This guide for kindergarten teachers covers the following areas: (1) Understanding the Job—theory or philosophy of kindergarten education, about the child, the kindergarten teacher, social living in the kindergarten, aides and paraprofessionals; (2) Setting the Stage—facilities in the kindergarten, suggested equipment for kindergarten, the kindergarten day; (3) Working Together—the home-school relationship, reporting to parents, developmental guidance in the kindergarten, testing in the kindergarten; (4) Moving Ahead—play and work, language arts, mathematics, social science, all about trips, science, the physical program, fine arts; and (5) Locking Back—taking a last look (evaluation criteria), professional films, selected bibliography. (KM)
Pennsylvania Kindergarten Guide
UNDERSTANDING THE JOB
TO ALL, TEACHERS:

This kindergarten guidebook is presented by the Department of Education in cooperation with a representative group of Pennsylvania teachers and administrators as a contribution to the improvement of early childhood education throughout the Commonwealth.

It is our firm belief that every child is entitled to a kindergarten experience and that this phase of education should be an integral part of the total educational program.

Recognizing that each kindergartner is unique in his rate of growth and development, the authors of this guide have attempted to provide sufficient activities to satisfy individual differences and have suggested experiences that contribute to a child's total growth.

May this guide help you to understand young children better, to appreciate parents more and to become more creative and effective teachers.

John C. Pittenger

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It is our happy privilege to present to you this first Pennsylvania kindergarten guide. The product of much planning, evaluation, devising and revising, it seems to us to be reasonably complete. The chief purpose of any guide, however, is not to present a mandatory or finite course of study but to establish a broad base from which every teacher is free to move in the direction of her choice.

The guide has several basic purposes:

- to present a sound philosophy of kindergarten.
- to encourage a high level of teacher and child performance.
- to instigate a professional approach to all aspects of school life.

In addition, the guide lists a wealth of ideas, resources, materials, procedures, experiences, and evaluative criteria to assure continuing effort and excellence in the classroom.

The kindergarten year is important. It is a time when a child's experiences may well determine the direction of his future education. It is a time when what happens to him can either stimulate or stifle his future eagerness for learning.

With this in mind, we present the guide and hope it will be helpful to you as professional educators and shapers of children's lives.

Dr. John E. Kosoloski
Director
Bureau of General and Academic Education

Mrs. Charlotte C. Garman
Coordinator
Division of Early Childhood Education
THE THEORY OR PHILOSOPHY OF KINDERGARTEN EDUCATION

The kindergarten has a unique contribution to make to the education of children and yet its procedures and practices are basic and applicable to every level of school since they recognize and implement the principles of learning:

- Learning is individual and personal.
- Learning proceeds from the concrete to the abstract.
- Learning occurs only when there is an element of novelty.
- Learning is extended by building on what is already known.
- Learning has taken place only when it changes the behavior of the learner.
- Learning is affected by the total well-being of the learner.

and the understandings of human growth and development:

- Every human being has unique strengths, needs and characteristics.
- The intellectual, physical, social, and emotional growth of an individual is interrelated.
- Each proceeds unevenly and at different rates but in discrete, sequential patterns.
- Behavior patterns are a result of the individual's reaction to his culture and previous experiences.
- Each child has his own particular activity pattern, ranging from the high-strung and very active to the placid and slow-moving.

Early childhood educators consider kindergarten as one of the root years for the child to develop:

- Facility in using a variety of media to communicate, such as movement, symbols (words and numbers), and sound.
- A positive self concept.
Rational independence and group membership.

Cognitive skills, including rational thinking and ability to solve problems.

Creativity.

Understanding of his world and how to relate to it.

It is also a time when:

- Accidents are accepted as inevitable.

- Misjudgments are anticipated and considered routine.

- Practice of such habits as completion of a task, making and living by one's decisions, and willingness to try something new introduces the five-year old into procedures for more formal learning.

- Sensory training helps the child to become more discriminatory in the use of his senses of sight, hearing, smell, and feeling.

- Social contacts with adults and other children are encouraged.

- With individual and group work as a part of the daily program, boys and girls acquire the satisfaction of production through their own efforts but also discover the need for cooperation on other occasions.

- Play, dramatization, talk, painting, modeling, games, block building, singing, story-telling, constructing, walks, and observing are utilized by the kindergarten teacher to facilitate learning.

The child who experiences a rich variety of activities is psychologically and physically ready to accept the frustrations, fears and difficulties involved in each step of his enlarging horizon and world.

The teacher has an active role, guiding the learner to explore, discover, manipulate, observe, express, and experiment. As Bruner says, "Cognitive ability is a consequence not merely of natural unfolding but also of learning." The child's beginning tools of learning have come from his culture, be it rich or limited. The school guides, supplements and extends previous learnings, and introduces new ways of responding. There is also a place for direct teaching at the
point when a child needs a certain skill to move to the satisfactory accomplishment of something that is engaging his interest or when the teacher sees the child manifesting a readiness for the next step in learning.

These constitute the objectives of a good kindergarten program and its effectiveness is related, in turn, to the extent to which procedures for attaining these objectives are in harmony with principles of learning and child development.

The five-year old is growing in many ways. He is:

- Becoming increasingly aware of people and things around him.
- Seeking to understand his environment by asking innumerable questions.
- Testing his perceptions and concepts by endless chatter.
- Eager to be on his own and to try out his new-found wings.
- Anxious to prove to the world that he is big and can do things.

Yet at the same time, he may be fearful that he cannot meet the standards adults in his world set for him.

To open the doors to learning, to further the stimulation of his inquiring mind, to quell his fears, a good environment in the early years is vital. The public school kindergarten must be a place where a child can meet the educational requirements of a highly complex society, presenting neither a de-intellectual and sterile program nor a limited rural academic one that concentrates largely on abstract learnings, the kind that uses the learner as a receptacle into which a teacher pours facts and information for rote memorization. A good program recognizes that the child must:

- Take on increasing responsibility for his own learning and actions.
- Set realistic goals.
- Profit from his mistakes and trial efforts.
- Gain satisfactions from a completed task.
The kindergarten is a place for learning where:

- The teacher sets the stage and creates the environment that nurtures growth.

- Materials and experiences to extend and clarify concepts are provided.

- Opportunities are created to gain language facility and to try out other capabilities.

- The atmosphere is relaxed and informal.

The informal close relationship between teacher and child provides an outstanding opportunity to identify unique needs of individual children that will require special attention of either a therapeutic or enriching nature. It is generally accepted that early identification makes a significant contribution to the elimination of long-term remediation.

A major value of kindergarten education results when parent contacts are utilized to interpret the school program and to assist the parent to meet the problems of child-rearing with positiveness. Since the parent is closely tied to the young child, he is usually eager to share in this first school experience. Frequent appearance of mother and/or father at the school provides an outstanding opportunity to have them become members of the team, united in giving the child every available advantage for optimum development of his potential.
ABOUT THE CHILD

All kinds of children come to kindergarten. When they come, nothing is more obvious than their individual differences. They are all young children, but they are not the same in chronological age, in maturity, in physical characteristics, or in attitudes and aptitudes.

- Johnny is not yet five, but Mary will be six in February.
- Jimmy can do handstands, but Billy is just happy to have two feet on the ground.
- Sally wears size seven dress, but Jenny is a petite three.
- Ruthie is full of fears, but David has no inhibitions.
- Jimmy talks all the time; his twin brother says nothing.

They are a roomful of opposites:

Facile, skilled - awkward, stumbling.
Quick, energetic - slow, deliberate.
Rough, rowdy - timid, subdued.
Artistic, original - unimaginative, non-creative.
Intelligent - slow learning.
Chattery, verbal - inhibited, non-communicating.
Constant problem - never a problem.
Too young - too old.

Different as kindergarteners seem, they do have some common characteristics:

- They want to be thought of as quite "grown-up" yet at times they revert to excessive infantile behavior.
- They like "big" words yet they frequently use baby talk.
- They are direct and to the point yet they are not always sure of the difference between fantasy and reality.

- They laugh and love humor yet they cry with almost equal ease.

- They are limited in experience yet they understand more than most people give them credit for.

- They are searching constantly—touching, handling, watching, listening, assessing—feeding their ever-growing powers of conceptualization.

In short-term descriptions, kindergartners are:

- Active.
- Sensitive.
- Eager.
- Curious.
- Noisy.
- Investigative.
- Excitable.
- Questioning.
- Challenging.
- Tractable.
- Sympathetic.
- Loving and lovable.

To the teacher these differences emphasize the importance of understanding child development and knowing, in particular, the characteristics of fours, fives and sixes. This knowledge of developmental levels helps the teacher to make a truly careful diagnosis of any kindergartner and gives her a basis for meeting his individual needs.

In analyzing the level of development of each child, the following descriptions may be helpful. It is well to remember that in early childhood years, girls usually mature more rapidly than boys.

Physically, the kindergarten child:

- Is growing more slowly than in earlier years.

- Has tremendous drive for physical activity—running, jumping, tumbling, pushing, pulling, lifting, carrying, balancing, and digging.

- Is quiet for only short periods of time.

- Needs frequent change in activity.
- Enjoys games with plenty of movement.
- Is full of activity but fatigues easily.
- Has good motor control, but generally small muscles are less developed than large ones; often dawdles because of muscular immaturity; may do well in one motor skill and not in another.
- Has usually developed hand preference by end of kindergarten.
- Is susceptible to communicable diseases and the common colds, but tends to build up immunity during his first year in school.

Intellectually the kindergarten child:
- Is active, eager, interested, curious.
- Learns by doing, experiencing, observing, questioning, imitating, examining, exploring, and investigating.
- Derives more satisfaction from the process than the product.
- Is eager to learn; profits from concrete experiences.
- Shows interest in the here and now; has an increasing interest in the far-away.
- Has a growing attention and interest span.
- Is interested in stories and books; has some difficulty distinguishing between fantasy and reality.
- Likes to have someone read to him.
- Clarifies understanding of relationships through dramatic play, art, movement and construction.
- Demonstrates that language is his most efficient tool; exemplifies that "energy is talking".
- Can tell fairly long stories in sequence.
- Begins to draw more realistically; advances from the scribble stage.

- Is growing in ability to think, to conceptualize.

- Begins to solve his own problems; sometimes needs adult guidance.

- Likes to finish what he starts; shows sense of order in working and putting away toys and materials.

- Can carry play from one day to another.

- Needs chances for many wholesome sensory experiences.

Emotionally the kindergarten child:

- Needs recognition for accomplishments.

- Gauges his success or failure in terms of what the adult seems to expect of him.

- Needs a sense of belonging.

- Responds to praise, encouragement and consistent direction.

- Thrives on trust, fairness, and achievable standards.

- Finds security in definite routine.

- Needs to live in a reasonably predictable world.

- Is growing in emotional stability and usually accepts punishment without resentment.

- Does not always accept opposition without sulking or crying.

- May begin to show rivalry as he develops a self-concept.

- Has a strong emotional link with the home.

- Often allows the emotional tone of the morning to govern the entire day.

- Is prone to show fear of the new and unusual.
- Is not always able to distinguish right from wrong by adult standards.

- Has a constantly growing sense of humor; laughs at childlike jokes, silly words, unusual or unexpected sounds.

- Is serious and businesslike in play activities.

Socially the kindergarten child:

- Seeks companionship of other children.

- Is anxious to gain group approval.

- Plays best in groups of two to seven children.

- Is protective toward playmates and siblings.

- Is interested in household activities.

- Needs adult help in learning to share materials and taking turns.

- Is not able to work and play without frequent approval.

- Has few adult prejudices.

- Is willing and eager to assume responsibility within his level of maturity.

- Is improving in assuming responsibility for care of personal belongings.

- Chooses and changes friends frequently.

- Is self-centered, yet growing in unselfishness.

- Is a great talker; needs time to express his ideas.

- Is learning to listen purposefully.

- Needs achievement according to his ability.
The real test of successful teaching in any year is the growth, happiness and security of the individual child. The number one influence in attaining these attributes is the classroom teacher.

In the kindergarten, the teacher is an especially vital element since no other person outside the home has quite as much opportunity for influencing the development of the child. She is the one who is largely responsible for the child's successful transition from home to school. She is the one who aptly guides the development of character, helping children to temper freedom with responsibility, cultivating the growth of personality, promoting the art of social living, and stimulating the use of mental capacities.

The truly successful kindergarten teacher is well-trained professionally and likes to teach young children. She understands child growth and development and has a philosophy built upon research and experience. She identifies herself as the one who determines the quality of living in the kindergarten and sets the pace for the day's activities. She also recognizes the emotional climate as a reflection of her own personality. Continually growing professionally, actively participating in school - community projects, studying, reading, and assessing new research and materials in early childhood education, today's kindergarten teacher is held in an esteem never before enjoyed.

Certain attributes have always been associated with the successful kindergarten teacher - patience, sincerity, warmth, inner calm, understanding, flexibility, and certainly, intelligence. To most fours and fives this many-talented individual is simply "my teacher".

"MY TEACHER" is a rare personality and can best be described in the following way:

- She is a warm, friendly, assuring person -- the child's security away from home.

- She knows a great deal about child development and understands the differences in maturity, needs, behaviors, interests, achievements and potentialities.

- She is above prejudice, favoritism and negative criticism.

- She knows how to be mother, teacher, healer, guide, counsellor, leader, follower, disciplinarian, friend, and confidante (as any doctor, she feels an obligation to hold in confidence the family secrets a child unwittingly tells).
- She is flexible, adapting herself to the demands and needs of many types of children.
- She is well organized, yet able to operate efficiently in routine kindergarten "disorder".
- She has endless patience, accepting temperaments and tempers for what they are.
- She has a tremendous sense of humor to carry her through almost daily unexpected happenings and interruptions that mark a busy kindergarten.
- She is sincere and honest, straightforward, trustworthy and truthful, for she knows that no one senses sham more quickly than the young child.
- She has a ready smile and a gentle voice to calm the fearful, assure the timid, bolster the weak, and channel the strong.
- She has a sense of timing and a knowledge of when to let children have authority and when to assume control of a situation.
- She is sympathetic but not cuddling, understanding but not overly permissive.
- She knows a great deal about many things (or at least knows where to find the answers), recognizing that children know and want to know much about the most unexpected things.
- She is able to study a classroom of children and decipher their individual and collective needs.
- She has "eyes in every corner of the room"; that is, she knows what is going on without obviously displaying her awareness.
- She has a positive outlook toward life, knowing that children are easily influenced by the teacher's attitudes, ideals and values.
- She is physically strong and energetic, ready for life in the kindergarten which, at best, is taxing.
- She has challenging ideas and the initiative to implement them.
- She appreciates creativity and originality in her children, recognizing that the five-year-old needs a continuous outlet for these traits.

- She understands the relationship of all that happens in the kindergarten to the success or failure of her children in years to come.
SOCIAL LIVING IN THE KINDERGARTEN

When children come to kindergarten they have several needs in common:

- to feel welcome
- to accept and be accepted by other children
- to become a cooperative member of the group
- to develop or extend a wholesome self-image
- to be secure in this new place

No child can achieve all this by himself. He must have leadership from the teacher. It is from her that his security comes. A child knows whether he is important, whether his ideas are recognized, whether his mistakes are accepted and corrected with understanding. He knows whether he is welcomed or rejected. Perhaps the major responsibility of any teacher is to assure that each kindergarten child develops a very real feeling of "belonging".

On feeling welcome:

Children come to feel welcome through simple everyday experiences:

- hearing and expressing informal "good mornings" and other personal greetings
- engaging in conversations with the teacher and/or children
- sharing room tasks with the teacher and children (watering plants, caring for pets, mixing paints, washing brushes, scouring the sink, etc.)
- questioning and finding a teacher who is willing to answer
- planning with the teacher for a proposed activity (either personal or group)
- discussing problems of living together such as:
  . sharing equipment
taking turns

being considerate of others

being reasonably quiet

assuming a share of responsibility

displaying common courtesies

- participating in friendly games, singing, conversation, discussions.

- becoming acquainted with all the school personnel:
  . the principal
  . the custodian
  . the nurse
  . the librarian
  . the cooks, etc.

- receiving help, encouragement and constructive criticism in work-play activities.

- participating in a three-way friendly interchange including parent, teacher and child.

- enjoying humorous situations with teacher or children.

On being accepted:

For most children, to accept and be accepted is a major adjustment. No longer can the individual kindergartner always do what he wants to do, play with what he wants at the time he wants to do so. This frequently causes behaviors of aggression, rejection or at best, frustration. To help establish mutual understanding between children and the wise teacher:

- keeps a watchful eye as children work.

- encourages cooperative activity such as block building, homekeeping or dramatic play.

- invites two or more children to share an art activity.
- asks two children to team up for classroom chores.
- encourages children to discuss plans and to try to reach an agreement.
- helps children select companions at lunch, rest or play periods.
- sees that each child gets an occasional turn to do something important.

**What about cooperation?**

Cooperation is an essential of good citizenship but young children have little concept of this.

- They find it hard to be friendly to someone they scarcely know.
- They can't appreciate another individual until they develop some common interest or until the individual demonstrates some special talent.
- They cooperate poorly unless they have a common purpose, working and playing together.
- They learn to cooperate by contributing their own special talents to any enterprise providing the differences in those talents are accepted without comparison.

**On building that self image**

Every child needs a place in the sun. For this reason competition is minimized and the worth of each student maximized. Where comparisons are made, children suffer loss of self-respect and deflection of the spirit.

To be known and to grow as a person, every child needs freedom to:

- find his place in the group.
- choose his daily activities.
- tackle problems that are important to him.
- learn something new.
- express his opinions.
- share his achievements with others.
On achieving security -

If the school and its program are made for the child, then security should be an ever-growing attribute.

Most children grow where self-responsibility and independence are tempered with reasonable control and where affection, acceptance and encouragement are constant and genuine.

Most children find their security in very simple things:

- equipment that appeals to them.
- time to enjoy it.
- expectations geared to their ability.
- enough responsibility to give a feeling of work well done.
- help and suggestions when necessary.
- much praise for each small achievement.
- comfort when tired.
AIDES AND PARAPROFESSIONALS

Recognizing the challenge of meeting individual needs, many schools employ a paraprofessional or aide to serve as a "second pair of hands" for the kindergarten teacher. The aide may work with the entire class, with a small group within the class, or with an individual child.

Although the direction of the kindergarten program is the teacher's responsibility, both teacher and aide must work cooperatively and have mutual respect for the role each plays in guiding learning.

Through both new and routine experiences the aide can further the teaching-learning situation in the room by assisting in all phases of the program and by contributing ideas and courses of action to better implement that program.

The paraprofessional can help the teacher in many ways.

In the Classroom

Maintaining the physical plant:

. Make sure room furniture is in place.

. See that equipment is ready to use.

. Check centers of interest for neatness and full complement of objects.

. See that toilet facilities are stocked with sufficient soap, towels, etc.

. Check for adequate classroom lighting and ventilation.

. See that easels, sandboxes, water tables, etc. are ready for use.

. Assist teacher in preparation for next learning experience.

Preparation of instructional materials:

. Check with teacher concerning special materials needed for the day's plans.

. Replenish supply of art paper, scissors, crayons and paste.
. See that paints are ready to use.
. Schedule special equipment needed for audio-visual presentations.
. Reproduce copies of handout sheets.

On the Playground

. Check all equipment for safety.
. Help children learn proper use and care of equipment.
. Aid children in sharing, participation and choosing constructive activities.
. Build good interpersonal relationships with individuals.

With the Children

. Lead children toward the development of healthful bathroom habits.
. Assist those who need special help in learning to use crayons, paste, scissors, paints.
. Be a model of tolerance, patience and understanding for children to emulate.
. Display children's art work and put names on papers for children who cannot do so.
. Take children for health services.

Be available to children when they:

- paste
- mix paints
- use scissors
- prepare and serve snacks
- clean up
- try a new task
In Other Activities

- Prepare special activities to use with small groups: finger plays, stories, records, poems, flannel board stories, etc.

- Assist on walks and field trips.

- Assist teacher in maintaining health and attendance records, making observations and keeping anecdotal notes on each child.

- Catalogue and file data.

- Care for ill or injured children and notify parents.

In all situations the aide should be:

- alert to the safety of the children.

- aware of kindergarten as a happy place.

- instrumental in helping children learn something positive.

- cognizant of long range objectives and plans for special needs.

- convinced that kindergarten is a place for success, not failure.

- accepting of each child's uniqueness as an asset, not a liability.

- conscious of the fact that she is the teacher's right hand.

- supportive of the total kindergarten program.
SETTING THE STAGE
FACILITIES IN THE KINDERGARTEN

Facilities providing for kindergarten education have three distinct but interrelated functions to perform:

- House children who are learning.
- Provide an environment for learning.
- Facilitate learning.

It is thus apparent facilities are for learning, not for the convenience of administration, not for "show", and not as examples of efficiency and economy.

A child is quick to respond to conditions affecting his physical, emotional-social, and mental processes. Facilities are a facet of these conditions to which the child responds physically, psychologically, and mentally and the way they are used is acknowledged to be a matter of great importance.

It seems essential, therefore, that housing conditions make children feel physically comfortable and safe, psychologically secure and wanted, and mentally stimulated. At the same time only those curriculum experiences that contribute to the child's physical, psychological, and mental development should be selected. The program requires certain conditions so that the child can benefit. Everything the young child touches, looks at, hears, smells becomes an important part of the learning process. Hence, everything counts in housing. The following list includes those features that are receiving increasing consideration in the planning of schools for kindergarten children:

- different textures such as rough plaster walls, carpeted floors, smooth asphalt tile floors, slick furniture, soft wood panels, cool and shiny tile walls, clingy, soft felt boards, cloth draperies
- varied ceiling heights, high for open active areas and lowered for intimate conferences and quiet contemplative areas
- eye-level windows
- color
- light
- beauty

Since facilities provide a setting for the kindergarten program,
A brief review of what goes on when a teacher and a group of 20 five-year olds get together can provide a set of criteria. Many kinds of learnings are taking place. There are the affective learnings, values and attitudes, - a child learning respect for and faith in himself and others. There are the physical learnings - accepting and adjusting to body changes. There are the cognitive learnings - concepts, language, spatial and quantitative relations, problem solving, symbolic language, knowledge and control of environment.

These learnings require an environment and a program that provides materials, equipment, experiences, and information. With these the child grows in the ability to select, to manipulate, and to organize. He becomes increasingly independent, purposeful in his selection and manipulation and willing to reach out to the unknown. The kindergartner engages in such activities as:

- observing
- experimenting
- imagining
- conceptualizing
- rolling
- lifting
- pulling
- testing
- balancing
- falling
- digging
- cutting and pasting
- painting
- modeling of clay
- sawing and hammering
- dancing
- talking and listening
- building with blocks
- enjoying picture books
- dramatizing

Through these activities the young child is strengthening big muscles, developing fine muscles, learning eye-hand coordination. Facilities must provide for all since many will be taking place simultaneously. It is not a matter of providing for one type of activity the first semester and transforming the space for another kind of activity later in the year. Children are at different stages of development, needing and using the environment in different ways. This requires space and wise use of all areas.

The amount of space required for kindergarten is often set up as 35 - 50 square feet per child of indoor space, and 60 - 75 square feet per child of outdoor space. Sometimes it is given in terms of the square footage per group of 20 children, divided according to the activity areas required by the program. For example, Educational Facilities suggests that indoor facilities for a group of not more than 20 children should provide 200 square feet of space for group activities, 250 square feet for active play, and 150 square feet for quiet activities. Jimmy Hymes,
well-known authority in Early Childhood Education, has said he is more concerned about outside space than inside space.

Space must be able to absorb the noise and activity of five year olds. In any kindergarten there are a number of activities going on at one time. It is generally agreed this can be most effectively handled when the area is organized to provide a quiet, secluded, contemplative spot, an open central area, and a wet corner for messy activities. These areas can be so organized that traffic problems are reduced, equipment and materials required for the activities are easily accessible in that area, and noise is contained to the section and controlled as much as possible.

The contemplative spot should be carpeted, have shelves and a table for picture books, chairs, and listening devices. The open central area lends itself to total group activities such as music, rhythms, snacks and rest, small group activities that require much space such as block building, housekeeping, and dramatics. The wet area provides for painting, clay modeling, water play, and wood work. These areas should be arranged to:

- allow for full-time supervision.
- encourage pupil interaction.
- eliminate accidents and interruptions as much as possible.
- reduce noise distraction in the quiet area.

One group of architects suggests three levels connected by ramps that would be equal to 2 or 3 steps, the wet area located near the entrance way and the quiet, secluded nook on the top level.

Additional space must also be allotted for food preparation, the teacher’s office, toilets, sink and work areas, storage of materials and equipment, individual cubicles and garment storage for children, bulletin and chalk boards. The outdoors should blend with the indoors for both are considered classrooms. Storage space that children can reach and use is necessary both outdoors and indoors. To make materials accessible and encourage organization in the classroom, there can be large shallow drawers for paper, wheeled carts for blocks, and movable shelving to double as partitions. Shelves of varying sizes take care of materials requiring different kinds of space, such as shallow shelves for paper, puzzles, crayons, etc.; deeper shelves for toys, models, paint, etc. Locked and rainproof storage cabinets are a must for the outside.

Most people recognize the general requirements of classroom space for kindergartners: good ventilation, lighting, safety, beauty, and utility, but there are a few additional qualities to be mentioned.

- scaled to children (think of their eye level, arm reach, and height).
- expandable, convertible and versatile (meaning movable walls, shelving and storage).

- easily accessible and safe in a non-congested area of the building.

- arranged so that children can move freely between indoor and outdoor learning areas.

The furniture and equipment should be:

- sturdy.

- with no sharp edges.

- smooth, non-splintering, well sanded.

- of the type that can expand, shrink, or disappear (i.e. light weight, portable stack furniture that can be combined in many ways or pushed aside to provide open areas).

The floor must be:

- warm.

- smooth but not highly polished and slippery.

- clean.

- free from drafts.

Architects generally seem interested in designing facilities that provide an environment for young children and that meet the needs of a program designed for early education. They are imaginative and open to suggestions. It is the responsibility of the school personnel, therefore, to interpret to them what is considered essential. The committee having the responsibility for planning a program for young children should include not just the architect, representatives of the school board, and the superintendent, but also an elementary school principal, a supervisor, and a teacher, all grounded in child development and knowledge of early education. The ideal classroom is not an area with given dimensions; it is an environment that allows for effective teaching and learning.

Most textbooks on kindergarten education give comprehensive lists of furniture, equipment, and materials. The following suggests the essentials for carrying on a program outlined in this bulletin:
SUGGESTED EQUIPMENT FOR KINDERGARTEN

Basic Equipment:

1. Tables for children - one table for every 4 or 6 children. (One table should be lower than the rest to accommodate very small children.)
2. One chair (scaled to size) for each child.
3. Refrigerator (unless room has access to a cafeteria).
4. Teacher's desk and chair.
5. Piano (on a dolly, if possible) and stool or chair.
6. Record player, records, projector, rhythm instruments.
7. Workbench and tools (hammer, saw, pliers, screwdriver, nails, soft wood).
8. Metal cans for used milk cartons (unless glass containers are used).
9. Two wastebaskets (large).
10. Flag.
11. Easel (two or more).
12. Large blocks (wood or heavy cardboard).
13. Doll corner equipment - stove, sink, cupboard, table, 4 chairs.
14. Cabinets or shelves for toys and other equipment.
15. One large table for painting or display use.
16. Corkboard display space.
17. Bookcase or book display rack.
18. Equipment for resting.
20. Sandbox, if desired.
22. Paper cutter.

Large Toys:

1. Rocking boat.
2. See saw (indoor).
3. Wagon.
4. Tricycle.
5. Climbing gym.

Suggested Small Toys:

1. Unbreakable dolls.
2. Doll carriage and covers.
3. Ironing board.
4. Toy telephones (2).
5. Cooking utensils.
6. Table service.
7. Cleaning equipment - broom, mop, dust pan.
8. Wood trucks, buses, airplanes, fire engines, boats, trains, etc.
10. Lincoln logs.
11. Constructo toys.
12. Puzzles.
13. Balls of various sizes - 5", 8", 10".
15. Rubber or plastic animals.
17. Toys with mechanized parts - screws, bolts, nuts.
18. Peg boards.

Teacher's Materials:

1. One pair 10" shears.
2. Stapler and staples.
4. Masking tape.
5. Scotch tape.
6. Straight pins, safety pins.
7. Yardstick.
8. Foot rule.
9. Two boxes cleansing tissue per month.
13. Pencils.
15. Chalk and eraser for blackboard (if the kindergarten has one).

Equipment for other interest areas is listed under the proper heading (Art, Music, Science, etc.).
THE KINDERGARTEN DAY

TAKEING A NEW LOOK

In years past kindergarten was often considered a thing apart from the regular elementary school. It was looked upon as a kind of preamble to greater things.

Today, most people recognize that kindergarten IS school and they appreciate the fact that even at the age of five, great things are already happening. Not only a laboratory for social development with lessons in cooperation, tolerance, self-control and citizenship, the kindergarten is a workshop in which the basis for all future academic growth is laid.

It is the kindergarten that continually recognizes the growing powers of a child's mind. It is the kindergarten that attempts to:

- Channel a child's physical vigor and adventurous spirit into intellectual experimentation and experience.
- Foster a child's independent thinking and original investigation.
- Encourage a child's communication of ideas and feelings.
- Steer a child's intensity of feelings into creative expression.

At no other time in life does a child use his senses quite so thoroughly. At no other time does he learn quite so easily through the avenues of:

- Experience - Examination
- Experimentation - Expression

In the kindergarten the firsthand activities every child enjoys as he works alone or with others help to determine the quality of his educational experience and usually set the tone for his future interest in learning.

PROVIDING THE SETTING

Children's abilities and interests are extremely varied. Because of this, the kindergarten setting must be equally diversified and must offer something from all the areas that might appeal to a child. Investigation and probing of either ideas or things cannot take place in a void and experimentation and examination occur only when there are places and things
to explore. With this in mind, the good kindergarten provides a setting as varied as the children who engage in it.

- Physical apparatus and big blocks for large muscle development.
- Manipulative games, puzzles, objects and materials to strengthen small muscle coordination.
- Books of all kinds to explore new ideas.
- Mathematical devices for those who are interested.
- Science equipment to encourage experimentation.
- Music equipment to lift the spirit.
- Audiovisuals of all kinds to enrich personal and group activities.
- Language arts materials to intrigue the mind.
- Art materials to stimulate esthetics.
- Industrial tools and devices for the mechanically-inclined.

From the time each child arrives, he should find himself surrounded by the kinds of things that:

- stimulate his intellect.
- arouse his curiosity.
- improve his thinking and problem-solving ability.
- lead to dramatic play.
- provide for physical activity.
- require manipulation.

- encourage construction.
- inspire creative expression.
- demand communication of ideas.
- call for sharing and cooperation.
- broaden human relationships.
- develop standards and values.

To foster these goals the kindergarten teacher must plan centers of interest that help create a pleasant, homelike atmosphere and, at the same time, present an invitation to learning. They must, in addition, be so designed that they contribute to the development of specific desired behaviors.
Centers of Interest

Library Center
- Books of all kinds
- Picture files
- Storybook figures
- Puppets
- Stereoptican or story-viewer
- Listening posts
- Story tapes

Homemaker's Center
- Playhouse or kitchen and living room area with:
  - dolls and doll clothes
  - doll bed and bedding
  - cuddly toys
  - dishes, cooking utensils
  - silverware
  - telephones
  - rocking chair
  - soap, laundry materials, tub
  - ironing board, iron
  - doll carriage
  - refrigerator
  - stove
  - cupboard
  - table and chairs
  - washline, clothes pins
  - dress-up clothes, both male and female

Music Center
- Record player (a manual one is best)
- Piano
- Rhythm sticks for each child

Behavioral Goals
- Develops interest in books.
- Uses graphic materials.
- Roleplays favorite story-book characters.
- Improves in language facility.
- Respects rights of others to share books and equipment.
- Is reasonably quiet while "reading" but exchanges reactions with friends.
- Handles books and materials properly.
- Asks for additional books, magazines.

- Uses correct names of common kitchen equipment.
- Shares willingly.
- Takes turns cleaning.
- Puts dollhouse to order.
- Plays well with others.
- Dramatizes familiar home roles.
- Learns give and take.
- Exhibits sense of family values.
- Uses correct utensils when eating.

- Participates in some form of music.
- Listens to many forms of music.
- Interprets rhythms at times.
- Rhythm band instruments
  . drum
  . tambourines
  . jingle bells
  . clogs
  . sandblocks
  . tone blocks
  . cymbals
  . triangles
  . baton
- Pitch pipe
- Tuning fork
- Materials to make "home made" instruments
  . rubber bands
  . bottles
  . cigar boxes
  . aluminum piepans
  . wood blocks
  . metal lids of several sizes
  . metal buttons
  . round cereal boxes
  . small nail kegs
  . inner tube pieces
  . water glasses
  . sandpaper
- Keep reasonable time when using rhythm instruments.
- Releases emotions through music.
- Helps to sing.
- Claps or keeps time if he does not sing.
- Relaxes to music.
- Handles instruments with care.
- Puts instruments away when finished with them.
- Experiments with materials for making instruments.
- Hears difference in pitch, intensity.
- Improvises with instruments or with his body.

Art Center

- Easels
- Crayons, wax and hard
- Paste, glue
- Scissors
- Paints (tempera, finger, water colors)
- Paper (for drawing, painting, fingerpainting)
- Collage
- String
- Felt
- Cloth odds and ends
- Paper bags, plates, cups
- Paper scraps
- Pipe cleaners
- Spray paints
- Containers for storing brushes and paints
- Expresses ideas in his own way.
- Is self-reliant in use of materials.
- Participates in varying sizes of groups.
- Evaluates his own work and the work of others.
- Wants own creative efforts recognized.
- Compliments the efforts of others.
- Completes projects already begun.
- Discusses his work with others.
- Varies his use of media.
- Knows color names.
- Combines several media into one product.
- Shares objects of "beauty".
- Looks at illustrations in books.
- Clay or plasticine  
- Enamel paints  
- Pieces of sponge  
- Screening  
- Wallpaper samples  
- Oilcloth samples  
- Burlap  
- Rolls of mural paper  
- Wire  
- Thin clothes hangers

**Block Center**

- Large wood blocks  
- Cardboard blocks  
- Boards (8" x 4")  
- Assorted smaller wooden blocks  
- Miniature blocks

**Science Center**

- Aquarium  
- Terrarium  
- Magnets  
- Prisms  
- Specimens  
- Exhibits  
- Animal cages and pets  
- Weights  
- Measuring spoons, cups  
- Watering can

**Social Studies Center**

- Globe  
- Maps  
- Pictures  
- Posters  
- Dolls from other lands  
- Puppets  
- Magazines  
- Newspapers

- Rearranges work or play areas.  
- Decorates objects or surrounding room areas.  
- Shows correct care and use of tools.  
- Assumes responsibility for cleaning up.  
- Shows a sense of proportion and design.  
- Begins to understand principle of balance.  
- Uses imagination and role-play.

- Examines realia (stones, leaves, fossils, etc.).  
- Experiments with apparatus, materials.  
- Finds answers for himself.  
- Inquires about specific experiences.  
- Brings in and shares materials, ideas.  
- Contributes to class discussions.  
- Cares for and feeds wild or domestic animals.  
- Participates in group projects and experiments.  
- Is curious about natural and man-made forces.  
- Classifies objects and events.

- Use social study objects in free activity period.  
- Asks questions about posters, maps, pictures, news items.  
- Brings in additional posters, pictures, news items.  
- Tells about personal experiences connected with topic.  
- Begins to understand people of other times and places.
Audio-Visual Center

- Projector
- Overhead projector
- 8mm. projector and cartridges
- Small screen
- Viewmaster and reels
- Stereoptican

- Uses less complicated audio-visual materials.
- Shares materials.
- Shares interest in films, filmstrips, etc.
- Takes care of equipment.
- Discusses or asks questions about what he has seen.

Wealth of equipment, although certainly a contributing factor in stimulating interest, is not a guarantee of continued growth and eagerness for learning. Other aspects of perhaps more importance have to do with what actually happens in the kindergarten:

- Is there easy access to everything in the centers of interest or is the equipment so out-of-reach that no one notices it?
- Is there freedom to use the equipment or do rigid rules and restrictions tend to disenchant children?
- Is there TIME to explore the room or is every moment of the day structured for the class?
- Is there opportunity to express ideas that develop from use of the materials and equipment?
- Is there place to exhibit all the added bits and pieces that children bring if encouraged?
- Is there a follow-through of "teachable moments" that spring from the children's explorations?

ACHIEVING A GOOD DAY FOR FIVES

A good day for kindergartners is much like a good day for adults. It includes planning and evaluating activities so that each child has:

- something important to do.
- time to do it.
- a certain amount of success.
- acceptance by the group.
- opportunity for self-expression.
- time for fun.
- time for rest.
- opportunity for growth.

Children need something important to do. This means something important to the child. A kindergartner likes responsibility and is
capable of many small leader roles such as:

- being table chairman.
- delivering a message to the principal or the secretary.
- going for and returning with fliers or notices from the office.
- leading the rhythm band.
- asking for the custodian's help.
- walking first in line.
- being "it" in a game.
- supervising or participating in "clean-up" activities:
  - washing tables
  - scouring sinks
  - picking up paper
  - wiping up paint
- assuming housekeeping duties for the playhouse and other toy areas.
- going to the cafeteria for napkins, cookies, straws or any other necessary item.
- carrying a book request to the librarian and bringing back the book.
- filling crayon boxes that need replenishing.
- taking messages home.
- making announcements.
- telling very special news.
- answering the door.
- being host or hostess when guests or parents arrive.
- giving simple directions, explanations.
- acting as "teacher" when she is momentarily called from the room.
- telling a story.
- directing a game.
- distributing paper, scissors, etc.
- serving milk and cookies.

Children need time to do what is important to them. Although many kindergartners seem to operate in high gear, they change direction often and sometimes stall completely. Most of them move at their own rate and not always at the pace that adults expect. Pressuring children to "hurry up" rarely helps; if anything, it hinders. Many fives are not even aware of their lack of speed. They believe they are moving with alacrity. This is an important reason why kindergarten programs are, or should be, built around large, flexible blocks of time.

ESTABLISHING A SCHEDULE

To designate exact allotments of time for every kindergarten to follow is neither wise nor possible. For this reason several types of daily schedules are proposed that may be adapted easily to individual tastes and needs. Each one is semi-structured and is subject to change at the discretion of the teacher. Each one outlines general blocks of
time yet provides for alternating quiet and active periods and a balance of indoor-outdoor experiences.

SCHEDULE I

<table>
<thead>
<tr>
<th>Time</th>
<th>Activity</th>
</tr>
</thead>
<tbody>
<tr>
<td>8:45 - 9:30</td>
<td>Free Activity Period</td>
</tr>
<tr>
<td>9:30 - 10:00</td>
<td>News, Discussion, Poetry, Fingerplays, Conversation, Concept Development</td>
</tr>
<tr>
<td>10:00 - 10:15</td>
<td>Singing, Marching, Rhythms, Calisthenics</td>
</tr>
<tr>
<td>10:15 - 10:30</td>
<td>Toilet, Snack</td>
</tr>
<tr>
<td>10:30 - 10:50</td>
<td>Outdoor Play</td>
</tr>
<tr>
<td>10:50 - 11:30</td>
<td>Quiet Activities</td>
</tr>
<tr>
<td></td>
<td>Rest, Music Appreciation</td>
</tr>
<tr>
<td></td>
<td>Record Stories, Filmstrip, Table Activities, Story</td>
</tr>
</tbody>
</table>

SCHEDULE II

<table>
<thead>
<tr>
<th>Time</th>
<th>Activity</th>
</tr>
</thead>
<tbody>
<tr>
<td>9:00 - 9:15</td>
<td>Free Play</td>
</tr>
<tr>
<td>9:15 - 9:35</td>
<td>Opening</td>
</tr>
<tr>
<td></td>
<td>Conversation, Singing, Sharing, Planning</td>
</tr>
<tr>
<td>9:35 - 10:00</td>
<td>Work Period</td>
</tr>
<tr>
<td></td>
<td>Free choice, Construction</td>
</tr>
<tr>
<td></td>
<td>Arts, Crafts</td>
</tr>
<tr>
<td>10:00 - 10:20</td>
<td>Outdoor Play</td>
</tr>
<tr>
<td>10:20 - 10:40</td>
<td>Lavatory and Lunch</td>
</tr>
<tr>
<td>10:40 - 11:00</td>
<td>Rest or Quiet Activity</td>
</tr>
<tr>
<td>11:00 - 11:30</td>
<td>Group Activities</td>
</tr>
<tr>
<td></td>
<td>Music, Stories, Natural</td>
</tr>
<tr>
<td></td>
<td>and Social Sciences, Dances, Rhythms</td>
</tr>
</tbody>
</table>
### SCHEDULE III

<table>
<thead>
<tr>
<th>Time</th>
<th>Activity</th>
</tr>
</thead>
</table>
| 9:00 - 9:30 | Opening  
Opening Conversation, Singing, Sharing, Planning                        |
| 9:30 - 10:30 | Work Period  
Free Choice, Arts, Crafts, Construction, Concept Development, Individual and Small Group Activity |
| 10:30 - 11:00 | Health Period  
Indoor-Outdoor Play, Bathroom, Lunch, Rest                                |
| 11:00 - 11:30 | Group Experiences  
Music, Stories, Natural and Social Sciences, Films                       |
| 11:30 - 11:50 | Free Play                                                             |
| 11:50 - 12:00 | Evaluation, Plans for Next Day, Dismissal                            |
| 1:00 - 1:30 |                                                                 |
| 1:30 - 2:30 |                                                                 |
| 2:30 - 3:00 |                                                                 |
| 3:00 - 3:30 |                                                                 |
| 3:30 - 3:50 |                                                                 |
| 3:50 - 4:00 |                                                                 |

### SCHEDULE IV

(Time allotments are based on a 150 minute session)

<table>
<thead>
<tr>
<th>Category</th>
<th>Percentage</th>
<th>Time Allotted</th>
</tr>
</thead>
<tbody>
<tr>
<td>Unstructured Activities</td>
<td>20%</td>
<td>30 minutes</td>
</tr>
<tr>
<td>Group Meetings</td>
<td>15%</td>
<td>22 minutes</td>
</tr>
<tr>
<td>Work Time</td>
<td>20%</td>
<td>30 minutes</td>
</tr>
<tr>
<td>Bathroom Needs</td>
<td>9%</td>
<td>13 minutes</td>
</tr>
<tr>
<td>Snack Time, Rest</td>
<td>13%</td>
<td>20 minutes</td>
</tr>
<tr>
<td>Music, Rhythms</td>
<td>10%</td>
<td>15 minutes</td>
</tr>
<tr>
<td>Language Arts</td>
<td>13%</td>
<td>20 minutes</td>
</tr>
</tbody>
</table>

Different as the framework may be, the programs have identical goals:

- To help the child learn about the world in which he is growing.
- To assist him in understanding its standards and rules.
- To guide him toward productive living in that world.

MAINTAINING EFFECTIVE ROOM MANAGEMENT AND DISCIPLINE

Discipline and room management go hand in hand. Where there is successful room management, there is usually sound discipline and where there is satisfactory discipline, there is usually sensible room management. The immediate purpose of both is the optimal, happy adjustment of children to the demands of their environment. This becomes of utmost importance when one considers that what transpires in a room is dependent upon several things:

- The behavior that is expected of the child.

- His individual ability to achieve that behavior.

- The teacher's reaction to his efforts.

Most children want to please. They make an honest effort to cooperate. When they fail, they may not always be at fault. Sometimes failure to succeed on their part can be related directly to certain teacher behaviors that make compliance difficult.

For example:

- Too authoritarian control tends to frighten children and much of what seems negative behavior may be the result of fear.

- Inability to meet tense and rigid standards makes children feel frustrated, guilty and sometimes humiliated which, in turn, makes them uncooperative and difficult.

- Extreme permissiveness fosters insecurity in children by giving them no standards at all and, consequently, nothing to strive for. Such freedom without limits breeds chaos!

- Too much time is spent in punishing behaviors rather than in developing the art of self-discipline.

- More energy is expended in simply reacting to a behavior than in seeking its cause.

Within the classroom every child has a right to feel secure. Good room management promotes this. It is achieved largely by establishing and maintaining a fairly consistent daily routine in which:
- Simple rules are set for daily activities regarding:
  - entrance of children to the room
  - removal of outer clothing
  - relaxation and quiet periods
  - dismissal times
  - behaviors coming to and going from school
  - toilet procedures and care of personal needs
  - caring for individual and group possessions
  - maintaining an orderly and attractive room
  - self-controls expected in free activity periods
  - playground conduct

- Daily procedures are changed only when children can cope with change.

- Children are reminded kindly but firmly that definite patterns of behavior are expected in the conduct of each activity.

- Routines and controls are discussed and partially formulated by the group.

- Children are helped to understand that limits or controls are ways of achieving satisfaction rather than barriers to activity.

As always, the kindergarten teacher is the key figure in the development of security.

- She establishes the daily routine.

- She keeps the activities reasonably short, especially in the beginning of the year.

- She is consistent and fair in the enforcement of limits.

- She maintains a quiet, pleasant, reassuring voice and manner.

- She builds upon each small success the child demonstrates.

- She looks for positive attributes in every child.

- She knows that changes in young children's behavior come quite gradually and even tend to regress if behavioral expectations are beyond their ability to comply.
- She understands the developmental characteristics and levels of her children and adjusts her expectations accordingly.

- She understands that children have the same, normal variations in moods and reactions as adults and tempers her judgments accordingly. (In short, she accepts that children cannot always "be good").

- She calmly varies routines when necessary to meet the moods and manners of her children.

- She earnestly investigates the background of children whose attitudes, behaviors and emotions are expressed in unusual aggressions, withdrawals, or abnormal actions.

- She seeks the help of all school personnel (guidance counsellor, nurse, home-school visitor, principal, psychologist, etc.) who serve as a team to resolve such problems.

- She maintains an easy, comfortable relationship with all parents making them feel as welcome and secure in her classroom as the children she guides. (This, in turn, helps to make their children secure.)

When the daily program is well-designed and room management and discipline are consistent with the needs of the class, they help each child to develop the following concepts:

- School is a happy place and he is an important part of that place.

- The teacher and the children are his friends and want to work and play with him.

- It is exciting to learn new things of many kinds.

- Work is an important part of life even at the age of five.

- Doing things is fun if each individual is fair and reasonably considerate.

- There is much freedom of choice both in work and play.

- There are also rules to be obeyed.

- Freedom to do usually continues as long as rules are obeyed.
- It is important to do one's best, to use one's abilities and time wisely.

- Everyone needs occasional rest from work.
WORKING TOGETHER
THE HOME-SCHOOL RELATIONSHIP

Today, as never before, emphasis is being placed upon the importance of reciprocal home-school relationships. Although the education of all children begins in the home, there is an increasing awareness that the home can no longer afford the diversified experiences imperative for the complexity of current society. The necessity for providing suitable guided learning activities has become a joint effort of parent and teacher. This coalition is vital for the optimal development of the child.

Where father and mother have begun the establishment of those attitudes and skills necessary for success in life, the kindergarten simply continues the process and helps the children do better the things they must do anyway. Where the home and family have been remiss, whatever the reason, the kindergarten must begin the foundation of a better way of living and doing. To do this effectively there must be a partnership of parent and teacher, a partnership that develops common understandings, lessens tensions and gives unified support to the child as he starts his school experience.

Home-school contacts are of many kinds, but essential to mutual understanding and confidence is the contact which the school makes BEFORE the child arrives. Such initial contact has the following purposes:

- To help children feel secure and happy in making the adjustment to a school situation that is new and strange.
- To introduce children to future classmates and to school personnel.
- To help children become acquainted with the physical setup of the school.
- To initiate a wholesome attitude toward school in general.

This may be achieved in several ways:

1. Prepare a kindergarten letter or handbook and send it to parents of prospective children.

This material often informs parents of the goals and objectives of the kindergarten and outlines desired parental responsibilities. When parents follow the suggestions, they help their children to make an easier adjustment to school life. The handbook usually advises parents to:

- Talk with and read to the child.
- Build a happy attitude toward school.
- Teach the child safety rules (how to cross the street; which is the safest way home).

- Encourage the child to dress and remove his wraps; see that his rubbers, boots, outer clothing are large enough to make this easy for him.

- Label the child's clothing and possessions.

- Let the child make some decisions at home.

- Include the child in family group activities.

- Give him a few responsibilities that are commensurate with his abilities and maturation.

- Help him to cope with temper tantrums and to show a certain amount of reasonableness toward others.

- Encourage the child to pick up his toys, books, clothing.

- See that the child has nourishing meals at regular times, enough sleep and relaxation.

- Let the child play with children his own age; if he has no playmates, find some.

- Help the child to understand that the teacher and other adults at school are his friends.

- Discuss with the teacher any physical, emotional, social or mental condition which may hinder the child's progress in school.

- If possible, teach the child his full name, his father's name, his address or his telephone number.

- Discourage infantile speech (baby talk).

- Give the child as many experiences as possible such as picnics, small or big trips, visits to the zoo, farm, the city, etc.

- Give the child a sense of security, a feeling of belonging.

2. Hold spring visits before the fall admission period. Invite small groups of children with their parents to observe the regular kindergarten session. If desirable, ask children in groups of two or three to visit without parents. Encourage them to participate in any group activity or play.
3. Invite all the children to attend a spring program.

4. Stagger children for small group visits during the fall admission period. Extend the time over any period necessary to enroll all beginning children.

5. Hold a "Mothers' Tea" or similar meeting to give group instruction. At such a meeting:
   - Explain the schedule.
   - Discuss transportation plans and problems.
   - Inform parents of procedures concerning the milk program, absences, the taking of trips, school health regulations.
   - Introduce parents to each other.
   - Ask for mothers interested in being "Room Mothers", volunteer aides, assistants at P.T.A., or resource people.
   - Encourage parents to visit school, establishing the fact that they are always welcome. (Rapport is an invaluable aid in resolving any later differences.)
   - Build confidence in the fact that you, the kindergarten teacher will give careful supervision and individual guidance to each child.

7. Visit the home if this is feasible or advisable.

8. Send the child a card welcoming him to kindergarten.

Other techniques for the betterment of home-school relationships include:

Registration Day

Where there has been no previous contact, this becomes the initial meeting of the parent and child with school. The teacher learns about the child's background and observes his first reactions to school. The parents and child form their first impression of school and teacher. As much as possible, registration should be informal and pleasant.

Orientation Meetings for Parents

This is an additional meeting in the beginning of the school year:
1. To establish a cooperative relationship between home and school for the welfare of the children.

2. To build up mutual respect.

3. To prevent any first day difficulties.

4. To relieve apprehensions and tensions.

**Orientation of the Children**

The first day of school is usually an exciting experience. Almost every child looks forward to this event with great anticipation. For some children the adjustment from home to school is a smooth, successful one. For others it may be a disappointing, frightening or over-stimulating occasion.

To help the child feel at ease and to become acquainted with his new environment the teacher should:

1. Greet each one personally and informally using the child's name and making some comment to welcome him.

2. See that he meets others casually and informally.

3. Give the child time and freedom to explore the room and to investigate the materials and equipment available.

4. Keep familiar materials, such as housekeeping toys, blocks, crayons, paper and books readily available. During the first days, give the child personal supervision in their use.

5. Show the child where to put his wraps and the location of toilet facilities.

6. Point out the location of drinking fountains and routes to the playground.

7. Allow children to explore the playground and the surrounding grounds. If there is a special section for kindergarten, emphasize what its limits are.

8. See that the class becomes acquainted with school patrols and bus drivers early in the year in order to establish a respectful and trusting relationship.

9. Have the class visit the principal to emphasize that he is a friendly person.
**Parent-Teacher Meetings**

Such meetings are to help the parent and teacher to become better acquainted. Often held in the beginning of the school year, they provide a means for explaining current classroom programs and for exchanging ideas. Subsequent periodic meetings help to sustain the compatibility established in the initial meeting.

**Individual Conferences**

Parent conferences are held to get information, to establish confidence in kindergarten procedures, to solicit parental cooperation, and to give the parent necessary information. Recognized as one of the best ways of reporting to the parent, the individual conference gives both teacher and parent an excellent means of understanding each other and the child. Caution must be exercised that the conference remains a two-way exchange and not just a period of listening for the parent.

**Parent Visits**

Parents should always be welcome in the kindergarten. It may be wise for the teacher to inform the parents of school routines so that visitation time involves an active period rather than a rest time. A sufficient time for adjustment to kindergarten should be given the child before parents notify the teacher of their upcoming visit.

**Home Visits**

By visiting the home the teacher may sometimes find answers to certain behaviors of a child. A visit also tells the parent that someone else is vitally interested in the child.

**Telephone Calls**

Probably these are the least effective and informative of all home contacts. Phone calls are fine for reminders and for short recognition of some achievement of the child. Written notes in some areas must be curtailed because of the degree of literacy of the parent.

Home-school contacts such as these help to maintain an "open-door" policy and provide the essential ties that promote basic understanding of the whole school experience.
Registration In The Kindergarten

Although registration has been mentioned, a bit more clarification seems necessary.

Where no "Kindergarten-Roundup" or spring meetings have been held, Registration Day is usually the first contact parents and children have with the kindergarten teacher. For this reason, the teacher should be free to meet with each prospective parent and child. It is suggested that she be relieved of her classroom responsibilities for the day. A substitute teacher, paraprofessional or competent parent volunteers can take her regular classes while she is becoming acquainted with her enrollees. This contact serves many purposes:

1. It gives the child a quick overview of "his school."

2. It allows the teacher to take note of children with special needs.

3. It provides an opportunity for talking immediately with parents about meeting such needs before kindergarten begins.

In some schools teachers give the child priority at registration and invite him to a room for play while volunteer mothers, the school secretary or principal help the prospective mothers register their children. Other teachers allow time at the registration to meet privately with each parent and child. The best procedure seems to be to have the kindergarten teacher free to welcome each new child and parent while others take charge of the formal registration.

If the regular kindergarten is still in session, children may visit briefly or go to a separate room where such play things as see-saws, trucks, wagons, balls, puzzles, crayons, paper, etc. are provided. This activity usually has the following results:

1. It eliminates some of a child's apprehensions.

2. It builds a rapport through which most children look forward to returning in the Fall.

3. It permits the teacher to learn names and faces of children so that recall is easy and immediate when they arrive in September.

Information to be procured at registration should include:

1. Birth certificate
2. **Proof of vaccination**

3. **Initial enrollment card:**
   - **Child's name**
   - **Child's birth date (also number on certificate)**
   - **Child's address**
   - **Date of enrollment**
   - **Siblings**
     - **Age**
     - **Grade level**
   - **Previous school experience**
   - **Father's name**
   - **Father's address**
   - **Father's home phone number**
   - **Living**
   - **Separated/Divorced**
   - **Dead**
   - **Father's Occupation**
   - **Mother's name**
   - **Mother's address**
   - **Mother's home phone number**
   - **Living**
   - **Separated/Divorced**
   - **Dead**
   - **Mother's Occupation**
   - **Proof of vaccination**
     - **Date**
     - **Place**

4. **Emergency card:**
- Child's name
  Child's address
  Child's phone number

- Father's name
  Father's place of occupation
  Father's business phone number

- Mother's name
  Mother's place of occupation
  Mother's business phone number

- Address and phone number of person to be contacted in case of emergency

5. Health inventory

- Checklist of past illness:
  Measles   Epilepsy
  Smallpox  Rheumatic fever
  Diabetes  Diptheria
  Chicken pox   Others

- Family doctor

- Family dentist

- Family hospital

- Any serious illness, operation or injury and age when such occurred

- Dates of immunization:
  Polio  Smallpox
  Measles  Diptheria
  Mumps   Others

- Allergies
REPORTING TO PARENTS

Reporting to parents is another way in which a wholesome bond between teachers, parents and children can be established. Written reports are often used to supplement parent-teacher meetings and conferences. It must be remembered, however, that the best written report cannot take the place of personal conferences for it is difficult to write objectively all that one might wish to report to parents. The most acceptable information to include in any form of reporting is that which will help parents better understand and provide for their child's development.

Some teachers prefer to write brief statements concerning the child's progress and particular needs of that year. Others prefer a checklist report. The latter is most inadequate because, at best, it can evaluate only a part of the child's total growth. Still others choose to write lengthy evaluations.

Whatever form of reporting is used, the content should be considered carefully. The teacher must be honest with parents, but, at the same time, remember that the child she is evaluating is the parents' pride and joy.

A teacher can gain parental confidence by first commenting about a child's desirable qualities and then mentioning his limitations and difficulties. This method does not put parents on the defensive and seems a charitable way of reporting.

Parents want to know about their child's progress. They have a right to know and it is the teacher's responsibility to keep them well-informed not only at the end of school but throughout the entire year. When children have major difficulties, it is especially important that parents be made aware of the existing problems and subsequent progress made during the term.
A DEVELOPMENTAL GUIDANCE PROGRAM INCLUDES THE KINDERGARTEN

School districts throughout the Commonwealth, on the basis of much emphasis and study, are in increasing numbers on the threshold of adding to their staffs or expanding the members of elementary school guidance counselors. As programs are implemented and new staff added, elementary school guidance is emerging with distinct characteristics, and is not merely a downward extension of secondary guidance services.

Current guidance literature stresses "developmental guidance" which in actual practice has various connotations, ranging from the provision of a comprehensive kindergarten through grade twelve program of services, to a program which includes only preventive services. The following is an attempt to resolve some of the confusion associated with the phrase "developmental guidance" by providing a fundamental statement for a developmental approach to the provision of guidance services in an elementary school. The emphasis is upon early identification of the child's psychological characteristics; diagnosis of his learning difficulties, if any; recognition of his aptitudes and his assets; and the development of resources to meet his needs.

A developmental guidance program is founded on the premise that all children in the process of growth and development, encounter certain tasks and must achieve certain goals if they are to progress satisfactorily. All elementary school children are entitled to every service that the school can offer that provides experiences adapted to their individual needs and abilities, and that they realize their potential. The unique make-up of children will affect how they as individuals approach achievement of goals and tasks.

An effective elementary school developmental guidance program is based on certain assumptions. First, that services are provided for all children. Concentration is primarily on typical children with normal developmental needs, not only the exceptional child. Second, child growth is developmental. Guidance assists the child to know, understand, and accept himself cognitively and affectively. The developmental approach focuses on the strengths and the encouragement process of the child. Self-actualization is emphasized in terms of the full use and exploration of the child's talents, capacities, and potentialities. Third, the services provided are supportive and complementary to the classroom teacher. Purpose and personally meaningful learning experiences by the teacher and pupil are stressed. Fourth, guidance is an integral part of the educational process and must be consistent in purpose with the philosophy and objectives of the local educational agency. Planned developmental guidance services reflect a cooperative undertaking involving the child, teacher, parents, administration, and community resources.

Specifically, the elementary school guidance counselor is concerned with the following developmental tasks of childhood: to form concepts of
social reality; to form concepts of physical reality; to learn to relate oneself emotionally to parents, siblings, and adults; to learn to establish wholesome relationships with peers; to develop conscience, morality, and a sense of values; to achieve personal independence; to learn an appropriate feminine or masculine role; to recognize the physical, social, and emotional changes of maturation and to accept those changes; and to develop positive attitudes toward social groups and institutions.

The counselor participates in the creation of an environment conducive to learning and growth for each child by assisting the professional staff to apply current psychological and guidance principles to curriculum development and classroom behavior; to analyze the needs of children as evidenced by their behavior in the educational environment consistent with principles of child development and measurement; and to identify learning needs, behaviors, and deficiencies and apply appropriate developmental techniques.

This program provides a continuous sequence of experiences to assist the pupil, teacher, parents, and administrator in assessing, interpreting, and consequently providing a learning environment which maximizes both the child's potential and his opportunities for learning.

In many ways the guidance counselor can be helpful to the kindergarten teacher and should be recognized as someone to call upon either to help prevent or to solve children's problems. The counselor, for example, may be called upon in instances such as these:

- when a child is thought to be emotionally upset.
- when a child needs diagnostic testing to clarify unsound behaviors or attitudes.
- when a child is too disruptive to be kept in the classroom.
- when a child is non-communicative.

The counselor may also assist the teacher by:

- sharing observations of the child's behaviors.
- keeping anecdotal records of a child's special needs.
- suggesting techniques of coping with specific needs.
- interpreting test results to teacher and parents.
- making initial or additional parental contacts.

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TESTING IN THE KINDERGARTEN

Test construction is divided into two main areas: group and individual. Group tests in the kindergarten are usually standardized, commercially prepared evaluations of reading readiness, achievement, and intelligence. Essentially, these standardized tests compare performance of individual children with the performance of some specific group of children on some particular task. The child's score on the group test is then expressed in terms of how he compares with the group. A basic characteristic of group standardized tests is that they are a measure of past learnings and assume equal exposure to cultural, social, and school environment and school-type learning.

Even after a year's exposure to the kindergarten program it is questionable to administer group tests of any type because:

- All kindergarten children are not able to use the tools and skills necessary for group tests.
- All kindergarten children have not had equal exposure to cultural, social and school-type learnings.
- Kindergarten children should not be compared with performances of a group.
- Too many variables of understanding and response to directions are present in any group of kindergarten children.
- The test score may unduly influence decision making regarding individual children's progress through school.
- The teacher's professional judgment is the most valid and reliable measurement of the child's readiness for the first grade program.
- The kindergarten program is not instituted as an academic-learning situation and should not be so evaluated.
- Standardized tests are based strictly on what happened in the past under the conditions of the past but kindergarten is more concerned with the present and the future.
- In any evaluation the child's background, his readiness to respond in light of his background, and his individual social, emotional, and physical growth must be considered. This, only the teacher
can do. No standardized group test considers these aspects of development.

Although use of group tests in kindergarten is questionable, there is a place for individual evaluation. When a child's behaviors, attitudes, and habits are not consistent with positive growth and development, he should be tested by a teacher, guidance counselor or psychologist. Such individual diagnosis helps the teacher and other school personnel understand the child and his behavior and often provides direction in meeting his needs.
MOVING AHEAD
PLAY AND WORK IN THE KINDERGARTEN

With the increasing interest in early childhood education comes a host of experts who question long-accepted ways of working with young children. They point to current research that emphasizes the need for cognitive training in the early years of a child's life and interpret this to mean that children no longer need the rich outlet of play but must be taught certain skills and facts. Since these are usually determined by the teacher, the goals are specific, the experiences limited and focused only toward the attainment of these goals, and evaluation is expressed as "good or bad" in terms of whether the goals were achieved.

Because cognitive skill development is generally adult-planned and directed, many children find it difficult to relate and respond to such a curriculum. As a result, their progress is marked by exertion and frustration without an accompanying feeling of satisfaction. LEARNING IN THIS WAY IS WORK for the child and is often an unhappy experience. It is differentiated from the adult's concept of play - an activity that is relaxing and engaged in during free, unscheduled hours. As a result, those who are not experienced with children promote formal learning and discount play because they believe that nothing of lasting value can be achieved without frustration and toil.

TO THE CHILD PLAY IS WORK. It is literally his vocation. He develops concepts through experiences with objects and ideas that are important to him. To the child work, play, experimentation, pursuit and inquiry are used interchangeably; all are inter-related inextricably.

The characteristics of work and play are the same, actually appearing on a continuum. A child's activity should be observed not as "work" or "play" but as a combined experience, displaying such elements to be evaluated as concentration, goal-direction, satisfaction and all the learnings and skills involved. The resulting concepts become part of a larger classification system that helps the child understand his world, himself and the people around him. If, as Edith Margolin suggests, we see play as only recreation, laxness, passivity, invoking low energy patterns, we are limiting the opportunities for children's education and insights. Perhaps the problem is in the labeling and in stereotyped concepts associated with play, not in the content of play itself.


Observe a child at play. Note how he keeps up a flowing chatter, reporting what he is doing. Words come alive; he experiments with them to express ideas and to get reactions from others. Note how his playmates help to clarify meanings for him with their use of words. Observe how his actions and language represent the level of his concept development.
Watch children in the playhouse, acting out incidents from daily living. They learn to group and categorize - foods to be kept in the refrigerator, cutlery in the drawers, furniture appropriate to various rooms. As they live through experiences they observe in their homes, they clarify concepts of various members of the family and act out or solve problems faced in family life. Such activities unlock important meanings for the child.

Cognition requires at least in part that a child find a way to think through problems and incorporate in his thinking the learnings from these solutions as guiding principles for later problem solving and for explaining the external world to himself. The nurturing of cognitive ability is facilitated by the tools the child becomes familiar with in the various subject areas. For example, as he learns to recognize number symbols and then learns to read the thermometer, the child knows when and why he must wear his snow suit; or when he is able to compare length of blocks and judge the size of the space to be filled, he can use one long or two smaller blocks to achieve the desired result. The child first acts out his thoughts, tries an idea through action (lives it through play); then he develops the rational ability to think through a situation, to conceive, visualize, and imagine other ideas that he might utilize in a similar situation without acting them out. Later, when he has become skillful in symbolic language, the child can represent accurately his thoughts in this abstract form of communication and can use this knowledge of symbols to test and clarify the real world he is experiencing.

Basic understandings in the various subject areas are acquired through activities that many identify as play. Consider the principles of science that are learned in planting seeds in paper or glass containers to take home for Mother; in balancing blocks so they will not fall; in erecting a garage for the play truck; in making dessert for a party, or in caring for pets. Reflect on the social learnings that become functional and real when children build a store, stock the shelves, exchange products for play money. Think of the geographic understandings that are clarified when children plot maps of their neighborhood and locate stores, homes, street crossings.

Play is an aspect of the child's attempt to master his world. It is his medium for learning what he wants to and ought to learn. The play that is advocated in kindergarten is his work. The kindergartner expends great effort in completing what he sets out to do, creating something that is meaningful to himself and others. What more important aspects of work are there than effort, finishing what one starts, creating something that is meaningful?

Piaget, Bruner and others support the proposition that children cannot move toward abstraction and reasoning without a broad base of direct encounters from which to abstract and generalize. This defines much of kindergarten work - manipulation, first-hand experiences, use of concrete materials. It identifies equally that part of the curriculum called "play".
Play in brief, is vital to the child as a time for:

- relaxation and hard work.
- release of tensions and conflicts.
- use of muscles and physical self.
- happy pursuit of free choice.
- pleasure in doing.
- satisfaction of needs and tastes.
- development of concepts.
- shaping of values and attitudes.
- growth in language and other skills.
- development of an inquiring mind.
- initiation of good work habits.

To the teacher a child's play is equally important for it affords her the opportunity to observe such things as the child's:

- interpersonal relationships.
- social maturity.
- tensions, conflicts, aggressions, fears.
- happiness, satisfactions, pleasures.
- physical abilities, inadequacies.
- attitudes and significant aspects of personality.
- interpretation of the world and his experiences in it.
- need for more intellectual stimulation.
- skills, either latent or obvious.
- mode of relaxation, release of energies.
- personal, behavioral and developmental needs.

Perhaps, most of all, through play the child demonstrates what is important to him. The astute teacher uses this evidence as a basis for the shaping and nurturing of the child.
Industrial arts, in a very simple sense, is a component of all the other activities of the work-play period. The active child has already begun to demonstrate such major themes as design, use of tools and knowledge of materials when he builds with blocks, wood and bricks or when he saws, nails and paints a toy or original model. His practical experience with paper, electricity, wood and metal toys, charts and books, and his daily use of crayons, paints, sawdust, glue and innumerable other items lead to a wide variety of "lessons" in crafts.

The objectives of these activities which have been termed industrial arts are to further the basic goals of the elementary school rather than to further objectives which may be considered as being uniquely those of industrial arts. The emphasis is not on the product but rather on how experimenting with tools and materials can help the child to:

- develop manipulative skills.
- gain new concepts.
- learn additional vocabulary.
- understand basic principles of safety.
- enjoy an acceptable outlet for release of tension.
- acquire an initial knowledge of life in a technological world.

The interdependence of a child and his peers as they plan and work together promotes major intellectual development.

Doing things with concrete objects is exciting to children. Their built-in motivation and their exploratory, manipulative natures make industrial arts appealing to almost all of them but especially to children whose early learning environments have been impoverished. The opportunity to turn blocks of wood into a train or a corrugated box into a boat helps a child to see that he can manipulate his environment to serve his purposes. As the child probes and builds, he develops the simple versions of basic concepts that eventually lead to more abstract and creative ways of proceeding.
THE LANGUAGE ARTS PROGRAM

An individual's ability to use symbolic language for communication purposes is probably the most essential skill in learning. Without it the source of information remains locked and thinking is restricted. This explains in part why language arts holds such a prominent place in the school curriculum, beginning at the earliest level be it nursery school or kindergarten.

Facility in language develops from constant exposure to its symbols plus opportunity to use them. This is the reason parents and adults are urged to keep up a regular chatter or prattle with children from the time of birth. Even when it seems that the child is too young to be aware, he is learning from this early experience with language and through such communication with adults is encouraged to try out sounds. From this trial use and the adult's interpretation to him he learns to assign meaning to a particular sound or pattern of sounds.

For example, a parent's consistent talking with the baby brings about a "cooing". The baby not only enjoys hearing and making this sound but he likes getting the recognition of others. As he continues to experiment with his voice, lips, and tongue, he changes the sound pattern to something that resembles "da-a-a". When fond father appears and responds, "Dada is coming. Dada! Dada!", the child learns to associate the male figure with this particular response that he wants.

In similar fashion, words are learned but if the child receives no encouragement in this learning, his speech suffers. A child entering the kindergarten generally has a vocabulary of around 2500 words and has facility in putting words into patterns to express thoughts or ask questions. He has acquired concepts and information that are basic to communication from:

- hearing the language.
- having first-hand experiences.
- using the language to express ideas and to ask questions.

In short, he has learned to converse.

The kindergarten program builds on a language the child brings to school with him, be it limited or enriched, considered socially acceptable or crude. Knowing that language develops from practice and as a person feels a need for expression, the kindergarten teacher encourages talk and arranges experiences from which the child can gain ideas to communicate with others.

This means that language arts is really a two-faceted program:

- One supplies the content (what one talks about).
- The other provides practice with the symbolic language.
Content comes from experiences such as:
- informal conversation
- classroom discussions
- show and tell time
- poems, rhymes and fingerplays
- stories
- films and filmstrip
- drama
- experimentations
- field trips
- use of resource materials

Practice is achieved through:
- listening
- conversation
- discussion
- reporting
- telling a story
- creating expression
- dramatizing
- language games
- singing
- giving directions
- observing social amenities
- delivering a message
- reading

In detail, this practice includes:

1. **LISTENING**
   
   To -
   - each other
   - records
   - stories
   - poems, rhymes
   - discussions
   - music
   
   For the purpose of -
   - abstracting central or important ideas
   - noting relationships and sequence of events
   - discovering feelings and actions of people or characters
. securing sensory images
. organizing ideas for retelling
. hearing and discriminating sounds in language (rhymes, beginning sounds)
. developing more precise and enriched vocabulary
. learning the order of words in a sentence
. improvising sentence patterns
. making critical judgments
. sharing the ideas of others
. clarifying personal thoughts, concepts
. discovering ways of solving problems
. adding to the knowledge he already has

2. CONVERSATION

About -
. birthdays
. family events
. illness, fears or personal concerns
. experiences in and out of school
. new items in the room
. unexpected or interesting happenings
. visitors
. a new toy or pet
. a national event
. T.V. program or advertisement
. any subject of interest to the children

During -
. work and play
. the playhouse
. at snack time

. children arrive
. in the cloak room

. at the tables
. in the centers of interest

. on the playground
. at dismissal

With -

. the teacher
. a parent

. one child
. a visitor

. several children
. the principal

. a large group
. any school personnel

3. DISCUSSION

About -

. daily plans, procedures

. excursions, field trips

. emotional reactions to an event

. classroom problems

. the appearance of objects

. care of materials, equipment

. planned units of study

. likes and dislikes

. unexpected events, change of plans

. health and safety

. "timely topics", whatever they may be

4. REPORTING

About -

. a unit of study
. reactions to an excursion

. an event at home
. a lost-and-found item

. local or national news
. the date and plans for a future event
. how to do something
. incidents on the way to school
. discoveries on field trips
. a special experience

5. TELLING A STORY

That -
. someone told or read to him
. is original
. adds to a subject of general interest
. is seasonal
. has an unusual focus
. is just an old favorite
. has a deep-rooted meaning for the child

6. DRAMATIZING

Through -
. favorite poems, fingerplays, rhymes, stories
. role-play of people, situations, events
. puppets (stick, paperbag, paper plate, stocking, finger puppets, etc.)
. interpretive movement to express moods and emotions
. charades, pantomime
. choral speaking

7. LANGUAGE GAMES

For vocabulary enrichment and concept development -

. role play of expressions such as
  "tall and straight"
  "limp as a rag doll"
  "wiggly as a worm"
. acting out words such as "jostle, crunch, sway"

. "Let's Pretend" games (Let's pretend we're on a magic carpet --,
  Let's pretend we're all tiny as mice -- -)
"New Words For Old Game"

- Introduce new words in daily conversations.
- Call attention to unusual words a child or visitor has used.
- Recall new vocabulary in film or filmstrip.
- Describe the day as not just "rainy" but "dreary, drippy, wet, sloppy, miserable, etc."
- Find words that have similar meanings (i.e., big, large, huge, enormous, gigantic).
- Exchange an English word for a foreign one when necessary.

Rhyming Words Games - "know a word that rhymes with - - -"
(ball, ring, fun, play, etc.).

Beginning Sounds Game - "I know a word that begins like - - -" (ball, sing, like, etc.).

Improvement of speech sounds through many games.

8. CREATIVE EXPRESSION

That -

- Lets children
  - make new words.
  - create silly jingles.
  - draw nonsense pictures and describe them.
  - tell how they feel or what they see in their own unique fashion.
  - start a story.
  - complete a story.
  - decide on their own tasks.
  - suggest unusual solutions to problems.

- Asks them to react to specific words such as "mother, fun, eat" or any other word that might bring a varied response.
. Gets them to think about novel ideas

- "What is red - - -"

- "So many things are blue - - -"

. Discusses a visit to a store or other building in expanded fashion:

- ways children might have traveled there (walk, ride, run, skip, march, hop, strut, etc.).

- the parts of the building (floor, ceiling, aisles, counters, showcases, lights, entrances, exits.).

- the different kinds of people children saw on the way (by occupation--clerk, milkman, garbage collector, street cleaner, policeman, etc.) (by age or size--baby, little girl, big brother, grandma, toddler, etc.).

- the weather they experienced (cold, clear, lovely, cloudy).

- what they could have purchased in the building.

- what other buildings are in the town.

9. SINGING (discussed under Fine Arts)

10. GIVING DIRECTIONS

   For -

   . a game . a method

   . a task . a solution

   . a place . a rule

11. DELIVERING A MESSAGE

   To -

   . the principal . parents

   . the teacher . another child

12. OBSERVING SOCIAL COURTESIES

   When -
playing
answering the phone
greeting visitors
arriving or departing
working with others

13. WRITING

To improve -

- small muscle control
- eye-hand coordination
- the child's understanding of the necessity for and the uses of writing
- the child's interest in writing

Through -

- manipulative activity of all kinds, indoors and outdoors
  - playhouse activities
  - block play
  - simple table games
  - practice with wrist and hand strengthening devices
  - rhythmic activities, bodily response
  - art activities
    - drawing
    - painting
    - cutting
    - pasting
    - sawing
    - hammering
  - manuscripting his own name (if he wants to)
  - writing simple labels or signs
  - signing cards or letters
  - copying letters or words he sees around the room
- writing what he wishes

functional preparation for writing
- dictating letters and stories
- recognizing his name
- enjoying charts and displays
- making signs for and decorating the bulletin board
- creating invitations
- labeling his personal locker
- addressing and signing Valentines

Recognizing that there will be a wide range in the language abilities of any kindergarten class, the teacher must be ready for all the non-communicative students and the far advanced child who knows that:

- symbolic language is made up of sounds.
  - represented by letters that are arranged in certain patterns to form words.
    - that are in turn placed in a particular order to express meaning.

This is why much teaching must be individualized. Kindergarten, with its informal large block of activity time, lends itself well to a one-child-to-one-teacher relationship. During the period of free choice, the teacher has an excellent opportunity for direct teaching with a single child at the level on which he is operating.

Certain language arts skills, however, can be learned equally well in group situations. To be practical, the teacher may work with individuals, small groups of children or the total class in any language experience.

In all such activities both direct teaching and informal learning situations can be used to assure:

- the acquisition of new ideas and words.
- the clarification and accuracy of concepts.
- the development of listening, speaking, reading and writing skills.

It seems important to re-emphasize that facility in language comes only from practice and practice comes from being allowed and encouraged
to talk. Silent children in silent classrooms cannot develop fluency in speech. It is the teacher's continuing task, therefore, to:

- arrange experiences that foster verbal reaction.
- plan opportunities for the learner to talk with
  - one friend (teacher or child)
  - a small group
  - a large group
- encourage each child to use the new vocabulary he has acquired.
- help every student to improve in the total of communication-verbal gesture, body movement, facial reactions.

By the same token, if children are to develop satisfactory listening skills, they need a good model. The teacher, therefore, must be sure to:

- listen thoughtfully to children.
- look at the speaker.
- compliment good listeners.
- overlook distractions.
- let a child talk without correcting his grammar.
- avoid repeating responses of children.
- let children restate and clarify.
MATHEMATICS IN THE KINDERGARTEN

Mathematics is the overall science of dealing with the relationships of quantity, measurement and properties. In the kindergarten the development of these concepts occur largely as an integral part of all other activities. From the abundant materials, situations and experiences in an active kindergarten, the competent teacher abstracts those learnings that are mathematical and have relevancy for five year olds. In addition, she plans for a variety of number situations to insure that discoveries and concepts occur in quantity and quality. She also makes these first mathematical experiences realistic and enjoyable by providing the children with a variety of manipulative materials and guiding them in their use.

Many of today's kindergartners have been exposed to the world of numbers via television, telephone numbers, allowances and family shopping and bring with them varying concepts of number. For this reason today's teacher has a unique role:

1. She must assess each child's personal awareness of numbers since every child has his own level of mathematical understanding. One child may comprehend only what two things are; another may understand two hundred things and ways of using them.

2. She must diagnose his individual competencies and his readiness for further mathematical learnings.

3. She must add those experiences that will develop additional concepts.

Whether number activities are planned or incidental, certain experiences occur in any good kindergarten. Through these experiences the teacher continually assesses each child's developmental level and then provides for his individual need. She also encourages the development of numerical concepts by surrounding the child with mathematical devices and giving him ample opportunity to use them.

Such materials may include:

- an abacus
- a number line on the wall or floor
- sets of picture cards
- sets of number cards
- sets of numerals
- individual flannel boards
- one large flannel board
- boxes of beads, buttons, stones, or beans for counting
- bingo or lotto cards
- dominoes
- numbered blocks
- simple number games and puzzles
- weights
- clock
sets of felt cut-outs  
geometric figures of felt, wood or cardboard  
individual slates  
chalk  
scales  
measuring cups, spoons  
pint and quart containers  
tape measure  
ruler, yardstick

Whatever their levels of understanding, children can be helped through games, observations, discussions, discovery and use of things about them to develop initial or extended concepts of:

- Quantity  
- Place  
- Distance  
- Numerals  
- Ordinals  
- Number

- Shape  
- Size  
- Speed  
- Relationships  
- Simple mental computation  
- Temperature  
- Weight  
- Height  
- Sets and subsets  
- Grouping  
- Counting

During the year the average kindergartner should have experience with and show some facility in these areas:

1. COUNTING

- Counts objects to ten or more (milk bottles, napkins, blocks, straws, girls, boys, cookies, dishes, dominos, books, crayons, flannel board cutouts, pictures, papers, characters in a story, objects on a page, children in a game, pegs, toys, beads, items in a collection, etc.).

- Understands ordinals (first, second, third, etc.).

  . first name, last name  
  . first grade, second grade, etc.  
  . first in line, second in line, etc.  
  . first day of the week, fifth day, etc.  
  . first song, third song, last one  
  . directions given in sequence  
  . second row, fourth row  
  . group experiences retold in order

- Finds one-to-one correspondence in the classroom.

  . one coat for one child  
  . one cookie for one child  
  . one box for one child  
  . one chair for one child  
  . one bottle of milk for one child  
  . one locker for each child
2. GROUPING and SETS

- Knows that a set may be a group of similar objects or a collection of different objects:
  - Different (a dog, a child, a wagon)
  - Similar (a group of boys, a herd of sheep)

- Understands sets of two to ten:
  - pairs, twins
  - parts of body (arms, legs, feet, eyes)
  - couples in games, dances
  - sets of wheels on moveable toys
  - sets in stories (Three Bears, Five Chinese Brothers)
  - groups of children
  - piles of beads, pegs, blocks
  - groups in pictures or books
  - symbols on the calendar (set of sunny symbols, rainy ones)
  - objects on the flannel board
  - sets in clothing (shoes, gloves, socks, mittens)

- Recognizes on sight: sets of two to six.

- Sees differences, similarities in sets.

3. NUMBER SYMBOLS

- Begins to recognize number symbols from zero to ten:
  - dates on calendar
  - addresses
  - ages
  - telephone numbers
  - clock numerals
  - number games
  - flash cards
  - number puzzles
  - T.V. signs
  - in newspapers, magazines, comic books

4. TIME

- Begins to understand this abstract concept through observation, conversations and functional experiences such as:
  - It's time to go home.
  - Our clock says nine o'clock; it's time to begin.
  - It's time for a story.
  - We arrived early today.
  - When the snow stops, we will go outside.
  - Ten o'clock! Snack time!
. Could you work a bit faster? We haven't much time.
. You will soon be six.
. Next year you will go to first grade.
. It's time to clean up.
. You may play a little longer.
. I go to bed after my favorite T.V. show.
. When both hands reach the twelve, it will be time for lunch.
. When we go out to play, what time does the clock say?
. Tomorrow is our party.
. Yesterday was a rainy day.
. Today a new year begins.
. How many days are on the calendar?
. Yesterday was Monday; today is Tuesday.
. On Saturday and Sunday we sleep longer.
. In two days it will be vacation time!
. It's almost time to go.
. Today we must finish what we started yesterday.
. This afternoon we will have a treat.
. When is your birthday?
. Let's mark our holidays on the calendar.

5. MEASUREMENT

- Begins to understand linear measurement through experimentation with:

  . rulers, yardsticks, tape measures, varying lengths of string, wood
  . comparison of sizes of objects (dolls, balls, blocks, pencils, children)
  . measuring distances of jumps, hops or bean bag toss
  . playing "kangaroo hops, bunny hops, baby steps, giant steps"
  . using vocabulary such as:

<table>
<thead>
<tr>
<th>big</th>
<th>higher</th>
<th>farther</th>
</tr>
</thead>
<tbody>
<tr>
<td>little</td>
<td>highest</td>
<td>farthest</td>
</tr>
<tr>
<td>far</td>
<td>short</td>
<td>tall</td>
</tr>
<tr>
<td>more</td>
<td>shorter</td>
<td>taller</td>
</tr>
<tr>
<td>many</td>
<td>shortest</td>
<td>tallest</td>
</tr>
<tr>
<td>line</td>
<td>as short as</td>
<td>long</td>
</tr>
<tr>
<td>height</td>
<td>big</td>
<td>longer</td>
</tr>
<tr>
<td>wide</td>
<td>bigger</td>
<td>longest</td>
</tr>
<tr>
<td>narrow</td>
<td>biggest</td>
<td>as long as</td>
</tr>
<tr>
<td>large</td>
<td>small</td>
<td>as wide as</td>
</tr>
<tr>
<td>larger</td>
<td>smaller</td>
<td>as many as</td>
</tr>
<tr>
<td>high</td>
<td>smallest</td>
<td>near</td>
</tr>
</tbody>
</table>
- Begins to understand liquid measure through:
  \begin{itemize}
    \item planned cooking activities
    \item incidental waterplay experiences
    \item use of pint, quart measures; teaspoon, tablespoon, cup, half-cup
    \item using vocabulary such as:
      \begin{tabular}{ccc}
        more & enough & the most \\
        less & as much as & the least
      \end{tabular}
  \end{itemize}

- Develops an understanding of weight through:
  \begin{itemize}
    \item observing various objects and guessing which is lighter, heavier (feather, brick, stone, balloon, lollipop, full and empty milk cartons)
    \item lifting objects to compare weights
    \item using kitchen scales to measure the objects and other items such as:
      \begin{tabular}{cc}
        a pound of candy & a box of matches \\
        a sack of flour & a loaf of bread
      \end{tabular}
    \item using large scales to weigh children
  \end{itemize}

- Recognizes the thermometer as a means of measuring temperature through its use:
  \begin{itemize}
    \item in cooking
    \item in television and radio reports
    \item on furnaces
    \item in the outdoors
  \end{itemize}

- Notes differences in temperature:
  \begin{itemize}
    \item indoors
    \item outdoors
    \item in the refrigerator
    \item near the radiator
    \item in hot water, cold water
  \end{itemize}

- Begins to use fractions through functional uses such as:
  \begin{itemize}
    \item folding papers in half
    \item dividing papers into four equal parts
    \item dividing paint into two or more jars
    \item dividing children into equal groups for games
    \item cutting apples into halves, quarters
    \item breaking a cookie in half
    \item filling a glass half full
    \item talking about all, most, half, a little, part of
    \item coming to school for half a day
    \item dividing the group in half for a game
    \item asking half the class to sing one song, half another
  \end{itemize}
6. **MONEY**

- Can identify penny, nickel, dime, quarter.

- Has some sense of cost through:
  - playing "store"
  - using real or play coins
  - discussing charts of coins (i.e., a nickel will buy the same as five pennies)
  - going to the corner store to buy

<table>
<thead>
<tr>
<th>Item</th>
<th>Item</th>
</tr>
</thead>
<tbody>
<tr>
<td>straws</td>
<td>popcorn</td>
</tr>
<tr>
<td>cookies</td>
<td>candy</td>
</tr>
<tr>
<td>seeds</td>
<td>a pumpkin</td>
</tr>
<tr>
<td>decorations</td>
<td>Valentine</td>
</tr>
<tr>
<td>a jump rope</td>
<td>a get-well card</td>
</tr>
</tbody>
</table>

- buying tickets for a train trip
- visiting the post-office to purchase stamps for letters, cards, packages
- paying for milk, lunches
- paying admission to children’s theaters, special movies, programs
- spending allowances

7. **FORMS and SHAPES**

- Recognizes basic geometric shapes. (circle, triangle, rectangle, square).

- Understands such shapes through use of:

<table>
<thead>
<tr>
<th>Material</th>
</tr>
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<tbody>
<tr>
<td>paper</td>
</tr>
<tr>
<td>blocks</td>
</tr>
<tr>
<td>rhythm instruments</td>
</tr>
<tr>
<td>toys</td>
</tr>
<tr>
<td>games and game formations</td>
</tr>
<tr>
<td>pictures</td>
</tr>
<tr>
<td>felt cutouts</td>
</tr>
</tbody>
</table>

- Finds geometric shapes in the kindergarten room:

<table>
<thead>
<tr>
<th>Shape</th>
</tr>
</thead>
<tbody>
<tr>
<td>floor tiles</td>
</tr>
<tr>
<td>windows</td>
</tr>
<tr>
<td>clock</td>
</tr>
<tr>
<td>flag</td>
</tr>
<tr>
<td>wall blocks</td>
</tr>
<tr>
<td>Furniture tops</td>
</tr>
<tr>
<td>lockers</td>
</tr>
<tr>
<td>toys</td>
</tr>
<tr>
<td>doors</td>
</tr>
<tr>
<td>lights</td>
</tr>
</tbody>
</table>

8. **SPACE**

- Demonstrates the meaning of spatial vocabulary:

<table>
<thead>
<tr>
<th>Vocabulary</th>
</tr>
</thead>
<tbody>
<tr>
<td>inside, outside</td>
</tr>
<tr>
<td>on, in</td>
</tr>
<tr>
<td>over, under</td>
</tr>
<tr>
<td>middle</td>
</tr>
<tr>
<td>first, last</td>
</tr>
<tr>
<td>above, below</td>
</tr>
</tbody>
</table>
. near, far
. next to, between
. top, bottom
. beside, aside of
. next to last
. within

- Explains space through dramatic play of imaginary:
  . boats
  . cars
  . rockets
  . airplanes
  . jets
  . swings
  . seesaws
  . merry-go-rounds

- Gets a feeling of space through:
  . twisting
  . twirling
  . jumping
  . running
  . skipping
  . dancing
  . swinging
  . climbing
SOCIAL SCIENCE IN THE KINDERGARTEN

The entire program of kindergarten is actually a study in social living. It is for this reason that much emphasis is placed upon the skills and attitudes of working and playing with one another, and upon such social learnings as:

- sharing
- taking turns
- developing independence
- accepting authority of adults
- respecting the rights of others
- recognizing the interdependence of all people
- assuming responsibility
- caring for personal and group property
- completing assignments and free choice activities
- showing consideration for others
- developing a wholesome self-image

To these learnings early childhood experts are now suggesting that certain opportunities and experiences can be provided for the development of simple, basic concepts from the social sciences. It must be emphasized that no formal teaching in the social sciences should be imposed upon young children but activities and experiences within the realm of their understanding may be used. Spodek, experimenting with concept development in the realm of time and distance, supports this by finding that:

- Kindergarten children have a wide background of information in areas previously considered inappropriate for children.

- Kindergarten children deal with ideas over a long period of time, returning often to clarity and modify new information.

- Kindergarten children use a wide variety of materials and experiences in developing social concepts and ideas.
- Kindergarten children can begin to use the tools of the social scientist in learning about the world.

Actually, within the kindergarten many experiences occur that help children grasp the significance of change which has taken place through time. Other activities begin to give kindergartners some orientation to space, direction, people and places around the world.

Children are learning about history when they:
- take trips to museums to see relics of the past.
- watch selected historical programs on T.V.
- view historical films (i.e., Little Girl of Long Ago).
- listen to stories from history.
- look at books of long-ago times.
- try on old-fashioned clothing.
- examine family albums or photographs of ancestors.
- sing songs and play games that children of the past enjoyed.
- use customs from festivals of other lands (i.e., the Pinata).
- try some old-fashioned practices (i.e., husking corn, churning butter).
- discuss heroes, holidays, famous birthdays.

They are learning about geography when they:
- take a walk through their school building.
- find out where everything is in the kindergarten (why not: make a simple map of the room).
- make a map of the school grounds and their neighborhood area.
- take a trip; share pictures or souvenirs of such a trip.
- observe the sun, feel the direction of the wind.
- handle the globe; want to know where they live on it.

- discuss geographic aspects of television programs ("cowboys of the West, across the ocean, to the moon").

- talk about places "far away and close by".

- read stories that emphasize directions (i.e., "East of the Sun and West of the Moon!").

- watch selected television programs of people and places.

- read magazine of geographic nature.

- look at travel posters of America and of foreign places.

- see pictures of other lands; hear stories about them.

They are learning about sociology when they:

- develop the previously mentioned skills of social living.

- study about their families.

- learn how their school functions.

- begin to understand the operations of their community.

They are learning about economics when they:

- bring their milk money.

- play store.

- take walking tours to points of interest (i.e., stores, markets).

- build and operate a post office.

- visit a factory (perhaps a toy factory).

- buy something for a project (apples to make applesauce, cream to make butter, sugar to ice cookies).
- plant a garden.
- take good care of school property.
- watch community helpers at work.
- discuss occupations of fathers, mothers.
- visit the airport.
- take a train or bus ride.
- read selected stories on occupations (i.e., Daddies).
- share housekeeping duties (to illustrate the division of labor).
- discuss the fact that families must work together.
- have a cookie sale (this illustrates the principle of profit).
- talk about the weather and how it affects economics of an area (If it rains, we cannot hold our school festival!)
- discuss the principle that everyone needs to work and that it is good to work.
- demonstrate economy in the use of crayons, paints, clay.
- discuss how going to school affects the kind of work one does when he grows up.
- understand that no one can live without others; all people are interdependent; see films or filmstrips to illustrate this principle.

Although very early in life children begin to be aware of economic principles, through "payday", allowances, their fathers' jobs, even relief checks, it must be remembered that five year old impressions and concepts of such experiences are fragmentary and somewhat fleeting. To avoid completely fragmentary learnings in any area of the social sciences, the teacher will have to do two things:

- capitalize on the "teachable moments" as they present themselves.
- plan to some degree the experiences that may help to develop such concepts.
Since experiences tend to have deeper meaning when they are the result of interest in a particular subject, the following units are suggested as being pertinent to young children and their social concepts.

- Children Around The World Go To School
- Fun and Games In Many Places
- Everybody Has a Home
- Everybody Works
- People In My Town
- Families: How They Help Each Other
- My School Family
- Friends Near and Far
- Let's Take A Trip!
- On My Vacation
Trips Are Important

No classroom can offer every learning activity that is advantageous to children, but the good kindergarten attempts to make available as many as possible. One of the most beneficial of such opportunities is the taking of trips. Excursions, simple or extensive, stimulate interest in learning and enrich classroom experiences in many ways. Properly conducted, they give the children:

1. Opportunity for first-hand investigation.
   - All healthy young children explore their environment. It is their way of discovering the world. They are not content, however, with probing only immediate surroundings but are quite conscious of that larger world beyond themselves. For some children investigation will be an enrichment device; for others it will fill the deep-seated need of enlarging upon meager backgrounds.

2. Experience in gathering information.
   - All children want, all children need to know the how, why, what, where of things. Bits of information gathered on trips eventually add up to a wealth of information which children use to deepen their understanding and to exchange with others.

3. Avenues to broaden or to develop new concepts.
   - Investigation of the world about them often leads to discovery of new and bigger ideas about animals, water, growing things, rocks, minerals, people, places, and innumerable other subjects. It helps, also, to change misconceptions or misinformation that children innocently acquire.

   - Today's children are surrounded by economy, efficiency and speed. They often have no knowledge of simple, behind-the-scenes processes involved in the making or marketing of such things as milk, butter, bread, candy, applesauce, etc. Neither do they understand how buildings are heated, what homes would be
like without electricity or what goes into a new building. First-hand observations help to initiate or clarify understandings of this nature.

5. Comprehensible activity to digest, discuss and imitate.

- Children are fascinated most by what they understand, and what they understand, they mimic. This is the reason kindergartners are always involved in playing doctor, nurse, fireman, bus driver, mother, daddy. It explains also why they seldom play lawyer or president. From their play, children show a teacher what and how much they comprehend and how well they relate to the world about them. Youngsters who have had a minimum of interaction need especially well-chosen trips and experiences to enlarge their understanding.

6. Partial answers that raise more questions.

- Although it is important to plan carefully and to discuss with the children what to look for on an excursion, it is well to remember that children do not notice the same things as adults. Boys and girls usually concentrate on things that are important to them, on what is close to them, and on things that are active and exciting. No one can really hurry them or push them. They learn at their own pace and in their own way. They find answers to what they want to know and ask questions relative to the same. If the teacher remains relaxed about the quantity and speed of her children's learning, she will probably be rewarded with a richness of quality that she least expects.

Choose Them Wisely

Trips are not to be taken haphazardly nor on the spur-of-the-moment. If they are to have any real value, they must be chosen wisely and planned carefully. There was a time when excursions were just "something to do" or were purely for fun, but today educators feel that trips should have specific purposes and be related to some definite unit of study. In choosing trips, therefore, the teacher has many things to consider:

1. The range of the children's interests.
2. Their particular needs and abilities.
3. Their levels of maturity.
4. Their backgrounds of experience.

5. Their emotional and social reliability.

Proper assessment of these attributes is always important, but particularly so in the beginning of the year. It is at this time that the teacher is especially alert to clues indicating children's interests, knowledge and concerns. It is then that she looks for evidence to help her decide in what directions individual and group horizons need extending.

Begin With Your Community

Sometimes the most exciting trips are those that can be taken in the immediate neighborhood. These "walking tours" often uncover local resources of merit and fun. A class might, for example, decide to do any of the following:

1. Visit the barber, doctor, grocery store to get a fresh perspective of an old experience.

2. Tour a dairy store to find all the products of milk.

3. Buy doughnuts or cookies at the bakery.

4. Look for new families in the neighborhood.

5. Buy a pumpkin or seeds or popcorn at the corner delicatessen.

6. Walk to see the effects of a severe rain or snowstorm.

7. Take a Spring walk, a Fall walk to see the signs of the season.

8. Look for winter birds; feed them.

9. Investigate pets in the neighborhood.

10. Take walks "just for fun".

   - Run in the park.
   - Go wading, if possible.
   - Have a picnic.
   - Pick wild flowers.
   - Hunt acorns.
   - Walk in the rain.
   - Go sledding.

11. Visit local recreational facilities.

12. Check lawns, alleys, to see whether area is clean, well kept, an asset to the neighborhood.

13. Observe community helpers - street cleaners, leaf collectors, garbage collectors, etc.
14. Visit a neighborhood resource person to find out about anything with child appeal.
   - Artists.
   - Tropical fish experts.
   - Candlemakers.
   - Cake decorators.
   - Weavers.
   - Jelly makers.
   - Antique car collectors.
   - Backyard zoo-keepers.
   - Beekeepers.
   - Wood carvers.
   - Snake collectors.
   - Any other person with a unique interest.

Include The Outside World

Many times the class may wish to take longer excursions. Some have much value; others need to be assessed carefully. Before deciding upon many trips of a more extensive nature, it is well to consider the following things:

1. Does the trip have any real relationship to the total program or to a specific area of learning?

2. How dependable is the children's behavior?

3. How many of the class have already taken a similar trip?

4. Is a particularly long trip really the best way of accomplishing your goal?

5. Do you have willing chaperones sufficient both in quantity and capability?

6. Is this a trip that might have more merit at a later grade level?

7. Is the season of the year suitable for the trip under consideration?

Whatever their nature, trips provide adventure, significant experiences and stimulating change from routine. Chosen carefully, used wisely, expedited efficiently, they elevate life in the classroom above the mundane.
Suggested Trips

The following trips have merit for children in kindergarten and primary grades. Choose as many as seem feasible for the class you are teaching:

1. Farm (chicken, horse, pig, cattle, general farm).
3. Park.
4. Zoo.
5. Dairy.
7. Fire station.
8. Police station.
9. Airport.
11. Hatchery.
12. Fish pond.
13. Children's home.
14. Old folk's home.
15. Industries (i.e., a toy factory).
16. Another kindergarten (i.e., an orthopedic kindergarten or a class for deaf children).
17. Construction site.
18. Waterworks.
19. Lake, pond, river, ocean.
20. Public library.
22. Shipyard.
23. Docks.
24. Forest.
25. Children's theatre.
29. Specialty shops.
30. Shopping centers.
31. Children's movie.
32. Puppet show or play.
33. Train ride.
34. Candy factory.
35. Orchard.
36. Television station.
37. Roadside market.
38. Any other facility that might be of interest to children.
SCIENCE IN THE KINDERGARTEN

To the young child every day is a wonderful, new experience.

- He looks at and feels the sun, the rain, the wind, sand, mud, water.
- He questions light, darkness, quiet, shadows, places, animals, sounds.

To all this, and more, he reacts with joy or fear or excitement or simple curiosity and with the help of a perceptive adult begins to understand what is going on around him so that someday he can relate it to the more distant and complex.

In the kindergarten each simple experience leads to a new one and expands the child's range of awareness. It also encourages the child's natural inquisitiveness so that basic scientific understanding can be achieved without formally introducing science. It has been said that children, above all others, have the true spirit of scientific investigation. They are openminded and nothing is too trivial for them to investigate. In addition to the usual probing children do, it is suggested that some science activities be planned to foster a new consciousness of the world and its wonders.

The kindergarten helps children better understand the environment in which they live by planning:

- experiments
- field trips
- demonstrations
- visits from resource persons

and by providing ample science books, films, filmstrips, pictures, charts, collections and displays.

In a selected area of the room, usually called "The Science Corner", children are encouraged to use equipment and materials for their own observations. Frequent changing of items in the corner helps to stimulate continued interest.

The science area may include:

- Aquarium and supplies
- Terrarium
- Cages for small animals
- Hot plate
- Jars
- Hinges
- Pulleys
- Magnets
- Dirt
- Sand
- Stones
- Containers
Balloons and pump  Magnifying glasses

Prisms  Gardening supplies

Funnels  Magnetic compass

Tuning fork  Thermometer

Measuring devices  Barometer

Types of weight scales  Collections of all kinds

Area for posters and pictures  Seeds and buds

A place for all the odds and ends children gather

Resource books and encyclopedias should also be available to the kindergarten. When children ask questions that the teacher cannot answer, they provide an excellent opportunity for demonstrating to kindergartners where information can be found. The practice of "Let's look it up!" begun at the age of five provides a foundation for lifelong habits of investigation and research.

In kindergarten science the teacher's role is many-faceted. She helps each child:

- to understand the knowledge and information that is inherent in each experience.
- to use his wonder and curiosity freely but wisely.
- to make discoveries and relate them to previous knowledge.
- to solve very simple problems through making inferences, generalizing and reaching possible conclusions.

She also helps him:

- to appreciate the interrelationship of all life.
- to be aware of order in nature.
- to learn that he can make use of his environment for the improvement of his own life and that of others.
Although there must be more teacher-direction at the kindergarten level, the emphasis is still on the discovery approach and on "learning by doing." With young children this laboratory-oriented method may stymie the group at first but excitement grows as the teacher skillfully gets the glass to really "look, try out and find out."

Concept development is, of course, the basic concern followed by the learning of simple facts relevant to the child's level of understanding. The kindergarten is particularly adapted to this approach for:

- less material is covered (and kindergartners usually move at their own rate!)
- more facilities are needed (but simple equipment is easily available to every classroom).

Emphasizing "the big idea" in concept development is important science for fives. When talking about growing things, for example, such an idea might be "Plants Grow at Different Rates." To prove this concept the children may place three or four plants near the window and then hypothesize "How tall will each be in 20 days?" Their goal is to note different sizes in the same growing time.

Although many authors tend to propose rather sophisticated concepts for children, it seems more pertinent for kindergarten teachers to follow these suggestions:

- Choose the simple subjects.
- Carry through with simple activities.
- Edit plans for dangerous processes (the use of ammonia, i.e., is questionable with fives).
- Eliminate sophisticated concepts except for exceptional children.
- Arrange activities in order of difficulty.

As suggested, the simple things that every kindergarten class discusses include:

- apples
- fog
- eggs
- babies
- leaves
- flowers
- birds
- seeds
- thermometer
- snow and ice
- magnets
- water
As these subjects arise during the year, the children and teacher may work together to develop the following concepts through the suggested or similar activities. Again it must be stressed that because of individual differences, there will be varying levels of scientific understanding and growth.

The recommended method for developing a concept involves questioning, forming an idea, making observations and drawing conclusions. This is the scientific or problem-solving approach and usually follows this format:

1. What do we want to find out?
   (Do plants "drink" water?)

2. What can we do to find out?
   (Put a white Carnation or a Queen Anne's Lace in a glass of colored water. Let it stand overnight.)

3. What do we see happening?
   (The colored water is going up the stem. The flower is turning the same color as the water.)

4. What does this tell us?
   (Plants do "drink" water.)
<table>
<thead>
<tr>
<th>SUBJECT</th>
<th>CONCEPTS</th>
<th>SIMPLE ACTIVITIES</th>
</tr>
</thead>
<tbody>
<tr>
<td>Plants</td>
<td>- Plants need water.</td>
<td>1. Get two plants, water only one.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>2. Put fresh flowers in a vase with water; put other flowers in vase without water. Watch.</td>
</tr>
<tr>
<td></td>
<td>- Plant leaves turn toward the sun.</td>
<td>1. Place a plant in sunlight. Let it stand for two weeks. Turn it around and see what happens.</td>
</tr>
<tr>
<td></td>
<td>- Most plants need sunlight.</td>
<td>1. Put one plant in the sunlight; put a second plant in a dark corner or closet. Watch daily.</td>
</tr>
<tr>
<td></td>
<td>- Some plants change colors in the sunlight.</td>
<td>1. Place a colea in the sunlight; watch leaves change color.</td>
</tr>
<tr>
<td></td>
<td>- Plants need food.</td>
<td>1. Force early spring blossoms (forsythia) by putting sprigs in water. Watch blossoms sprout. Note how blossoms die because water is not enough food. The blossoms need the mother plant to make new food to continue growth.</td>
</tr>
<tr>
<td></td>
<td>- Plants need warmth to develop and flower.</td>
<td>1. Watch bush outdoors; bring in several sprigs of the bush. Let them blossom and compare the sprigs with the bush.</td>
</tr>
</tbody>
</table>
CONCEPTS

- Plants need air.
- Most plant roots grow downward.
- Plant roots grow around things that get in their way.
- Plants grow from many things.
- Plants provide food for people and animals.

SIMPLE ACTIVITIES

1. Put a small plant in one bottle without a lid. Put a second plant in another bottle with a lid. Do not remove the lid. Watch results.

1. Put wet cotton in a glass jar. Place seeds (lima beans, i.e.) on cotton. Keep watered. Watch roots grow downward.

1. Put wood or stones in a jar of soil. Plant seeds near the obstacle. Watch roots grow around or over then.

1. Use cuttings, seeds, bulbs:
   - Try carrot tops, potatoes, onions, leaves, seeds, (flower, grapefruit, avocado, apple) geranium sprigs.

1. Eat plant foods that 
   - grow below the ground:
     - potatoes
     - parsnips
     - beets
     - onions
     - carrots
     - peanuts
     - turnips
<table>
<thead>
<tr>
<th>SUBJECT</th>
<th>CONCEPTS</th>
<th>SIMPLE ACTIVITIES</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>- grow above the ground.</td>
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<tr>
<td></td>
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<td>. tomatoes</td>
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<td></td>
<td>. rhubarb</td>
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<td>. strawberries</td>
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<td></td>
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<td>- grow in pods.</td>
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<td>. beans</td>
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<td>- grow on trees.</td>
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<td></td>
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<td>. apples</td>
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<td></td>
<td></td>
<td>. bananas   . plums</td>
</tr>
<tr>
<td></td>
<td></td>
<td>. pears     . apricots</td>
</tr>
<tr>
<td></td>
<td></td>
<td>. peaches   . cherries</td>
</tr>
<tr>
<td>SUBJECT</td>
<td>CONCEPTS</td>
<td>SIMPLE ACTIVITIES</td>
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<tr>
<td>Plants reproduce themselves.</td>
<td>1. Save seeds from a Halloween pumpkin; plant in large jar of soil. 2. Plant many different bulbs, garden seeds, acorns or grass seed; watch new plants grow.</td>
<td></td>
</tr>
<tr>
<td>People and animals need air to live.</td>
<td>1. Ask children to hold their noses and mouths shut; discuss reaction.</td>
<td></td>
</tr>
<tr>
<td>Air pushes things.</td>
<td>1. Put paper on a table; turn on electric fan in the direction of the paper. 2. Go outside on a very windy day; feel the air push. 3. Put pin wheel in the room ventilator.</td>
<td></td>
</tr>
<tr>
<td>Air has weight.</td>
<td>1. Put a flat balloon between two blocks of wood; blow up the balloon. Watch the weight of the air in the balloon lift the blocks.</td>
<td></td>
</tr>
<tr>
<td>Air evaporates moisture. (dries things)</td>
<td>1. Wash some doll clothes; hang them in the air.</td>
<td></td>
</tr>
<tr>
<td>Air takes up space.</td>
<td>1. Put a dry tissue or hanky in a glass. Invert in a bowl of water; the air keeps the tissue dry.</td>
<td></td>
</tr>
<tr>
<td>Air lifts things.</td>
<td>1. Fly a kite on a windy day.</td>
<td></td>
</tr>
</tbody>
</table>
- **Air moves.**
  1. Spray an aerosol freshener in one corner of a room; smell the odor as it moves to other corners.
  2. Watch smoke in the air.

- **Moving air is wind.**
  1. Toss a hat into the wind.
  2. Watch the leaves twirling.
  3. Note clothes dancing on a line.
  4. See hair blowing in the wind!

- **Air has moisture.**
  1. Put ice cubes into an aluminum cup or tumbler; watch moisture form on outside of container.
  2. Breathe on a pane of glass or mirror; see moisture.

- **Air (oxygen) helps fires burn.**
  1. Put a candle in a jar. Light it. Watch it burn until oxygen is used.

- **Air has dust in it.**
  1. Watch the rays of the sun as they come through the window. Note the dust particles.
SUBJECT CONCEPTS

- Air slows falling things.
- Water has air in it.

SIMPLE ACTIVITIES

1. Make a small parachute from a spool and a handkerchief. Toss it in the air on a windy day and watch what happens.

1. Fill a bottle with faucet water. Put the bottle on a windowsill. Watch the air bubbles rise to the top of the water.

Water In Everyday Life - Water has many forms.

1. Freeze ice cubes.
2. Boil water to make steam.
3. Let steam flow into a glass container; watch it turn back into water.
4. Bring snow into the room; let it melt into water.
5. Gather hail, if possible.
6. Walk in the dew.
7. Note the frost on window-panes.
8. Watch icicles form and melt.

- Water has many uses (it helps people in many ways.)

1. Discuss the use of water in the following ways:
   - cleaning
   - cooking
   - baking
   - scouring
   - drinking
   - quenching
   - (fire)
   - bathing
SUBJECT

CONCEPTS

. painting
. sprinkling
. swimming
. skating

SIMPLE ACTIVITIES

- All living things need water.

1. Give it to:
   - plants
   - animals
   - birds
   - people

2. Use the water experiment listed under Air and Plants.

- Water expands when it freezes.

1. On a very cold day put two jars outside. Fill both with water. Put a lid on one. When the water in the covered bottle freezes, observe what it does.

- Water gets into the air by evaporation.

1. Fill two measuring cups with water. Put a lid on one. Watch both cups daily to note the water line.

- Some things hold more water than others.

1. Put water in a clear bowl. Watch the water line before and after you put in a stone. Do the same with a sponge, rubber, piece of cloth. See which absorbs the most water.

- There is water in soil.

1. Put soil in a jar. Cover it tightly. Note drops of moisture that gather in the jar.
<table>
<thead>
<tr>
<th>SUBJECT</th>
<th>CONCEPTS</th>
<th>SIMPLE ACTIVITIES</th>
</tr>
</thead>
<tbody>
<tr>
<td>- Water mixes with some things.</td>
<td>1. Experiment with different powders (salt, sugar, baking soda, instant coffee,) oil, syrup; note what happens.</td>
<td></td>
</tr>
<tr>
<td>- Some things will float in water.</td>
<td>1. Try a piece of woo', a sponge, a stone, a feather, a plate.</td>
<td></td>
</tr>
</tbody>
</table>

**Other Growing Things**

- There are many kinds of growing things: plants, animals, people.
- Growing things need food, water, air.
- People and animals need growing things to live.
- Growing things change as they grow older.

1. Let children bring plants, pets (both animals and birds).
2. Recall your plant experiments; feed and water your pets and yourself!
3. See plant experiment pertaining to food. Have a breakfast party.

2. Feed your pets different kinds of food (plants, seeds, bugs, other animals).

1. Plant seeds, small plants, trees. Watch them grow. Observe growth changes in puppies, hamsters, etc.
2. Measure the children in the beginning and at the end of school. Compare.
<table>
<thead>
<tr>
<th>SUBJECT</th>
<th>CONCEPTS</th>
<th>SIMPLE ACTIVITIES</th>
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</thead>
</table>
|         | - Growing things reproduce their own kind. | 1. To show children that living things have babies like themselves, hatch eggs, watch guppies, tadpoles, kittens being born.  
2. Use experiments from study of plants. |
|         | - Magnets attract objects made of some metals. | 1. Place a collection of items - nails, buttons, seeds, clips, baby pins, thumb tacks, pegs, crayons, wire - on a table. Let children see which ones the magnet attracts. |
|         | - Magnets attract through some metals. | 1. Put a piece of paper, a sheet of wood or plastic or a glass plate between the magnet and the objects listed above. See whether the magnet will still attract the items. |
|         | - There are different kinds of magnets. | 1. Provide a variety of magnets for children to see. |
|         | - Magnets are useful to man. | 1. Find magnets in the room (on doors, bulletin boards, magnetic toys, games). |
|         | - The sun gives heat. | 1. Stand in the hot sun.  
2. Feel the pavement in the heat of the sun. |
1. Look at the school furnace.
2. Light a small fire (outdoors).
3. Rub your hands together briskly.
4. Light a candle.
5. Breathe into your hands.

- We can make heat.

- Heat changes the form of some things.

1. Cook apples into sauce.
2. Fry an egg.
3. Put milk in heat; watch it curdle.
4. Toast some bread.
5. Bake a cake.
6. Make bread.

- Heat dries things.

1. Put a wet cloth on the radiator or ventilator.
Heat is useful.

1. Discuss heat in the home for:
   - ironing
   - cooking
   - heating
   - healing
   - sterilizing

Sounds

1. Call, sing, whisper, shout, put hands on throat and feel neck.
2. Strike a tuning fork. Put it in water. Watch!
3. Pluck a stretched rubber band or a stringed instrument.
4. Open piano; strike keys; watch the hammers.
<table>
<thead>
<tr>
<th>SUBJECT</th>
<th>CONCEPTS</th>
<th>SIMPLE ACTIVITIES</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>5. Beat a drum.</td>
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<td></td>
<td>6. Ring a bell.</td>
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<td></td>
<td>7. <strong>Place a yardstick on a table with half of it extending over the edge.</strong> Have the children strike the protruding edge. Observe the movement called &quot;vibration&quot;.</td>
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<tr>
<td></td>
<td>- <strong>Sounds may be loud or soft, high or low, shrill or gentle.</strong></td>
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<tr>
<td></td>
<td>1. Turn up the T.V., radio or record player.</td>
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<tr>
<td></td>
<td>2. Sing loudly and softly.</td>
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<tr>
<td></td>
<td>3. Whisper, shout.</td>
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<td></td>
<td>4. Stamp feet on floor rapidly, slowly.</td>
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<td></td>
<td>5. Experiment with rhythm instruments.</td>
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<td></td>
<td>- <strong>Sounds are everywhere.</strong></td>
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<tr>
<td></td>
<td>1. Listen to room sounds.</td>
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<td></td>
<td>2. Tour the playground and identify sounds.</td>
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<td>3. Walk around the block to discover street sounds.</td>
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<td>4. Show filmstrip about sounds.</td>
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</tbody>
</table>

**Weather**

- **We have many kinds of weather.**

1. Observe a sunny, cloudy, rainy, windy or snowy day.
2. Observe sky on each day.

- Weather helps and harms us.
  1. Discuss fog.
  2. Take a walk after a light rain, a very heavy rain.
  3. Watch a snow storm; discuss danger of driving as well as fun in the snow.
  4. Show filmstrips about storms; observe aftermath of a severe storm in the community.
  5. Discuss need for many kinds of weather.

- Weather affects what we do.
  1. Show filmstrips of summer activities, winter activities.
  2. Discuss what children do on a sunny, rainy, or snowy day.
  3. Talk about how weather affects what Mother and Father do; (for example, when would Daddy mow the lawn?)

**Machines**

- Machines make work easier for people.
  1. Look at and use simple machines that Mother uses:
<table>
<thead>
<tr>
<th>SUBJECT</th>
<th>CONCEPTS</th>
<th>DELINE ACTIVITIES</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>can opener</td>
<td>curtain rod</td>
</tr>
<tr>
<td></td>
<td>mixer</td>
<td>iron</td>
</tr>
<tr>
<td></td>
<td>nut cracker</td>
<td>mop</td>
</tr>
<tr>
<td></td>
<td>needle</td>
<td>broom</td>
</tr>
<tr>
<td></td>
<td>knife and fork</td>
<td>dustpan</td>
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<tr>
<td></td>
<td>scissors</td>
<td>toaster</td>
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<tr>
<td></td>
<td>clothesline</td>
<td>washer</td>
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<tr>
<td></td>
<td>sweeper</td>
<td>dryer</td>
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<tr>
<td></td>
<td>hammer</td>
<td>automobile jack</td>
</tr>
<tr>
<td></td>
<td>saw</td>
<td>vise</td>
</tr>
<tr>
<td></td>
<td>shovel</td>
<td>screwdriver</td>
</tr>
<tr>
<td></td>
<td>rake</td>
<td></td>
</tr>
<tr>
<td></td>
<td>stairway</td>
<td>doorknob</td>
</tr>
<tr>
<td></td>
<td>car</td>
<td>pencil sharpener</td>
</tr>
<tr>
<td></td>
<td>ramp</td>
<td>toothbrush</td>
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<tr>
<td></td>
<td></td>
<td>comb</td>
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<tr>
<td>SUBJECT</td>
<td>CONCEPTS</td>
<td>SIMPLE ACTIVITIES</td>
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<tr>
<td>---------</td>
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<tr>
<td>- Some machines are used for fun.</td>
<td>1. Locate and demonstrate toy machines in the kindergarten:</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>. trains</td>
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<tr>
<td></td>
<td></td>
<td>. doll carriages</td>
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<tr>
<td></td>
<td></td>
<td>. wagons</td>
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<td></td>
<td></td>
<td>. wind up toys</td>
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<tr>
<td></td>
<td></td>
<td>. trucks</td>
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<tr>
<td></td>
<td></td>
<td>. seesaw</td>
</tr>
<tr>
<td></td>
<td></td>
<td>. tricycles</td>
</tr>
<tr>
<td></td>
<td></td>
<td>. rollerskates</td>
</tr>
<tr>
<td>- Some machines give us comfort.</td>
<td>1. Use a rocking chair.</td>
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<tr>
<td></td>
<td>2. Take an elevator or an escalator ride.</td>
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<td></td>
<td>3. On a hot day bring in an electric fan.</td>
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<td></td>
<td>4. Make ice cream with a hand or an electric freezer.</td>
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<td>5. Turn on a faucet to get water!</td>
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</tbody>
</table>
To assist the teacher the following classifications of simple machines are listed. Children should not be expected to remember them.

<table>
<thead>
<tr>
<th>Lever</th>
<th>Pulley</th>
<th>Screw</th>
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</thead>
<tbody>
<tr>
<td>Claw-hammer</td>
<td>Flag Pole</td>
<td>Automobile Jack</td>
</tr>
<tr>
<td>Nut Cracker</td>
<td>Window Curtains</td>
<td>Paper Press</td>
</tr>
<tr>
<td>Can Opener</td>
<td>Clotheslines</td>
<td>Piano Stool</td>
</tr>
<tr>
<td>Shovel</td>
<td>Tow Trucks</td>
<td>Vise</td>
</tr>
<tr>
<td>See-Saw</td>
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<tr>
<td>Crow-bar</td>
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<tr>
<td>Inclined Plane</td>
<td>Wheel and Axle</td>
<td>Wedge</td>
</tr>
<tr>
<td>Stairway</td>
<td>Doorknob</td>
<td>Axe</td>
</tr>
<tr>
<td>Sloping boards</td>
<td>Roller skates</td>
<td>Needles</td>
</tr>
<tr>
<td>Hill</td>
<td>Pencil sharpener</td>
<td>Knives</td>
</tr>
<tr>
<td>Slide</td>
<td>Back wheel of a car</td>
<td>Chisel</td>
</tr>
<tr>
<td>Ramps</td>
<td>Bicycle</td>
<td></td>
</tr>
<tr>
<td>SUBJECT</td>
<td>CONCEPTS</td>
<td>SIMPLE ACTIVITIES</td>
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<tr>
<td><strong>Pets</strong></td>
<td>- Many animals make nice pets.</td>
<td>1. For short periods of time keep a variety of animals in the kindergarten - rabbits, mice, hamsters, gerbils, turtles, non-poisoness snakes.</td>
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<tr>
<td></td>
<td></td>
<td>2. Occasionally allow cats and dogs to visit.</td>
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<td>4. Bring a lamb to school.</td>
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<tr>
<td></td>
<td>- Pets are alike and different.</td>
<td>1. Look at and discuss their similarities and differences.</td>
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<tr>
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<td></td>
<td>2. Take a walk to see pets that are not suitable for school.</td>
</tr>
<tr>
<td></td>
<td>- Pets are born and cared for in different ways.</td>
<td>1. Hatch eggs; raise chicks.</td>
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<td></td>
<td>2. Observe a mother cat and kittens.</td>
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<td></td>
<td>3. Try to see guppies being born.</td>
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<td></td>
<td>4. Watch a pony and its mother.</td>
</tr>
<tr>
<td></td>
<td>- Animals live in different places.</td>
<td>1. See films and filmstrips of pets and their owners.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>2. Take a walk to see dog houses, cages, pens, other houses for pets.</td>
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<tr>
<td>SUBJECT</td>
<td>CONCEPTS</td>
<td>SIMPLE ACTIVITIES</td>
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</tbody>
</table>
| - Pets need the same things that children do. | 1. Have a discussion about giving pets food, water, shelter, rest, affection.  
2. Talk about pets' needs for cleanliness and health care. | |
| **Our Bodies** | - Our bodies are made up of many parts. | 1. Have children look at themselves and each other. Identify visible body parts.  
2. Let children use a stethoscope to listen to their hearts.  
3. Talk about and show pictures of the brain and lungs. | |
| | - Our bodies need good care. | 1. Show a film or filmstrip about good eating habits, exercise, rest.  
2. Take daily exercise and rest.  
3. Show children who are not clean how to care for themselves. (Have a health corner with a mirror, comb, brush, washcloth, etc.).  
4. Have a good breakfast party to emphasize importance of proper diet.  
5. Emphasize and practice frequent washing of hands. | |
<table>
<thead>
<tr>
<th>SUBJECT</th>
<th>CONCEPTS</th>
<th>SIMPLE ACTIVITIES</th>
</tr>
</thead>
</table>
| - Many people help us to care for our bodies. | 1. Invite the doctor, dentist, nurse, dental hygienist, physical education supervisor to talk with the children. Visit their school headquarters.  
2. Visit the cafeteria to see the food personnel at work.  
3. Watch the custodian scrub, clean, sweep the building.  
4. Walk through the neighborhood; observe the street cleaners, window washers. |  
| - We can help to protect ourselves. | 1. Have a "clean-up" brigade in the playground.  
2. Show filmstrips of playground safety.  
3. Emphasize and practice putting left-over food, apple cores, milk boxes, etc. in proper containers. |  

6. Practice brushing of teeth.  
7. Work in a dark room, then a light room. Discuss the difference.
THE PHYSICAL PROGRAM IN THE KINDERGARTEN

Health, safety and physical experiences are an integral part of the total kindergarten program. It is impractical to separate them for each is interrelated and dependent upon one another. The kindergarten focuses on all three for the simple reason that a child's intellectual progress is in direct relation to his mental and physical well-being. Many times a child's health needs must be attended to before he can be expected to adjust to other functions or school. Working cooperatively with the school nurse, physician, psychologist and any other health personnel, the teacher becomes the focal point in establishing a sense of well-being in kindergarten children.

With or without special needs, most five year olds have an innate urge for movement and activity; they do everything with vigor and zest. This is the reason that the normal kindergarten is alive with energy. Because of this vitality, young children require two things—outlets for their energy plus rest and relaxation, a fact fives rarely recognize on their own. It is the teacher who must understand and adapt to children's physical needs by providing alternating periods of quiet and vigorous activity.

It is also the function of the teacher to recognize when children need a change of pace and to facilitate daily experiences that promote relaxation. These may include:

- group discussions
- conversations
- looking at pictures, charts and posters
- snacks
- resting on cots or mats
- listening to a quiet story
- viewing a relaxing filmstrip
- looking at books alone or with a friend
- listening to records
- easy table activities
- singing
- simple games
Physical exercise is provided through a variety of play experiences and equipment that encourage the use of large body muscles and the development of fundamental motor skills:

- calisthenics
- rhythmic activities
- imitative or mimetic games
- running, jumping, hopping, skipping, climbing
- singing games
- circle games
- folk dancing
- marching
- isometric exercises
- throwing, bouncing, lifting, carrying
- using large muscle equipment

<table>
<thead>
<tr>
<th>Stationary Equipment</th>
<th>Manipulative Equipment</th>
</tr>
</thead>
<tbody>
<tr>
<td>balance beam</td>
<td>wagons</td>
</tr>
<tr>
<td>steps</td>
<td>tricycles</td>
</tr>
<tr>
<td>swings</td>
<td>trucks</td>
</tr>
<tr>
<td>jungle gyms</td>
<td>hollow blocks</td>
</tr>
<tr>
<td>punching bag</td>
<td>jump rope</td>
</tr>
<tr>
<td>merry-go-round</td>
<td>balls</td>
</tr>
<tr>
<td>monkey rings</td>
<td>beanbags</td>
</tr>
<tr>
<td>ladder bars</td>
<td>barrels</td>
</tr>
<tr>
<td>climbing rope</td>
<td>keys</td>
</tr>
<tr>
<td>chin bars</td>
<td>boxes</td>
</tr>
<tr>
<td>slide</td>
<td></td>
</tr>
<tr>
<td>see-saw</td>
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</tbody>
</table>
Where expensive equipment is not available nor economically feasible, or where the kindergarten desires a kind of playground that is different from the usual mode, the following ideas are worth trying:

- Select a site that is naturally hilly and let the children run.
- Bulldoze "hounds" for children to climb and run down.
- Get an old boat for children to "role play."
- Provide an abandoned, small airplane, if one is available.
- Place flat stones on the ground for "stepping stones."
- Cover a huge concrete pipe with dirt (or use it uncovered) as a "tunnel."
- Build stone steps into a hill for climbing.
- Hollow out a huge sandbox on the play area.
- Build a short log fence for climbing, crawling and balancing.
- Put old-fashioned swings on trees.
- Get plumber piping and make a tire swing.

On the playground or in the room play may be of free choice, a directed experience or a combination of both. In the free period children select their own activities using whatever materials and equipment the school and a resourceful teacher can provide. Much free play may also be role-play, dramatic play or imaginary play. The game of "Let's Pretend," for example, has a never-ending fascination in the kindergarten.

Arranged or directed play may be used to:

- learn a new concept, game or activity.
- practice a fundamental motor skill.
- introduce a new piece of equipment.
The role of the teacher is simple. She:

- supervises and observes the children.
- guides them in solving their problems.
- offers assistance with projects.
- provides new materials and activities when necessary.
- encourages all children to participate in some activity.
- sometimes joins in the activities herself.
- gives instructions in safe use of equipment.
- helps children understand the importance of safety everywhere.
- encourages fair play and consideration for others.
- recognizes that all children need fresh air, sunshine and exercise in cold weather as well as warm.
- emphasizes the need for wearing clothing suitable to the season and temperature.
- shows an interest in pupil progress.
- gives encouragement and praise for accomplishment.
- helps every child to achieve some measure of success and satisfaction.
- stresses participation and fun, not winning.

In choosing physical activities and calisthenics or in selecting and teaching games to kindergartners the teacher may find the following suggestions helpful:

1. Choose a play area that is safe, free from hazards and close to a sanitary facility.
2. Follow a planned seasonal program that parallels the growth cycles of children.
3. Choose activities and exercises that are beneficial to the majority of children.
4. Select adapted activities for the physically handicapped but let the entire class participate.

5. Pick games that are simple, loosely organized and have a minimum of rules.

6. Include all children in some way in every game.

7. Present only one new game at a time.

8. Divide a large group into two smaller circles.

9. Play a game sufficiently long for most children to understand the rules.

10. Let various children be "leaders" in calisthenics and assume responsibility in other suitable activities.

11. Encourage children to run a great deal; it is one of the most helpful of exercises.

12. Provide a balance of games, rhythms and drills.

13. Foster the development of social adjustment, self-discipline, courage, sportsmanship and leadership.

14. Help children to develop a spirit of fun!

Minimal indoor space may present a problem in planning exercise and activity. This, however, should not be an excuse for limiting physical experiences to only quiet ones. Space problems can be overcome in several ways:

- Move furniture as needed.

- Arrange the classroom so an area is permanently provided for vigorous activity.

- Use an imaginary track around the sides of the room as a traffic area.

- Divide the class into several small groups and let one engage in active pursuit while the others sing, clap, or keep time with rhythm instruments.

- Reserve use of the gymnasium occasionally.
- Use hallways for exercise.

Again - it's the TEACHER who:

- fosters activities that require movement.
- encourages the child's natural love of movement.
- judges progress by comparing the individual child's skill with what he could do earlier in the year.
- makes no comparison of Johnny with his neighbor.
- builds confidence in attacking new activities.

She also:

- stimulates new ideas.
- uses careful observations as a tool of progress.
- recognizes the differences in children's physical abilities.
- provides activities that develop functional movement (to do a job or task) and expressive movement (to express an idea or feeling).
- individualizes physical education so that children become more skillful in the management of their own bodies.

In Health and Safety the TEACHER:

- Emphasizes simple but important health routines:
  - going to the bathroom when necessary, not at predetermined times
  - washing hands before eating and after toilet
  - brushing teeth regularly
  - using tissues or hankies when necessary
  - eating regular meals and suitable foods
developing good rest and sleeping habits

playing in the fresh air

having confidence in the school nurse, dentist, doctor

wearing clothes suitable to the weather

Stresses safety procedures that protect her children in school:

using scissors and tools with care

putting toys and equipment away safely

following fire drill regulations exactly

wearing proper shoes in the gymnasium

watching out for other people in the halls, on buses, on the playground

playing in areas assigned to the group

SUGGESTED PHYSICAL ACTIVITIES FOR KINDERGARTEN

Games of Low Organization

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<th>Ball Games</th>
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<td>I Say Stoop</td>
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<td>Partner Tag</td>
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<tr>
<td>Run, Rabbit, Run</td>
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</tbody>
</table>
Tag-Type Games

- Squat Tag
- Squirrels in Trees
- Spider and Flies

Simple Relays

- Forward Run
- Backward Run
- Skip and Run
- One-leg Hop
- Doggie Run
- Duck Waddle
- Automobile Relay
- Train

Classroom Games

- Bluebird, Bluebird
- Let Your Feet Tramp, Tramp
- Jim Along, Josie
- Follow the Leader,
  Do What I Do
- Mulberry Bush

Sidewalk Games

- Hopscotch
- Square Hopscotch
- Snail Hopscotch
- Ladder Hopscotch
- Long-rope Jumping
- Short-rope Jumping
- Rollerskating

Gymnastic-Type and Self-Testing Activities

Mimetics

- Airplanes
- Animal Imitations
- Bees
- Bell-ringing
- Bicycling
- Building a Stone Wall
- Butterfly
- Climbing Ladders
- Dolls and Toys
- Elevator
- Ferryboats
- Follow the Leader
- Hammering, Sewing
- Seesaw
- Skating
- Swimming
- Teddy Bears
- Statues
- Washing Machine

Story Plays

- A Day in the Country
- A Walk in the Woods
- Bear Hunt
- Building a House
- Christmas Trees
- The Circus
- Cupid at Valentine
- Firemen, Policemen
- Halloween
- Getting Ready for Winter
- Growing Flowers
- Raking Leaves
- Moving Day
- Planting a Garden
- Postman
- Santa's Elves
- Sleeping Princess
- Snow White

Stunts and Tumbling

- Duck Walk
- Crab Walk
- Dog Run
- Indian Wrestling
- Kangaroo Hop
- Leap Frog
- Rabbit Hop
- Tip Up
- Log Roll
- Measuring Worm
- Wring the Dish Rag

EXERCISES (count 8 on each of these)

1. Balance on one foot; other foot.
2. Balance on toes; jump on toes.
3. Put arms out to side; swing arms in backward circles.
4. Stand on toes - stretch.
5. Hold arms straight forward; swing them from side to side.
6. Put legs apart, hands on hips, sway from side to side.
7. Wiggle all over.
8. Bend from waist; stretch arms and "swim".
9. Put feet apart; touch one toe with the opposite hand.
10. Pick "cherries" in time to music; put them in imaginary bucket.
11. Pick up apples, stoop, straighten.
Activities Using Apparatus

Climb, Sit, Hang, Turn on Jungle Gym or Horizontal Bars.
Climb Ropes, Poles, Ladders.
Chin the Bar; Skin the Cat.
Walk the Length of the Balance Beam in Many Different Ways.
Swing Off a Horizontal Bar.

Rhythmic Activities

Free Rhythms and Interpretations

Camel, Elephant, Lion, Pussy Cat
Clowns, Goblins, Elves
Clocks, Watches, Jack-in-the-box
Teddy Bears
Bees
Butterflies
Flowers Swaying
Snow Flakes
The Wind
Leaves Fluttering
Trees Swaying

Nursery Rhymes

Hickory Dickory Dock
Humpty Dumpty
Jack and Jill
Jack Be Nimble
Little Miss Muffet
Old King Cole
Queen of Hearts
Ride a Cock Horse
Sing a Song of Sixpence

Singing Games and Folk Dances

'A Hunting We Will Go
Bluebirds
Can You Dance, Maloney?
Carrousel
Clap, Clap, Bow
Clap Your Hands and 1-2-3
Dance of Greeting
Did You Ever See A Lassie?
Farmer in the Dell
Giddy Up, I'm A Cowboy
How D'Ye Do My Partner
I'm Very Very Tall
Jolly is the Miller
Jump Jim Joe
Lazy Mary

London Bridge
Did You Ever See A (Snowman, Goblin, etc.)
I Like a Big Parade
Looby Loo
Muffin Man
Merry-Go-Round
Oats, Peas, Beans
Red Light
Roman Soldiers
Rover, Red Rover
Round and Round the Village
Sally Go Round
Swing Song
Thread Follows the Needle
Yankee Doodle
FINE ARTS IN THE KINDERGARTEN

It is generally agreed that any worthwhile and stimulating program of study includes experiences that enrich children's learning. This is as true in the kindergarten as in any other area. Educators of today are basically agreed that mere factual learnings are about as useful as gardens without fertilizer and are realizing increasingly the need for greater emphasis upon the fine arts. No longer peripheral subjects, they are now an integral part of the total program.

In any curriculum one usually thinks of the fine arts only in terms of music and art. They are, of course, an integral part of every phase of the school day and therefore, the major consideration. There are, however, elements of the fine arts in such things as drama, dramatic play, literature, and poetry. To be completely technical, one would have to include the sciences, too, for the study of life and the world in general is a thorough lesson in composition, form, design, color, shape and relationship.

Emphasis on all the arts is important inasmuch as they contribute to the child's total growth in many ways. They help him to:

- build insights and concepts about his world through:
  - experimentation
  - examination
  - exploration
  - expression
  - evaluation
- enjoy the beautiful in life.
- make more satisfying use of his time.
- release his energies in constructive ways.
- express those feelings that need expression of some kind.
- think more imaginatively and creatively.
- appreciate other people and their contributions to life.
- become more resourceful.
- develop self-discipline.
- escape from regimentation into more original channels.

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A particularly important reason for an emphasis upon fine arts in the kindergarten is that children tend to apply these qualities to any work they do. In later life, for example, the attributes that help a child to become a creative painter, writer or musician can make him an equally productive scientist. Certainly it is true that children who are exposed to and participate in the fine arts, find new ways to work, play and live. Mauree Applegate realizes the importance of this when she begs, "Let's get rid of the deadly dullness of our American classrooms where too many teachers are teaching only by the prompting of a manual or by the use of the packaged educational-mix. Let's stretch our creative thinking so that all the children who are still bumping their heads on the ceilings of classrooms may be helped to flA the sky."¹

To open the way to that "sky", what can be done? Although it would seem that there is no limit to what is expected of the classroom teacher, there are several things she needs to consider:

- Few children choose the same fine art as a creative activity. Some want to dance, some paint, some draw, some create with words, some enjoy quiet rhythms, some sing, others hum and some may just listen.

- For personal satisfaction, the art of listening, watching and appreciating is a vital one since most children and adults remain at a very simple level as performers.

- Any experience in the fine arts must be the child's own instrument through which he dances in his own way, paints the way he wants to paint, sings the songs he likes to sing, listens to the music he wants to hear, says what he has to say in the way he wants to say it.

- Fine arts help children to make good use of their time in a spirit of joy and contentment, in a mood of relaxation yet fascination.

- Fine arts are important for their therapeutic values. Children with a variety of problems or negative behaviors tend to relax and to lose some of their anxieties as they work with art materials, listen to music, react to rhythm, "talk out" their feelings.

Begin With Music

Music is the one fine art that has a direct line to the soul and spirit. The angry or frustrated child unconsciously stamps out a warriorlike rhythm, pounding with his feet, fists, and occasionally, his head! A happy, excited youngster bounces and skips, twirls and twists all over his world in a merry outburst of joy. The pensive, perhaps apprehensive child retreats to a corner where he finds solace in a gentle humming to himself or to a teddy bear. Virginia Austin aptly says, "In a child's world, music doesn't walk alone. It is always accompanied by dolls, bears, cowboys, Indians, snowflakes, spaceships, butterflies, dragons, and monsters! Music, you see, is one of the best fields for a child to learn from his own experience. It is not an experience which is always directed at him or planned for him nor an experience that demands the help of others but one that can be carried out by himself for his own particular enjoyment."1

Satis Coleman, long an authority on children and their musical tastes, declares that every child has a need for music:

- as a tension release for cultural pleasure.
- for cultural pleasure.
- for the development of his esthetic sense.
- for a health-giving interest.
- as an escape measure—a means of getting away from himself and others.
- as an emotional outlet.
- as a means to voice those feelings that demand expression of some kind.
- for the social contacts which music making or music appreciation will bring him.
- for the self-discipline it requires if the child wishes to really develop his native talents.2

Every child has an innate seeking attitude, a sort of reaching-out-for experience, a drive toward further discovery, greater skills, more knowledge and appreciations. If talent is free, allowed to express itself with no entangling conflicts, it is the greatest natural builder of the ever-seeking attitude. This attitude can be gratified in two ways:

- Lead the child with genuine talent through the rigors of training and overt discipline as well as self-discipline. (This is the stimulus the really gifted child needs to fulfill his ability.)

- Give the child with no particular gift opportunity to express and sometimes share his own interpretations of music through creative rhythm, song, dance or instruments. (This is his avenue of personal enrichment.)

To do this, experts agree that the school must provide a quite varied program of music.

Natalie Cole says - "No two children should be expected to use the same outlet for emotional release. Some may wish to dance, some may profit from quiet rhythms, some may sing, others hum, and some may just listen."1

Doris Champlain remarks - "Of all the phases of music education the art of listening is the most important. Because most of us remain at a simple level as performers, we must continue to listen to many kinds of music for personal satisfaction."2

Hughes Langston writes - "Let us remember that music comes to the child as easily as breathing--if we let him be his own instrument, dancing in his own way, singing the songs he likes to sing, listening to the music he wants to hear."3

The kindergarten is an excellent place to begin the development of musical taste and the stimulation of an ever-growing appreciation of music. The kindergarten teacher can make music come alive in the classroom if she follows these practical suggestions:

Let every child, regardless of his ability, participate in the music program for it is not the purpose of the school to make musicians but to make children music-conscious.

Give every child opportunities to demonstrate his musical reactions in whatever way he chooses.

Provide a varied background of music for listening to help develop discriminating tastes.

Use singing less frequently in a specific period and more often as a spontaneous release from work.

Try instruments to curb the restlessness of a rainy day or for any other tension release.

Use records for accompaniment to many things; one experience often leads to other ideas.

Remember that as a teacher you do not have to be a musician; all you need is a sensitivity to music, an appreciative spirit, an enthusiasm that is "catching", a heart that "sings its own melody because of the beauty it has within it."1

Take heart if you can't play the piano; try an autoharp, bells, small marimba, glockenspiel, or a guitar, banjo, ukulele. Today any instrument is acceptable and the greater the variety, the better.

Remember that the little child enjoys that musical experience which has most reality with himself--his own voice and body.

Continue With Art

In art there is perhaps more opportunity for true creativity than in any other area of the fine arts. In the light of shorter working days and the resulting greater amount of leisure time, art in many forms has taken its place in the sun as the foremost means of self-expression. Today, almost everybody paints or potters, molds or mixes, builds or


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Box 911
Harrisburg, Pennsylvania 17126
beautifies. As Winifred Bain observes, "The old days of sit-by-the-fire-and-spin are fast returning. People everywhere are suddenly aware of the fact that if their lives are to remain fascinating and free from boredom, they will have to discover their own inner resources and latent talents to fill the long non-working hours that science and population burst have thrust upon us." This, perhaps, is a prime reason for the increasing emphasis on art education in today's schools. Certainly if we are to develop adults of tomorrow who will be able to fill their time in a spirit of joy and contentment, in a mood of relaxation yet fascination, we must begin with children of today.

Art education in the kindergarten serves the child in many ways:

- It provides a means to express his ideas, feelings and emotions.

- It aids him in developing confidence in his abilities.

- It introduces him to the wide world of art media and the possibilities for personal satisfaction.

- It helps him to recognize how art beautifies his home and community and improves living in general.
  - in dress, decorations, furnishings, buildings, bridges, modes of transportation, etc.

- It fosters appreciation of nature's beauty.
  - in trees, flowers, birds, stars, clouds, storms, forests, gardens, etc.

- It alerts him to the creative use of geometric figures, forms, designs as they occur and reappear in art.

Many authorities agree, also, that art has 'therapeutic values similar to those ... sic. Whether cross, tired, antagonistic, aggressive, fearful, children as they work with art materials, seem to lose some of their hostilities. Just how painting or modeling in clay or making mud-pies affords tension release no one knows but it is apparent that the child who is "tied up in knots" finds relaxation and absorption in free

1. Winifred Bain - "Let's Look At Leisure", Childhood Education, ACEI, April, 1959, pp. 343-344
use of such media. In view of all this, what is the place of the teacher in the kindergarten?

Since there are insufficient specialists in the field of art, as in nearly all others, it again remains for the classroom instructor to become more familiar with philosophies of art, art media, and methods of teaching art. Perhaps most important of all, she needs to encourage art as a way of life since this is the one area where a child, and someday the adult, can say, "This is mine. I have done it!"

Edward Mattil makes the following practical suggestions for encouraging art in daily activities:

- Provide an environment that includes materials and tools, a place to work, and encouragement that stimulates the child to try out his potential; this may be only a corner of the room to which a child may retreat when he has or needs moments of free time.

- Give every child opportunity to explore his abilities through a wide variety of materials, media, and experiences.

- Allow time for the child to try any new found talents over and over again until he becomes the master of them; this means scheduling regular time periods for creative activities plus unscheduled periods, and putting a long-term program at his disposal.

- Be an interested teacher who praises and encourages children with no particular aptitudes.

- Be an observant teacher who identifies special abilities at an early age and encourages their growth.

- Be a wise teacher who recognizes and accepts the fact that children progress through regular stages of artistic development and that those stages develop automatically when the child is ready for them; this definitely rules out uniformity of performance.

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- Be a teacher who sows the seeds of interest for without interest there will be no productivity.

- Provide a background of experience to stimulate inventiveness in children since a work of art is not the representation of an object itself; it is the representation of the experience which the child has had with that particular object.

  - Let children see and/or touch:
    - copies of masterpieces
    - ancient art, medieval art, renaissance art, modern art
    - the bizarre, the beautiful, the realistic, the surrealistic
    - films about art and artists
    - flat materials as well as crafts, artifacts, pottery, jewelry, cloth, brass, copper, iron, glass, wood products and other "touchable" objects

  - Take trips to:
    - local art shows
    - old homes and historical societies
    - craft fairs
    - industrial exhibits
    - industries to see how management makes places attractive both indoors and outdoors

  - Walk through fields and parks

- Search the community for people with particular talents that understand children well enough to demonstrate or share their knowledge with them.

- It should be remembered that the frequent use of all possible resources raises production above mediocrity and yields the rich results in child growth that should be the outcome of any creative experience.
Don't Forget Dramatic Play

Dramatic play (on an elementary level it can scarcely be called "drama") is a natural outlet for children. It is, as Esther B. Starks of the College of Education, Ohio University, says, "the unrehearsed, spontaneous re-enacting of some experience--real or imaginary--in which a child may be a cat, a baby, a train, a mother, a fireman, a spaceman, an Indian, a jet-pilot. Although such play may seem a nuisance to parents at home or a hindrance to the teacher whose curriculum does not provide for wild horses on the day that Tom wants to be one, it does emphasize many important things about the child--his social adjustment, emotional development, interests, informal background, values and general concepts."1

True dramatic play is creative, original, and impromptu. Through this play, children give voice to and enact their feelings, wishes, and understandings. They learn about and gain security and confidence in their world."1

Harriet Johnson says, "Dramatic play is the child's way of organizing experience. Through it he arranges facts and observations into a sequence meaningful to him. Often through dramatic play children come to the realization that more facts are needed and with more mature desire for perfection, they formalize the experiences into creative dramatic performance which is far beyond the realm of the initial informal dramatic play."2

Dramatic play in the kindergarten serves many purposes:

- It reflects children's attitudes.
- It gives wholesome or unwholesome release to emotions (if the latter, the teacher must do some clarification of values with the child.).
- It is a means of expression both with and without words.
- It encourages social contacts and child relationships.

1. Esther B. Starks - "Dramatic Play", Childhood Education, ACEI, December, 1960


-137.
It develops language skills; expression of ideas.

It provides a vent for the purely imaginative, the fantastic, the delightfully individualistic rearrangement of everyday occurrences (even breakfast can be a wonderful mixture of peanut butter ice cream and chocolate pie with no harm to anyone!)

It is a channel whose quality may be spurred or enriched by adults but not interfered with nor changed unless the play is beyond the confines of acceptable behavior.

It is the little child's "work"; it is the older child's avenue to interpretations, thought, and action.

To adults, dramatic play is the key for guiding children into the balanced, mature personalities every parent and teacher seeks to develop.

Poetry, Too, Is Everywhere

Putting words into poetic form is that exquisite fine art skill which few of us dare to claim yet unwittingly experience in every walk of life. Dr. Miriam Wilt writes, "Words are the colors on my pallette" and "Poetry is everywhere but our ears are not tuned in." Leland B. Jacobs comments, "Poetic words are a way of turning the mundane, ordinary or menial into something illuminating, engrossing, and extraordinary. It is a meeting of the spirit and words to form something fit and reasonable and beautiful about life. It is a highway to divorcing oneself from realities and moving into the very real life of the imagination. It is abstraction yet experience; it is reality yet fiction; it is adventure, yet seriousness; it is mystery, nonsense, fancy, wonder. It is moods of nature, moments of love, walking with kings, talking with animals. It is journeys into the past and space flights into the future. It is magic and make-believe, hopes and dreams, foibles and fancies. To the child it is a questing, a seeking in growing and growing up; to the old, it is a return to battles fought or lost, to a final victory yet to come. Sensitive, critical, perceptive, appreciative, these are the poetic heart be he eight or eighty."  


Perhaps no one expresses himself quite so uniquely as the little child. To him the world is ever new and life is full of zest and wonder. His is the world of "autumn leaves tumbling like colored socks in the washer", "soaked lima beans that look like old grandmothers", "Christmas that shines in people's eyes and smiles". His is the world that describes a painting: "It's black: I'm always hungry and that's how hungry looks." His is the world that says, "I don't like our story. I want to say it my way-------"

The bird that was
Isn't in the bush
Because - - -
The bug that was
Isn't in the bush
Because - - -
He ate it!

Ingenuity of thought and originality of expression is seldom achieved by assigning, "Now we are going to write a poem." It is rather, the miraculous reward of listening at all times to children at play, children at work, children thinking aloud, children conversing with their friends and of keeping a written account of all the unusual "expressions", the unique ways of saying things that occur everyday of every year. "It is the reward of talking WITH rather than AT boys and girls and of accepting their ideas with gratitude and respect.

The Teacher Is The Key

Let it be emphasized once more that the fine arts are the leaven that elevates any subject above the mundane. They are a heritage not to be denied America's children. It is to be hoped that these subjects will be approached with care and presented with discretion for productivity in them depends largely upon the careful analysis of each child and his particular needs. In the search for rewarding experiences within the fine arts, teachers may well follow the suggestions of E. Paul Torrance who writes:

- Accept ALL offerings of the child; to him they have importance.

Accept the child himself; unloved or lonely, no child will do anything creative or express himself fully and freely.

Bear in mind that the highly creative child is often disturbing to the class; he is a non-conformist not only in thinking and production but also in behavior.

Value the finished product not for its excellence or lack of it but for the thought and effort that went into its creation; it may very well be the child's best efforts.

Value creative thinking and acting in any form and develop a tolerance for new ideas.

Make children sensitive to the world about them.

Encourage manipulation of objects and ideas.

Beware of forcing a set pattern of doing things.

Work for a creative classroom atmosphere.

Teach the child to evaluate his own creative offerings and to be tolerant of others and their efforts.

Create necessities for creative thinking.

Provide for active and quiet periods - moments for reflection other than for assigned material.

Make resources available for working out ideas.

Develop constructive criticism - not just criticism.

Teach only enough skills to stimulate more activity.

Develop an adventuresome spirit within yourself as a teacher and appreciate the same in your pupils.

What About Truly Creative Children?

A sound philosophy of creativity may open doors to its possibilities but it is the classroom teacher who must recognize what comes through
those doors! Careful observation is necessary to identify children with unusual talent since highly creative boys and girls are not always easily identifiable.

- They often perform at less than top academic levels.
- They may be reluctant to complete routine, monotonous tasks.
- Their behaviors may be somewhat difficult to keep "in bounds".

To the observant teacher, most children have some creative ability but not in equal quantity nor in the same areas. Truly creative children have quite special attributes that usually add distinctive charm to otherwise mundane classrooms:

- a fearlessness to try what is new (Let me do it!).
- a willingness to put things together whether it is puzzles or ideas (I know how!).
- an ability to see relationships (It's like this -- --).
- the art of self-discipline (I'm trying my best!).
- a creative selectivity (I like that idea!).
- a self-initiated learning (I wonder why -- --)
- a great emotional and physical drive (I want to do it my way!).

In the classroom, child and teacher can share creativity in many ways. As an adventuresome spirited duo, they can look for and work for creativity in many avenues:

- in speech, using the imaginative, the sprightly, the unusual, the new for the old.
- in dramatic play, capitalizing on elements of surprise, fun, confidence, security.
- in problem solving working for ideas and logical thinking.
- in fine arts, showing unusual interpretations of music, art, poetry, dance, drama.

- in conversations, keeping a keen ear attuned to language gems that occur spontaneously on the playground, during a walk, after a field trip, while at play, anywhere.

- in action, deciding on a task and completing it effectively (the highest form of creative achievement).

- in attitudes, influencing behaviors by positive outlooks (knowing that proper attitudes foster proper behaviors).

- in ideas, tossing about possibilities, imaginative improvements and making sensible choices.

- in evaluation, judging wise use of materials, time and talents.

- in traditional subject areas, finding creative approaches to language, literature, numbers, science, social studies, health, physical education and safety.

The young child brings much to the classroom. It remains for the teacher to discover what he brings, to keep alive his tendency to question and to help him find the kinds of answers that breed more questions.
LOOKING BACK
KINDERGARTEN
MISS SHULTZ
TAKING A LAST LOOK

How to evaluate progress in the kindergarten is somewhat difficult since success in school is usually measured only in terms of intellectual growth and maturity and tends to overlook social and emotional growth. There are, however, certain identifiable characteristics that are indications of improvement and do serve as criteria of a young child's progress.

The child who has had a year of "good living", a year of success in the kindergarten, will do the following:

- Pursue interests in greater depth and breadth than he did when he arrived.
- Exhibit interests that were lacking when he first came to the classroom.
- Manifest improved work-study habits in all things.
- Think more logically and understand how many things are done.
- Use vocabulary adequate for satisfactory communication.
- Apply mathematics and science information in simple ways.
- Follow through in scientific thinking at the level of his ability.
- Give evidence of new concepts, expanded old ones and corrected wrong concepts.
- Enjoy many types of media and use them reasonably well.
- Show an interest in books.
- Understand that the printed word has something to tell him.
- Continue to seek answers to his natural curiosity.
- Be conscious of many things in his environment.
He will also:

- Be a happy child, eager for further experiences.
- Make constructive use of his time; work independently.
- Demonstrate the initial stages of self-discipline.
- Assume his share of responsibility.
- Get along fairly well with his classmates.
- Take pride in his work.
PROFESSIONAL FILMS

Many films are available today for professional use at in-service institutes, faculty meetings, parent-teacher meetings and educational seminars. The following list has been selected as pertinent to the area of young children.

Churchill Films, 662 N. Robertson, Los Angeles, California

"Film on Project Head Start"

"Setting the Stage for Creative Learning"

"Guiding Children's Behavior" (open-end incidents)

"Communication through Literature, Art and Body Movement"

International Film Bureau, Inc., 332 S. Michigan Avenue, Chicago 60604

"Tears of Children"

"Pathways Through Nursery School"

Modern Talking Pictures, Inc., 928 N. 3rd Street, P.O. Box 3035, Harrisburg 17105

"Adapting the Curriculum to the Child"

"Vassar College Nursery School"

"A Pre-Kindergarten Program - Visit to New Haven"

"Los Nietos Kindergarten"

"My Own Yard to Play In"

"4 and 5 Year Olds in School (Part II of "A Long Time to Grow")"

"Little World" (program in a Day Care Center)

"A Chance at the Beginning" (Preschool program for N.Y. children)

"Teacher's Aides: A New Opportunity"

National Education Association, Washington, D.C. or PSEA, Harrisburg

"Time of Their Lives"

Pennsylvania State University, University Park, Pennsylvania

"A Day in the Life of a Five-Year Old"

"Fears of Children"
"Finger-Painting"

"Frustrating Fours and Fascinating Fives"

"Starting Nursery School"

Long Film-Slide Service, 750 S. Fairsount Avenue, El Cerrito, California

"The World is So Full of a Number of Things" (filmstrip) (Science)

"A Good Day in the Kindergarten" (filmstrip)

Metropolitan Life Insurance Company, New York

"If These Were Your Children" (clues to emotional problems)

N. Y. University Film Library, 20-26 Washington Place, New York City

"This is Robert, Parts I and II" (development of an aggressive child from Nursery School to first grade)

"Understanding Children's Play"

McGraw Hill

"Social Development"

"Frustrating Fours and Fascinating Fives"

"Children's Emotions"

Encyclopedia Britannica Films

"Answering the Children's Why"

"Helping the Child to Accept the Do's"

Coronet

"Story Telling: Can you Tell it in Order?"

"Numbers for Children"

"Let's Measure: Inches, Feet, and Yards"

"Discovery in Science"

"Finger Painting Methods"

"Let's Draw With Crayons"
American Crayon Company

"The Purple Turtle" (creative art)

Education Film Sales, University of California Extension, Los Angeles

"Dance Your Own Way"

Atlantic Productions, Inc., Thousand Oaks, California

"Nursery School" (filmstrip)

Wayne State University, Detroit, Michigan

"Kindergarten and Your Child"

Pennsylvania Department of Education, Harrisburg, Pennsylvania

"Program Models for Early Childhood Education"
SELECTED BIBLIOGRAPHY

Books


Pamphlets, Bulletins and Portfolios


Packet III containing 9 titles related to kindergarten, such as: Values in Early Childhood Education, Foundation Learnings in the Kindergarten, and others.


Sources of Further Information About Kindergarten Education


National Association for the Education of Young Children. 1629 21st St., N.W., Washington, D.C. 20009.

National Education Association, Department of Elementary-Kindergarten-Nursery Education, Washington, D.C.

State Department of Education. (At least 25 states now have kindergarten or K-3, K-6 or K-12 guides).


Universities and Colleges Offering Courses in Early Childhood Education.
Two filmstrips entitled "Freedom to Do" have been prepared to accompany the Guide. They are available upon request to:

The Division of Early Childhood Education
Bureau of General and Academic Education
Department of Education
Education Building
Box 911
Harrisburg, Pennsylvania 17126