. soft bodies have shells for protection
-- turtles, snails, oysters, crabs,
mussels, etc.

Examine a turtle. Watch how he retracts into his
shell at the sign of danger.

We lock our doors and have . . . . . .Owls, bats, rats, mice, earthworms
policemen to protect us. usually hide away during the day
and come out under the cover of
darkness. Grasshoppers are the
color of grass so they cannot be seen
easily by their enemies.

How does a skunk protect himself?

Go on an expedition to find toads (the color of soil).
Hunt for the insect known as the "walking stick" that
resembles a twig.

Protection (Cont'd.)

Sometimes we hit when we are very angry. Or we say angry words, or we walk away.
We fight wars.

. . . . . .

Eagles fight with claws.
Cats fight with teeth and claws.
Dogs bite.
Bees sting.
Roses, cacti and blackberry bushes have thorns.

When it rains, we wear raincoats so we don't get wet.

. . . . . .

Dogs shake water from their coats.
Beavers have waterproof fur coats.
Ducks' feathers are oiled, so their skin does not get wet.

Mothers watch over and protect little babies and children.

. . . . . .

Kangaroos carry their babies in special pouches. Opossums carry their babies on their backs and in pouches. Kittens are born with eyes closed and must be cared for by the mother. Fish lay eggs in the water. Many mother and father birds both take care of babies.

Food Gathering

We grow our food and harvest it. Animals are killed and the meat is cooked to eat. We grow our vegetables in our garden or buy them in the grocery store.

. . . . . .

Animals, birds and fish hunt for food each day -- unless they are pets and we feed them. Plants use sunlight and soil to make their own food.

We cook some food. We can make cakes and cookies.

. . . . . .

Animals, birds and fish eat their food raw.

We eat with our fingers, knives, forks, and spoons

. . . . . .

Monkeys, squirrels and racoons eat with their paws. Other creatures use the mouth alone.

Watch a cat drinking milk. Bring in a mother cat and watch kittens nursing. Discuss bottle and breast feeding of infants.

Food Gathering (Cont'd.)

We catch fish with a hook, line and pole. . . . . .Seagulls and pelicans use claws and beaks. Bears fish with their paws.

We bring groceries to our houses in paper bags. . . . . .Ants pull food back to the ant hill with their mouths.

> Find an ant hill or observe an ant colony at a nature center.

Ruth's favorite vegetable is carrots . . . . . .Rabbits like carrots.

Joe likes apples . . . . . .Horses and racoons like apples.

We need water to drink . . . . . .So do animals, birds, insects and plants.

We store water in the tissues of our body. . . . . .Desert plants store water in their hearts.

Reproduction

We grow inside of our mother's body. . . . . .So do cats, dogs, horses, pigs and all mammals.
Birds hatch from eggs -- so do snakes, and turtles, and fish.
Vegetables, flowers, grain, trees grow from seeds.

Take a field trip in the fall to collect seeds:

--Dandelion and milkweed wings fly on the wind.
--Many weeds have "stickers" for hitch-hiking on animals' fur or people's clothing.
--Puffballs and mushrooms have spores.

DEVELOPING SCIENTIFIC CONCEPTS

Many of the scientific concepts that children "pick up" seem very obvious to adults -- for instance death or change. Yet it is an enormously complicated process.

There are ways in which we can increase a child's understanding of concepts, of himself and the world around him.

1. Understand what the child is trying to do and be and what concepts and relationships he is grappling with.
2. Take advantage of natural opportunities to make concepts clear.
3. Provide opportunities and experiences for children to learn about their world.
4. Give words to children that can be used and understood.

Below are two examples of the way in which concepts may be developed.

LET'S BEGIN AT THE VERY BEGINNING WITH A DEVELOPMENT OF THE CONCEPT OF SELF

A human being is the only life form capable of self awareness. Being human has to be learned. Learning to be human begins at birth. An infant must be able to trust those who care for him; specifically, one or two persons upon whom he is totally dependent. Slowly and gradually he becomes aware of himself as a separate individual, and he forms a concept of himself. A self-concept usually emerges in a child somewhere around two years of age and, with proper nourishment, grows stronger. How a child feels about himself affects all his future learning.

Like all the scientific concepts that we try to get across to a child, the concept of <u>self</u> accumulates, builds up by daily happenings and by the reactions of other people to him.

What can we do everyday to help a child be more aware of himself as a worthy human being?

--Use his name. "John, I'm glad to see you this morning."
--Notice him. "Paul has new shoes today."
--Care about him. "Joe, let's button your coat before you go outside."
--Be proud of him. "Mary, I like your painting. You mixed a brand new color."
--Protect him. "I'm not going to let you throw sand, and I'm not going to let Peter throw sand at you."
--Respect him. "If John doesn't like tomatoes, he doesn't have to eat them." "Harold doesn't want to sing today. He is going to look at books instead."
--Accept him as he is.

His Body

What goes on his body. A child's clothes are very important to him, almost a part of him. Talk with him about his clothes; the color, texture, warmth, etc.

What goes into his body. Food is very personal to a child. Help him enjoy it. Acknowledge his likes and dislikes. Discuss and introduce new foods.

What comes out of his body. Urine, feces, mucus and blood are very intimate parts of a child. They are the products of his body and nothing to be ashamed of. We must be honest with children about natural functions, giving correct facts and using correct terminology.

Body control. Children work very hard at controlling natural functions. They are extremely pleased with themselves when they master new skills like toileting, manipulating puzzles and materials, climbing, running, jumping. Provide plenty of opportunity for both large and small muscle activity. This is the way a child gets the feel of himself.

Children should be helped to feel a real pride in their own particular physical characteristics...in their own type of hair, skin color, size, etc.

His Family

Mothers, fathers, grandparents, brothers, sisters, babies are all subjects for books, songs and conversation. Discuss and acknowledge individual family situations, for they differ greatly.

Himself in Relation to Other People

Dramatic play helps the child go from "me" to "you," from a self-concentration to the consideration of others.

In the housekeeping corner. How does it feel to be a mother, father, baby, soldier, fireman, grocer? The adult supplies the props: dolls, a mirror, dress-up clothes for both boys and girls, accessories for play.

In the block area. How does it feel to be big and to operate a truck or an airplane? Or build a building and destroy it? Or make toy figures do what you want them to do?

Outdoors. Managing one's own body fosters confidence. "I can ride a tricycle. I can climb to the top of the jungle gym. I can pull, push, jump, dig a hole."

With art materials, games and puzzles. "I can choose what I will do. I can do harder and harder things."

With free choice comes confidence. One chooses what one feels good about doing, at one's own speed.

His Speech

Speech is an extension of a person, a part of him. For this reason, it is important how we respond to a child's speech. It is imperative that we listen, accept, and keep children wanting to talk to us.

For those words with shock value -- how we react tells him what kind of a person he is. For instance: if a child says, "I hate you, you _____," we can respond in a reassuring way that leaves his self intact and robs the word of its shock value. "You must be angry with me right now. Do you want to tell me what's the matter?"

And so -- the concept of self is built slowly, day by day and in a variety of ways.

When a child accepts himself, likes himself, only then is he able to accept and like other people. In turn he is then able to make others, and eventually his own children feel good about themselves. How do you feel about yourself? Good enough to make children happy and proud and confident and kind?

Frequently, the adult introduces an experience which contains many scientific concepts -- in this case through preparing and cooking vegetable soup, with the children.

If we follow Mrs. A. and her group of children as they prepare vegetable soup, we will try to identify the concepts imbedded in this experience.

First Mrs. A. plans the experience. She knows that she will need to keep in mind the necessary safety measures with respect to fire, heat, use of utensils. She will also need to divide the labor so that everyone will have a part in the project.

She might collect a wide variety of vegetables, a beef bone or bouillon cubes, seasoning, a scale for weighing, safe metal peelers, table knives, scissors, cooking pot (children can see into a glass pot as the soup is cooking).

Mrs. A. takes the children to the grocery store to select the vegetables and other necessary ingredients. If a trip to the store is impossible, she asks each child to bring a vegetable to the center for the soup. To make sure that there is a wide variety, she brings the less common kinds.

Then Mrs. A. arranges her tables so that the children can work in small groups and so that close supervision is also possible.

Cooking is very satisfying to children:

They do something competently.

They get results which can be immediately enjoyed.

They satisfy curiosity about where things come from.

They explore with all their senses.

They acquire concrete facts necessary for the formation of a concept.

Activity	Facts Learned	What Child Is Trying To Do	Concept	Some New Words
Vegetables are: weighed washed scrubbed sliced cubed popped-open shredded peeled scraped sampled Count peas in the pod	Name of vegetables How different vegetables grow Notice the root and stems Taste and smell new vegetables Textures Watch for discoveries by the children: "This onion makes me cry." "It's wet inside."	Classify, compare Notice differences Satisfy curiosity Experiment	Weight Variety Color Texture Shape Cause and effect	Squash Pod Shred Root Vegetable Peel Slice Ounce Pound
Vegetables are put into pot with water, seasoning, beef bone or bouillon, and placed on stove The pot is checked periodically	Sources of heat Danger of heat -- "It's hot!" Rising and spreading of steam (vapor) Boiling makes bubbles	Discriminate Become competent Assimilate facts Observe Satisfy curiosity	Change in matter: -liquid -solid -vapor Cause and effect	Liquid Solid Evaporate Steam Boil Vapor
The soup is eaten--right away or the next day	Vegetables are now soft Taste and smell are changed due to cooking and seasoning	Enjoy pleasures of eating Discriminate: Taste Colors Textures Temperatures	Change: due to heat: hard to soft cold to hot Use of plants by humans	Broth Temperature Cook Flavor Yummy

It is important to think through the equipment needed for science experiences. You will probably find that you are collecting equipment a little at a time as you need material for a particular experience. The place to store this is near, under or around the science table, - in other words - at hand when you want it.

For the study of birds

Audubon bird charts
Bird Song records
Nest collection (showing different construction)
Feather collection (to show colors, sizes, etc.)
Sample bird trap and bands to use in discussing bird banding
Scraps of wood, wire, nails for making feeders, and birdhouses
Used milk cartons for making feeders
Bits of string, cloth, and straw for birds to use in nests
Bird bath
Live birds such as canary or parakeet for room pets
Suitable cage
Bird food for wild birds and bird pets
Binoculars
Homemade incubator for hatching chicks in classroom

For the study of fish

Aquarium
Live fish such as guppies or goldfish
Fish food
Aquatic plants

For the study of mammals

Audubon Mammal Charts
Animal cages
Live animals such as hamsters, rabbits, guinea pigs, white mice
Food for animals
Skulls, bones, and fur of various mammals

For the study of reptiles and amphibians

Suitable cages for turtles, lizards, snakes
Aquarium for tadpoles, frog, and salamander eggs and aquatic turtles
Terrarium for salamanders, frogs, and toads
Food for all specimens
Nets for use of field trip to stream or pond

*Adapted from: Sources developed by students, Johns Hopkins University, in conjunction with Maryland Ornithological Society; Nature Experiences for Young Children; S.D. Ginsberg, Instructor.

For the study of insects and spiders

Jars for keeping specimens for observation, hatching eggs, etc.
Live specimens such as praying mantis egg case, cocoons, caterpillars, spiders, etc.
Observation bee hive
Ant village or glass and wood with which to make one
Small mounted collection of different orders of insects in mounts, or plastic
Insect net

For the study of weather

Thermometer
Rain gauge (can be made) with jar, funnel and ruler . . .
Weather vane
Pinwheels
Kites
Calendar

For the study of plants

Terrarium or large glass jar
Plants for terrarium - ferns, mosses, lichens, etc.
House plants for room - may include carrot tops, sweet potato vine, etc.
Seeds of various kinds to plant in garden and use in indoor experiments
Fruits, vegetables, nuts and cones
Bulbs to plant in fall for spring bloom
Watering cans
Sturdy gardening tools
Blotters and stale bread for growing molds
Sand, clay, soil, humus

For the study of rocks and minerals

Specimens of various rocks and minerals
Hammer for rock splitting
Magnifying glass
Scale

For the study of mechanical processes

Lever
Pulley and rope
Ramp
Gears
Suction gadgets
Clocks
Lock and Key
Magnets with box of assorted objects to test magnet, e.g., toy jacks, nails, paper clips, wood, chalk, paper
See-saw
Tongs
Door latch
Screws and screwdriver
Eggbeater
Sifter
Hole puncher
Bell

SUGGESTED EQUIPMENT FOR SCIENCE EXPERIENCES FOR YOUNG CHILDREN (Cont'd.)

For the study of electricity and light

Electric plugs and switch
Bell
Flashlight
Batteries
Wire and bulbs for stop and go light
Prisms
Mirrors
Glass chimney for lamp
Wool
Rubber ballons
Cellophane
Push button

For the study of textures

Samples of wool, linen, rayon, velvet, satin, nylon, plastic, sandpaper, felt, fur, cellophane, leather, burlap, cotton, sponge, pebbles, cork, scraps of different kinds of metal

For the study of weighing and measuring

Scales
Yardstick, foot ruler and measuring tape
Pint, quart and gallon containers
Measuring spoons and cups

For the study of water

Stove for making steam
Refrigerator for making ice
Assorted objects to float or sink
Siphon
Medicine dropper
Sponge
Strainer
Cups, cans, etc.
Soap
Straws or macaroni to use as straws
Syringe bulb

General Equipment Useful in Several Fields of Study

Record player
Hand lens or magnifying glass
Assorted empty jars and boxes for specimens
Scissors
Microscope for observing swamp water, slices of leaves, plants, stems, small insects, etc.
Cooking Utensils
Reference Books for adults and children
Picture books for children related to simple science concepts and experiences
Large sheets of paper and markers for recording observations
Hot plate

TEACHER'S SCIENCE BIBLIOGRAPHY

Brarly, Franklyn & Vaughnan, Eleanor, RUSTY RINGS A BELL.
Shows very clearly how to make a bell using a dry cell battery, wires, and buzzers.

Carson, Rachel, THE SENSE OF WONDER. (N. Y.: Harper & Row, 1965).

Christianson, Helen, et. al., THE NURSERY SCHOOL. (Boston: Houghton-Mifflin, 1961), pp. 163-182.

Cohen, Dorothy and Rudolph, Marguerite, KINDERGARTEN, A YEAR OF LEARNING. (N. Y.: Appleton-Century Crofts), Chapter 6.

Comstock, Anna B., HANDBOOK OF NATURE STUDY. (Ithaca, N. Y.: Comstook Press, 1939).

Cooper, Elizabeth K., SCIENCE IN YOUR OWN BACKYARD. (Harcourt, Brace & World, 1959).
The scientific wonders under your feet and over your head in your own backyard, that can be discovered by using your own five senses. Expands one's awareness of the world around us by sharpening our observation.

Craig, Gerald S., SCIENCE FOR THE ELEMENTARY SCHOOL TEACHER. (N. Y.: Ginn & Company, 1958).

Craig, Jean, SPRING IS LIKE THE MORNING. (Putnam, 1965).

Foster, Josephine and Headley, N. E., EDUCATION IN THE KINDERGARTEN. 4th ed. (Van Nostrand-Reinhold, 1966).

Fox, Sally, TASTY ADVENTURES IN SCIENCE. (Lantern, 1962).

Gruenberg, Sidonie M., THE WONDERFUL STORY OF HOW YOUR WERE BORN. (Doubleday, 1952).
Good information to help teacher discuss birth with children.

Hammond, Sara, et. al., GOOD SCHOOLS FOR YOUNG CHILDREN. (N. Y.: MacMillan, 1963), pp. 163-182.

Haupt, Dorothy, SCIENCE EXPERIENCES FOR NURSERY SCHOOL CHILDREN. (Washington, D.C.,: National Association for Education of Young Children)

Heffernan, Helen & Todd, Vivian, KINDERGARTEN TEACHER. (Heath, 1960) Chapter 9.

Hochman, and Greenwold, SCIENCE EXPERIENCES IN EARLY CHILDHOOD EDUCATION. (N. Y.: Bank Street College of Education, 1953).

Hoffman, Melita, A TRIP TO THE POND. (Doubleday).

Lambert, Hazel, TEACHING THE KINDERGARTEN CHILD. (Harcourt, Brace & Co. 1958). Chapter 14.

Leavitt, J., NURSERY-KINDERGARTEN EDUCATION. (N. Y.: McGraw Hill, 1958).

Levine, Milton, M.D., and Seligman, Jean, A BABY IS BORN.
This book is for teacher information on reproduction. If you feel embarrassed in answering children's questions about reproduction, this book gives you information which may help you to more comfortably answer their questions.

LIGHT AND SHADOWS. (Newton, Mass.: Elementary Science Studies, 1965).

Milgroni, Harry, FIRST SCIENCE EXPERIENCES: ADVENTURES WITH A STRING, ADVENTURES WITH A BALL, ADVENTURES WITH A STRAW, ADVENTURES WITH A PLASTIC BAG. (N. Y.: E. P. Dutton & Company, 1967).

Mitchell, Lucy Sprague, YOUNG GEOGRAPHER. (N. Y.: Basic Books, 1963).

NATIONAL GEOGRAPHIC MAGAZINE. (Washington, D.C.: National Geographic Society).

Pinney, Roy, THE GOLDEN BOOK OF WILD ANIMAL PETS. (Golden Press, 1959).

Read, Katharine, THE NURSERY SCHOOL. (Philadelphia, Pa.: Saunders, 1960).

Rudolph, Marguerita, LIVING AND LEARNING IN NURSERY SCHOOL. (Harper & Bros., 1954) Chapter 6.

Schwartz, Julius, IT'S FUN TO KNOW WHY. (McGraw, 1952).
Experiments with things around us.

Shuttlesworth, Dorothy E., EXPLORING NATURE WITH YOUR CHILD. (N. Y.: Greystone Press, 1952).

Todd, Vivian and Heffernan, Helen, YEARS BEFORE SCHOOL. (N. Y.: MacMillan, 1964), pp. 298-345.

Wyler, Jane, A CREATIVE GUIDE FOR PRESCHOOL CHILDREN. (Racine, Wisconsin: Western Publishing Educational Services, 1966).

YOUNG CHILDREN AND SCIENCE. (Washington, D.C.: Association for Childhood Education International, 1964).

Youngpeter, John M., WINTER SCIENCE ACTIVITIES. (Holiday, 1966)
Experiments & Projects.

Zirbes, Laura, SPURS TO CREATIVE TEACHING. (N. Y.: G. P. Putnam's Sons, 1959). Chapter 2.

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Many books are useful in more than one scientific area. Other categories of use are noted in the margin.

Those books helpful in developing the concepts of change, variety, and adaption are so classified in parenthesis after the description.

ANIMALS

Aulaire, Ingri and Edgar P., ANIMALS EVERYWHERE (Doubleday, 1964) Animal groups - domestic, zoo, farm, etc. Depicts animals in various hemispheres and climate zones. Especially good for children who like unusual animals. (Adaption - Variety).

Bancroft, H. and Van Gelder, R. G., ANIMAL IN WINTER (Cromwell, 1963) How animals adapt to winter. A read and find out information story. (Adaptation).

Bong, Inga, PARRAK: THE WHITE REINDEER (Warner, 1959) Story of an albino reindeer from Lapland; how he lives in his natural habitat, and eventually becomes leader of the herd. (Adaptation).

Bunch, Robert, A FUNNY PLACE TO LIVE (Viking, 1962) A youngster discovers various animal homes and finds them "funny places." Children enjoy the turn of events when the owl thinks the youngster's home is a "funny place", too. (Adaptation - Variety).

Cole, William, I WENT TO THE ANIMAL FAIR (World, 1958) Funny, charming poems just waiting to be used at the proper time.

Collier, Ethel, I KNOW A FARM (Scott, 1960) A girl goes to a farm and discovers the animals one by one. An egg in the hay and a nest of kittens are delightful discoveries. Easy-to-read book, beautifully illustrated.

Davis, Alice V., TIMOTHY TURTLE (Hale, 1940) Timothy tips over on his back sliding down a bank. The animals try to figure out how to get him right side up. A frog finds the solution.

also Birds Insects

Fisher, Aileen, WHERE DOES EVERYONE GO? (Thomas Crowell, 1961) This story illustrates where birds, insects, frogs, turtles, woodchucks go in the winter. Beautifully illustrated. (Adaptation).

Flanders, M., CREATURES GREAT AND SMALL (Holt, Reinhart & Winston, 1965) Poetical descriptions of the dimensions of various animals. Children enjoy the rhythmic phrases, though they may not understand the words. (Variety).

Children's Science Bibliography (cont'd)

also Season.

Fox, Charles, WHEN WINTER COMES (Reiley & Lee, 1962)
Excellent black and white photographs about various animals and how they adapt to seasonal change. (Adaptation).

Freschet, Bernice, THE OLD BULLFROG. (Scribner, 1968)
A wise old bullfrog almost gets caught by a hungry heron in this well illustrated tale. An element of suspense makes this a good read aloud story. (Adaptation).

Gay, Zhenya, WHO IS IT? (Hale, 1962)
A good guessing book about animal footprints. Some descriptions will need to be simplified. (Variety).

Gralim, Jony, CHILDREN ON A FARM (Britanica Press, 1964)
Good colored photographs of the things children do on a farm when they visit.

Ipcar, Dahlov Z., BROWN COW FARM (Doubleday, 1959)
A counting story, telling of animals on the farm in winter and spring. Well illustrated, with animals in a variety of places so that children can count each set of animals.

Ipcar, Dahlov Z., ONE HORSE FARM (Doubleday, 1950)
Reveals the workings of a small farm. A good multipurpose story. It can be used in discussions of food gathering, animals and mechanized farms.

Koch, Dorothy, WHEN THE COWS GO OUT (Holiday, 1958)
Story of a dairy farm. Read to grades one through three. Pictures and exploration for younger children.

Langstaff, John, OVER IN THE MEADOW (Harcourt, Brace, 1956)
A lovely classic. The text is a song about meadow animals, bees, polliwogs, etc.

Lenski, Lois, ANIMALS FOR ME (Walck, 1941)
For young three year old children. A small book suitable for individual children, or a very small group.

Lewellen, John, THE TRUE BOOK OF FARM ANIMALS (Children's 1954)
Information book, written in story form. Good pictures of horses, mules, hogs, cows, sheep, goats, chickens, ducks, geese and turkeys.

Marino, Dorothy, BUZZY BEAR GOES SOUTH (Watts, 1960)
A fun story about a little bear who thinks he would like to migrate rather than hibernate in winter. (Adaptation).

Merrill, Jean, TELL ABOUT THE COW BARN, DADDY (W. R. Scott, 1963
About a dairy. Excellent follow-up for a field trip.

Munari, Bruno, BRUNO MUNARI ZOO (World, 1963)
Beautiful colors and unusual illustrations are greatly enjoyed by children - especially if they have been to a zoo.

Newberry, Clare T., WIDGET (Harper, 1958)
Story of a soft, furry kitten, who leaves his box to explore. Illustrations are beautiful.

Robinson, Irene, PICTURE BOOK OF ANIMAL BABIES (MacMillan, 1947)
This book is most helpful for learning the names of common animals, and a little information about them. Good for three and four year olds.

Schlein, Miriam, DEER IN THE SNOW (Abelard, 1956)
This story is about deer and the growth of their antlers. It is best read in two parts because it is so long.

Schlein, Miriam, HOME, THE TALE OF A MOUSE (Abelard-Schuman, 1958) A field mouse builds a nest in a thicket using all kinds of found materials - dandelion fluff, string, a feather, acorns. (Gives children a nice feeling about small animals.) But the nest still doesn't feel right until he finds a female mouse to share it with him.

Schlost, Warren G., MILK FOR YOU (Scribner, 1951)
Illustrated with photographs showing the entire process of dairying. Simple text. Excellent for pre-schoolers.

Seibirt, Jerry, ANIMALS ON A FARM (Britanica Press, 1964)
The colored photographs of farm animals make this a valuable book. It is best shortened, and tell it rather then read it and use it to develop ideas of farm life.

Tresselt, Alvin, WAKE UP FARM (Lothrop, Lee & Shepard, 1955)
Morning comes to the farm animals, the farmer and his little boy. Very appealing to threes, fours and fives.

BIRDS

Bucher. W. J., BIRDS (Golden Book)
Beautiful color illustrations of some of our most familiar birds. Each bird is identified.

also

Birth
Reproduction

Flack, Marjorie, RESTLESS ROBIN (Houghton, 1937)
Migration of a robin family from Georgia to New York. The story covers building the nest, laying eggs, hatching the babies. This is a lengthy story and will need to be told to the children, using the pictures.

Gans, Roma, IT'S NESTING TIME (Crowell, 1964)
Lively illustrations of kinds and types of bird's nests and how they are constructed. Long text. Good to leave out on the science table with a real bird's nest. (Variety)

Sewall, Helen, BLUE BARNS (MacMillan, 1964)
Delightful farm story about the geese with unique personalities.

also Seasons

Shackelford, Nina, WHEN BIRDS MIGRATE (Stock - Vaughn, 1968)
A good book for the science table and for discussion. (Adaptation).

Wildsmith, Brian, BIRDS (Watts, 1967)
Birds, birds, birds, - done with color, zest, and fun.

BIRTH REPRODUCTION FAMILY

Buckley, Helen, GRANDFATHER AND I (Lothrop, 1959)
Large color pictures, simple story about a little boy out walking with his grandfather. Especially good for younger children.

Buckley, Helen, GRANDMOTHER AND I (Lothrop, 1961)
For younger children. Simple story stresses the warm, happy relationship between the oldest and youngest in a family.

Borack, Barbara, GRANDPA (Harper, 1967)
Delightful and warmly humorous story about the relationship of a little girl and her grandpa.

Ets, Marie Hall, THE STORY OF A BABY (Viking Press, 1939)
Birth and growth of a baby.

Garelick, May, WHAT'S INSIDE? (W. R. Scott, 1955)
The step by step process of the hatching of an egg and emergence of a baby goose are vividly shown in photographs.

also Growth

Keats, Ezra Jack, PETER'S CHAIR (Harper, 1967)
A beautiful yet simple story of Peter who has a new baby sister, decides that it is good to grow up.

Krauss, Ruth, THE BUNDLE BOOK (Harper, 1951)
Mother and child play a guessing game in bed. For younger children.

McCloskey, Robert, BLUEBERRIES FOR SAL (Viking Press, 1948)
Little Sal and Little Bear pick blueberries with their mothers, as they prepare for winter's coming.

also Birds Insects

Podendorf, Illa, TRUE BOOK OF ANIMAL BABIES (Children's 1955)
Illustrates the different ways animals are born. Helps children understand the differences between hatching, and being born. An easy-to-read story.

also Animals

Buckadorff, Astria, CHENDRU, THE BOY AND THE TIGER (Harcourt, 1960) The story of Chendru and his pet tiger. Depicts family life in India. Beautiful color photographs. The text is long. Some of the story may have to be "told".

Yashima, Taro and Mitsu, MOMO'S KITTENS (Viking 1961)
The concept of the birth, growth and care of baby kittens could not be presented more beautifully than it is in this book.

CLOTHING

Beskow, Elsa, PELLE'S NEW SUIT (Harper, 1929)
Pelle gets wool from the lamb for a suit. The story traces the process of carding, spinning, and weaving the wool as it is made into a suit for him. (Adaptation).

COLORS

Dines, Glen, PITTIDOE, THE COLOR MAKER (MacMillan, 1959)
Pittidoe is left in charge of color in the land of Soo while the Color Maker is away. He loses all the colors but they are restored by the sun and a tear drop prism. Read this story with a prism from the science table.

GROWTH - HUMAN, PLANT & ANIMAL

Bulla, Clyde, A TREE IS A PLANT (Crowell, 1960)
This book about seeds and plants helps children understand how plants grow from seeds and how even a tree grows from seeds.

Collier, Ethel, WHO GOES THERE IN MY GARDEN? (Scott, 1963)
A boy buys seeds to plant a garden and his neighbor gives him information about when to plant and what worms and insects do in the garden.

Flack, Marjorie, TIM TADPOLE AND THE GREAT BULLFROG (Doubleday, 1934) Tim gives us a clear, exciting picture of how he changed from a tadpole to a bullfrog. Nice ending. (Change).

Hewitt, Anita, THE TALE OF THE TURNIP (Whittlesey, 1961)
An amusing story of the planting and harvesting of an "enormous" turnip. Good read aloud text.

Howell, Ruth, EVERYTHING CHANGES (Atheneum, 1968)
Children use their senses to observe and understand changes in angle worms, etc.

Hoffmann, Hilde, THE GREEN GRASS GROWS ALL AROUND (N.Y.: MacMillan) An old folksong that gives good nature information in rhythmical language.

Jordan, Helene J., HOW A SEED GROWS (Crowell, 1960)
A step-by-step tracing of details of sprouting of a seed. Also gives directions for planting seeds and observing changes as they occur.

Krauss, Ruth, THE CARROT SEED (Harper & Row, 1945)
A little boy plants a carrot seed, waters it, and cares for it and is sure it will come up, though everyone tells him it won't. The children love hoping with the little boy and are delighted with him when it grows.

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Krasilovsky, Phyllis, THE VERY LITTLE BOY (Doubleday, 1953)
THE VERY LITTLE GIRL
These stories are excellent for showing growth and developing self-esteem. Well illustrated.

McCloskey, Robert, MAKE WAY FOR DUCKLINGS (Viking, 1941)
The duck family cycle told in vivid story form with excellent illustrations. Good for five year olds, especially after seeing ducks. You may have to shorten the story.

McCloskey, Robert, ONE MORNING IN MAINE (Viking Press, 1952)
Sal loses her tooth while digging for clams and comes to feel good about growing bigger. A real and engrossing story.

Podendorf, Illa, THE TRUE BOOK OF TREES (Children's, 1954)
Teacher information, but the pictures are good for children to examine.

Selsam, Millicent E., SEEDS AND MORE SEEDS (Harper & Row, 1959)
(I Can Read Science Book) A pebble cannot grow - but a seed can. A small boy finds many seeds which he plants. He watches the full growth cycle from seed to flower. Good for fours and fives.

Schecter, Ben, PARTOUCHE PLANTS A SEED (Harper, 1966)
The story of a pig who plants his own corn and has some difficulties getting it to grow, but finally has a picnic with his own ear of corn.

Udry, Janice, A TREE IS NICE (Harper, 1956)
Beautifully illustrated book. A trip to the park or a walk to notice trees will help children feel the pleasure of this book.

Zion, Eugene, THE PLANT SITTER (Harper & Row, 1959)
An enterprising young boy finds a different way of making money, taking care of people's plants during vacations. Delightful humorous story for fours and fives.

INSECTS

Adelson, Leone, PLEASE PASS THE GRASS (McKay, 1960)
Story of insects and creatures who live in a green world underfoot.

Caudill, Rebecca, A POCKETFUL OF CRICKET (Holt, Rinehart, Winston, 1964). Jay, a young farm boy, finds a cricket while on his way home with the cows. He makes a home for the cricket and cares for him all summer, then takes him to school in the fall. The story is quite long, but would be enjoyed by five year olds or sixs.

Conklin, Gladys, WE LIKE BUGS (Holiday, 1962)
Only that insect behavior which the very young observer can himself discover is offered. Excellent text and pictures. Appropriate for fours and fives.

Conklin, Gladys, I LIKE BUTTERFLIES (Holiday, 1960)
Lovely presentation of butterflies as seen by a little boy.

Conklin, Gladys, I LIKE CATERPILLARS (Holiday, 1958)

Dugan, William, THE BUG BOOK (Golden Press, 1965)
Big, excellent, realistic illustrations. Delightful short text. Good for information and reading.

Fisher, Aileen, IN THE MIDDLE OF THE NIGHT (Crowell, 1965)
A little girl explores the out-of-doors with her father at night. They discover butterflies, beetles, night crawlers, and flowers and what they each do at night. Delightfully written and illustrated.

Garelick, May, WHERE DOES THE BUTTERFLY GO WHEN IT RAINS? (W. R. Scott, 1961) Poses the question of where butterflies go during rain. Beautiful illustrations and a few words expose children to several possible places the butterfly might go.

Huntington, Harriet, LET'S GO OUTDOORS (Doubleday, 1939)
Large close-up black and white photographs of frogs, spiders, worms, ants. Information, rather than a story for a group of children.

Meeks, Esther K., IN JOHN'S BACKYARD (Follett, 1957)
Fascinating descriptions of things that can be found in your own backyard if you really look.

also Growth Birth

McClung, Robert M., LUNA, THE STORY OF A MOTH (Morrow & Co., 1953) Clear simple text and beautiful pictures tell the story of the first year from tiny egg to full grown butterfly. Good for looking at and teacher information. (Change).

Selsam, Millicent E., TERRY AND THE CATERPILLAR (Harper & Row, 1962) (I Can Read Science Book)
A small girl keeps a caterpillar, watches it make a cocoon and later change into a moth. Terry's mother, father and schoolmates all join in this interesting story. Appropriate for fours and fives.

Stevens, Carla, CATCH A CRICKET (Hale, 1961)
Tells in detail how to catch a cricket and care for it. Magnified black and white photographs. Also shows grasshopper, firefly, caterpillar, earthworm.

MACHINES
TRANSPORTATION

Brandley, Franklin M., MICKEY'S MAGNET (Crowell, 1956) FLOATING AND SINKING (Crowell) NORTH, SOUTH, EAST, WEST (Crowell, 1966) BIG TRACKS, LITTLE TRACKS (Crowell, 1960)
These are informational books to read to the children. Very useful to assist in clarifying concepts or stimulating conversations about experiences being presented. Also helpful for the teacher's information.

Brown, Margaret W., TWO LITTLE TRAINS (W. R. Scott, 1949)
A rhythmic, bouncy story of two trains going west. Well written. Children find it interesting.

Burton, Virginia Lee, MIKE MULLIGAN AND HIS STEAM SHOVEL (Houghton-Mifflin, 1930)
An old favorite for fours and fives but may need to be told more briefly. Be sure the children see a steam shovel.

also Weather

Burton, Virginia Lee, KATY AND THE BIG SNOW (Houghton-Mifflin)
City is incapacitated in a big snowstorm. The snowplow becomes the heroine as she plows out the city so it can function again.

Burton, Virginia Lee, THE LITTLE HOUSE (Houghton, 1942)
This is a story of how a city grows up around a little house. Cars, trucks, bulldozers, trolleys, elevated train, tall buildings. In the end, the little house is moved to the country again. Good text and illustrations.

Fisher, Leonard E., PUMPERS, BOILERS, HOOKS AND LADDERS (Dial Press, 1961) This book shows how fires were fought before modern fire equipment was available. Five-year-olds, who have seen many fire engines will enjoy hearing about fire engines of long ago.

also Water

Flack, Marjorie, THE BOATS ON THE RIVER (Viking, 1946)
All kinds of boats depicted with excellent large colorful illustrations. Good text.

Schlein, Miriam, HOW DO YOU TRAVEL (Abington, 1951)
Depicts the variety of ways humans and animals can get from one place to another. Good text and pictures.

Shortall, Leonard, COUNTRY SNOW PLOW (Wm. Morrow & Son, 1960)
Snowplow opens the highway when a big snowstorm stops trucks and other traffic. The story poses the problem of how the plow will get around the stalled vehicles. Good for fours and fives.

Zaffo, George, THE BIG BOOK OF REAL BUILDINGS AND WRECKING MACHINES (Grossett & Dunlap, 1968) A good book for times when you're watching construction and talking about it with the children. Large pictures.

Zaffo, George, THE BIG BOOK OF REAL FIRE ENGINES (Grossett, 1950)
After a trip to the fire station, your children will enjoy talking about these excellent pictures and comparing them to what they saw.

SEASONS

Adelson, Leone, ALL READY FOR SUMMER (David McKay, 1952)
ALL READY FOR WINTER (David McKay, 1952)
These well written stories tell how various animals prepare for the seasonal changes, adapting to changes in the weather. (Adaptation).

also Growth

Bancroft, Henrietta, DOWN COME THE LEAVES (Thomas Crowell, 1961)
Information book written in a simple, direct, yet appealing style. Catches the feeling of nature's continuity-ceasing of growth in fall, the revival of growth in the spring. Excellent illustrations of various trees and leaves, which the children can identify.

also Animals, Birds & Insects

Brown, Margaret Wise, THE LITTLE ISLAND (Doubleday, 1946)
The little island and its animal and plant inhabitants change with each season. Good text and illustrations.

Birnbaum, Abe, GREEN EYES (Capitol, 1953)
Green Eyes is an engaging white pussycat who tells the story of his first year, season by season. Excellent illustrations.

Buckley, Helen E., JOSIE AND THE SNOW (Lothrop, 1964)
The delight of playing in the snow is doubled for Josie when her mother, father, and brother come along. Written in easy, bright rhymes, with imaginative illustrations.

Keats, Ezra Jack, THE SNOWY DAY (Viking, 1962)
Beautifully illustrated story of a small boy's playing in the snow and what happens to his snowball.

Kay, Helen, CITY SPRINGTIME (Hastings House, 1957)
A child who knows what spring is like around his country home goes with his mother to see how spring could possibly come in the city. Good for four and five-year-olds.

Krauss, Ruth, THE HAPPY DAY (Harper & Row, 1949)
Bears, mice, snails hibernate and awaken the first day of spring to find a flower. Nice for first day of spring for threes and fours.

also Weather Seashore

McCloskey, Robert, TIME OF WONDER (Viking, 1957)
Real children and Spring, Summer, and early Fall on the coast of Maine. This lovely story is climaxed by a hurricane.

Tresselt, Alvin, AUTUMN HARVEST
Tells of the coming of fall and the changes as they affect man, animal and plant life. Takes you through Thanksgiving.

Tresselt, Alvin, HI MISTER ROBIN (Lothrop, 1950)
A robin helps a little boy discover the first signs of spring. Good to use before going outside in the early spring.

Tresselt, Alvin, JOHNNY MAPLE LEAF (Lothrop, 1948)
The story of a maple leaf from spring to fall. Good simple text. Nice illustrations.

Tresselt, Alvin, WHITE SNOW, BRIGHT SNOW (Lothrop, 1947)
The wonder and delight of a snow fall is presented with excellent illustrations and clear text.

Zion, Eugene, THE SUMMER SNOWMAN (Harper & Bros., 1955)
A clever youngster saves his snowman in the deep freeze, and brings it out in mid-summer.

Zolotow, Charlotte S., OVER AND OVER (Harper & Row, 1957)
The holidays and seasonal changes and how they occur over and over.

SHADOWS

DeRegniers, Beatrice, THE SHADOW BOOK (Harcourt Brace, 1960)
Black and white photographs and a few well chosen words vividly portray shadows through the day. A good basis for discussion of shadows.

Lietman, Alan, LIGHT AND SHADOW (Elementary Science Study)

Polgren, John and Kathleen, SUNLIGHT AND SHADOWS (Doubleday, 1967) Simple exploration of shadows, night and day, and seasonal. Good source book for teachers of nursery ages. Easy experiments included. Excellent illustrations. Parts of text can be read to five-year-olds.

Wiese, Kurt, GROUNDHOG AND HIS SHADOW (Viking, 1959)
Good for use with five-year-olds.

SHAPE, SIZE & MEASURE-MENT

Berkley, Etta S., SIZE OF IT AND UPS AND DOWNS (Hale, 1951)
Discusses sizes and shapes. Information book. Use sections to broaden a concept.

Budney, Blossom, A KISS IS ROUND (Lothrop, Lee, Shepard Co., 1954) This book about sizes and shapes is enjoyed by the younger threes and fours. The children may be able to guess the shapes.

Burdick, Jeanne, SHAPES (Franklin Watts, 1968)
Good visual presentation of shapes. Suitable for fours and fives.

Lionni, Leo, INCH BY INCH (Ivan Obolensky, 1960)
A delightful story, colorfully illustrated, of an inchworm that measures a robin's tail, neck of a flamingo, toucan's beak, legs of a heron, tail of a pheasant, humming bird, and tries to measure the song of a nightingale. Good for fives to accompany measuring experiences. Children like to pretend they are the worm.

Schlein, Miriam, HEAVY IS A HIPPOPOTAMUS (W. R. Scott,Co.)
This book is best when used to tell one idea for each page, rather than read word-for-word. You can also talk about heavy and light objects and then weigh things on a kitchen scale.

Shaw, Charles G., IT LOOKED LIKE SPILT MILK (Harper & Row)
About sizes and shapes for younger pre-school children. Good guessing book.

SOUNDS

Borten, Helen, DO YOU HEAR WHAT I HEAR? (Abelard, 1960)
Interesting to children. Good pictures.

Brown, Margaret W., THE COUNTRY NOISY BOOK (Harper & Row, 1940)
THE SUMMER NOISY BOOK (Harper & Row, 1951)
THE WINTER NOISY BOOK (Harper & Row, 1947)
THE SEASHORE NOISY BOOK (Harper & Row, 1941)
THE NOISY BOOK (Harper & Row, 1939)
Good guessing stories to encourage perception of sounds and thinking. Lots of good conversation here.

Garelick, May, SOUNDS OF A SUMMER NIGHT (Young Scott, 1963)
The sounds in nature children hear while waiting to go to sleep at night.

SPACE

Freeman, Mae & Ira, YOU WILL GO TO THE MOON (Random House, 1959)
This entertaining as well as informational book is an excellent story to read on the day of the launching of spacecraft. It is an easy-to-read book for children of the space age. At the end of the book an information section is provided for the teacher where the concepts of gravity, weightlessness, inertia, crater, etc., are defined so that they can be explained to the children.

Sasek, Miroslav, THIS IS CAPE KENNEDY (MacMillan, 1965)
The text, although brief, is not suitable for reading to preschool children, but the pictures are excellent. The text provides much information on the launching of a rocket that is of use to the teacher.

WATER - RIVER, SEA & SHORE

Bartlett, Margaret F., WHERE THE BROOK BEGINS (Crowell, 1961)
Follows the water cycle as the water goes toward the sea, from the small brooks to larger streams, to river, to sea.

Goldin, Augusta, THE BOTTOM OF THE SEA (Thomas Y. Crowell, 1966)
The underwater world, with cliffs, canyons, vast mudflats and coral reefs is described in clear, simple language. Good pictures.

Goudey, Alice E., HOUSES FROM THE SEA (Scribner, 1959)
Two children go hunting sea shells, once the home of many sea creatures. Several of the common shells are illustrated and named. The back of the book contains teacher information.

Hodges, Margaret, THE WAVE (Houghton, 1964)
Based on a Japanese folk tale about a tidal wave. Good story for older children. Interesting illustrations.

Podendorf, Illa, ANIMALS OF THE SEA AND SHORE (Grosset & Dunlap, 1956) An information book, rather than a story. Best used for one child, who is interested in water and the sea.

WEATHER

Hader, Berta & Elmer, THE BIG SNOW (Hale, 1948)
All the animals and birds make busy preparation for the long winter when they see the geese flying South. The squirrels and rabbits grow more fur and put food away and other animals take a long nap. The year of the big snow they needed help to get seeds and grass and hay. Many beautiful pictures.

also Family

Keats, Ezra Jack, THE SNOWY DAY (Viking, 1962)
The story of Peter's adventures in the snow told with excellent illustrations and nice text.

Wiese, Kurt, FISH IN THE AIR (Viking Press, 1948)
A Chinese boy buys a kite, is caught in the wind and flies into the air. Below him he sees many people, his father chasing him and wonders how he will get down - a hawk tears his kite and down he goes.

MARYLAND STATE DEPARTMENT OF HEALTH
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CHILD DAY CARE GUIDELINES

February, 1969 - No. 17

C E L E B R A T I O N S

Remember Mary Poppins?

Remember Jane and Michael?

Every day was a holiday with Mary!

. . . . . .

Although ordinary people who care for children don't have any magical words or bags of tricks, every day can be enjoyable and meaningful in the life of a young child when adults keep their eyes open to the wonders of the world and enjoy sharing these wonders with young children.

After the children have settled into their routine procedures, they enjoy, learn and benefit from variations in the structure of their days, weeks and months. However, if we use celebrations and holidays as the only basis for program planning, we overlook the enthusiasm of children in their everyday activities.

We sometimes miss the fun and joy of celebrations with young children by beginning preparations too soon, or doing too many things. When we begi too far before the holiday, tensions and pressures build up in the children as they await the far-off day. Daily they ask "is today Halloween . . . or Easter . . . or Christmas." The tension and excitement of "waiting until" can keep them on edge for weeks. On the other hand, we sometimes try to do too many things in a few days and then there is a frantic rush to include everything and to "finish everything." The result is often the strain of meeting deadlines rather than the pleasant fun we had hoped for.

We must be sensitive to the child's own interest in celebrations. Often adult interests are not meaningful to children. Meaningful activities can be developed from what a child enjoys and readily understands.

Often our best ideas seem thwarted by location, lack of helpers or no transportation facilities. We then resort to a table-topped formal lesson -- or we talk children's ears off. We need not sit at a table cutting out orange jack-o-lanterns or drawing "thankful" pictures. Stretch children's horizons by stretching your imagination.

Holidays are the times to bring fresh and exciting changes to the equipment in your room -- the book shelf, bulletin boards, record supply, science table, puzzle rack, collage materials and special colors in the paint trays. Children will quickly sense the purpose and the point of your planned holiday activities.

FUN HOLIDAYS

If you encourage children to help plan some experiences which grow out of their own interests, you will be allowing for the best kind of motivation. Children who enjoy flavored gelatin and flavored drink, may like to mix them red on Valentine's Day. Valentine cookies made and baked at the center and sprinkled with red candy smell and taste wonderful. Children can make collage valentines for people they love, using materials such as doilies, net, ribbon, feathers, and candy hearts. Take walks: how many kinds of mailboxes can you find on Valentine's Day?

When a holiday is celebrated, the adults should get into the spirit of the occasion. How do YOU feel about wearing a green dress on St. Patrick's Day? Have you ever visited a potato chip factory? You won't have any difficulty getting the children to eat potato chips. Try a baked potato snack -- let the children wash the potatoes before putting them into the oven.

Can you enter into a funny joke on April Fool's Day or put your clothes on backwards? Make sure the joke is on you!

Can you wear a funny -- not frightening -- costume on Halloween? Children react enthusiastically to your sense of humor and mode of dress. Visit a pumpkin patch, or better still, plant your own pumpkin in the spring and watch it grow. Cutting open a pumpkin can be very exciting. Nibble on the raw pumpkin meat. Scoop out the seeds -- salt, butter and bake them for snack time. And, of course, make a jack-o-lantern, then perhaps a pumpkin pie!

Around Halloween might be the time to invite a police officer to visit your group. At this age in this season young children need reassurances that all is well and that someone is protecting them, even when they are asleep. Having the officer stop back when he is out of uniform is also a good idea. Usually small children do not enjoy experiences with masks -- either wearing them or seeing them on others. It is wise to emphasize the fun aspects of Halloween and not the fearful ones.

BIRTHDAYS

A child's birthday is the most special celebration of all. You should be aware of the tensions and anxieties which build up around this special day. "Will I get a present?" "Have I been a 'good' boy?" "Am I big enough?" Remember his feelings. It is not so much how birthdays are celebrated in your center, but how you convey to him feelings of happiness on his special day.

Each child's birthday deserves special notice at the center. It is important that the center carry out a uniform policy in celebrating the children's birthdays. Such a policy should be developed in close cooperation with all parents. Each know then, what his child will be

doing on that particularly important day. The child who has a weekend or summer birthday may also wish to celebrate it with you.

> To a child his birthday means being bigger, not older.

When celebrating birthdays at the center, remember:

--To be aware that the child may feel very uncomfortable if he is made to perform conspicuously or to make difficult choices.
--To show that everyone is happy for him. Some of the children may express this happiness by making the birthday child a special painting or place mat or decorating a party chair.
--To make sure that the policy of the center is followed. Such a policy might include special food and drink for everyone or a birthday song.

NATIONAL HOLIDAYS

Lincoln's Birthday and Washington's Birthday

The real contributions of these two men to our society are difficult for young children to grasp. Therefore, for children under six, these two holidays are usually not stressed.

Fourth of July

Children understand, to some degree, birth and birth of a nation, parades and wearing of red, white and blue clothing. A birthday cake with red, white and blue decorations would be fun.

Columbus Day

If you mentioned Columbus to a three-year-old, he'd stare back at you curiously. A four-year-old may understand that Columbus liked boats. Some five or six year olds may be interested in looking at the globe or map and seeing how he "bumped" into a new land. But most children will listen passively and hope to get on with the next thing.

How do children learn? They learn through their own experiences.

Use your woodwork table to good advantage. Columbus' boats were made of wood. Children may create original styles of boats, which can be floated, used with unit blocks or painted and taken home.

Float boats in a large tub. See what will float and what won't. Toss in a marble. Try a piece of wood, a wooden spoon, then a metal spoon of the same size.

When the Autumn Holidays Are Approaching

Long before Halloween or Thanksgiving your children have been collecting, hunting, exploring and shopping for the fruits of the harvest. Is your center in the country? Lucky children. There are the woods to tramp, the cornfields, the orchards, the pumpkin patch, the applesauce factory, the cider mill. In an urban setting your fruits and vegetables may be bought from the store for decorative purposes or brought by the children.

Try a cooking experience with them. Put some in the housekeeping corner. Build a store. Instead of the usual snacks, have a variety of fruits and nuts. Could they be classified by the children as to type, size, color or smell? Feeling and handling of things is important in helping children develop a sense of touch. When they are familiar with gourds, leaves, nuts, pumpkins, blindfold a child and see if he can guess the differences by feeling these objects.

Thanksgiving Day

The most understandable way to celebrate Thanksgiving with young children is to focus on how we celebrate Thanksgiving today. It has become a time for people to get together and enjoy each other. It has become a time for sharing a special meal with family and friends.

This is a good time for cooking projects in the classroom, with families invited for a special feast.

Many children today think that turkeys are hard, white and come out of the freezer. Children need the first-hand experience of seeing a real turkey. Plan to take them to a turkey farm or have a turkey brought to the center. "Is that what we eat?" "Yes it is!"

Children can bring their turkey bones from home. These can be washed off and put into a "bone" yard for the science table.

In November, to make the coexistence of the Pilgrims and Indians more meaningful, include a visit by a forest ranger or a park naturalist or a fish and game warden. (One of the children's parents may be a naturalist.) Here are persons whose knowledge of the forests and streams is comparable to that of the first Americans -- the Indians. Their interest in animal and plant life is broad and extends beyond that of fire prevention and animal protection.

Because of television some children think of Indians only as warlike. We must help children to realize the struggle the Indians have had in our society, so they can get a more realistic picture of the Indian people.

To introduce the children to the participants in that first Thanksgiving Day, you might:

--Pop corn (an invention of the Pilgrim children)
--Tumble or Indian wrestle on a mattress
--Compose a singing grace
--Plan with the children to reenact the Thanksgiving feast (The Pilgrims' Party*)

If you think Plymouth Rock is important to know about -- climb rocks, weigh rocks or paint rocks. Hunt for the most enormous rock in the vicinity to climb on. Then talk about the Pilgrims and Plymouth Rock.

RELIGIOUS AND SEASONAL CELEBRATIONS

Religious Celebrations

Our federal legislation which forbids religious observances in our classrooms applies to any institutions supported by public funds. If we

*Lawety, Sadebeth, and Anson, The Pilgrims' Party. Steinard Day Publishers, New York.

consider the implications of this for the child care worker, we realize that we are free to bring religion, all religions, out where they can be discussed and shared, celebrated and sung -- as part of our culture. The Supreme Court ruling is to guarantee that each citizen has the right to worship or refrain from worship in his own way. We may acquaint children with a wide variety of religious and cultural ideas and customs, emphasizing that no one belief is the only one to be accepted or valued.

In any center there will be children from families with many different religious ideas and customs. Most are acquainted with one set of traditions more than any other. However, with the help of parents, grandparents and other visitors from the community, a wide variety of religious celebrations can be authentically presented to the children.

Religious celebrations in all cultures are related to seasonal change. For instance, winter celebrations evoke the use of candles because of the darkness of the winter season. In the spring, rites of Easter and Passover, birth, hope and renewal of life are celebrated.

The Easter Season or Spring

In the early spring, walk to a wooded area. Push aside the dead leaves and examine the new life hidden there. Point out the contrast between dead and alive.

New life is a continual thrill and to be wondered at. Bring in the young of any species -- kittens, tadpoles and baby rabbits with their mother. Visit a newborn human baby or baby ducklings, chicks, lambs, baby goats, or pigs.

After looking at and discussing characteristics of baby animals, discuss and show pictures of human infants. Comparisons of new life can be discussed and read about. Put up pictures, at the child's eye level, of the babies of many species.

This may create interest in looking at and bringing in their own baby pictures to the center. Prepare a bulletin board of the children's baby pictures and current snapshots, again at children's eye level.

Compare, contrast the color and size of eggs -- frog eggs, bird eggs, chicken eggs, snake eggs, turtle eggs. Decorate and eat hard-boiled eggs.

Winter or the Christmas Season

A child care worker may point out similarities and differences among religious celebrations.

For instance, a pinata from Mexico contains toys. In many homes toys are placed beneath a Christmas tree. In the Jewish tradition children receive gifts on each of the eight days of Hanukah.

If visitors to your center are of German descent, they will tell of secretly preparing a whole room just for Christmas and a joy-filled trip to select a tree. Think what the children could do with that information. Let them bubble -- write down their ideas, provide materials and get started.

If you are limited by regulations or space, a tree for the outdoors decorated with cranberries and suet for their animal friends can be as enjoyable as an indoor one.

GIFTS

"If we really want to deepen the sense of giving, then we must rethink our usual ways of planning the making of gifts. Who has not been guilty of deciding that the whole class shall make an ashtray for daddy and a napkin-holder made of paper plates for mommy? Whether daddy smokes or mommy has a napkin-holder is irrelevant. Let us have not an empty gesture dictated by teacher, but a thinking-through by each child of what he would like to give and to whom, even if it is but one project....

A gift becomes a personal thing whether it is something the child knows the recipient would like, or whether it is something that uniquely bespeaks the child. A handprint of the child's own hand, in clay or plaster, is likely to be treasured forever. Although the reasons for this are not clear to the child, the delighted reaction is eloquent enough. A song or chant made up by the child and written down by an alert teacher or helper can be neatly printed and mounted on construction paper. A story of the child's own could be written into a little book, perhaps illustrated by the young author. A picture might be mounted, dated and titled, perhaps with the child's own remarks about it added.

Is such an approach time-consuming and difficult? It does assume a considerable knowledge of each child's family, and much forethought in saving children's creations throughout the year. Yet teaching in depth never has been accomplished without understanding and forethought. A teacher's holiday planning will reflect the same depth and sensitivity she employs all year.

If our children can grow up enjoying their own traditions, but knowing a wide and fascinating world of different ideas -- if they can grow up appreciating simplicity, candor and the sense of giving -- then we can feel that our holiday preparations have enriched all our lives."[1]

[1]Reproduced, with permission, from "The Holiday Dilemna: Celebrating the Holidays in Preschools and Kindergartens," by Frances Hale Crystal, in Young Children, Vol. XXIII, Nov. 2 (November, 1967), p. 73. Copyright © 1967, National Association for the Education of Young Children, 1629 21st Street, Washington, D.C., 20009.

It is possible to have a fresh approach to celebrations simply by remembering what children enjoy and how they learn. The one cannot be divorced from the other. We must educate our parents not to expect them to bring home "little things," and this is not limited necessarily to holidays, for that is clear evidence that the children are getting the usual, the unimaginative, the routine approach.

> Mary Poppins -- that no nonsense character -- was successful because she took the children where the action was and found the fun in it.

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CHILD DAY CARE GUIDELINES

May, 1969 - No. 18

ROOM ARRANGEMENT OF MATERIALS AND EQUIPMENT

PLANNING

Take a new look at your play area. Does it invite children to play and offer them a more interesting choice of activities to challenge their abilities and enthusiasm? Is it set up to encourage and extend learning and development?

What you do with your space--how it is organized and what is in it--tells a child much about what is expected of him and about what he may expect from you. You are sensitive to your children's needs and feelings. Are you just as sensitive to how your use of space will affect these needs and feelings?

We plan home areas for specific activities--where to cook, where to wash, or where to just sit and talk. It would be confusing even to an adult if all the furniture were in one large room without division as to use. For children, too, it is important to define areas for different types of play.

A good room arrangement promotes youngsters' initiative and ability to do things on their own. It prevents many problems in behavior before they occur. For instance, block building in the middle of the traffic flow to the bathroom tempts a passing child to reach out and knock down Johnny's carefully balanced tower. A better planned space in which to build wouldn't have "asked for it".

How can you arrange your room and plan beforehand so that children . . .

have room for both active and quiet play?
can be alone or with others in small groups?
can explore things? can have enough choices available?
can find materials and put them away by themselves?
can move easily from one activity to another?

Listing the activities you want to plan for your program is often helpful.

Areas that require the most space:
- Housekeeping and other types of dramatic play
- Block building
- Tables for work or eating
- Open area for bringing the group together
  - for talking, for stories
  - for music, for dancing, and moving

Centers that are equally important but require less space:
- Art
- Books
- Science
- Music
- Woodwork

AND Storage space:
- For materials not currently in use
- For outdoor clothing and personal belongings
- For cots

Don't Keep

Toys and equipment in bad repair. This says to the child "Grown-ups don't care". and by example, encourages breakage.

Play things out of reach. This says to the child, "You're not big enough". How would you like your cooking utensils out of reach in your kitchen? Remember too . . . "out of sight out of mind".

An overabundance. Too many dolls and animals, too many materials jumbled together tend to be confusing rather than inviting.

USE YOUR ROOM!

Take advantage of all of your space. For instance, group discussions do not have to begin and end in the largest open area. Why not try them at times in front of a new bulletin board, or close to the science shelf, or near a map or large picture? Story time is a perfect time to move your group to different places in the room. If the story is about:

fish . . . have it beside the aquarium
daddies or baby . . . at the entrance of the housekeeping corner
spring . . . in front of the vase of pussywillows or outdoors
snow . . . near a window where children can watch it drifting down

Just sitting in a sunny spot helps to break the "indoorness" of winter.

Must snacks always be at tables? Why not try a picnic on the rug, on the porch, or in connection with a boat, a house, or a "restaurant" made of blocks?

FOR DRAMATIC PLAY

Child scaled furniture and accessories encourage children to play the family roles of father, mother, sister, brother, or baby; and such community roles as garageman, mailman, beautician, barber, doctor, nurse, spaceman, or policeman. Children under six are concerned with the world of family and other people. Through "rehearsing" these roles a child begins to understand his culture and himself.

DO	DON'T
Suggest a child-size room, attractive and inviting and set apart for uninterrupted play.	Don't line-up along one wall a stove, refrigerator, and sink with no sense of a room in a home.
Provide props for male roles--a man's hat, a boy's cap, a necktie, a briefcase, a tool kit.	Don't think that only the girls can play "house", and that only the boys can play "garagemen".
Keep adding new interesting props--an alarm clock, a door bell, a bottle, pillow and new clothes for the dolls, a new cloth for the tea table.	Don't neglect household accessories for mealtime play and kitchen play such as dishes, teapot, pans, measuring cups, sponges, muffin tins, cake pans, egg-beaters, bowls, spoons, and materials for making foods.
Add props for roles other than family roles--a hand mirror, and a hair dryer for a beauty shop, a bicycle pump, a piece of hose for a garage.	Don't forget that children will use their imaginations if you set the stage.
Provide a supply of materials from which children can make props when needed--cardboard boxes, rope, stapler, paper, small saw, tape, etc.	
Provide plastic dishpans, soap and soap flakes, sponges, towels, washcloths for bathing dolls and washing dishes, and mops for cleanup. An absorbent towel can also be used for a child to stand on to prevent slipping.	Don't forget that a cotton sheet blanket spread under dishpans absorbs inevitable dripping as children play, and makes cleanup easier, and that sponges and turkish towels handy to the area will readily soak up any spilled water.

FOR BLOCK PLAY

Young children learn through play, and the many learnings through block play make this area one of the most important in your room. Among other advantages, blocks offer children practice in recognizing form, and in experiencing proportion and balance. Playing with accurately sized unit blocks and large hollow blocks develops a foundation for mathematics, social sciences, languages, science, and problem solving. Block building also encourages muscle growth, sensory discrimination, and eye-hand coordination. Never to be overlooked is the child's happy feeling of accomplishment in his own construction. (See Guideline #12, BLOCKS, for a fuller discussion and more suggestions.)

DO	DON'T
Remember that a sufficient quantity of unit blocks is important. Unit blocks: a half school set, about 350 blocks for each group of 15 children. Large hollow blocks: a half school set, about 40 blocks for each group of 15 children.	Don't have a skimpy quantity of blocks so that children are limited in their block building. If there are not enough blocks, they naturally lose interest.
Provide room for children to move and build in and to extend their buildings.	Don't place the block area in the way of general traffic, or confine it to too small a space.
Store blocks lengthwise on low, open shelves with unit sizes clearly visible, so that children can identify the various sizes easily and put them away in order.	Don't store blocks in a box of jumbled sizes and shapes.
Include in this area loading and riding trucks, cars, and trains and accessories such as one inch colored cubes, rubber or wooden animals, human figures, etc.	Don't forget that children are quick to pick up new ideas for their play from only a few new props.

TABLE PLAY

Since child-sized tables and chairs are usually a basic part of each center's equipment, it is important to place them in the room to allow both ample working space around the table and sufficient space for other play areas. Available on nearby shelves for use on these tables will be puzzles, peg boards, beads, table blocks, and other materials for practice in fitting parts into a whole, for developing concepts of size and shape, and for promoting small muscle coordination--and always for fun. Some children may prefer to use these materials on the floor, or a rug, or in the open area.

DO	DON'T
Have an adequate and varied supply of materials readily accessible to children on nearby shelves.	Don't expect all children to do the same thing for the same length of time.
Arrange and group the materials so that the children can see clearly the choices offered. Keep some materials in reserve for future use.	Don't have so many different materials jumbled together that the effect is confusing.
Be alert to variations in children's abilities. Some children need simple puzzles to begin with before they attempt more complicated ones.	Don't allow too many failures with a too difficult puzzle. This discourages learning.
Remember that the young child needs to move around and will frequently change from one activity to another.	Don't have children sitting at tables for longer than they are interested in the activity.

OPEN AREA

Some teachers like a rug for coziness in this area for sitting together, for talking, for reading stories, and for music. A piano and the music center may be a part of this area.

During free play periods, many activities spill over into the open area, such as block building and family play. Also tables may be moved back to create more space as it is needed. Chairs and tables that stack are convenient.

ART

Basic art materials should be stored in one section of the room near a good work area. Each day, teachers will have paints and a selection of other materials prepared and in good condition and available to the children. Adequate space should be planned so that children will not be cramped in their work at easels, tables or floor.

Basic materials include:

- newsprint for painting
- manila paper for drawing and collage
- construction paper of assorted colors
- cardboard
- paints (tempera, strong clear colors)
- attractive scrapbox for collage materials
- finger paints
- large stout paint brushes (3/4 to 1" wide)
- containers for paints
- racks or boxes to hold paint containers
- moist clay and container
- water, salt, and flour for dough mixtures
- large crayons
- scissors
- paste and glue

It is wise to plan your art activities near your water source. It is also necessary to plan appropriate space to dry the children's work, finished and unfinished. (See Guideline #4, Children and Art.)

BOOKS

A book corner should be pleasant and protected from room traffic and noise. Special comfortable chairs, a table decoration, or a selection of books on the table may help to designate the area. If books are displayed on racks, face forward, they are inviting and can be identified, taken out and replaced easily as children use them independently. Books should be durable, appropriate, and kept in good repair.

Remember to use your local libraries for a continual fresh selection of quality books.

SCIENCE CENTER

One section of the room, out of the way of traffic, should be selected for materials that encourage children to experiment, manipulate, and learn from direct observation. The setting should invite children to wonder and explore. Materials may include magnets, magnifying glasses, thermometers, pulleys, gears, syphons, old locks, and clocks; leaves, seeds, bulbs, plants, a pet, an aquarium, or an ant colony.

> REMEMBER that the teacher's attitude of encouraging children's questions and fostering their desire to find out things for themselves is more important than giving them immediate answers. Joy in simple discoveries at four leads to adult confidence and ability to deal constructively with a more complex adult world.
>
> Books and pictures related to children's natural interests about science will be welcome in this area.

See Guideline No. 16 on Science and the Science Guideline Supplement for a fuller discussion and more specific suggestions for helping young children with science.

MUSIC

Find a place in your room for the record player and records that does not interfere with other activities and offers a cozy place for a child to sit nearby.

Also in your music center, a selection of muscial instruments such as a drum, rhythm sticks, bells, tone blocks, which are available on an open shelf or table during free activity periods, invites children to experiment with rhythm and sound on their own. Encourage them to discover vibration, pitch, tone quality. Put out instruments which you yourself enjoy. Don't put everything out at once. Let your children use but not abuse the piano, if you have one. Show them the "innards" and where the sound comes from.

Remember that children's joy in music and movement does not depend primarily upon equipment and materials nor upon your musical skills but upon your encouragement and enjoyment of children's natural responses to music. To children, music and movement are one.

See Guideline #14 for many more suggestions for helping children experience music and movement.

WOODWORK

This valuable activity requires enough space so that perhaps two to four children can work comfortably and move their arms and tools safely. It is wise to place this center away from traffic flow and away from particularly quiet activities. There are great advantages to a small, separate room, hallway or porch where an adult and a few children can work undisturbed. Children may enjoy woodwork outside.

Working with tools and wood promotes many developmental skills and is very satisfying to children because of its quality of "realness" (real tools, real wood, real objects to create, real strength!) Children may simply experiment with the wood and tools without creating an actual product; they may make something for their own fun and use; they may relate woodworking to making or repairing furniture or equipment for the classroom.

Adults assume an active role with woodwork--to always supervise the children at work, to make sure that tools are in good condition, to keep a plentiful supply of wood and woodwork accessories, and to make certain that every child is permitted to create in the way in which he alone wishes.

The following basic equipment is recommended for this activity:

low, large, sturdy workbench or table, with two vises
claw hammers, 11-13 oz.
cross cut saws, 12-16 oz.
assorted nails with large heads
soft pieces of wood (not plywood) of various lengths and shapes
rulers, glue, pencils, fabric scraps, string, rubberbands, bottle caps,
sandpaper, No. 1 to 00
a sturdy stump of wood for pounding nails

Vises and work table must be used if children use saws; if they are just using hammers and nails, they may work on the floor or ground. Finished products may be painted in the art area.

STORAGE

.....For materials not currently in use:

Many supplies will be stored out of sight, until the time when you wish to use them. Consider appropriate space for these when you plan your room. Such supplies include:

future supply of paints, paste, papers
special holiday or collage supplies
scrap materials for future use
extra books, games, records, science and cooking equipment
extra children's clothing
cleaning equipment
bathroom supplies

.....For outdoor clothing and personal belongings:

For children: Coat lockers, or suitable equivalent, are desirable. Each child should have one with hooks or pegs that he can reach for hanging coats and hats. There should be one shelf for rubbers or boots and another for personal belongings, "Treasures", and possibly art work to take home or to complete at another time.

For adults: coats, boots, personal belongings, etc.

.....For cots:

Storage space for cots and bedding should interfere as little as possible with the play area. Most important to remember is that cots are to be used during nap time in areas throughout the room, among the interest centers. This encourages as much privacy for resting as possible; it discourages the practice of cramming play equipment into only part of the room to leave free a disproportionately larger space for putting cots.

RESULTS OF GOOD PLANNING

When room arrangement permits independent activity, you have time to build individual relationships, to check your program for possible improvement, and to help the children as you observe their individual needs.

Another purpose in environmental planning is to make use of the children's interests and built-in motivation. Every adult knows that when he is really interested in what he is doing, he works best. His attention is intense and he learns more. Children come to us with their own abundant interest and curiosity. It is our task to encourage them to investigate, to use their natural curiosity about things in their world. Are we giving them this chance? Does merely telling a child to play nicely or sit at the table and color within the lines really take advantage of his own energy to learn? Now is the time to encourage, not turn off, children's interest in learning. It will never be so strong again.

MARYLAND STATE DEPARTMENT OF HEALTH AND MENTAL HYGIENE
PREVENTIVE MEDICINE ADMINISTRATION
Produced by the Day Care Center Coordinator Staff
Division of Maternal and Child Health
John L. Pitts, M.D., M.P.H., Chief
383-2669

DIVISION OF MATERNAL & CHILD HEALTH
MARYLAND STATE DEPARTMENT OF HEALTH & MENTAL HYGIENE
301 West Preston Street
Baltimore, Maryland 21201

CHILD DAY CARE GUIDELINE December, 1969 - No. 19

CHILDREN'S PLAY

Did you ever. . .

have a secret house or hideout

make a mud pie

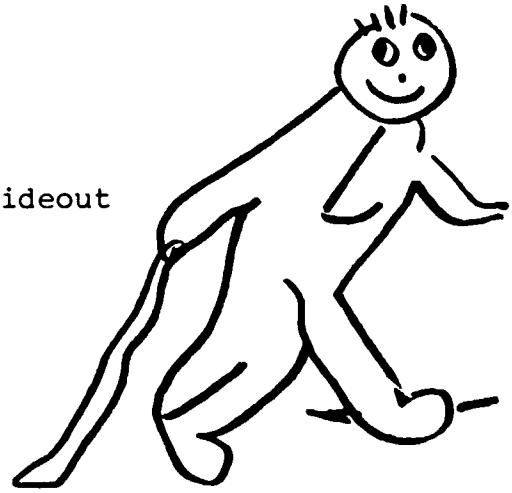
climb a tree

wheel a doll baby

have a tea party

drag a stick along the ground

dig a sand tunnel. . . . . .?



If you have, you will understand how it is. Children are impelled to play.

Through play, children acquire knowledge about the world.

Through play, they learn to function as human beings and find joy in doing things well.

Children are minds and muscles. Both must be exercised. As children play, they act upon objects in the world around them. They respond to the actions of others. Doing and thinking become related.

The faces of children at play are intent and alive.

WATCH CHILDREN PLAY WITH MATERIALS AND EQUIPMENT

Children learn to control materials and equipment such as paint, clay, crayons, wood, water, sand, puzzles, blocks. They pound, scribble, squeeze, pile, push around.

They create by using these materials to express their own ideas and feelings. They build with blocks, make roads in the sand, and "cook" with water. They make airplanes out of wood, snakes out of clay, and collages out of scrap materials.

What Do Adults Do?

We can take advantage of children's needs to manipulate and discover. As children explore materials and use equipment, we help them go from what they already know to new but related ideas. We help them go from a simple idea to a more complex one.

THIS IS LEARNING!

We do this by

--providing many different interesting materials and activities at the same time so that children can choose;

--providing well-defined areas for each activity so that they can be carried on simultaneously (see Guideline #18, Room Arrangement);

--arranging materials so that children can clearly see what is being offered;

--allowing at least sixty minute blocks of time to pursue their interests or to go from one interest to another;

--supplying children with new props to carry out their ideas (flashlight, hose, steering wheel);

--surprising children with a new twist - a box of old appliances to dismantle, furry, warm items for dress-up;

--listening to children, showing them our interest with our words, gestures, facial expressions, and physical contact;

--watching each child so that at the right moment we can extend his knowledge, language and imagination and help him grow from what he already knows to what he needs to know next.

WATCH CHILDREN IN ACTION

Children refresh their bodies with movement. It is essential for children to be physically active in mastering their world. They become mentally alert as they develop the ability to move with purpose.

Children learn to control muscles, eyes, speech, impulses, hands, feet, arms, legs--by climbing, running, jumping, balancing, talking, singing. Children use their bodies to practice physical skills. They gradually make their bodies do what they want them to do. With this control comes the feeling of "I can do it." With their bodies they experience and come to know space, height, warmth and coldness, affection and pain.

When children are active, they create rhythms and patterns of movement which are distinctly their own. They create chants and songs and ways of speaking. Even when children are sitting almost still, they create movement. Watch them! They wriggle feet, squirm, tap fingers, click tongues, twist hair, rock back and forth.

What Do Adults Do?

We take advantage of children's natural desire to move and to practice physical skills by

Allowing children to move about freely according to their interests.

Encouraging their spontaneous rhythms and music making.

Scheduling daily outdoor time--summer, fall, winter, spring.

Children need to run, climb and shout. We provide boxes to be climbed in and on, ropes to swing, boards and blocks to be lifted, ladders to be climbed, shovels to dig with, tricycles to ride, wagons and sleds to pull.

These physical activities, unlike adult directed games, develop feelings of competence, coordination of mind and muscles, and strong healthy bodies.

WATCH CHILDREN PLAY WITH WORDS AND SOUNDS

Control of language is an intricate process which is not fully understood. It is known that playing with words and sounds, especially in the presence of attentive adults, contributes to the learning of language.

When children are actively playing--doing what they feel is important--they talk about it to themselves, to other children, and to adults. Gradually they learn to substitute words for direct action. For instance, a two-year-old will simply take what he wants--a four-year-old will ask for it. They experiment with making themselves understood, with getting their ideas and feelings across to themselves and to others.

Children play with, imitate, and investigate all sorts of sounds--vocal, instrumental, and sounds caused by machinery, vehicles, water, animals. Children create by combining and recombining words; by testing and retesting ideas about what they are doing. Babies create sound by babbling, cooing, crying. Slightly older children create sound by shouting, whispering, growling like a lion, drumming, shaking a tambourine, singing, stamping on the floor, roaring like a car motor, talking.

What Do Adults Do?

We aid speech and language development by

--accepting children's natural way of talking to each other and to us - without ridicule;

--finding opportunities all through the day to talk with children individually, and to listen to them;

--inviting them to tell us how they feel.

Children are full of ideas and theories as they try to figure out what's happening around them. They need to be taken seriously.

> Talk with children in the same tone of voice you use when talking with a special friend your own age.

WATCH CHILDREN WHEN THEY MAKE BELIEVE

Children are little, and because the world seems just too big to manage, they want to feel stronger, bigger, and more competent. Through make-believe children create situations which they can control.

They struggle to understand the objects and phenomena in the real world. A little boy crouched in a sandbox pushing a truck and making "motor" sounds has reduced a real truck to a manageable size. He understands that he is the force that makes the truck go and stop. He is on his way to understanding how the many things in our world work.

They are working through an understanding of people, not only the ones in their family, but others they have seen or imagined. A little boy in a housekeeping area imitating a father is working hard at understanding what a father does. He is taking an important step toward knowing what it's like to be a grown man. A little girl playing nurse is imitating what she has seen nurses do. She is also telling us what she knows and how she feels about them.

When children make-believe, they develop their

I M A G I N A T I O N

Imagination is extremely important. Imagination makes it possible to

--understand how others feel;

--imagine other ways of behaving and dream about how things could be;

> Problem solving and creative planning sometimes come from the ability to imagine the idea and to imagine the possible steps to achieving one's goals.

--think about and weigh the consequences of one's actions.

> Violence is practiced by those who cannot use the imagination to help them through bad times by acting out forbidden feelings within the mind. Instead they strike out in response to frustration.

What Do Adults Do?

We arrange time for children to play out familiar roles as often as they like. We also provide new experiences which give children continuing sources of information that lead to additional ideas for play.

We teach best when children are involved in play. We listen for clues from the children's interests. We insert new words and ideas in play situations when children are most receptive and eager for knowledge.

HOW CHILDREN PLAY

Children vary individually, but all children go through developmental stages in their play. It is important to recognize these stages.

> A child around two years of age is not able to think beyond himself. This is natural for him. He has only been around for twenty-four months. This is one reason why he sometimes seems so "stubborn," so unable to do what we would like him to do, so unable to know that the other child feels hurt. He has trouble letting go of things. He needs the close supervision and comfort of adults.
>
> You will find a two-year-old going from one toy to another and--dropping them. He likes toys he can push, pull, and ride on. He watches other children and adults. He piles objects on top of one another. He practices going up and down. He likes to play alone and talk to himself. In a group, he plays next to, rather than with other children in parallel play.

About three year of age, a child begins to be able to play with others. Large groups are still not for him, but he is aware of what the other children are doing and is usually able to play with two or three others. He easily returns to playing alone. Children of all ages still need to play alone on occasion. A three-year-old likes to talk with others and is beginning to have ideas of his own. Still close to his babyhood, he likes to move about the room and play on the floor rather than at a table. Also, he needs to know what's going to happen next.

> A four-year-old does everything with great gusto! In the midst of play he may be busy, noisy, threatening, boisterous. All this bluster can be misinterpreted as "naughtiness." He is seeking to establish his position within the group; he is experimenting with ways of making friends. He would like to be big and manage everything, but he is not as confident as he seems. He wants to know that you are around. A four-year-old needs to have adults help him handle his emerging needs for independence. He feels more comfortable if the adult lays down a few definite ground rules. He likes to know what's expected of him.

Gradually, around age five, a child finds it much easier to play with others. He can choose, organize, plan, and carry out activities and competently handle mildly unusual situations. He can play more cooperatively in a group of four or five children. His friends are important to him, and he is improving his social and language skills. He seems to have genuine feelings of independence. A five-year-old's imagination is closer to reality than that of a four-year-old.

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WHAT HAPPENS WHEN CHILDREN PLAY

Children are testing the world. Small parts of it are theirs to try to understand, to learn more about.

Children are beginning to understand people and the importance of people's feelings. They are trying to deal with the real life they see.

Children are learning about their own feelings, how to express them, how to handle them.

When children can choose, test, make decisions, relate to others in play--they are learning self-discipline.

As children play in a friendly and accepting atmosphere, they are becoming more sure of themselves, making their own plans, and learning to judge what is best.

In purposeful play, children are learning to <u>think</u> because they are

- organizing ideas
- talking
- solving problems
- trying new ways
- setting tasks for themselves
- repeating what works
- challenging themselves

Children are making friends by doing things together. Sometimes young children approach others in ways difficult to understand--like hitting, or pushing, or sitting silently near each other. Often an adult can suggest a more successful approach: "Matthew, Randy doesn't like you to knock his garage down. You can tell Randy you want to build with him. What are you both going to build this time?"

Children at play are not waiting to be entertained. They are finding the joy of achievement--the source within themselves for happiness all their lives.

Children need to have fun and know how to create fun. Unless nurtured in childhood, our capacity for joy is diminished and as adults we are cheated.

> Adults must plan for the needs of play as carefully as for any other part of the program.

MARYLAND STATE DEPARTMENT OF HEALTH AND MENTAL HYGIENE
Health Department
Division of Maternal and Child Health
301 W. Preston Street
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CHILD DAY CARE CENTER GUIDELINES #20 February, 1971

TRIPS

WITH YOUNG CHILDREN

Young children know the world by

what their eyes have seen

what their ears have heard

what their hands have touched

what their noses have sniffed

A child's world is small and very personal.

All mothers and fathers are like his mother and father - until his senses give him new evidence.

All children are like his brothers and sisters and playmates.

All houses are like his house and his friends' houses.

"Food" is whatever he likes best to eat.

A child's small personal world grows as he grows and develops, bit by bit, it includes more people, more places, more experiences.

Trips should have a purpose - related to

children's interests
information they can use
ideas they can really grasp

WHY GO?

to have the fun of going away and coming back
to get first-hand information (know the real thing)
to add more specific information to what is already known
to acquire or reinforce concepts or to correct misconceptions
to gather ideas for activities and exciting use of materials

WHERE? HOW LONG? FOR WHAT?

The younger the children, the smaller the trip. Just as a mother often takes one or two children with her to the store, an adult when she goes on a brief errand can include one or two very young children pulled in a wagon, on foot or tricycle.

FOR CHILDREN UNDER THREE

Where? In the immediate neighborhood, around the block or less

How long? Fifteen or twenty minutes - before children tire

For what? To discover the world of little things -

a pebble, a leaf
a flower, a penny
a spider web, a hole in a tree

The world of big things, too -

cars, trucks passing
traffic lights
trees and bushes
steps, curbs, and storm drains
birds
the blowing wind
the soft snow
the misty rain, puddles
shop windows as seasons change
people who pass - is he a grandfather? is she a mother? how do you know?

FOR THREES AND YOUNG FOURS

Where? A little farther. Several blocks on foot or about five to ten minutes by car.

How long? Half to three-quarters of an hour, returning well before the children are tired.

For what? On the spur of the moment to get something needed for a regular activity -

a few twigs for a collage
a heavy cardboard carton for play
seeds for planting
juice and raw vegetables for a snack
fish for the aquarium

To discover happenings in the neighborhood -

buildings coming down, buildings going up
roads being made, road repair, street cleaning
a fire hydrant gushing water
snow removal
a moving van being loaded or unloaded
a telephone lineman working
the mailman delivering mail
a farmer plowing or harvesting
a newborn calf, colt or lamb
a litter of pigs
a hen and chicks
cows grazing
a vegetable garden (with a scarecrow?)
a fruit orchard
a patch of woods
a brook

TO TAKE A BREAK

FOR "OLD" FOURS AND YOUNG FIVES

Where? In the community and nearby areas. Generally not more than several miles away.

How long? An hour or more if the children can be active -

walking to a nearby park to play
walking in the woods
going on a picnic
visiting a farm where they are free to roam
exploring a sandy beach

Less than an hour away from the center if the children are allowed only to look and listen -

at a hardware store
a small neighborhood bakery
a train station
the observation deck of an airport
a portion of the zoo
a school music group rehearsal
a shoe repairman
a dentist

For what? For the same reasons they "tripped" at earlier ages.

Older children are ready to grasp the details of the wonders around them, to learn the names of parts of things

For instance:

A two year old knows a truck.

Threes and fours know a truck is like a car.

Fours and fives know a truck has parts - steering wheel, motor, hood, wheels, hub caps, cab, gear shift, etc. Simple functions are understood - the brake stops the truck.

They observe nature more closely and are curious about the infinite variety of the natural world.

Plants can be lichens, mosses, fungi, mushrooms, ferns, vines, bushes, trees.
Bushes can be forsythia, hydrangea, lilacs
Trees can be pines, maples, oaks, black walnut, poplar

Animals include reptiles, skunks, cats, elephants. Where does each live, what does it eat, what makes each different?

Birds may be observed for differences in sizes, colors, songs, food, homes - each has a name.

Insects can be hoppers, crawlers, flyers.

Water has its uses, source, movement.

Rocks can be sorted for sizes, color, hardness, types.

The four-and-a half-year-old is a whole new person, different from what he was at three, and nearing four. REPEATING the same kinds of trips as those they took at earlier ages offers children a chance to observe the happenings around them in more detail because of their increased maturity.

FOR THE "OLD" FIVES AND YOUNG SIXES

Where? In or out of the community - all around the town.

How long? A couple of hours, generally - longer if well planned for activity, rest, and refreshments.

For what? To learn how things are done - to observe processes, both mechanical and hand-operated.

in a larger bakery
a dairy plant
a wholesale market, a farmer's market, a cattle auction
an airport, in more detail
the ticket windows, baggage handling, newsstand, restaurants
a small sawmill
small lumber or building materials yard
construction
post office, police station, banks
small printing office to see color processes

To become aware of services in the community - which make life happy and comfortable for us.

stores - where we get things we need
schools - where we go to find out about things
museums - to see all kinds of interesting things
libraries
transportation services
boats, if you are near a waterfront,
freighters, fishing, or pleasure boats,

ferry ride
trains, a short ride between two stations,
a bus terminal
parks and playgrounds

And to see the many kinds of people who do the work

teachers
repairman - who fix cars, TV sets, streets
carpenters, who are building the new supermarket
florists, who grow and arrange flowers
beauticians barbers
a seamstress
housepainters
operator of a small switchboard
an organist who is practising
tree trimmers, linesmen
artists at work - potters, painters, stonecutters,
sculptors, gemcutters
public gardeners

ADULT PLANNING

Take stock of trip possibilities in the area of your center.

Dry Run

Take the trip first yourself to assure -

safety
appropriateness
timing
cooperation with owner, operator, or public official concerned
access to telephone at the site in case of emergency with child or vehicle.
access to bathrooms

Timing

Have the children been together with you long enough to have established a "group feeling"? Will they respond to a group direction?

Plan trips for mid-week - neither Monday, when there is no previous day for preparation, nor Friday, when there is no time left for "memories".

Plan for early in the day when no one is tired.

Parent Permissions

Walking trips: parents informed at registration time that walks are part of regular program.

Trips by car or bus: permission slips should be

1) distributed by center
2) signed by parents
3) returned to center

No child included without signed permission.

Transportation

Make all arrangements for method and personnel, including:

at least one adult for each two children in the two-and-three year-old range

one adult for four children in the four-year old range

one adult for five children in the five and six-year old range

no less than two vehicles on long distance trips - in case of breakdown or emergency

Alert one substitute adult for each ten children to be on call if needed.

> Contact your insurance agent to assure that you have adequate auto liability insurance for the transport of children.

Parent Involvement

Try to include parents on your trips whenever possible.

This is a good way to help parents feel more comfortable with and aware of places to take their children.

The child who is not ready to accept adult direction about safety.

He may present a real problem on a trip.

However, this may be the very child who could most benefit.

What could you do?

Try him alone, or with one other child, on a very short excursion, (to the mailbox, corner store, to watch a nearby house being built).

Assign one adult, just to him, on a larger trip.

Always keep him in a small group with an understanding, responsible adult.

Give him a feeling of responsibility on the trip to carry the first aid box, some refreshments, help another child, etc.

If you have not been able to prepare a child for trips in this way, it would be necessary for his safety to leave him with another group at the center. Explain to him, "I cannot take good care of you when you won't stay with us". "When you and I know that you are able to come with us we want you to come."

Before the Trip

Plan it with the children - but avoid talking so much about it that you give away all the surprises.

Certain plans should be decided, again with the children, ahead of time for everyone's security, such as how you will travel, how to cross streets, staying together. (However, stressing rules to the point of creating anxiety spoils the fun.)

Consider such things as appropriate clothing, toileting, bandaids, and facial tissues, as proper precautions.

On the Trip

Explain to the helping adults the following practices so that all the children benefit from the trip:

Show your own interest and pleasure
React to what is going on - the colors, sounds, people
Encourage conversation, questions. Wonder with the children, "Do you think that . . .?"
Each adult should stay with her own group of children. If the adult is watchful, there is usually no need to hold hands, take partners, or form lines - all of which are hard on young children.

Young children get side-tracked, their attention wanders, they dawdle, they walk ledges, they search for steps! So be prepared to take advantage of diversions along the way. Allow time. (You can't move as fast with young children as you could if you were alone - as you well know.)

Count heads. Often you may wish to use some device such as blue circles pinned on Miss Jones and all the children with her, red squares on Mrs. Brown and her children, etc. This also helps children keep track of an adult who may not be very familiar.

And, by all means, make the trip a happy time. Too much emphasis on rules and discipline, too much fatigue or over-stimulation add up to only unhappy memories.

After the Trip

Children need TIME to digest new experiences - maybe one day, maybe six weeks, maybe longer.

You may not see immediate results of a trip in play or conversation. Children's senses can be trusted to make use of everything that has come their way. Listen to them. Watch them. They will let you know when they would enjoy certain related experiences, such as:

movement and dance
composing a song, poem, story
painting, murals, drawing
blockbuilding
dramatic play

Keep an eye open for related books and pictures.

"Props" on hand, when children need them, will enrich and encourage dramatic play, related to the trip; for example:

hats, ladders; hoses for firemen
wrenchs, and pipes for plumbers
large wooden trucks to haul plastic or real produce
crutches, a doctor's kit, bandages

"Prop boxes" could be created which both adult and children develop and which contain materials for many kinds of role playing:

a beautician's prop box
spaceman's box
parageman's box, etc.

It is good to consider REPEAT trips to the same place, soon afterward, to look again, to note new things.

TRIPS THAT COME TO CHILDREN

Where? In the center's rooms

How long? 20 or 30 minutes

For what? To get an intimate look at a:

mother and baby
mother cat and her kittens
musician with guitar, violin, flute or other instrument
carpenter to show children the use of tools
Girl or Boy Scout
4-H Club member with animal
Someone who can tell about unfamiliar costumes and customs and who can bring unusual foreign tidbits to taste.

Where? In or near the playyard

How long? 20 or 30 minutes

For what? To watch someone fly kites on a windy spring day
To ride a visiting pony
To see and climb around a visiting fire truck or patrol car with radio and red lights.

"The world is so full of a number of things . . ."

Robert Louis Stevenson

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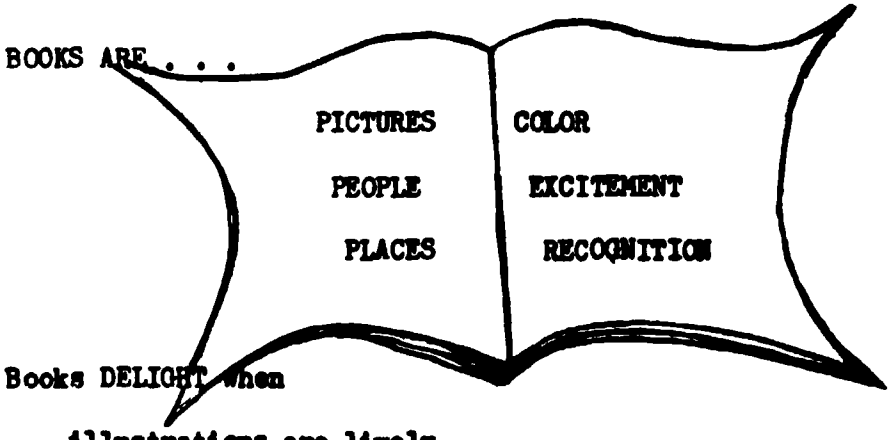
CHILD DAY CARE CENTER GUIDELINES #21 January, 1972

BOOKS & STORIES



Books DELIGHT when

--illustrations are lively
--humor is based on what children know
--they excite curiosity about what happens
--they play upon a fascination with words

Books REASSURE children when

--they are read by a warm and interested adult
--they present the familiar and the real
--they can be looked at and heard again and again
--they can be talked about
--they give children time to form ideas and concepts

Books TELL young children about

--themselves
--the world
--the feelings and thoughts of others

Books HELP young children to

--clarify, associate and extend ideas
--expand vocabulary
--talk about ideas and feelings

Children will see that books are important if adults show them they are.

--Display a variety of attractive books, cover forward, and within easy reach.
--Create a special quiet area with a rug or small rocker or both.
--Mend or discard torn books (children will take care of books if adults do).
--Contact the local library for a new selection of books frequently. Retain some that are still popular.

SELECTING BOOKS IS IMPORTANT

Ask the following questions about each book:

Are the illustrations clear, large, bright and thought provoking? Will they make children curious about the story? Are they related closely to the text?

What age child will understand and enjoy it?

Is the text brief enough for the children in a particular age group?

Is the humor clear and childlike?

Is the book about real experiences, familiar or new?

> Exaggerated or fantastic tales confuse most young children and do not fit in with their ideas of how people behave.

Choose books that fit in with children's activities or interests.

--Books that help a child deal with a special situation - new baby, lost dog, fears about doctors, animals, the dark, etc.
--Books that illustrate science experiences.
--Books that lead up to and follow a trip or a holiday.

Select some large picture books just for children to look at and books for group stories.

When a child brings a book from home that is too long or otherwise not suitable for reading to a group, it is important that you recognize and accept his offering. Finding time to look at it with him for a few moments will usually satisfy him. Give him time to tell something about it - was it a gift? or a purchase? did he pick it out?

And don't forget books of information for reference so that when questions arise, adults and children can find the answers together.

GETTING ACQUAINTED WITH BOOKS FOR PLEASURE AND INFORMATION IS THE SUREST FOUNDATION FOR LEARNING TO READ.

WHEN AND WHERE TO READ A BOOK

Read to an individual child anytime. Being close to and getting an adult's full attention can make a good day for a troubled child or for any child.

Read to a few children anytime when the book fits in with what those few children are doing.

Read

--outdoors.
--in the book area.
--in front of a science table.
--anywhere on the spur of the moment.

HOW TO SET THE SCENE FOR GROUP STORY TIME

Two-year olds are not ready for reading groups - stick to individual reading or with two children at most.

Three-year olds - no more than eight or ten children, fewer if you have a difficult group or in the beginning of the year - best with three or four children.

Four-year olds - fifteen or sixteen children at the most - best with smaller group.

Five-year olds - twenty children at the most - best with smaller group.

The size of the group is important. The goal is to create a good group learning experience. Too many children can cause too many discipline problems, and there is not enough opportunity for discussion and questions.

Plan a group story time as part of each day.

Plan to read when the children can hear the entire story not when they are coming and going to wash their hands or leaving for home.

Plan it as a coming together time after the children have been active and when they will welcome sitting together, listening, discussing.

Select a book likely to hold the attention of a group.

Think of a simple signal or cue which means that it is time for a story - a simple song using the children's names. Passing out books at this time will distract children from the story. (Children can examine books throughout the day, if you make them available. Lookin, at books alone or with friends is a part of the pleasure of books.)

TECHNIQUES OF READING TO CHILDREN IN GROUPS

Relax - you are not giving a performance.

Know the book - read it first.

Sit on a low chair and let the children sit in front of you on the floor.

Turn the book so that the children can see the illustrations as you read or tell the story. (This cuts down the cries of "I can't see, I can't see.")

Let your interest and enthusiasm in the story show in your voice and facial expression.

Invite the restless child to sit on your lap, or cuddle near you, or have an assistant cuddle him OR firmly tell a restive child that he may play elsewhere if he is quiet.

Ask a child who seemsinattentive "Bill, what do you think is happening in this picture?" or a similar question to draw his attention to the story.

If, for any reason, story-time is not going well, give it up and go on to something else: "I guess no one wants to hear a story today. Let's go outdoors - or listen to music - or sing." Then ask yourself what went wrong.

INCLUDE POETRY

Poems for young children are short and direct.

The Little Duck in the Kelp

"Help! Help! Help!
Said the little duck in the kelp;
"When I dive with my nose
Up come my toes.
"Help! Help! Help!"

John Becker*

ker, John, New Feathers For the Old Goose, Partheon Books, Inc., 1956.

Children love to hear their own names in poems like this.

Ginny, Darling

Ginny,
Darling,
Lambie
Pie,

It's be-
cause that
You are
My

Love you
Till the
Day I
Die.

Ginny,
Darling,
Lambie
Pie.

Do you
Know the
Reason
Why?

John Becker

Poems for young children reflect their own experiences.

HIDING

I'm hiding, I'm hiding,
And no one knows where;
For all they can see is my
Toes and my hair.

And I just hear my father
Say to my mother --
"But, darling, he must be
Somewhere or other;

Have you looked in the inkwell?"
And Mother said, "Where?"
"In the INKWELL?" said Father. But
I was not there.

Then "Wait!" cried my mother --
"I think that I see
Him under the carpet." But
It was not me.

"Inside the mirror's
A pretty good place,"
Said Father and looked, but saw
Only his face.

"We've hunted," sighed Mother,
"As hard as we could
And I AM so afraid that we've
Lost him for good."

Then I laughed out aloud
And I wiggled my toes
And Father said -- "Look, dear,
I wonder if those

Toes could be Benny's?
There are ten of them, see?"
And they were so surprised to find
Out it was me!

Dorothy Aldis*

*Aldis, Dorothy, All Together: A Child's Treasury of Verse, Putnam, 1952.

Poems for young children use humorous words.

Hinkery, Stinkery

Hinkery, stinkery, Sheila, Claire
Tom loves Bridie
And I don't care.

Hinkery, stinkery, Marjorie, Poo
Bridie loves Willie
And I love YOU.

John Becker

They repeat sounds.

Fuzzy wuzzy, creepy crawly
Caterpillar funny,
You will be a butterfly
When the days are sunny.

Winging, flinging, dancing, springing
Butterfly so yellow,
You were once a caterpillar,
Wiggly, wiggly fellow.

Lillian Schuls*

They create images which recall familiar sights

SNOW

The fenceposts wear marshmallow hats
On a snowy day;
Bushes in their night gowns
Are kneeling down to pray --
And all the trees have silver skirts
And want to dance away.

Dorothy Aldis

Some poems have strong rhythm.

HOORAY FOR CHOCOLATE

Chocolate pudding,
Chocolate candy,
Chocolate drink, I think, is dandy.

In a cone I always take
Chocolate,
Or chocolate chip,

(cont'd)

*Frank, Josette, Poems to Read to the Very Young, Random House, 1961. (selected by)

HOORAY FOR CHOCOLATE . . . (cont'd)

Chocolate fudge,
And doughnuts too,
Covered with thick chocolate goo.
Chocolate cookies,
Chocolate cake,
Or chocolate-covered dairy dip.
Boy, oh boy! It would be nice
If only there were
Chocolate rice,
Chocolate spinach, stew and fish . . .
Chocolate in every dish!

Lucia and James Hymes, Jr.*

Have on hand several short collections or keep a personal file of poems to tie in with what children are doing and seeing - out of doors, in the classroom, on special occasions. Memorize a few to quote spontaneously. Children easily learn the short poems.

Children's Own Poetic Expression

The spontaneous language of children is fresh, individual and often poetic:

"Those clouds in the sky are hanging up to dry." (3-year old, while outside)

"The rain come caming down, and there was the wind so blowing." (5-year old's description of a storm.)

"Waves are like weaving - They go over and under, over and under . . ."
(5-year old's comment on the sea)

"This is a very disappeary day. The snow is disappearing my sleeve."
(5-year old on a snowy day)

"This is an old man.
He has no ears.
They are all worn out
With listening."
(5-year old explaining a picture)

If I can't have a cat
I will have a dog.
If I can't have a dog,
I will have a duck
If I can't have a duck,
I will have the grass.
It waves for everybody.
(4-year old, in conversation)

"My teeth
stepped on my tongue."

"If the mountains
Don't have birthdays,
How can they be so old?"
(5-year old)

Keep your ears open. Jot down your children's contributions to the language.

Stories and poems are everywhere. They come from children and adults whenever someone, out of his experience or imagination, has something to say.

*Hymes, James and Lucia, Hooray for Chocolate and Other Easy to Read Jingles, Young Scott Books, Inc.

BIBLIOGRAPHY OF CHILDREN'S BOOKS

Below are listed just a few children's books available at public libraries.

Libraries permit schools and day care centers to borrow ten books at a time. Remove the cards from the pockets before displaying books for the children.

Y - especially good for younger children

O - especially good for older children

ANIMALS BIRDS INSECTS

Brown, Marcia - How Hippo!, Scribners, 1969.

Y Carroll, Ruth - Where's the Bunny, Walck, 1950.

O Caudell, Rebecca - A Pocketful of Cricket, Holt, 1964.

Conklin, Gladys - I Caught A Lizard, A Guild Book, 1967.

Y Flack, Marjorie - Angus And The Cat (and other Angus stories), Doubleday.

Story About Ping, Doubleday.

Freeman, Don - Come Again, Pelican, Viking Press.

Fly High, Fly Low, Viking Press.

Y Hazen, Barbara Shook - Where Do Bears Sleep?, Addison Wesley, 1970.

Kepes, Juliet - Lady Bird, Quickly, Little, 1961.

Lionni, Leo - Fish Is Fish, Pantheon, 1970.

Selsam, Millicent - Hidden Animals, Harper, 1969.

Tresselt, Alvin R. - Beaver Pond, Lathrop, 1970.

Ward, Lynn - The Biggest Bear, Houghton, 1952.

FOLKTALES STORIES YARNS

O Burns, Doris - Andrew Henry's Meadow, Coward, 1965.

Chase, Richard - Jack and the Three Sillies, Houghton, 1950.

O Ellentuck, Shan - A Sunflower Big as the Sun, Doubleday, 1968.

Gag, Wanda - Millions of Cats, Coward, 1938.

Hewett, Anita and Gill - The Tale of the Turnip, McGraw.

Keats, Ezra Jack - Jennie's Hat, Harper and Row, 1966

Y Whistle For Willie, Harper and Row.

Goggles, Macmillan, 1969

Langstaff, John - Ol' Dan Tucker, Harcourt, 1963.

Y McClosky, Robert - Blueberries for Sal, Viking Press.

Lentil, Viking Press.

Sawyer, Ruth - Journey Cake, Ho!, Viking, 1953.

Sendak, Maurice - Where The Wild Things Are, Harper Row.

Y Slobodkina, Esphyr - Caps For Sale, Scott, 1947.

Spier, Peter - The Fox Went Out On A Chilly Night, Doubleday, 1961.

Swayne, Sam and Zoa - Great Grandfather in the Honey Tree, Viking, 1949.

BABIES FAMILIES FRIENDS

Y Buckley, Helen - Grandfather and I, Lathrop, 1959.

Y Grandmother and I, Lathrop, 1961.

Cleary, Beverly - The Real Hole, Morrow.

Y Ets, Marie Hall - Play With Me.

Talking Without Words, Viking, 1968.

Y Lenski, Lois - Let's Play House, Walck, 1944.

Y Papa Small, Walck, 1951.

Matsuno, Masako - Chie and the Sports Day, World, 1965.

BABIES FAMILIES FRIENDS

Y Keats, Ezra Jack - Peter's Chair, Harper Row, 1967.

Y Krauss, Ruth - The Bundle Book, Harper Row.

The Growing Story, Harper Row, 1947.

The Big World and the Little House, Harper Row.

Sendak, Maurice - Let's Be Enemies, Harper Row.

Yashima, Taro - Momo's Kittens, Viking Press.

Youngest One, Viking Press.

BIRTHDAYS

Averell, Esther - Jennie's Birthday Book, Harper, 1954.

Collier, Ethel - The Birthday Tree, W. R. Scott, 1961.

Fischer, Hans - The Birthday, Harcourt, 1954.

Heilbroner, Joan - The Happy Birthday Present, Harper, 1962.

O Keats, Ezra Jack - A Letter To Amy, Harper Row, 1968.

WORK

Beskow, Elsa - Pelle's New Suit, Harper, 1969.

Y Brown, M. W. - Big Red Barn, Hale, 1956.

Burton, Virginia Lee - Mike Mulligan and His Steam Shovel, Houghton, 1939.

Flack, Marjorie - The Boats on the River, Viking, 1946.

Y Floethe, Louise and Richard - The Farmer and His Cows, Scribner.

Fuchs, Erich - Journey To The Moon, Delacorte, 1969.

Ipcar, Dahlov - Ten Big Farms, Knopf, 1958.

Olschewski, Alfred - The Wheels Roll Over, Little, 1962.

We Fly, Little, 1967.

Schneider, Nina - While Susie Sleeps, Scott, 1948.

Swift, H. and Ward, Lynn - The Little Red Light Red Lighthouse & The Great Gray Bridge, Harcourt, 1942.

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Zaffo, G. J. - Big Book of Real Trains, Grosset & Dunlap.

Big Book of Real Fire Engines, Grosset & Dunlap.

Big Book of Real Trucks, Grosset & Dunlap.

SUMMER

Adelson, Leone - All Ready For Summer, McKay.

Aldridge, Josephine Haskell - Fisherman's Luck, Parnassus, 1966.

Baurne, Miriam Anne - Emilio's Summer Day, Harper, 1966.

Fisher, Aileen - Going Barefoot, Crowell.

Goudey, Alice E. - Houses From the Sea, Scribner, 1959.

Kumin, Maxine W. - The Beach Before Breakfast, Putnam, 1964.

McClosky, Robert - One Morning in Maine, Viking Press.

Time of Wonder, Viking Press.

Y Tresselt, Alvin - Sun Up, Lathrop, 1949.

Hide and Seek Fog, Lathrop, 1965.

Waddell, Helene J. - When the Tide Goes Out, World, 1969.

AUTUMN RAIN

Y Birbaum, Abe - Green Eyes, Capitol, 1953.

Bright, Robert - Georgie's Halloween, Doubleday, 1958.

O Dalgliesh, Alice - Thanksgiving Story, Scribner, 1954.

Fisher, Aileen - I Like Weather, Crowell, 1963.

Francoise - Big Rain, Scribner, 1961.

Garelick, May - Where Does the Butterfly Go When It Rains, W. R. Scott.

Hader, Berta - Mighty Hunter, MacMillan, 1943.

Krasilovsky, Phyllis - Scaredy Cat, Macmillan.

Y Lenski, Lois - Now It's Fall, Oxford, 1948.

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Schlein, Miriam - The Sun, The Wind, The Sea and The Rain, Abelard, 1966.

Tresselt, Alvin - Autumn Harvest, Lathrop, 1951.

Johnny Maple Leaf, Lathrop, 1948.

Rain Drop Splash, Lathrop, 1946.

Urdry, Janice May - A Tree Is Nice, Harper, 1956.

Y Yashima, Taro - The Umbrella, Viking Press.

WINTER CHRISTMAS SNOW

Y Adelson, Leone - All Ready for Winter, Hale.

Y Brown, M. W. - Christmas In the Barn, Crowell, 1952.

Winter Noisy Book, Harper Rowe, 1947.

A Pussycat's Christmas, Crowell.

Y Buckley, Helen - Josie and the Snow, Lathrop, 1964.

Burton, Virginia Lee - Katy and the Big Snow, Houghton Miflin.

Ets, Marie Hall & Labastida, Aurora - Nine Days to Christmas, A Story of Mexico, Viking Press, 1968.

Hader, Berta and Elmer - The Big Snow, MacMillan, 1948.

Y Keats, Ezra - The Snowy Day, Viking Press, 1962.

Lindgren, Astrid - The Tomten, Coward, 1962.

O Petersham, Maud & Miska - Told Under the Christmas Tree, Macmillan, 1948.
Story selections for the winter holidays, including Hanukah.

Purdy, Susan Gold - Jewish Holiday, Lippincourt, 1969.
Teachers information about Hanukah as well as other Jewish holidays with instructions for making dreydl boxes and ideas for dreydl games. Also arts, crafts and cooking for other holidays.

Shaw, Charles G - It Looked Like Spilt Milk, Harper Row.

Y Tresselt, Alvin - White Snow, Bright Snow, Lathrop.

SPRING

Ayer, Jacqueline - Nu Dang and His Kite, Harcourt, Brace and World, 1959.

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Y Brown, M. W. - The Golden Egg Book, Golden Press.

Wheel On the Chimney, Lippincourt, 1954.

Flack, Marjorie - Tim Tadpole and the Great Bullfrog, Doubleday, 1959.

Y Francoise - Springtime for Jeanne Marie, Scribner, 1955.

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Y Krauss, Ruth - The Carrot Seed, Harper Row, 1945.

Y Langstaff, John - Over In the Meadow, Harcourt Brace, 1967.

Littlefield, William - The Whiskers of Ho Ho, Lathrop, Lee and Shepard, 1958.

Tresselt, Alvin - Follow the Sun, Lathrop.

Follow the Wind, Lathrop.

Hi, Mr. Robin, Lathrop.

Rabbit Story, Lathrop.

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Wiese, Kurt - Fish In the Air, Viking Press, 1966.

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Brenner, Barbara - Faces, Dutton, 1970.

Y Carle, Eric - The Very Hungry Caterpillar, World, 1970.

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Y Ets, Marie Hall - Just Me, Viking, 1965.

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Y Gay, Zhenya - What Is Your Name, Viking, 1955.

Wonderful Things, Viking, 1954.

Green, Mary McB. - Is it Hard, Is it Easy, Scott, 1960.

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Krauss, Ruth - The Big World and the Little House, Schuman, 1949.

Rand, Ann - Umbrellas, Hats and Wheels - Harcourt, 1961.

Urdy, Janice - The Moon Jumpers, Harper, 1959.

Yashima, Taro - Plenty to Watch, Viking, 1954.

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