I. INTRODUCTION, PROGRAM RATIONALE, AND PHILOSOPHY

Introduction

Throughout their lives, regardless of where they live, today's children will have to face change: social, political, and environmental changes; changes in science and technology; and industrial changes that affect job markets. The rapid changes occurring throughout the world today make it important to nourish in children a desire for lifelong learning.

In order to prepare children to be self-propelled learners, the Step by Step Program builds a foundation for the attitudes, knowledge, and skills that are vital to meet current challenges and those expected in the twenty-first century. The program recognizes, values, and encourages the development of characteristics that will be needed in rapidly changing times. Among these are the ability to:

- Meet and effect change
- Be critical thinkers, and to make choices
- Be problem finders and problem solvers
- Be creative, imaginative, and resourceful
- Be concerned with community, country, and environment

The Step by Step Program is a unique program for children ages three through six and their families. The curriculum integrates research based practices of early childhood education with a firm commitment to work with families and communities to individualize experiences for each child. The program is designed to meet each child's specific needs and respects a variety of cultural traditions. Several features are present in all program classrooms. These include an emphasis on:

- Individualizing learning experiences for each child

- Assisting children to make choices through planned activity and activity centers

- Family participation

Philosophy of the Step by Step Program

The Step by Step Program is based on the belief that children grow best when they are intrinsically involved in their own learning. A carefully planned environment encourages children to explore, to initiate, and to create. The teaching team has a sound knowledge of child development. They create the environment and provide the materials for learning. The team's role is to set appropriate goals for individual children and for the group as a whole, to respond to the interests of the children, to respect the individual strengths and needs of each child, to keep alive the natural curiosity of the young child, and to foster cooperative learning.

Approaches to Early Childhood Education

In the field of early childhood education there are two basic approaches of teaching children between the ages three through six. The first, the **behavioral approach**, assumes that concepts have no point of origin within the child and do not develop spontaneously. All concepts must be imposed on the child and are absorbed by the child. A behavioral classroom is teacher-centered, based on explicit instruction that "fills" the child, much as we would fill a container over time. The teacher presents specific information in a prescribed manner. This information is usually analyzed carefully, broken into discrete tasks, and presented sequentially to the child. The teacher is seen as "owner" of all information; it is his or her job to impart this body of knowledge to the child. The child is expected to master a task through practice and drill before moving on to the next step. The correct response is often reinforced through drill and rewards. The behavioral approach requires that the teacher carefully assess the status of the information the child possesses, and reassessment occurs before moving on to the next step. There are a number of prescriptive, commercially sequential checklists and assessments that teachers can use in their classrooms (Seefeldt, 1994). Influential behaviorists include John Watson, Edward Thorndike and B.F. Skinner.

In contrast, the Step by Step Program uses a **developmental approach**.
A developmental perspective provides a framework for understanding and

appreciating the natural growth of young children. It presents the ideas that young children:

- Are active learners who are constantly acquiring new information about the world through play.
- Proceed through predictable stages of development.
- Are dependent on others for emotional and cognitive growth through social interactions.
- Are unique individuals who grow and develop at different rates.

The developmental approach is based primarily on the theories of Jean Piaget, Eric Erikson, and L.S. Vygotsky. Piaget and Vygotsky both viewed the child as a biological organism. However, they held different theories concerning the influence that nature and society have on development. Glassman (1994) summarizes the philosophy of these two educators as follows:

- Two lines of development — the natural and the social — interact continuously in the development of thinking. Each is essential for cognitive development.
- Cognitive development is initially the result of direct experience in an environment; eventually, children become capable of transforming their experience mentally through internal reflection.
- The pace of an individual's development is influenced by the social milieu.
- Cognitive development involves major, qualitative transformations in thinking.

Piaget believed that growing children move through a series of stages. The first is the sensorimotor period, which occurs between birth and approximately two years of age. Next is the stage of concrete operations, which occurs between the ages of two and eleven years. The third phase, the formal operations stage, generally begins in early adolescence. For Vygotsky, thinking is radically transformed when 1) children become capable of linguistic communication and 2) instruction leads them to become aware of and to master their own thoughts.

Erikson's theory of psychosocial development presents a series of three age related stages that represent the individual's relationship to the social environment. Erikson views healthy development as the resolution of conflicts that are characteristic of particular ages. From birth to three years, growth is

characterized by the development of trust; from one- to three-years, the focus is the development of autonomy; and from three- to six-years, the healthy individual acquires a sense of initiative.

These educational philosophies enhance our understanding of child development and provide important ideas for translating theory into practical, classroom applications. These philosophies provide a helpful guide for teachers as they plan for young children. When developmental theory is practiced within the historical context of progressive education the child becomes the starting point for curriculum development. This defines a *child-centered* classroom.

Three Major Tenets of the Step by Step Program

The Step by Step Program encompasses three major early childhood initiatives: constructivism, developmentally appropriate practices, and progressive education.

Constructivism

Constructivists believe that learning occurs as children strive to make sense of the world around them. Learning becomes an interactive process involving children, adults, other children, and the environment. Children construct or build their own understanding of the world. They make sense of what is happening around them by synthesizing new experiences with what they have previously come to understand. Jacqueline and Martin Brooks (1993) describe the process as such:

> *"Often we encounter an object, an idea, a relationship or a phenomenon that doesn't quite make sense to us. When confronted with such initially discrepant data or perceptions, we either interpret what we see to conform to our present set of rules for explaining and ordering our world or we generate a new set of rules that better accounts for what we perceive to be occurring. Either way, our perceptions and rules are constantly engaged in a grand dance that shapes our understandings."*

The following example illustrates constructivist learning. A young child whose family has a dog is out driving with his parents. They drive past a cow in a field. The child points and says "dog." The parents tell him it is not a dog but a cow and that a cow is different from a dog. The new information will be refigured against what is known and mental accommodations will be made. Although

children must construct their own understanding, knowledge, and learning, the role of adult as facilitator and mediator is essential. The teaching team must provide the tools, the materials, the support, the guidance, and interest to maximize the child's opportunities for learning.

Developmental Appropriateness

A **developmentally appropriate** curriculum is one that is based on a knowledge of child development; the understanding that all children progress through common developmental stages and at the same time, that each child is a unique and individual being. The teaching team must know about typical child growth and development in order to provide a realistic array of learning materials and activities. The team must also watch and listen for differences between the skills and special interests of same-age children (Seefeldt, 1994; Bredekamp, 1993). A developmentally appropriate curriculum includes activities that are based on children's interest, their cognitive level of functioning, and their social and emotional maturity. Such activities appeal to young children's natural curiosity, enjoyment of sensory experiences, and the desire to explore their own ideas.

A developmentally appropriate program is designed to help children answer their own questions. When children pose the questions, interest, motivation and attention are automatic. The teacher's role is to find ways to arrive at answers that satisfy the child without oversimplifying the question or overwhelming the child with information. Through developmentally appropriate practices, teachers can find a balance that satisfies and extends a learning situation.

Progressive Education

John Dewey, recognized as the father of **progressive education**, emphasized that education be viewed as a process of living not a preparation for future life. Dewey (1938) argued that education as preparation for adult life "denied the inherent ebullience and curiosity children brought with them to school and removed the focus from students present interests and abilities to some more abstract notion of what they might wish to do in future years."

We accept that child-centered education does both; it recognizes that these points of view do not have to be mutually exclusive. Progressive education practices build on developmental and constructivist principles. It fosters a learning environment that enhances the skills and interests of the individual child while acknowledging the importance of peer-to-peer and small-group learning.

Individualizing the Learning Experience

The Step by Step teaching teams set the foundation for children to become fulfilled, achieving, active adults who care about others and are able to make an impact on their world. The teachers are also concerned with the "here and now" of childhood. They implement this focus by valuing play and individualizing. Individualizing is achieved by respecting the present developmental stage of each child and planning a range of appropriate activities to ensure each child's successful experiences. The ability to individualize involves knowledge about child development that encompasses health, physical and emotional growth, and cognition. It is a decision-making process in which a teacher observes a child, assesses at what point the child may be in significant developmental areas, and takes action to provide a particular response to the assessed developmental stage of the child.

> *Individualizing means that the classroom schedule suits each child's needs for action and rest. It means that the equipment, materials and layout of your classroom enhance the growth of every child and that the activities chosen represent a developmental range. It also means that the way you present the activities makes each child feel successful, but challenged. . . . Individualizing is an important goal to work towards, because the more you individualize, the smoother your classroom will run. Behavior problems will decrease and the amount of learning and growth will increase.* (Saifer, 1990, p.46).

Why do we need to individualize? Individualizing matches the developmental stage, strengths, and needs of each child with the learning activity. When this occurs, children gain competence and self-esteem. They are ready to tackle new challenges.

A child-centered classroom supports individualized learning. The equipment, materials, and layout of the classroom enhance the growth of every child, and the activities chosen are relevant to each child. Children individualize for themselves when they choose an activity center or select a five-piece rather than a twelve-piece puzzle. Individualization also requires that the teacher create activities that make each child feel successful and challenged. It is possible to optimize the amount of individualization that occurs in the classroom. By planning flexible and interesting activities and by carefully observing children during activities, the teacher can change and adapt materials and activities as needed. Most group activities are conducted in small groups to maximize the amount of individualization. The daily schedule should accommodate each child's needs for activity and rest. Individualization is an important part of a

child-centered curriculum because the more individualization there is, the more effective a teacher will be.

Activity centers allow children to individualize for themselves based on their skills and interests. In the art area, for example, one child tears paper while another uses scissors to cut out a complex shape. In the manipulative area, one child chooses a four-piece wooden puzzle while another chooses a twenty-five piece cardboard puzzle. The teacher observes the children and takes notes on their development. Over time, she provides the children with more challenging materials, or when necessary, more direct help in mastering a challenging skill.

When the preschool experience is individualized children can grow and develop at their own pace. The Step by Step classroom is a dynamic and changing environment filled with materials and experiences designed to correspond to children's individual interests and developmental stages.
The teaching team facilitates and plans the classroom space and activities that are designed to be appropriate to the developmental level of each child. The daily plan includes a variety of work time for children: in small cooperative learning groups, on individual tasks, with a teacher's guidance or without guidance. There is time for the children to select their own activities; this helps them learn how to make choices and to develop their own interests and skills. Making choices, learning to be problem solvers, communicating with others in the environment, and working toward individual goals are emphasized in the Step by Step classroom.

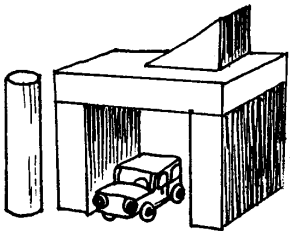
Activity Centers

The Step by Step Program designs opportunities for children to make choices through classroom arrangement. Each classroom has several activity centers that contain many different materials for exploration and play. The activity centers vary from classroom to classroom, but the basic centers include:

Art
Blocks
Cooking
Dramatic Play
Literacy
Mathematics/Manipulatives
Music
Outdoors
Sand and Water
Science

The **art** activity center encourages children to develop and explore their own creativity and have fun with new materials and tactile experiences. Materials in this area may include paints, paper, scissors, crayons, chalk, fabric, and scraps of materials for gluing and pasting. Many natural materials can be added to this area, including wood, leaves, and sand. This area encourages creativity, verbal and non-verbal communication, self-esteem, small and large motor development, and intellectual skills.

The **block** activity center is filled with blocks of different sizes and shapes for creating imaginary or identifiable structures, such as buildings, towns, farms, and zoos. Children learn many things from building with blocks. Math skills are developed, thinking skills are expanded, social and problem-solving skills increased. Creativity is used and concentration developed. Many items can be added to this area by both children and teachers, including cars, trucks, animals, people, airplanes, and fabric.



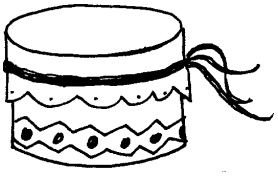
Cooking provides a special time for children to learn science, taste new foods, eat food they make, and understand mathematical concepts such as measuring. Cooking together offers children time to be social, learn to share and to work in pairs. Many basic concepts are taught through cooking. Teachers discuss colors, numbers, shapes, nutrition and science. Cooking provides real-life experiences for children.

The **dramatic play** center has dress-up clothes and other items that encourage the children to act out what they see in their lives, helping them understand their world and practice various roles. The items in this area are selected by the teaching team. During one week they may include objects for a washing activity, in another, items to play astronaut or circus performer; in another objects relating to animal care. The choice of objects depends on the interests that the children have demonstrated.

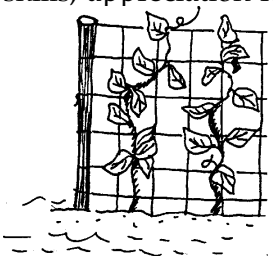
The **literacy** activity center includes books and materials for listening and writing activities. This area is a quiet one where children can look at books, read to one another, or have a teacher or parent volunteer read to them. Literature is used throughout the Step by Step preschool day. Children are invited to create their own books, and invent, dramatize, and listen to stories.

The area for **mathematics/manipulatives** has materials that children can take apart and put together such as puzzles and small blocks. This area also has games to assist the children in learning to match, count and categorize; create their own games; and practice their language skills. Activities in this center help children develop their intellectual skills, small muscles, and eye-hand coordination. Social skills are also learned through sharing, negotiating, and problem solving.

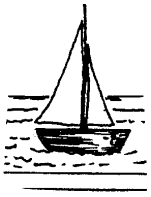
Music can be used throughout the day to integrate activities. Singing, moving, clapping, dancing, playing instruments or listening quietly all contribute to a full program day. Music enhances the senses; teaches rhythm, counting and language patterns; strengthens small and large muscles, and allows for creativity.



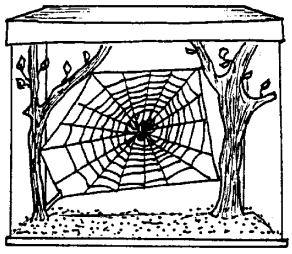
The **outdoors** is a critical part of the daily schedule. Everything that can be learned and taught indoors can be done outdoors. Children can learn social skills, appreciation for nature, and science and math skills. They also increase the use of their small and large muscles during outdoor activities. Creativity is enhanced in the outdoor area through dramatic play and group activities. Special events can take place outside including eating, cooking, gardening, drawing and painting, creating theater productions, and playing in snow, mud, and puddles. Field trips to community settings like the market and the fire station provide real learning experiences for children. The outdoors offers a vast array of opportunities for children to learn about their environment and helps them understand how they fit into the world. The outside area is seen as an extension of the classroom, and outside activities are planned as carefully as inside ones.



The **sand and water** activity center, both indoors at the sand and water table and outdoors in the sandbox and water area, is alive with children learning. These areas offer many opportunities for children to use their senses. Through exploration of these natural



materials, children create, think, and communicate. They exercise both large and small muscles. Materials used in this center include shovels, sieves, funnels, and buckets. Mathematical concepts, scientific ideas, and creativity are developed.



The **science** activity center can be used to directly reflect the children's interests in natural occurrences and found objects. The teacher can arrange a place in the room for display and exploration of these interesting "treasures." This activity center is one that changes frequently in response to interests, seasonal changes, and thematic studies. Properties of physical science such as magnetism, water, and laws of gravity can be introduced through materials.

Learning occurs through environmental and natural science as children explore the outdoors, plants, trees, and animals. The teacher's role is to emphasize the scientific process.

Materials from different centers are shared with other areas. For example, children move toy animals from the table toy area to the block area when they build a zoo and need the animals to put in cages. The teaching team changes materials in the activity centers throughout the year so that they continue to be appropriate for the children's interest and development. Additional activities may be rotated in the classroom or added as space permits. Some of these include cooking, woodworking, theme-related activities, and special events.

The teaching team is responsible for creating the environment, inviting conversation, arousing curiosity, and observing the children so that activities can be adapted to meet their changing needs. Small group and individual learning activities are planned throughout the week to focus on specific learning tasks identified by the teaching team and the family. When families enter the Step by Step classroom, they feel the energy and learning that is taking place as children talk, negotiate, explore, make choices, and learn the skills needed to develop into productive and creative citizens.

Family Participation

The emphasis on family participation is a unique feature of the Step by Step Program. The Step by Step Program believes that families have the greatest influence on their children. They are their primary educators. Families desire the best for their children and want them to be successful and productive citizens. Families must, therefore, be allowed to play a critical role in the child's

educational process and encouraged to help develop learning experiences for them in the program. The Step by Step Program promotes family participation in a variety of ways. Methods vary from site to site and family to family, depending on individual and community circumstances. However, the teachers and administrators encourage all families to become involved in all aspects of the program.

Family Room

For example, each program is encouraged to create a family room where family members can meet with teachers, and read information on child development, health issues, discipline, or other topics of interest. Parents may also borrow these materials from the center. This room is available for parent meetings and workshops. Families are welcome to come to the school and work with the children, help with parent activities, and meet with the teaching team. Families are encouraged to join their children in classroom activities and bring their special talents to share with the children. Some family members can be hired as teacher assistants. Others are encouraged to volunteer in the classroom, build equipment, and assist on field trips and other activities.

Communication between the teaching team and families is an important component of the Step by Step Program. Such communication takes many forms including notes, home or school journals, conversations when children are dropped off and picked up at the center, family meetings, workshops, and parent support groups. The teaching team is encouraged to make visits to family homes. Parent conferences are scheduled regularly with family members. At these sessions parents and teachers discuss the child's progress and develop strategies for learning that can be applied at home.

Family Advisory Committee

Another element in the Step by Step Program is the Family Advisory Committee, which meets with the staff to discuss the operations of the center or school. The committee consists of parents of children enrolled in the program; it may also include other members of the community. The Step by Step Program staff works with the families to conduct an assessment of family needs that provides a total profile or picture of each family being served by the program.

In summary, the Step by Step Program's goal is to build a supportive community that holds the family at the center and includes the teaching team and community members. This group of people creates a network that plans,

communicates, and discusses issues and concerns in order to build a program that supports the growth and development of children and their families.

What Are Developmentally Appropriate Activities?

The National Association for the Education of Young Children, the major professional early childhood organization in the United States, ascribes two dimensions to the term "developmentally appropriate": age appropriateness and individual appropriateness. (Bredekamp, 1987).

Age Appropriateness

Human development research indicates that children undergo universal, predictable sequences of growth and change that occur during the first nine years of life. These predictable changes occur in all domains of development — physical, emotional, social, and cognitive. Knowledge of typical development of children within the age span served by the program provides a framework from which teachers prepare the learning environment and plan appropriate experiences (Bredekamp, 1987).

To implement developmentally appropriate practices, the teaching team must be cognizant of the range of normal development. The teachers should keep in mind that, although there are predictable sequences of growth, they do not take place on the same day, week, or even month. Inevitably, there will be differences among the children in a class.

The Chart of Normal Development, found at the end of Chapter II, describes development of gross motor skills, fine motor skills, communication skills, understanding language, spoken language, cognitive skills, self-help skills, and social skills for children in the United States. In order to be thoughtfully integrated into curriculum planning, development charts should be reviewed regularly.

When classroom activities are not linked to developmental factors, children experiencing failure and frustration. The Step by Step Program offers opportunities for success, not frustration. However, the teaching team does not make everything easy for the children; instead teachers tailor challenging activities to the developmental level of each child.

Individual Appropriateness

Each child has a unique pattern and timing of growth, as well as an individual personality, learning style, and family background. Both the curriculum and adults' interactions with children should be responsive to individual differences. Learning in young children is the result of interaction between the child's thoughts and experiences with materials, ideas, and people. These experiences should match the child's developing abilities while challenging the child's interest and understanding (Bredekamp, 1987 p. 2).

To make classroom activities individually appropriate, the teaching team must observe each child carefully and determine each child's abilities, needs, interests, temperament, and learning style. It also requires a keen knowledge of the potential activities in each of the activity centers.

Children who are challenged at their own level of development will feel good about themselves and will be able and eager to explore new ideas and activities. Children for whom expectations are above or below their level of development may lose interest, and become bored, restless, or frustrated.

Individualizing through Play

Play is the heart of good early childhood programs. The research on play shows that it is an important part of the lives of young children (Johnson, Christie, Yawkey, 1987). Play and development unfold together, so environments for young children allow for ongoing opportunities for free play. Play occurs in a wide variety of ways: solitary play with objects; unstructured, associative play with one other child, interactive and complex dramatic play with props and other children; and more structured play in group games as children get older. Experts maintain the following:

> *"Children need to play in order to develop cognitive and motor skills and to learn about the social world and their place in it. Children develop social skills through interaction with their peers. They learn what rules are, how rules are made and what justice and fairness are about. They learn how to cooperate and how to share. They develop self-esteem by successfully challenging themselves, by interacting with other children and by mastering personal, physical, intellectual and social challenges."* (Frost and Jacobs, 1995, p.47).

The Step by Step teaching team supports play through an indoor and outdoor environment that has been set up with activity centers. In these centers, an expanding curriculum using real, experiences relates to each child's interests, understanding, background and environment, and matches each child's developing abilities. Each center thus becomes a laboratory for children's initiative, creativity, and imagination.

The activity centers influence the design and arrangement of the classroom, however activities are not restricted to a particular center. Puppets, for example, might be made in the art activity center, but used in the block activity center where children have built a small stage, or in the dramatic play center, where children decided to use a table as a stage. Allowing for a flexible use of materials ensures that the children's interests determine the program content.

The daily schedule affords children time and opportunities for choosing which centers interest them. Initially, children who have not had an opportunity to see such an array of equipment may want to move quickly from center to center. In time, however, they will focus on tasks that interest them in their chosen centers. Play should be self-directed; therefore, children should be able to move among centers at their own pace.

By following the lead of children, adults make possible the kind of play that is cognitively and emotionally necessary for children. Stanley Greenspan, a child psychologist who has been studying the emotional needs of children for years, advocates "floor time" for teachers and parents with their young children (Greenspan, 1989). By getting on the floor with children, teachers and parents can join in mutual give-and-take, allowing the child to lead and guide the play.

The materials in the centers stimulate and challenge children to use all their senses. Through experimentation, investigation, and discovery, children test ideas and gain information in their own individual ways. This is how children begin to develop the habit of finding and solving problems, thinking critically, making choices, and developing concepts.

There is a hum of activity in the centers as children spontaneously interact with their peers. As they communicate with each other and with the adults, they develop social skills. As they play, children also develop their small and large motor skills and eye-hand coordination.

The role of the teaching team is to act as facilitators. They are ready to extend and enhance play by knowing when to ask open-ended questions that encourage thinking. They know when to provide appropriate information, when to clarify misconceptions, when to add materials, and, if feasible, when to arrange new experiences such as short trips, that will further stimulate the children's interests

and learning. It is a belief of the Step by Step Program that teachers who model playfulness themselves will better appreciate the importance of an environment that allows for different opportunities and times for play.

Making Philosophy Happen

A child-centered classroom is built around two core principles:

- Children create their own knowledge from their experiences and interactions with the world around them.

- Teachers foster childrens' growth and development best by building on the interests, needs, and strengths of the children.

The classroom is a laboratory where children experiment with roles as explorers, artists, friends, and scientists. Teachers are responsible for transforming the classroom into this kind of a laboratory. They are responsible for organizing materials to encourage creative and ongoing experimentation, discovery, and problem solving by the children.

Teachers respect children's ideas and use those ideas to mold the curriculum. Teachers interact with children as they work and play: they model supportive, caring behaviors; they observe and listen to children in activity centers; they record and evaluate their observations; and they use their observations in planning and individualizing for children. In an environment where teachers encourage children to pursue their interests, children develop a strong sense of importance and self-initiative.

Teachers set the mood and tone for the classroom. The teacher personifies the qualities that she wants to help develop in the children — empathy, caring, enthusiasm, and intellectual curiosity. Teachers should also remember how to have fun. There are few things more rewarding than the joy expressed by a child who has joined a teacher to write a story or make up a silly joke or take time to discuss a new interest. Teachers who communicate their enthusiasm to children make learning exciting and vital. Teachers who are aloof and authoritarian may frighten children and inhibit their curiosity.

Both children and teachers initiate and direct activities. A delicate balance is achieved between teacher and child, with each taking turns leading, inquiring, and responding. Children are encouraged to initiate much of their own learning. Their creative expression is promoted and valued. Teachers take advantage of the interests and play of the children and use them to stimulate

further thinking and learning. By providing opportunities for children to have direct contact with people, materials, and real-life experiences, teachers foster children's intellectual growth.

Activity centers provide a choice of learning areas and materials. Themes or projects are encouraged and planned by the teacher based on the interests of the children, and may be integrated into activity centers. Young children should never be made to pursue a theme or project that is not of interest to them. The classroom is always set up to provide a choice of activity centers and diverse materials from which children may choose.

In the child-centered classroom, children:

- Make choices
- Play actively
- Use open-ended materials
- Work together and care for each other
- Take responsibility

The Step by Step approach has goals. The daily schedule provides security and predictability. Materials are developmentally appropriate and open-ended. Teachers observe children interact with peers and classroom materials to identify strengths and needs. Rules help children learn that caring for each other is an integral part of the school.

GOALS AND DEVELOPMENTAL GUIDELINES