

Quality Early Childhood Environments for Young Children

TRAINING FOR EARLY CHILDHOOD CAREGIVERS AND TEACHERS



MODULE 4 RESOURCE GUIDE

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This guide is part of a series of manuals that focuses on six topics in Early Childhood Development (ECD): different programming approaches, basic concepts, assessments, early childhood environments, children with special needs and child protection, and the health, safety and nutrition of young children. The series was prepared within a three-year CRS-led project called “Strengthening the Capacity of Women Religious in Early Childhood Development,” or “SCORE ECD.” Funded by the Conrad N. Hilton Foundation, the project helps Catholic sisters in Kenya, Malawi, and Zambia in their work with children aged 0-5 years and their families. The project is being implemented from January 2014 to December 2016.

CRS referred to a wide range of documents in preparing this curriculum. Please see “Reference Documents” section in Module 1 facilitator or resource guide for the full list.

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Cover photo: These mothers in Tanzania are showing off the toys and artwork they made using local materials as part of a Hilton-supported project that promotes one-on-one interaction between mother and child. *Philip Laubner/CRS*

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RESOURCE GUIDE 4: QUALITY EARLY CHILDHOOD ENVIRONMENTS FOR YOUNG CHILDREN

Resource Guide 4 is one of six ECD Resource Guides from the CRS SCORE ECD curriculum. The six series are:

1.	Approaches to Early Childhood Programs
2.	Introduction to Early Childhood Development
3.	Assessing Young Children's Development
4.	Quality Early Childhood Environments for Young Children
5.	Children with Special Needs and Child Protection
6.	Health, Safety, and Nutrition

SAMPLE REVIEW

“All sisters/congregations and associations in the SCORE ECD project’s countries found this curriculum very applicable to their ECD services and programs. It integrates spirituality and child development, and it is easily applicable at children’s homes and early childhood centers. Sister congregations/associations of the three countries worked hard together and contributed to make this curriculum workable.” (Reviewer: Project Coordinator, SCORE ECD, August, 2015)

“There is a change in our ECD center because of the knowledge we acquired on how to assess quality ECD environments. Our ECD classroom has really improved with lots of learning and playing corners and activities for even very small children. We have come to appreciate locally appropriate educational toys for ECD activities.” (Reviewer: Master Trainer/sister, SCORE ECD, Zambia, August, 2015)

“In our training we use our traditional songs for teaching children pre-math and early literacy concepts. It was a good reminder to encourage parents and caregivers to use cultural songs to stimulate their children’s development...I have been helped to understand that in everything—e.g., water, stones, sticks— there is a concept of math and literacy.” (Reviewer: Master Trainer/sister, SCORE ECD, Zambia, August, 2015)

Resource Guide 4: Quality Early Childhood Environment for Young Children

PURPOSE

The purpose of this guide is to provide information on how caregivers and teachers can create quality early childhood environments that are safe and secure, healthy, and stimulating for young children's learning in all areas of their development.

This guide is divided into six sessions:

- **Session one** provides information on how to create a safe and healthy physical space, and places and activities for learning in all areas of development. Ways of organizing these activities, creating age-appropriate toys from locally available materials, and guidelines for adapting materials and activities for children with disabilities are also introduced.
- **Session two** focuses on planning and organizing group times and activities for young children with routines, transitions, movements, field trips, and traditional songs, dances, and stories reflecting the culture of children and their families.
- **Session three** focuses on different aspects of planning programs for young children that includes daily schedules and short-term and long-term planning.
- **Session four** focuses on how caregivers or teachers can foster young children's early literacy experiences—speaking, reading, listening, and writing—using everyday life experiences.
- **Session five** focuses on how caregivers or teachers can foster young children's early mathematical concepts such as numbers, patterns, measurement, shape, and classification using everyday play activities.
- **Session six** focuses on how teachers can manage an early childhood center using administrative guidelines and procedures.

Session 1: The Physical Environment

LEARNING OBJECTIVES

By the end of this session, participants will be able to:

- Know the attributes of a quality ECD environment by observing an ECD center using the environment checklist.
- Create and organize development and learning activities in different play spaces with adaptation for children with disabilities.
- Create educational toys using locally available materials.

A SAFE AND HEALTHY ENVIRONMENT

A well-organized and child-friendly space promotes children's development and learning. A quality early childhood physical environment¹ is one that:

- Has space for play activities inside and outside the ECD classrooms
- Has different areas to learn different things (e.g., literacy, art, dramatic play, science, and math)
- Has playing materials suitable for children's *ages, abilities, and interest*
- Has a planned daily schedule
- Has a provision for children to feel and build up a sense of community

Priorities in setting up an early childhood environment are:

- Safety
- Health
- A learning environment with lots of developmentally and culturally appropriate opportunities for play, learning, and social interactions

A primary consideration in setting up a child-friendly early childhood center is *safety*. This is because young children, especially infants and toddlers, are just exploring their world and in the process they might hurt themselves unintentionally. Early childhood service providers can ensure safety for young children by creating a safe and supervised environment. Below

IMPORTANT!

Early childhood development policies and guidelines for creating early childhood environments vary from one country to another.

The guidelines in this chapter represent general practices recommended for quality early childhood environments. These general guidelines can only be effective when implemented according to national/district guidelines and procedures.

For example, programs in Kenya, Malawi, and Zambia need to refer to their respective national/district standards when determining space, materials, and/or caregiver/child ratio and group size when they arrange early childhood settings for young children.

1 Gonzalez-Mena & Widmeyer Eyer (2012); Kostelnik, Soderman, & Whiren (2007).

are general *safety, health, and learning guidelines*² that can help caregivers to monitor the quality of an early childhood center. The guidelines were adapted from the *National ECD Policy Framework of Kenya (2008)* with additional ideas from sources indicated in footnotes.

NO.	GENERAL GUIDELINE FOR A SAFE ENVIRONMENT	CHECK		
		Yes	No	Remark
1.	Is the center’s building in good condition and meets national standards (e.g., structure is reliable; doors and windows have locks; indoor space is adequate for movement; chairs and tables are child-sized)?			
2.	Does the center have toilets accessible and appropriate for children, per national guidelines (e.g., separate for boys and girls; child-sized; clean; water and soap available)?			
3.	Is there a safety procedure in place for special needs children per national guidelines (e.g., staff trained on special needs; materials and equipment adjusted for their use)?			
4.	Are children kept away from places of potential danger (e.g., fireplace, electric wires, sockets, kitchen, hot dishes and cooking utensils; electric cord tied to prevent strangling)?			
5.	Is the floor clean, dry, smooth, and free from nails, clips, and other items that can suffocate children?			
6.	Is the national guideline and procedure for emergency in place (e.g., in case of fire, injury, or illness)?			
7.	Is the indoor and outdoor environment free of poisonous plants, vegetation, and objects?			
8.	Are medical materials, cleaning detergents, and sharp objects such as scissors and knives kept away from children’s reach?			
9.	Are toys safe and appropriate for the age group (e.g., washable, safe to chew, not too small to be swallowed, not broken or splintered, without toxic paint or substance)?			
10.	Are cribs safe for infants (e.g., babies cannot fall through or over)?			
11.	Is the food served cut in small sizes, easy to chew, and nutritious?			

2 Catron & Allen (2008); Gonzalez-Mena & Widmeyer Eyer (2012); Kenya National ECD Policy Framework & ECD Service Standard Guidelines Report by Abagi (2008); Kostelnik, Soderman, & Whiren (2007).

HEALTHY ENVIRONMENT

NO.	GENERAL GUIDELINES FOR A HEALTHY ENVIRONMENT	CHECK		
		Yes	No	Remark
1.	Does the center have national guidelines and procedures for health examination and follow up of children (e.g., a health and immunization record kept for each child, possibly growth monitoring done by trained staff or in collaboration with the nearest health center)?			
2.	Does the center have national health guidelines in place for managing injuries, communicable diseases, mild illnesses, preventing the spreading of germs, and dispensing medication for children (including HIV positive children)?			
3.	Are all medication supplies kept in a safe place, locked and out of children's reach?			
4.	Is there parental/caregiver contact information and a consent form for providing medication, informing parents/caregivers, or taking children to clinic/hospital at the time of emergency?			
5.	Is there a first aid kit with updated information on referral services near the center or in the community?			
6.	Does the center have staff trained in first aid and cardiopulmonary resuscitation (CPR)?			
7.	Does the center have a resting or sleeping place and facilities for children?			
8.	Does the center have a regular hand washing routine for both adults and children to prevent the spread of germs (e.g., washing hands with running water and soap before and after meals or toileting; adults washing hands before and after diaper change)?			
9.	Are there facilities for disposing of trash?			
10.	Does the center follow national health guidelines and procedures for food preparation (e.g., kitchen is away from learning or diapering area; clean, ventilated, has food storage and drying racks, and food is nutritious; cook certified, clean and neat)?			
11.	Does the center have a routine for maintaining the cleanliness of the center (e.g., throwing away trash, cleaning toilets, kitchen, toys, sleeping facilities, diapering and eating areas)?			
12.	Does the center have a good relationship with health and environmental officers and seek their support and guidance as a measure of monitoring the center's quality of service for young children?			

THE LEARNING ENVIRONMENT



Illustration: CRS Lesotho

GENERAL GUIDELINES FOR THE LEARNING ENVIRONMENT		CHECK		
		Yes	No	Remark
1.	Is the caregiver/child ratio arranged per national standards and sufficiently low to promote healthy child development and attention to all children? (Ask for the ratio; for example, for Kenya and Malawi the standard group size and ratio for a preschool classroom is 1:35 and 1:14 respectively.)			
2.	Does the center have enough space for learning and movement activities, per national standards for space?			
3.	Does the center have a curriculum with clear goals for supporting developmentally appropriate and holistic development of all children in areas of spiritual-moral, large/small motor, self-help, social-emotional, and cognitive-language development?			
4.	Does the learning environment include enough <i>locally appropriate</i> toys and materials for learning?			
5.	Does the learning environment promote both child-centered and teacher-guided activities (e.g., free-play, small group, and guided learning activities)?			
6.	Do caregivers teach young children various developmental and self help skills during daily caregiving routines (e.g., eating, toileting, dressing)?			
7.	Are toys, materials, and equipment provided to children appropriate for the child's age, development, and culture?			
8.	Does the curriculum support children to develop good self-concept (e.g., teaching about individuality by using their name, talking about their families, building a sense of morality through spiritual counseling, promoting cultural identity)?			

GENERAL GUIDELINES FOR THE LEARNING ENVIRONMENT		CHECK		
		Yes	No	Remark
9.	Do caregivers recognize and accept children's feelings and encourage appropriate expressions (e.g., when child talks to caregiver; when child is upset)?			
10.	Do caregivers treat all children with equal respect (e.g., address the child by name, use polite words, say "please" and "thank you")?			
11.	Do caregivers promote children's ability to solve social problems by themselves (e.g., allowing children to resolve conflict by themselves when they fight over toys or space or when they have disagreement)?			
12.	Do caregivers promote desired behavior in children using positive behavior guidance techniques (e.g., motivate children through praise, reward, modeling, not using physical or verbal punishment, setting clear rules and limits)?			
13.	Do caregivers have an open-door policy that welcomes families to visit the center and exchange their views and traditions with caregivers and children (e.g., caregivers have regular contact with families, respect family traditions and child rearing practices)?			
14.	Are caregivers trained for supporting special needs children such as children with disabilities or getting support from health services when needed?			
15.	Is the learning environment conducive for children with disabilities (e.g., toilets are adjusted, chairs modified)?			
16.	Do caregivers reach out to families of children with special needs and conduct individual learning and intervention plans for the child (e.g., children infected and affected by HIV and AIDS, or children with disabilities)?			
17.	Do caregivers conduct regular observation, documentation, and assessment of children's growth and development, including monitoring their own care and teaching for quality ECD service (e.g., use assessment record for planning and interventions)?			
18.	Do caregivers respect and maintain confidentiality of all children and families (e.g., protect children's privacy; manage disclosure of confidential information per national guidelines on code of ethics)?			
19.	Do caregivers follow child rights and protection national policy in their day-to-day activities with children (e.g., absence of physical punishment, verbal abuse, and neglect; advocate for children by developing relationships with concerned community support groups and child protection services)?			
20.	Does the center seek guidance and advice from early childhood specialists for improving the quality of its service for children and families (e.g., update knowledge and skills in ECD; monitor caregivers' performances and the child's environment on a regular basis)?			

CLASSROOM DESIGN AND EQUIPMENT REQUIREMENT

Kenya, Malawi, and Zambia have national standards for classroom design and equipment requirements for classrooms of infants, toddlers, and preschoolers. For example, Kenya's standard for a preschool classroom is 8m x 6m (26 feet by 19 feet) (Abagi, 2008). It is recommended that the user of this guide refer to their own national standards for this particular information.

INCLUSIVE LEARNING ENVIRONMENTS FOR CHILDREN WITH SPECIAL DEVELOPMENT AND LEARNING NEEDS



Illustration: CRS Lesotho

GENERAL GUIDELINE FOR AN INCLUSIVE LEARNING ENVIRONMENT³:

- Environment is inclusive of children affected by HIV and AIDS or children with disabilities and **adapts space and learning activities** as fit for their age, abilities, and interests.
- Caregivers treat children affected by HIV and/or children with disabilities as worthwhile and competent and focus on their strengths, not their limitations.
- Caregivers encourage interaction of HIV positive children and children with disabilities with other children by giving them appropriate tasks and responsibilities in order to enhance feelings of sameness and acceptance.
- Caregivers assign and encourage other children to help HIV positive children and children with disabilities in group tasks as appropriate to age and abilities of the group.
- Caregivers design individualized life skill and educational plan (IEP) for vulnerable

³ CRS, Lesotho (2012); Catron & Allen (2008); Republic of Kenya Ministry of Education (2008).

children (e.g., HIV positive children, orphans) and children with disabilities, adapt the environment and make it conducive for their learning (e.g., give children enough time to complete a given task).

- Caregivers model inclusive and respectful treatment of vulnerable children (e.g. HIV positive children, orphans) and children with disabilities by interacting with them the same way they interact and communicate with other children.

CAREGIVER/CHILD RATIOS AND GROUP SIZE

A small group size with a sufficiently low caregiver/child ratio is ideal for enhancing children's development. A low ratio provides opportunity for quality interaction between the caregiver/children and between children. *When setting up an early childhood classroom, it is important to consult the national standards for caregiver/child ratio and group size.* For example, for Kenya and Malawi the standard group size and ratio for a preschool classroom is 1:35 and 1:14 respectively.

ARRANGING THE PHYSICAL ENVIRONMENT: SPACE AND LEARNING CORNERS FOR INFANTS, TODDLERS, AND PRE-SCHOOLERS

Young children develop and learn about their world (e.g., people, nature, objects) by interacting with people and manipulating and examining objects with their five senses. Therefore, it is important that the physical environment supports children's curiosity to explore, play, and learn. A major consideration is room space, age-appropriate learning materials, and stimulating and positive interactions among and between children and adults. Let us see the setting of the rooms and play materials for infants, toddlers, and preschoolers⁴:

SPACE FOR INFANTS

Eating, sleeping, and diapering areas:

- Have the eating corner near a water sink for washing hands before and after meals; it is also preferable if the kitchen is near the eating area.
- Have containers of diapers near the diaper changing area, and if possible, use a low partition/screen to separate the changing and the learning area. This will allow the caregiver to change the diaper while supervising other children.
- Separate the sleeping cots and the play area and use the sleeping area only for rest and sleeping. Whenever children are alert and ready to play, use the opportunity to interact, talk, or sing with them.

PLAY AREA FOR INFANTS WITH TOYS AND MATERIALS FOR INSIDE

- Make the play area spacious enough for infants to crawl, walk, explore, interact, and play with caregivers or peers comfortably. Space facilitates or hinders development; for example, space encourages infants to move and explore and when they explore, it means they are learning.
- Make the surface of the room as smooth as you can, preferably cemented; this way you can easily clean the area after doing messy activities (e.g., water play or hand painting) with infants. You can also play catch ball or serve food on the floor.
- Provide infants with toys that can stimulate their brain. Stimulating toys include toys that can make noise when turned, dropped, shaken, or squeezed, toys that have coarse and smooth texture, toys that are soft and safe to chew on, brightly colored objects, pictures, books to look at, objects that are moveable and easy to push, pull, or roll.

4 Catron & Allen (2008); Dodge, Rudick, & Berke (2011); Petersen & Wittmer (2013).

TODDLERS ARE NEITHER BABIES NOR PRESCHOOLERS!

Toddlers are in a unique developmental stage. They are not babies because they begin to move and do things by themselves. They are not preschoolers because they have not yet developed the mental and physical capacity to sit down for a fair amount of time and do caregiver-arranged activities. All they want is to continuously move around and explore! This means caregivers must provide toddlers with space, materials, and activities that meet their unique needs. Let them have the chance to move, explore, experiment, discover, and learn!

SPACE FOR TODDLERS

- Provide space for eating, napping, and diapering, including toilets.
- Arrange child-sized tables and chairs and use them for both eating and learning activities. Remember to clean up the tables before and after each activity. Put the tables and chairs near the kitchen area for convenience during snack or lunch time.
- Arrange the eating area near the hand washing and toilet areas so that children can access the services easily. It is also convenient for toddlers if the toilet area is near the play area.
- Use the available space for placing cots for nap time; you can do this by moving the tables and chairs temporarily to the corners of the room. Nap time routine is after a meal, therefore use a transition song to prepare toddlers to be ready for naps.
- Have a corner near the diapering area with shelves to keep toddlers' clothes.

PLAY AREA FOR TODDLERS WITH TOYS AND MATERIALS FOR INSIDE

Remember toddlers are always moving! Therefore, when you arrange the space, consider allocating the largest space for play and movement. Toddlers have different play areas for learning different developmental skills.

Circle area: Allocate an open space that allows toddlers to engage in small and individual play and interactions. This space is convenient for toddlers to sing songs and dance, sit and listen to stories, play movement games with the caregiver modeling and promoting social skills, listening skills, self-regulation, etc.

Large motor area: Usually outdoor activities are used for large motor skill development. But it is important to balance the indoor activities with both small motor and large motor activities. Therefore, include small tools such as hard boxes to jump over or crawl in and around and small wooden ladders to climb up and down. Using songs or a cassette player (if available), the caregiver can enhance large motor skills in the *circle area* through dancing movement (e.g., children clap hands, put hands up, jump over, bend, and touch toes).

SING TO YOUR CHILD



THRIVE/CRS

Small motor area: Toddlers learn through sensory-motor activities that involve manipulation of objects. This means they use their hands and fingers to examine things around them. Materials to consider include locally made puzzles that are simple and have three to four pieces, clays to twist and mold shapes, locks and keys tied firmly in strong knots, stacking shapes, large beads to string, packing materials, boxes, cups, paper, tin, etc.

Art area: Toddlers love to do hand painting or use a brush or crayons to paint and draw different colors on a large paper or smooth washable floor. The activity can be messy, therefore make sure toddlers cover their clothes with an apron (if available); otherwise use water and soap for toddlers to wash after completing their tasks. Prepare the art activity ahead so that toddlers do not wait while you are preparing. Waiting makes toddlers impatient and they may show unruly behavior.

Block-building area: Blocks are powerful tools for especially cognitive and social development. Have light, small, and different sized wooden or cardboard blocks in this area. Block play requires a space with a boundary, otherwise as toddlers move around they may knock over towers built by other children. This creates conflict and behavior problems. Shelf and label the blocks according to their size and shape; make the labels by drawing the shapes. Labeling gives toddlers clues on what kinds of block to take out and put back easily.

Imaginary play area (fantasy play): This area helps toddlers to develop mental and social skills. They begin to learn by imitating the behaviors of others. Provide household items such as pots, pans, dishes, cups, recipe cards, cook books, utensil drying racks, empty food boxes, a mirror (unbreakable), a clock, cabinets/shelves for food storage, a doll and doll bed, dress up clothes, doctor's tools and items sold in local farmers' market or shops, and religious celebration items (e.g., Christmas bells, candles, etc.). Balance items by interest of boys and girls and arrange the area near the building area to encourage boys and girls to play together switching roles (e.g., boys wash dishes and girls can fix a broken kennel).

Book corners: Toddlers learn early literacy through read-aloud activities, touching and turning the pages of books, scribbling, looking at big and colorful pictures, etc. Arrange a quiet and comfortable space with materials such as pillows, blankets to sit on, cutout wooden or plastic letters, alphabet puzzle or cards, puppets for read-aloud activity, hard covered picture books with few words, and books reflecting the child's culture and religion.

Prayer corner: A comfortable chair or mat, pretend play items for prayer (e.g., candles and flowers, and a Bible or other religious artifacts, as appropriate to the child's religion).

READ TO YOUR CHILDREN



THRIVE/CRS

SPACE FOR PRESCHOOLERS

The space for preschoolers is similar to that for toddlers but it excludes space for diapering. Preschoolers are known for their curiosity to create things, thinking through their imagination, and mastering skills such as reading, jumping, skipping, cutting shapes using scissors, making objects, and imitating adult roles (e.g., mother, father, teacher, etc.). To accommodate preschoolers' developmental interest and needs, the space is arranged in different learning centers with appropriate materials.

Space for eating, sleeping, and toileting are the same for toddlers. Additional guidelines (national standards) must be used to accommodate special needs children (e.g., disabilities, HIV), if any.

PLAY AREA FOR PRESCHOOLERS WITH TOYS AND MATERIALS FOR INSIDE

Circle areas: This space is similar as that for toddlers but activities can be more complex in nature. The space is suitable for large motor skills. Preschoolers can understand and follow a two-step instruction and do complex body movement and actions; e.g., “Touch your nose with your right hand and your ear with your left” (with modeling); “Use both feet and jump over the line with both hands on your head;” “Dance and stop when I say ‘stop.’” Music, songs, and obstacle games can be used in this area; large and small balls, parachutes, or balance beams also enhance large motor skills.

Small motor area: Preschoolers show increased small muscle development and hand-eye coordination; therefore, use materials such as inset puzzle, paper and crayons, scissors, locks and keys, pegs and large peg boards, snap boards, and stacking shapes.

Art area: Preschoolers enjoy creating things, so provide them with papers and boards to cut and make things such as collages of different materials, do activities with leaves, beads, shapes, finger paints, paint brushes, easels, nature books, color papers, feathers, recycling magazines, crayons, and markers.



Illustration: CRS Lesotho

IMAGINARY PLAY

Imaginary area: Preschoolers like pretend-play, imagining being someone else. The space needs to provide materials for acting out roles such as being a mother, father, teacher, nurse, priest, farmer, cook, soldier, police officer, shop attendant, librarian, etc. Materials include tables, chairs, a play stove, a play cupboard, dolls, a doll bed, dress-up clothes (e.g., white for nurses), hangers, clock, empty boxes, and play food items.

Prayer area: A comfortable chair or mat, and pretend play items for prayer (e.g., candles and flowers, a cross, and other religious artifacts, as appropriate to the child's religion).

Writing area: This space should allow preschoolers to learn early literacy skills such as dictating stories, writing names, pretend reading (e.g., turning pages from right to left, word rhymes, plastic letters, inset letter blocks, alphabet boards, crayons, papers, birthday cards created with hard papers, etc.).

Block building area: Preschoolers build complex structures; they need a fairly large space with shelves and blocks of large size and different shapes. The space needs to be separated from other play areas with clear boundaries.

Book area: Preschoolers begin to recognize words and sentences in a book or any print. Set up a quiet reading space large enough for several children; provide books with more words and more pictures; allow children to create an *all-about-me* book (e.g., Me and My Family; Our Nature Walk, Christmas Time; Blue and Red Things, Square and Triangle Objects; Food We Eat at Home; People We Like To Help). Children can dictate their own story about themselves and the caregiver writes and helps children make a two to three page *all-about-me* book. Families can be invited to listen to children's "reading" through modeling from the teacher, or tell stories or read books for children (encouraging fathers to participate).



Preschoolers and assisted learning in creative art, SCORE ECD, Kenya.

Discovery/science area: Create a space for materials that can enhance preschoolers' creativity and discovery learning. Materials include plasticine, modeling clay, magnifying glasses, leaves, water, sand, rocks, plants, insects, seed, grains, feathers, flowers, shells, bones, sticks, fruits, balance scales, magnets, and measurement tapes or rulers, and a play compass. Computers can be included, if available.

Woodworking area: Set up this space next to the dramatic area to encourage boys and girls to play together. Materials include a play hammer, pliers, screwdriver, saw, wood box, wood scraps, nuts/bolts, tree stumps, and cardboard boxes.

Music area: This space can be created with a small screen/partition and a stage for music, dance, theatre, or puppet drama. Materials can be reprints of culturally varied artists' works and displays, musical instruments (traditional and modern), bells, drums, flutes, and dance and traditional songs can be about alphabets, shapes, colors, friendships, family, health, etc.

EARLY CHILDHOOD ENVIRONMENT ADAPTATION FOR SPECIAL NEEDS CHILDREN

Suggestions for adapting the environment for children with disabilities: The environment should provide:

- Wheel chairs and aids or other kinds of assistance to facilitate physical movement
- Railings, slopes, and steps suitable for children using wheelchairs, walkers, or brackets
- Tables, toilets, drinking faucets, etc. suitable for the child's needs
- Smooth and non-slippery floors
- Special chairs or desks suitable for the child's needs (e.g., chairs are comfortable and can support the child's body from falling)
- Other materials adapted for the child's use, such as large eating utensils, Braille, large print, etc.

ORGANIZING THE PHYSICAL ENVIRONMENT⁵

The way teachers arrange their space will depend on **their beliefs about how children develop and learn.**

If teachers believe that:

- *Young children need to spend most of their time listening to what is being taught during formal lessons*, they will arrange tables and chairs or mats so that they face the same way. There will be few or no play materials.
- *Young children learn through play*, they will provide many play activities for children to actively explore and find out things for themselves.

If teachers believe that:

- *Young children are concrete thinkers*, they will provide real objects for children to explore through their five senses.
- *Young children are abstract thinkers (understanding based on thoughts and ideas)*, they will give them lots of worksheets to complete.

Remember that young children are concrete learners and that they learn by using all of their senses.

TYPE OF SETTING AND AMOUNT OF SPACE

The learning space may be:

- In an early childhood care and development center (ECCD center) that has been specially built for young children (government, private, or orphanage facilities).
- In a community-built, child-friendly space or daycare.
- Some teachers may not have a building at all and therefore may organize activities for children in an open space.

In planning appropriate activities for the space, teachers should consider what they have learned about how children develop and learn. Learning corners help children develop and learn across all developmental areas. The way the space is arranged should:

- Help children learn to become independent.
- Encourage children to take initiative.
- Build on children's interests.
- Help children to be creative and do things in their own way.
- Provide opportunities for children to manage their own behavior.
- Help children learn how to get along with others.
- Provide opportunities for children to play and work on a variety of activities on a daily basis.

⁵ CRS, Lesotho (2012).

Whatever the setting, teachers should divide the space, during part of the day at least, into the different learning corners. The way the materials are organized in these corners should indicate to the children where they can go to do different things.

GUIDELINES FOR ORGANIZING THE SPACE

There are two steps involved in planning the physical environment:

1. **Set up the space:** Decide where and how to arrange the learning corners.
2. **Set up the learning corner:** Arrange the equipment and materials in each learning corner.

1. SETTING UP THE SPACE

Every setting is different, so the way the learning corners are arranged will differ; there is no one right way to do it. Whatever the individual circumstances, there are some general guidelines to help teachers plan their spaces.

TAKE A CLOSE LOOK AT THE SETTING

If the preschool or child-friendly space or daycare is <i>in a building</i> , think about:	If there is <i>no building</i> for the preschool, child-friendly space, or daycare, think about:
<ul style="list-style-type: none"> • How large the space is • Where the doors and windows are • Whether there is light and fresh air • Where the water supply is • Whether some activities could go outdoors • Where things will be stored • How safe the building is (steady walls, roof leakages, etc.) • Where the mats can be located and stored if children need to sleep • A work space for the teacher 	<ul style="list-style-type: none"> • How large the space is • Shady trees and flat surfaces where activities can be set up • What shelter there is available in case of strong sunshine or bad weather • How you can define the different learning corners • How natural resources can be used (e.g., soft grassy areas for children to sit on, tree stumps for tables, pathways to separate the activities) • The distance between homemade or real toilets and the learning space • How you ensure there is water supply • How safe each part of the space is (e.g., distance from wells, cooking fires, major roads)

Draw up a plan. Invite other teachers or parents who work closely with you and the children to **plan the space** together and discuss:

- **Which learning corners go together best.** Some activities are noisy and others are quieter.
- **How much space each learning corner needs.** Some activities need more space than others.
- **The number of children who can play in each corner.** This will be according to the amount of materials and space available.
- **Whether children can choose what they want to play with.** Children should be able to choose their own materials. They need to be placed so that children can help themselves.
- **How to separate the learning corners.** Children need to be able to see where the corner begins and ends.
- **How children will find the activities.** Children will choose to play with what they are interested in. They need to be able to clearly see what choices they have.
- **How children will move.** Children need to move easily from one activity to another without disturbing other children. Here are some suggestions:
 - **Make an entrance area.** Whatever the setting, when children arrive in the morning,

there needs to be a space where children are welcomed and greeted. It is also an important time when teachers can talk to parents away from busy activity areas.

- **Give each child a space for their own things.** Each child needs space for their personal belongings like jerseys or artwork. The space should be clearly marked with the child's name and/or a symbol that he/she can recognize.
- **Plan enough activities for all of the children.** The amount of space available will dictate how many learning corners can be set up. If the play space is small, learning corners can be rotated on different days. Remember that learning corners can be set up outside if the weather is good.
- **Place corners that go well together next to each other.** For example:
 - Fantasy play and blocks are noisy activities and both encourage children to play imaginatively and cooperatively.
 - Books and educational toy activities are quieter activities and should be as far away as possible from more active activities so that children are not disturbed.
 - Sand and water play and art activities need to be near water.
- **Make each learning corner clearly defined.** Dividing learning corners helps children to stay in the play area, and they can concentrate better without being distracted. Many things can be used as dividers:
 - Low shelves
 - A piece of fabric strung across the area
 - Low furniture (e.g., fantasy play cupboard)
 - Screens
 - Boxes
 - Mats
- **Whatever is used should be low enough so that children can see what is happening in other learning corners.** Crouch or kneel low enough to get a children's-eye view when putting in dividers.
- **Make pathways.** Children need to be able to move easily from one area to another without walking through a learning corner or stepping over an activity. Create a pathway for children to move from one part of the room to another without disturbing other children. Try to avoid having large empty spaces as this encourages children to run up and down.
- **Create a space for group and rest times.** There will be times during the day when children will come together for group activities and, if these are held indoors, teachers will need to find a suitable space.

As the amount of space available is often limited, the materials in a learning corner are usually packed away to create a space for children to sit. In full day programs, children normally rest after lunch time, and the room is arranged for children to lie on mats, again making use of the space in the learning corners.

2. GUIDELINE FOR SETTING UP THE LEARNING CORNERS

The same learning corners are set out every day, but a variety of activities take place within each corner. Think about how much space will be needed for each learning corner.

- The fantasy play and building and art corners need larger spaces than the other activity corners. There should be spaces for children to play alone as well as with others.
- The learning corner needs to have enough space for the number of children that will play in it and the nature of the activities planned.
- Work out how many children can play in each learning corner at any one time and make sure that there are more activities and materials than children so that they can choose what they want to play with. For example, if there are thirty children and all learning corners are set out, at least six children should be able to play in each corner at the same time.
- Arrange the toys and materials in the area so that children can help themselves. Children learn to be independent when they can choose what they want to play with, and are more likely to learn if they are doing something that interests them. They will also be able to put things away when they have finished playing. This teaches them responsibility.
- Display materials on low shelves or tables, or in containers in each learning corner. Make sure there are not too many toys, books, or other items on display that would make the shelf appear cluttered.
- If activities are set up outside, store the materials for each corner in a separate labeled box to be taken to the different corners.
- If the activities have to be packed away every day, they can be stored in cardboard boxes to make it easier to carry them to the storage place.
- Enclose each corner on three sides, leaving enough space for children to move easily in and out.
- Set out mats, chairs, and tables to show children where they can sit to do their activities.
- Store materials and toys in clearly labeled containers (e.g., shoe boxes, baskets, plastic containers). Draw or cut out pictures and paste them on the containers to help children know what is inside.
- Make the play space an attractive area that will invite children to learn.
- Display pictures, posters, and children's art work *at children's eye level*.
- Print labels and posters so that they are clear and readable.
- The way the environment is set up has a lot to do with how children behave.
 - Children may bump into each other or knock down other children's work if the space is crowded, which can be upsetting.
 - If there are empty spaces where nothing is happening, children may be tempted to run up and down.
 - The more children are actively involved in play activities, the less chance there is for them to misbehave.

Important to remember: The teacher's first attempt at organizing the environment may not work well, and it may be necessary to make several changes over the first few weeks until what works best is found. It will be well worth the effort. If the children are busy and learning, there will be more time for the teacher to support their individual development.

HOW TO SET UP PLAY CORNERS AND THE TEACHER'S ROLE

FANTASY PLAY CORNER

Fantasy play is pretend play that lets children act out things that are happening in their lives.

WHY FANTASY PLAY IS IMPORTANT

Here are some of the ways in which children develop and learn:

- Children learn about the world around them. When they imitate what they see around them in their homes and neighborhoods, children learn more about the people in their lives and what it is like to be them.
- Children learn to think by using symbols. Learning that something stands for the real thing is an important part of learning to read and write.
- Children develop their language and communication skills as they talk to one another about their ideas.
- Children learn to get along with others and discover ways of working together in a game. They also learn how to share and take turns.
- Children learn about their feelings when they play out things that make them happy, sad, upset, or frightened.
- Children learn to use their initiative and develop creativity when they use their own ideas and decide how they want to play.
- Children learn important thinking skills as they play pretend games. They sort and put things together according to size, shape, and color when they put away the laundry or pack shopping onto a shelf. They learn about numbers when they set the table for mealtimes.
- Children develop their large and small muscles when they play pretend games.

STAGES OF PLAY

Children go through different stages of fantasy play:

Stage 1: Imitative play	A very young child will play simple games about what they see at home (e.g., hold and feed a doll, or washing plates). Later, children start to copy household chores like sweeping, mopping, and washing clothes. Their playthings need to look like the real thing.
Stage 2: Make-believe play	Children start to use their imaginations, and their play extends to people and places in their neighborhood. They also make up their own stories. During this stage, children may pretend that a box is a car or that a block is an iron. They are learning to use symbols that stand for the real thing.
Stage 3: Socio-dramatic play	In the third stage, children start to play pretend games with other children. There can be complex story lines and children will plan their games before carrying them out. Children can make what they need for their play and don't need to have real objects.

SETTING UP THE FANTASY PLAY CORNER

Fantasy play activities can be set up indoors or outdoors away from quiet activities. You will need a large space to let children act out their pretend games. Use low shelves, boxes, or small pieces of furniture to divide the corner on three sides from the other play areas.

Children's home lives are what they know best, so set up a house area that is divided into two areas: a sleeping area and a living area. All the furniture needs to be child-sized. Try to make these areas look as much like the children's homes as possible.

- In the sleeping area, have a bed/mattress and blankets and dress-up clothes.
- In the living area, have a place for cooking and for sitting and eating.
- Add finishing touches like a vase of flowers, pictures on the wall, or pretend windows and curtains (at children's eye level).
- Include traditional clothes, pots, baskets, blankets, and weaving that are typically found in the home.
- Store the materials and utensils in the areas (e.g., kitchenware can be kept in a cupboard in the kitchen; dress-up clothes can be hung in a closet on hooks against the wall, or folded on a shelf).
- Makes sure a child with a disability can reach and use the materials and furniture.
- Include dolls with different kinds of disabilities and individual differences (e.g., a doll with a crutch or a missing arm; a doll with glasses).
- In addition to these, add things like different sized cardboard boxes, pieces of cloth, string, or blocks of wood. These can be used as anything children wish them to be.

HELPING CHILDREN WITH FANTASY PLAY

- Young children between three and five years of age enjoy playing together. Children play imaginatively with one another, so teachers usually allow children to play on their own without directly intervening.
- There are times, however, when teachers will want to get involved in children's play. Teachers should only intervene if they are sure that a child cannot go further by himself/herself. Teachers can best learn what children's needs are by carefully watching them as they play.
- When teachers do join in play, they should remember that it is the child's game and not to take over; the child still needs to use his/her own ideas and to play in their own way.

TEACHERS CAN:

- Talk to children about what they are doing and introduce them to new words, e.g., "You poured the tea into the cup. How will Peter stir the sugar?"
- "Can you find a small spoon?"
- Help a child to join in a game, e.g., "Mommy, Jane has come to visit. Can she stay for supper?"

GENDER ROLES IN FANTASY PLAY

- Children learn different roles when they play pretend games. The kinds of materials that are set out will determine which roles children play. Teachers need to provide a wide range of materials that allow children to do many things, whether they are boys or girls. Teachers may have noticed that more often girls tend to play in the fantasy corner and boys in the building corner.
- One idea is to set up the building corner next to the fantasy corner and encourage children to carry things between the two corners. Children should also be encouraged to try out different roles (e.g., boys can wash the dishes and girls can water the vegetables).



Sr. Margaret Mashrima scaffolding children's creativity through hands-on art activity, *SCORE ECD, Kenya*.

SETTING UP AN ART CORNER

When children can use their own ideas and express themselves in their own way, they are being creative. Teachers can help children develop their creativity by providing a variety of art materials that children can freely explore, encouraging them to choose what they want to do and to use the materials in their own ways.

It is not the finished work that is important, but the experiences and enjoyment that children have and how they feel about what they have created as they paint, draw, model with clay, or make a collage.

WHY ART IS IMPORTANT

Here are some of the ways in which children develop and learn:

- Children learn to use their initiative when they experiment with art materials and use their own ideas to create different things.
- Children learn to control the small muscles in their hands and fingers and develop their hand-eye coordination. These are important skills which will help them later when they start writing.
- Children develop cognitively. They practice thinking skills that will help them learn important concepts like color, texture, and shape. They also learn about cause and effect. For example:

- “What will happen if I add yellow paint to the blue paint?”
- “What will happen if I press harder with the crayon?”
- Children learn skills that are important in getting along with others. They share crayons, paint, and scissors and may have to wait their turn if there are only four spaces for drawing.
- Children experience pride in their work, which helps them feel good about themselves and what they can do.

STAGES OF DEVELOPMENT IN CREATIVE PLAY

Children go through different creative stages:

<p>Stage 1 18 months–4 years</p>	<p>Uncontrolled scribbles</p> <p>At about eighteen months, a child will start to use crayons to scribble on paper.</p> <p>In the early stages of hand muscle development, he/she does not have control over their movements and just enjoys making marks on the paper.</p> <p>Controlled scribbles</p> <p>As the child gains better control over his/her muscles, he/she will start to make repeat patterns, like an unclosed circle over and over on the page. Later in this stage, he/she will start to draw things, and then point to and name what they have drawn.</p>
<p>Stage 2 4–7 years</p>	<p>Children draw or paint people and objects, although you may not know what it is until you are told. In the early stages, objects float across the page and are drawn through the child’s eyes. A child’s father may be drawn as bigger than his/her house because he is important to the child.</p> <p>Children draw the same things over and over again and may cover their whole page with the same thing. Later on, people and things start to look more like the real thing and are in proportion. Children enjoy experimenting with color and may draw a green sky or a purple tree.</p>
<p>Stage 3 7–9 years</p>	<p>During this stage, children’s drawings are more realistic, detailed, and more in proportion.</p>

SETTING UP ART ACTIVITIES

Young children need a variety of art experiences. We suggest four basic art activities that children can choose from:

1. Painting
2. Drawing
3. Collage (cutting and pasting)
4. Modeling

Depending on the space available, the teacher can set out all four activities every day, or, if the space is small, these could be rotated during the week. For instance:

Mondays, Wednesdays, and Fridays: *Drawing and modeling activities*
Tuesdays and Thursdays: *Painting and collage activities*

- When the weather is nice, take the activities outdoors.
- Use low shelves, boxes, or small pieces of fantasy play furniture to divide the corner on three sides from the other play areas.
- Art activities can be set out on mats on the floor or at tables, each activity in a separate space.
- For a child with a physical disability, tape paper to the table or other surface. This will

make it easier for him/her to draw or paint.

- There should be enough room between the activities so that children will not upset paint or bump a child while he/she is busy.
- Keep the materials for each activity nearby so that children can help themselves to the materials that they want to use.
- Arrange the materials attractively and in an organized way so that children can clearly see what is available. For example, crayons can be sorted according to colors and kept in individual tins.
- Cover the floor with a mat, newspaper, or plastic for messy activities like painting and collage. Find a space for paintings to dry.
- Have a basin of water and a cloth nearby for cleaning up messes.
- Aprons should be set up in a central place for children to put on and protect their clothing.

HELPING CHILDREN BE CREATIVE

Many teachers think that they are being helpful when they give children stenciled shapes to color, pages to color in, or things to copy. These are not creative activities because children cannot choose their own materials and use their own ideas to express themselves. Teachers help children express their creativity when they:

- Encourage children to choose what they want to do and use the materials in their own ways. It is fine to ask children to draw a picture of a story that has been told, but if a child chooses to draw something else, he/she should be allowed to.
- Don't draw things for children. This sends the message that their artwork is not as good as yours.
- Teachers do need to show children how to use tools like paintbrushes and scissors when they are using them for the first time.
- Talk to children about what they are making and encourage them to tell you about their work. Don't try to guess what they have drawn- you will probably be wrong! Rather, describe what you see, for example: "You have used lots of lovely bright colors and filled your whole page."
- Praise children for their work, even if it looks like a lot of scribbles, or the sun is blue. Don't correct them—these are stages that children go through in their development. Display all children's artwork, even those that are scribbles.
- If a child with a disability is not able to use the art tools, think of other ways to let him/her join in. For example, attach a paintbrush to his/her wrist or hat; let them tear pictures instead of cutting them.

BUILDING CORNER

The building corner is an important part of the early childhood program. Building activities help children grow and learn in all developmental areas. It is an exciting and popular learning corner enjoyed by both girls and boys.

WHY BUILDING ACTIVITIES ARE IMPORTANT

Here are some of the ways in which children develop and learn:

- Children develop their imagination and creativity when they make their own designs for buildings, roads, and bridges.
- Children practice their large muscles skills as they build tall structures. They also develop their small muscle skills and hand-eye coordination when they pick up, stack, and balance things one on top of another.
- Children learn important mathematics skills and concepts (e.g., size, number, seriation [putting things in order], classifying [grouping according to shape or size], height, and length).
- Children learn how to solve problems (e.g., how to build a tall structure without it falling down, how to build something big enough to fit an object inside, or how to find things of the same length and size).
- Children learn about their world when they build roads, bridges, fences, and houses that they see around them and then play pretend games.
- Children develop their social skills as building activities encourage children to make things together. As children build together, they learn to cooperate.

STAGES OF DEVELOPMENT IN BUILDING PLAY

Children go through different stages when they play building:

Stage 1 1-2 years	Very young children carry blocks around or put them into a container or a toy car and push it along. They are exploring how blocks feel and how many they can carry without dropping any.
Stage 2 2-3 years	Children begin making rows of blocks on the floor or piling them one on top of another. They start to make roads and simple buildings. They will play alone or next to one another.
Stage 3 2-4 years	Children start to make enclosures (e.g., a kraal, simple bridges). They also enjoy arranging the blocks in a repeat pattern (e.g., a wall). They use their structures for fantasy play and add props like road signs, cars, and trees.
Stage 4 From 5 years	Children can create and name all kinds of buildings that they see around them. They spend a lot of time creating complex scenarios and need a large variety of building blocks to build with.

SETTING UP BUILDING ACTIVITIES

- Building activities can be set up indoors or outdoors, away from quiet activities. The floor surface needs to be flat.
- Children need a large space to spread out their blocks and build, in a corner of a room if this is possible. There should be enough space for children to build alone or with other children.
- Use low shelves, boxes, or furniture to divide the corner on three sides from the other play areas.
- If homemade building materials are provided, try to have at least six blocks or shapes of the same kind.
- Store building materials on low shelves so that children can see what is available and help themselves.
- Arrange them in an organized way with all the same kinds of materials grouped together. Draw outlines of the different shapes on the shelf surface to make it easy for children to put materials back from where they came.
- There should be enough building materials so that children can play alone or together.

HELPING CHILDREN WITH BUILDING

RULES FOR PLAY

Have a few simple rules for children to remember that will keep them safe:

- Blocks are used only for building.
- Respect other children's buildings.
- Use only your own blocks.
- Build only as high as you can reach.
- You can knock down your own building but not anyone else's.
- Remember the number of children that can play (e.g., six).
- Put things away when you have finished.

Teachers can do the following to help children with building:

- Watch children as they play to find out how they are learning and see if they need help.
- Encourage girls as well as boys to play with the materials.
- If you do join in play, remember the guidelines discussed earlier to follow the child's lead. Don't interrupt their learning by giving a lesson on different sizes. Let him/her find out for themselves by using their own ideas.
- Talk to the child to find out what they are doing and to introduce new words:
 - "I see you have used square shapes to make your tower. They are all the same size."
 - "You put the longest block across the other two blocks to make a bridge."
- Ask open-ended questions to help the child think about what they are doing and to solve problems they may have:
 - "Why do you think your bridge fell down?"
 - "Is there another way to make it work?"
 - "How can you make your road longer?"
- If a child has a physical disability, make sure to find a way for him/her to be on the same level as the other children when he/she builds. Some children could build at a table, or use a cushion to prop a child on the floor.

SCIENCE AND DISCOVERY CORNER: SAND AND WATER PLAY

Science is about trying to understand why things happen the way they do in the world. Children are naturally curious and want to find out more about:

- The people, plants, and animals around them
- How things work
- Earth and space

This is called *scientific knowledge*. The processes that children use to understand their world are:

- **Predicting.** Coming up with their own ideas about what they think will happen.
- **Experimenting.** Trying out their ideas to see if they are right.
- **Observing.** Looking closely to see what happened.
- **Measuring results.** Trying to understand what happened. They may talk about their ideas or draw a picture about it.

These are called *science processing skills*.

Note: In the past, teachers would set up display tables to help children learn more about nature and living things. Because children find out about things by actively exploring, experimenting, and investigating and discovering for themselves, teachers are now encouraged to think of hands-on activities that will encourage children to find out things for themselves. (Teachers should be very careful that plants and living creatures are not hurt.)

For teachers who are new to these kinds of activities, it is recommended that they start with sand and water play activities. Later, other activities can be added to help children find out more about nature as well as manmade objects.

WHY SAND AND WATER PLAY ARE IMPORTANT

Here are some of the ways that sand and water play are important:

- Children practice their science processing skills when they explore and experiment with sand and water.
- Children develop intellectually when they find out about the properties of things. For example:
 - Some things float and some things sink.
 - Things change and look different (e.g., when water evaporates or sand and water are mixed).
 - That wet sand and dry sand feel different.
 - They learn mathematical concepts like more, less, the same, full, empty, how many small containers are needed to fill a bigger container, etc.
- Children develop their language skills and they learn new words and phrases (e.g., cupful, how much, float, sink, empty, half-full).
- Children develop their initiative and creativity when they try out their own ideas.
- Children develop their pride and self-confidence when they discover for themselves and find out something new.
- Children develop their small muscles and their hand-eye coordination.

SETTING UP SAND AND WATER PLAY

- Sand and water play can be set up indoors as well as outdoors.
- Set up the sand and water play corner near the building or fantasy play corner as it is a fairly noisy activity and can be distracting. If indoors, try to find a secluded place out of the way as the floors tend to get wet and slippery.
- If indoors, put waterproof plastic, newspapers, or mats under the containers to protect the floor.
- If inside, use low shelves, boxes, or furniture to divide the corner on three sides from the other play areas.

- Provide enough space for children to be able to work. Allow for about four to six children to play at one time, depending on the size of the containers.
- Set up the materials that children will use on shelves or in containers near where they will play so that they can help themselves. The materials can be arranged according to their functions (e.g., all the measuring things together).
- If a child with a disability is not able to sit at the sand or water play activity, put sand or water in a basin on a tray and add a few pieces of equipment. Place the tray on the child's lap or on a table where the child can reach it.
- Make sure that water is emptied from the containers every day and cover the sand play area.

HELPING CHILDREN WITH SAND AND WATER PLAY

- Watch children as they play to find out what they are trying to do and see if they need help.
- Give children plenty of time to experiment and practice the science processing skills.
- Talk to children about what they are doing and introduce new words:
 - “The leaf is staying on top of the water. It is floating. Do you think the stone will float or sink?”
 - “You have poured water into the cup. It is half-full.”
- Ask open-ended questions that help children think more about what they are doing:
 - “How can you find out...?”
 - “Why do you think that happened?”
 - “How did you do that?”
- “Why are you doing that?”

BOOK CORNER

Children learn to read by being read to and given the opportunity to explore printed materials. When they look at books and enjoy them, they will want to read on their own. They also learn about important print concepts for their own language, such as that print is read from left to right and from top to bottom. Having a special place where children can look at books is an important way of helping them learn to become readers.

WHY BOOKS ARE IMPORTANT

Here are some of the ways that books are important:

- Children learn that books give information that will help them learn more about the world.
- When children look at books they learn about print, for example:
 - How to hold a book the right way up, and which is the front and which is the back.
 - Pages are turned in a certain direction.
 - Print is read from left to right and from top to bottom (in English and many other languages).

- Printed words tell a story or give them information.
- Pictures on the page are connected to the print.
- Children learn new words and increase their vocabulary. They increase their vocabulary when they name things, people, and places in books and they hear new words being read.
- Children learn about people who are different than them in some way, and start to understand how other people feel as they see characters in the story experience emotion.
- Books excite children’s imaginations and curiosity.

STAGES OF DEVELOPMENT IN USING BOOKS

Children go through different stages in learning to use books:

Stage 1 7-9 months	Babies start exploring books. They imitate how they have seen other people reading. They pick up books and pretend to read.
Stage 2 1-2 years	Children will listen to a book being read. They have their own favorite books which they enjoy being read over and over again.
Stage 3 2-3 years	Children start to understand that stories have a beginning, a middle, and an end. They are able to re-tell a story that has been read to them.
Stage 4 3-4 years	Children start to understand that the words on the page are connected to the pictures.
Stage 5 4-5 years	Children start to understand that the printed letters represent words.
Stage 6 4-5 years	Children recognize words by looking at them and will point to these in books and the environment.

SETTING UP THE BOOK CORNER

Children need different kinds of books:

- **Storybooks.** These books tell stories that are not true and can be very enjoyable. Stories can be about things that happen in children’s everyday lives, fantasy stories that include talking animals, or traditional stories that have been handed down through the years and pass on cultural beliefs and values. Some stories help children deal with their problems or fears such as going to the clinic or being afraid of the dark.
- **Factual books.** These books give children information about people, places, animals, plants, transport, seasons, and other things in their world. There are books that teach children about concepts such as colors, shapes, magnets, or sounds. Some books explain how things are done.
- **Rhyming books.** These are books that have repetitive words and phrases and help children learn about the sounds of words.

Teachers can do the following to help children with books:

- The book corner should be a quiet, cozy place, away from noisy activities like blocks. This could be on a blanket or mat under a tree outside.
- There should be enough space for children to read alone, with another child, or with the teacher. Some children like to look at books at a table, if this is available.
- If inside, the book corner should be near a window where there is some light.
- Use low shelves, boxes, or other furniture to divide the corner on three sides from the other play areas.

- Put a blanket, mattress, grass mat, or rug on the floor with some pillows or cushions and any other comfortable furniture.
- Children need a variety of books to choose from, in their home language.
- Display them on low shelves where children can see the cover of each book. Make sure the books are the right way up.

ANTI-BIAS BOOKS

Books need to reflect the values you want children to develop. They should show:

- Children of different races and religions playing together.
- Children with differing abilities playing together.
- People who look like the children, their families and community, as well as other people that look different to them.
- People with disabilities at work or doing things at home.
- People of different races having a variety of jobs.
- Both girls and boys doing the same things.
- Both men and women in a variety of jobs in and out of the home.

HELPING CHILDREN WITH BOOKS

- Let children choose their own books.
- Teach children to respect books. Show them how to turn the pages carefully so that they don't get torn, and to put the books back on the shelf when they have finished looking at them.
- Model how to read books—from front to back and from left to right.
- Children learn to read when they have books read to them. Read books aloud to children every day.
- Show children that you are interested in the books that they are looking at by talking to them and asking questions about the books they have chosen.
- Remove books that have torn pages and repair them.
- If you have a child with a visual disability in the group, have some books with large print.

PLAY CORNER FOR RELIGIOUS ACTIVITIES



Young children starting the morning with prayer, Early Childhood Center, Nairobi, Kenya

Every child has a right to exercise his/her faith early in life. When children are engaged in religious activities they learn spiritual and moral values. Religion-related activities can be incorporated across all play corners. The fantasy play corner especially is the ideal fit for spiritual and moral value development. Depending on the objective of a program however, a teacher can also build a separate play corner for children to explore spiritual and moral oriented experiences.

WHY PLAY CORNER FOR RELIGIOUS ACTIVITIES IS IMPORTANT

Here are some of the ways in which children learn from spiritually-oriented activities:

- Children develop awareness and appreciation for all the things that God has created in this world as they listen to religious stories, observe things created by God, and imitate other people's behaviors of compassion and being thankful.
- Children develop and learn sharing, respect, and working with others.

SETTING UP A PLAY CORNER FOR RELIGIOUS ACTIVITIES

This area can be a prayer corner and it can be set up next to a quieter place or the fantasy corner where children can act out religious roles experienced by their families. Use low shelves, boxes, or small pieces of furniture to divide the corner on three sides from the other play areas.

Children's home lives are what they know best. When you set up an area for prayer, try to make it look like the children's families' place of worship.

- Hang a board on the wall with pictures of various religious items and people praying in worshiping places such as the church, religious people in the community, families having dinner together and blessing the food, etc.
- Add pretend religious items such as prayer books, candles, a vase of flowers, religious storybooks, the Cross, etc.

- Include traditional clothes of priests, nuns, and others typically used in the community; add dresses typically used at children’s homes for religious holiday, rituals such as baptism, etc.
- Store the materials in a box and hang dress-up clothes in a closet on hooks against the wall, or folded on a shelf.
- Include dolls with different kinds of religious figures such as priests and nuns, etc. that children know in their families and communities; dolls in praying postures (e.g., closing eyes and kneeling).
- In addition to these, keep a box with things like food and kitchen items to prepare a Thanksgiving feast or other items used in different religious holiday observations.
- Add paper and crayons, different-sized cardboard boxes, pieces of cloth, string, or blocks of wood. These can be used as anything children wish them to be.

HELPING CHILDREN PLAY ABOUT THEIR RELIGIOUS EXPERIENCES

- Young children between three and five years of age can enjoy playing roles related to religious experiences. Children play imaginatively with one another pretending to be religious figures that they know from their home and community life. Through their play, they learn about spiritual attributes such as love, kindness, and forgiveness.

TEACHERS CAN:

- Take children for a nature walk and let children observe plants, animals, and birds; collect beautiful flowers, feathers of birds to play with, and talk about taking good care of nature and things around them such as cleaning their environment, e.g., classroom, bedrooms, toys, etc.
- Demonstrate for children so they can imitate prayer and recite poems and songs about moral values such as respect, love for one another, or forgiving deserving people.
- Let children play praying as they imitate their family members, priests, nuns, etc. Wearing dresses makes it more interesting.
- Read to children stories of compassion, love, and respect from religious books and encourage them to make cards for friends or caregivers as a way of appreciating them.
- Lead children to pretend cooking and bake a Thanksgiving dinner, invite friends, sit on a table or on the floor, pray, and bless the food before eating.
- Lead children to name churches they and their parents attend or that they know of; let children sort the picture of religious figures from other people in places of worship.

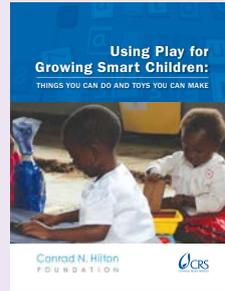
TOYS AND THEIR BENEFITS

Toys are often expensive to buy. They are generally easy to make, and the *Things You Can Do and Toys You Can Make* guide offers ideas and instructions for making a variety of toys from locally available materials. Users of this resource guide are recommended to use this manual for creating and organizing toys for young children.

Note: A copy of the *Things You Can Do and Toys You Can Make* manual accompanies this resource guide; see the link below and search by “title name” and “tools for field staff.” Below are two examples of toys which caregivers can replicate and use in their activities for young children.



Things You Can Do and Toys You Can Make: Using Play for Growing Smart



THRIVE Project, Kenya, Malawi, Tanzania,
Catholic Relief Services (CRS)

Resource Link: <http://www.crs.org/our-work-overseas/research-publications/using-play-growing-smart-children>

MOBILE MATERIALS

Hanger, string, scissors, colorful objects. **Important:** Objects must be firmly secured to the mobile. Avoid any small or sharp objects.

INSTRUCTIONS

Get a hanger, string, scissors, and colorful objects (not too small to be a choking hazard) from around the house.

- Cut the strings to different lengths, some short and some long.
- Tie the cut pieces of string on the hanger's base.
- On each of the different pieces of string, tie your objects.
- Hang the hanger over the infant (but out of reach) and let them try to grasp the objects.

BENEFITS

- Mobiles provide visual stimulation for the child as he/she follows it with their eyes.
- Mobiles can also help to develop motor skills as the child becomes able to reach for the colorful shapes and objects.
- Science says that kids who are exposed to more visually appealing objects at a young age are more likely to make more connections in their brain.

SHAPE SORTER MATERIALS

Small box, glue, knife/scissors/razor blade

INSTRUCTIONS

- Cut shapes of any size into the sides of a small box.
- Optional: Color or paint the box and the shapes.
- Have the child put the shapes into their correct slots on the cube; help the child remove them from the box to repeat the activity.

BENEFITS

A shape sorter toy challenges children because they need to use logical thinking, problem solving, and cognitive skills to figure out where each shape goes. The shape sorter also helps them develop fine motor skills for placing and removing the shapes from the box. Older children will be able to name the shapes they are sorting.

SETTING UP EDUCATIONAL TOYS IN A CHILD FRIENDLY SPACE⁶

Choose a quiet space where children will be able to concentrate without distraction (e.g., next to the book corner or on a mat under a tree outside). There needs to be enough space for children to play alone or in groups.

Use low shelves, boxes, or other furniture to divide the corner on three sides from the other play areas.

Children can play on the floor on mats and at tables if these are available. Place the toys on low shelves where children can help themselves. Group them by type (e.g., matching games, puzzles, threading activities, construction, board games).

Toy pieces can easily get lost. Store each game in a separate container with a picture and label so that children know where each toy is kept. Write the number of pieces of a puzzle or a toy on its storage container. Do a daily check to be sure all the pieces are there.

HELPING CHILDREN WITH EDUCATIONAL TOYS

- Let children choose what they want to play with and leave them to play on their own.
- Observe children as they play to find out what they are doing and how they are learning.
- Follow the child's lead. If you do join in play, don't interrupt their learning by giving a lesson on color, shape, or size.
- Let him/her find out for themselves by using their own ideas.
- Encourage children to explain what they are doing.
- Ask open-ended questions that will help children with what they are doing:
 - "What do you want to do? How will you do it?"
 - "Why do you think that happened?"
 - "Is there another way to...?"
- Praise children when they try to do something new, as well as when they complete a puzzle or other activity. Help a child who is stuck with a puzzle by talking and asking questions:
 - "You have put the pieces together and I can see the picture of the car is nearly finished."
 - "What part is missing?"
 - "Yes, you're right, the car still needs a tire. What shape is it? Can you find that piece?"
 - "What will happen if you turn the piece around and try to make it fit?"
- If a child has a physical disability, put an activity or puzzle on a tray and place it across a wheelchair or on his/her lap. Gluing beads or other grips onto puzzle pieces can make it easier for a child to complete it.
- If a child has a visual disability, make texture toys like a feely box or other touch and feel games.

⁶ CRS, Lesotho (2012).

A SAFE OUTDOOR PLAY ENVIRONMENT: WHAT DOES THE PLAYGROUND CONTAIN?

During outdoor play, caregivers must supervise children at all times. Children learn when they try out new and challenging things. When children learn outside, they want to explore and experiment with new motor skills. When they do, they may fall or hurt themselves. The caregiver or teacher must make children aware of any dangers, closely guide them to master new skills without hurting or stressing themselves, and also make sure that the outdoor space is stimulating and free from hazards. A *general guideline for a safe outdoor environment*⁷ is shown below:

NO.	GENERAL GUIDELINE FOR A SAFE OUTDOOR PLAY ENVIRONMENT	CHECK		
		Yes	No	Remark
1.	Is the playground fenced and free of holes and pits?			
2.	Is all material/equipment in good condition free of sharp and dangerous objects?			
3.	Is there enough space for different games such as swings, slides, tunnels, and local games for large muscle coordination (running, skipping, hide-and-seek).			
4.	Is there enough equipment and play material for enhancing large and small motor skills (e.g., slides, swings, balls, jumping ropes, balancing or hanging bars)?			
5.	Is there sand that encourages individual or group play with sand play materials (enough buckets and shovels for the number of children)?			
6.	Does the playground have trees for shades, plants for exploration, a dead tree trunk horizontally placed on the ground for playing?			
7.	Is there water in a container/bucket with water play materials (enough for the number of the children)?			
8.	Is there a play area where children can construct different things out of locally available recycling materials such as old tires, floorboards, bricks, things to push and pull?			
9.	Are slides appropriate for the age group (e.g., low level) with a broad platform at the top and a safe landing space at the bottom?			
10.	Are swings age-appropriate and safe for children?			
11.	Is there a grass-covered area large enough to allow children to play group games comfortably?			
12.	Is there safe and age-appropriate play equipment such as tunnels, playhouses, corners/partitions for hiding places?			
13.	Does the playground allow children and caregivers easy access to drinking water and toilets?			
14.	Are there areas for doing quieter activities such as reading?			
15.	Is there storage for play equipment and materials easily accessible for children to carry?			

Note: Children with disabilities should be fully engaged in outdoor exploration and should be considered in the preparation of the playground design. National standards for playground designs must be consulted.

⁷ Catron & Allen (2008); CRS, Lesotho (2012); Gonzalez-Mena & Widmeyer Eyer (2012); Kenya National ECD Policy Framework & ECD Service Standard Guidelines (2008).

What should a playground do?

- Encourage play (e.g., coordination of large motor and body movement control; make children feel happy and make friends).
- Stimulate the child's senses (e.g., learn about objects, plants, animals, and insects, through the five senses).
- Nurture the child's curiosity (e.g., explore and learn about things, nature, weather, and insects, and experiment and discover new experiences).
- Support the child's physical and basic social needs.
- Allow interaction between the child and the resources.

Allow interaction between the child and other children (e.g., taking turns and cooperation).

Session Two: Group Activities in Early Childhood Environments⁸

LEARNING OBJECTIVES

By the end of this session, participants will be able to:

- Describe how group times are organized by exploring a variety of group activities for the daily schedule.
- Identify ways to build children's learning and sense of identity by integrating the rich tradition of children's culture, songs, dance, and stories into the daily learning activities.
- Extend their understanding of group activities that involve children's active participation.
- Practice skills in preparing and presenting group activities.



Preschoolers in outdoor play organized to enhance motor, social and cognitive development, SCORE ECD Project Nairobi, Kenya,



Group art activity, Early Childhood Center for four and five year old children, SCORE ECD Project, Kenya

⁸ Adapted from CRS, Lesotho, Teachers Resource Guide (2012).

WHAT ARE GROUP TIMES?

During group times, children have opportunities to progress in all developmental areas. Group times are different from free-play activities. Group times are for children to come together as a group to do an activity with guidance from the teacher. The main difference from free-play activities is that the children come together as a group to do an activity and the teacher leads the activity. At certain times during the day, teachers gather the children for different kinds of group activities such as:

- Morning prayer
- Music and movement activities
- Story time
- Educational trips

WHY GROUP TIMES ARE IMPORTANT

- Children develop a sense of belonging when they feel that they are part of a group. This helps them feel a sense of community.
- Children are introduced to new concepts and learn more about their world and how things work.
- Children learn to follow instructions.
- Children develop their social skills when they listen to others, share their own ideas, and wait their turn to speak.
- Children develop their concentration skills when they pay attention for a period of time.
- Children develop their large muscles during active group activities like music and movement.
- Children develop their language skills when they listen and learn new words, ask and answer questions.

ORGANIZING GROUP TIMES

DIVIDE THE CHILDREN

Children of different ages are at different stages of development and have different needs and interests. In order for them to be able to listen and participate, it is better to put all the children of the same age together in a smaller group. This will make it easier for the teacher to keep their attention and attend to the needs of individual children. The children in the early childhood centers can be divided according to the following age groups:

- Three to four years
- Four to five years

Ideally, the size of the group should not be more than 20 children and, if possible, fewer, particularly for the younger group. However, many teachers are working in less than ideal conditions with large numbers of children. A good practice is for teachers to try not to have more than 25 children in any group activity. Because younger

children need more attention, try to keep this group as small as possible. If the teacher is working with another teacher or volunteer, the lead teacher can supervise one group of children while the other teacher or volunteer works with the other group. On the other hand, if the teacher is completely on her own, one suggestion is to organize a few quieter activities for the children who are not participating, such as drawing or doing puzzles, while the teacher instructs the principal group.

If there is more than one teacher, it is better for the same teacher to be with the same group of children every day for group times so that she can get to know them better and form relationships.

LENGTH OF GROUP TIMES

The length of time for group activities will differ according to the ages of the children and the kind of activity, for example:

- Children cannot sit still for long periods of time, so story times are generally shorter than more active group activities like music and movement.
- Younger children can only concentrate for short periods of time.

The following times are suggested:

3-4 YEAR OLDS		
Morning activity: 10 minutes	Music time: 15 minutes	Story time: 10 minutes
4-5 YEAR OLDS		
Morning activity: 15 minutes	Music time: 20 minutes	Story time: 15 minutes

These times are only a guide. Teachers should take cues from the children. If they look bored or seem restless, shorten the activity; or if they are very involved in what they are doing, the activity can be extended.

Educational outings are also group activities that are led by the teacher but that do not take place every day. They will be discussed further in this guide.

WHEN TO HAVE GROUP TIMES

Every ECC is different, and teachers will need to decide for themselves how best to fit group times into their daily program. The program should be balanced so that active times alternate with quieter times.

- A morning ring can start the day before free-play activity time.
- If the space is small and the free-play activities have to be packed away for group time, it may be better to combine story and music times.
- A good time to tell a story is before lunch as it settles children down.
- A good time to have a music or movement activity is before children go outside to play or when they come inside afterwards.

WHERE GROUP TIMES CAN HAPPEN

Group activities can take place indoors or outdoors. There should be enough space for children to sit comfortably next to each other without being on top of one another. When they are crowded together, behavior problems often arise. Music and movement activities need a lot of space.

Group times will be successful when they are well planned with suitable activities to meet the individual interests as well as the developmental needs of all the children.

Teachers will find that some activities are more successful than others, and should take the time to reflect after each activity about what worked well, what did not work well, and possible reasons for each. This information will help them to plan for similar activities in the future.

MORNING ACTIVITY

Morning activity is a daily group time at the beginning of the day when the children gather together with their teacher. It can involve a number of activities, such as:

- Sharing things that have happened to children over the weekend, at home, or whatever is important to them.
- Finding out which children are at the ECCD center or Home-Base and which children are absent.
- Discussing what the weather is like for the day.
- Celebrating a birthday.
- Listening to a religious story and saying a short prayer (e.g., requesting the day's blessings or other prayer such as "The Lord's Prayer").
- Explaining the free-play activities for the day.
- Introducing a new concept, theme, or materials.

As with all group activities, the teacher should think of ways to involve the children so that they don't have to sit and listen for too long, for example:

- Teach children a greeting song or a song related to a new theme.
- Children can bring something interesting from home or something related to a theme that other children can explore and discuss.
- When discussing the weather, ask a child to go and look outside and then describe to the rest of the group what he/she sees. If there is a weather chart, a child can choose the correct picture and place it next to the weekday.
- If a new concept is being introduced, bring a box of objects and invite children to look at or touch them and then ask open-ended questions that invite children to explain their ideas and think more about what they are doing. For example:
 - "How does it feel? Look? Smell? Taste? Sound?"
 - "Where have you seen something like this before?"
 - "What do we use it for?"

At the beginning of the year, teachers can introduce a few rules for children to follow during morning ring, such as:

- One child speaks at a time.
- Everyone can have a chance to speak.
- We all listen when someone is speaking.

MUSIC AND MOVEMENT



Entertainment song and dance on the opening of SCORE ECD Project, Nairobi, Kenya

During their early childhood years, children enjoy music, dance, and rhythmic movements to musical sounds. From birth, babies are exposed to different musical sounds and in many cultures mothers and caregivers sing to children to calm them. In the early childhood centers, young children learn a number of skills through music, dance, and movement.

WHY MUSIC IS IMPORTANT

- Music and movement play a vital role in every child's growth.
- Children express themselves creatively through music and dance.
- Children learn to understand their emotions.
- Children learn to listen to and compare different sounds.
- Children develop and gain control of their large muscles when they dance, hop, leap, and march around.
- Children learn about rhythm when they clap and stamp their feet.
- Children learn to play and get along with other children when they share music and movement experiences.
- Children learn new words and increase their vocabulary when they sing songs.
- Children develop their imaginations when they make up their own movements or play musical instruments.
- Children learn about their own and other people's cultures.
- Children enjoy music.

Note: Music is an important part of African culture. Teachers can teach songs and dances and use musical instruments to help children understand more about their own culture.

MUSIC AND MOVEMENT ACTIVITIES

Music and movement activities are an important part of the program for children in early childhood centers. Teachers can provide daily music activities including the following:

Singing. Young children enjoy singing many different kinds of songs together. There are many songs for young children, such as traditional songs in their home languages, action songs, nursery rhymes, and favorite songs that they want to sing over and over again. Children also enjoy making up their own verses of songs.

Some songs have words that describe big actions that encourage children to move their bodies in different ways as they sing. For example:

CULTURAL GAME AND SONG: “NYAMBAGA KONDO GAKWA”

Song contributed by Sisters of Our Lady of the Missions, Kenya, SCORE ECD

Nyambaga Kondo Gakwa ii Making the “Kiondo” (Kikuyu basket)
using hands

Wone ngiamba ii Look at me making the Kiondo.

Wone ngiambura ii (Kikuyu game) Look at me undoing the Kiondo.

Children hold hands in a circle and the soloist or leader sings and leads them to make coils of a “Gikuyu Kiondo.”

After coiling, the soloist will lead children to *unfold the coils* as they sing after her.

Children learn through observation and imitation: Through this song and games they learn how to make a basket, which they also see their parents and elders doing.

Sisal is used for coiling and making the basket. It is usually white in color but sometimes of different colors.

Other songs describe small actions and children use their fingers and hands as they sing. These are called finger plays. A finger play is a rhyme or song that uses hand or finger movements matched to the words that children sing or chant. For example:

Rhyming. Rhythm is the pattern of sounds in music. Children explore rhythm when they clap hands to a beat, or march to the beat of a drum. Children enjoy using simple musical instruments like shakers, sticks, cymbals, and drums to explore rhythm.

Listening. Once children start to become aware of rhythm they enjoy listening to music. They move in time to music and learn that music can be loud or soft, or fast and slow.

Dancing and moving. Children can dance and move to a rhythm in different ways as they sing or listen to music. This also changes if the child is alone, with a partner, or

with a group. Many songs have rhythmic movements and dance. For example, the cultural songs of Africa are performed through dance.

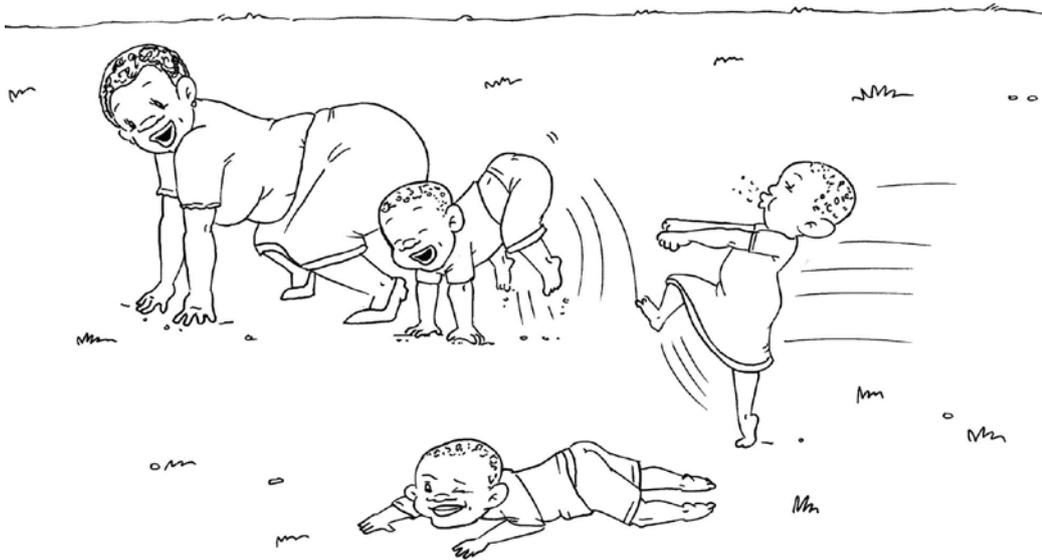


Illustration / CRS Lesotho

Movement can be a part of music time when movement activities are included in the music, or it can be a separate activity that does not involve music.

There should be opportunities for children to move their bodies freely to express themselves, for example, the “Let us play with the wind...” song and game below:

“ONEI MATHANGU MAYA”

Song contributed by Sisters of Our Lady of the Missions, Kenya, SCORE ECD

Onei mathangu maya Look at those leaves (X 2)

Magithaka na ruhuho They are playing with the wind (X 2)

Naithui nituthake na ruhuho Let us also play with the wind

Children hold hands, moving them forward and backward in a stand still position while singing the first and second part of the song. In the last part of the song they move and turn as a group clockwise and counterclockwise.

There are times when the teacher tells the children how to move, for example, “We are snakes crawling on the ground...now we are frogs jumping high in the air... everybody is an elephant stomping through the bushes...”

“NGIELO NGIELO—THE PYTHON SNAKE”

(A Luo game in Kenya)

Game contributed by Sisters of Our Lady of the Missions, Kenya, SCORE ECD

The leader (who is also the soloist) will lead the song. The children will stand in a straight line holding each other’s hips. The leader then imitates the coils made by ‘*Ngielo*’ the python) by making coiling movements forwards and backwards with the line of children.

MUSICAL INSTRUMENTS

Children enjoy making their own music. Teachers can provide instruments like shakers, drums, pipes, and other traditional instruments that make a variety of sounds. Teachers should be prepared for a lot of noise as children explore and express themselves. Young children should not be expected to be able to beat out a steady rhythm. The main purpose of the activity is for children to explore the different sounds that the instruments make.

Teachers can offer children a time to play musical instruments during a **music ring**.

- The first time they are to be used, she should show children the instruments one at a time and explain how to play them.
- Establish a few simple rules with the children for using the instruments such as:
 - Handle each instrument with care and respect.
 - Pack the instrument away in its place after use.
- Divide the children according to the instruments they have so that all the children with instruments that make the same kinds of sounds stand together.
- Adapt the words of a familiar song to lead the children, for example:
 - “This is the way we beat our drums, beat our drums, beat our drums...” (all the drums play).
 - “This is the way we shake our shakers, shake our shakers, shake our shakers...” (all the shakers play).

There are some ideas for making simple instruments in the manual *Things You Can Do and Toys You Can Make: Using Play for Growing Smart* (see page 35).

PLANNING MUSIC AND MOVEMENT RINGS

Teachers should plan to have a music ring every day if possible. Music rings can happen indoors or outdoors. If the music ring takes place indoors, there should be enough space for children to be able to move around freely. Teachers will decide for themselves where to fit music into their daily program. A good time to have music is before children go outside to play, or after they have played outdoors.

As discussed earlier, children should be divided into smaller groups according to their ages. A suggested appropriate length of time for a music ring is 15 minutes for three to four year olds and 20 minutes for four to five year olds.

Teachers should prepare an outline of the activities that they plan to do with the children to make sure that there are a variety of different activities to help children develop and learn.

OUTLINE OF A MUSIC ACTIVITY

Teachers should plan music activities that help children listen to and compare sounds, learn about rhythm and song, and express themselves creatively.

1. **Gather the children.** Bring them together and sit them in a circle. Start off with a familiar song or a finger play that all the children know.
2. **Songs.** Plan songs that the children will sing. Sing songs they know first and give children the opportunity to choose their favorites. Teach a new song every few days and practice it regularly every day until children know it well.
3. **Movements and dance.** Some of the songs children know may have actions. Provide additional movement activities or dances for songs. On some days, it is also important that the teacher lets children play musical instruments.
4. **Ending.** Bring the children back to the circle and end with a quiet activity or song.

TEACHING A NEW SONG

- Know the song well before you teach it to the children.
- Tell the children what the song is about.
- Teach children one verse at a time.
- Sing the song or verse once to the children while they listen.
- Invite children to sing along with you the next time round (Don't try to teach it line by line.)
- Sing the song one or two more times but not more, as children will get bored.
- Repeat the song over the next few days until the children know the song. Don't force children to sing if they don't want to.

SUPPORTING CHILDREN WITH DISABILITIES

Find a way for all children, including those with disabilities, to join in with activities. They should not just sit and watch. Think of an activity that a child with a physical disability can do with his/her body parts that work, for example:

- A child can nod his/her head or clap hands in time to the music.
- A child can beat a drum while the other children move around.

STORYTELLING

All children love to listen to and tell stories. We all remember the stories that were told to us when we were children. Many of these were used to teach us about the beliefs and practices of our family and culture. Today, this is still the main way of passing on ideas, traditions, and values.

WHY STORIES ARE IMPORTANT

- Children learn more about the people, places, animals, and things in their world.
- Children live in a world of make-believe and stories stimulate their imaginations as they create mental images of the story.

- Children develop their speaking, listening, and memory skills.
- Children develop their language skills as they explore and play with words and increase their vocabulary.
- Children express their thoughts and ideas and solve problems.
- Children learn to understand their own feelings when they identify with characters in a story.
- Children learn about sequence and start to understand that things happen in a certain order.
- Children learn about their own culture as well as other cultures.

KINDS OF STORIES

Children enjoy different types of stories at different ages and stages of their development:

- **Three- to four-year-old** children enjoy stories with a simple plot about their everyday experiences, like getting up in the morning, visiting the shop, or riding in a taxi. They like listening to stories about a favorite character and will ask for it to be read over and over again. They also enjoy stories that have repeating rhymes. Children at this stage are not yet able to tell the difference between fantasy and reality. They need to see as well as listen to a story, whenever possible, and should be shown clear colorful pictures or objects.
- **Four- to five-year-old** children are developing their imaginations and like stories about a wide range of topics. They enjoy stories about real things, how things are made, or why things happen. They like stories that capture their imaginations like talking animals and fairies, but they still confuse fantasy with reality. They like books that have predictable plots and stories with lots of repetition and rhyme. Teachers can tell different kinds of stories, for example:

Stories about real life. These are stories about things that happen every day in the real world in children’s families and neighborhoods. Stories about real life help children find out more about the people, places, and other things in their world.

- Some stories explain how things work or how things are done.
- Some stories tell life stories of children and other people who have different abilities and different family, racial, cultural, and religious backgrounds from their own.
- Sometimes stories connect to a theme.

Stories about fantasy things. These are stories that are not true and often have animals that talk and do things that humans do. This type of story might help children dream creatively about a fantasy world and/or help children understand how to express emotions.

Traditional stories. These are stories that are handed down through the years and are a part of each culture, and usually have some moral value about what is right and wrong. Teachers may need to adapt these stories to suit the ages of the children in their groups.

Made up stories. Sometimes teachers make up stories to help children face their problems or deal with their feelings.

The African culture has a strong oral storytelling tradition. Parents and community elders can be encouraged to tell traditional stories and community histories. However, teachers should remember that what people in another culture think is a good story might not be a good story according to their own culture. Teachers and parents should tell stories that reflect the values that they want to pass on to the children.

STORY TIME

Teachers should plan to tell a story every day to their group of children, if possible. Children should be divided into groups according to their ages. We suggest a story of about ten minutes for three- to four- year-olds and about 15 minutes for four- to five-year-olds. Teachers will plan where to fit story time into their daily programs. A good time to tell a story is before lunch to settle children down, or after rest time if children are at the center for a full day. Stories can be told indoors or in a special place outdoors like under a tree.

PREPARING A STORY

Teachers need to prepare their stories well before they tell them. It is a good idea to start with a familiar story, such as traditional stories that are remembered from childhood. The story should be told in a way that captures the children's attention.

- Think about why you want to tell the story and what you want children to learn from it.
- Give the story a structure and work out the details of what will happen. Every story has a beginning, a middle, and an end.
 - The beginning describes when and where the story takes place and introduces the children to the people and other characters, like talking animals.
 - The middle establishes the plot. The main events of the story take place. Usually there is a problem that has to be solved.
 - The end explains how the story finishes or the problem is solved.
- Think about any new words or ideas that will need to be explained and when you will do this.

Teachers should know their stories well before telling them. It is a good idea to start with a familiar story such as traditional stories that are remembered from childhood.

TELLING THE STORY

- Make sure you have all the necessary materials to tell the story.
- Gather the children. There should be enough space for them to sit comfortably next to each other without touching. It is best to seat children in a circle, or a semi-circle with the teacher seated on a low chair, blanket, or tree stump so that all the children can see and hear.
- Begin the story with a rhyme, a song, or a finger play to get the children's attention.
- Think of a way to get children interested in the story. For example, "Can you see what I have brought today? That's right; it's a hat...a big, floppy hat. This is Granny's favorite hat that she likes to wear when she goes to the shop. One day..."
- Tell the story in an animated manner. Speak in different ways to add excitement and suspense. Use different voices to distinguish between characters in the story. Tell the story in an exaggerated manner to express emotion.
- Show children objects while telling the story. Stop every now and then to show them the illustrations or objects and emphasize how each relates to the story.

- Allow children to comment and ask questions as the story is being told.
- Ask questions during the story to help children predict or guess what will happen next. Stop the story every now and then and ask questions. For example, “The frog went down to the river and tied the rope around his leg. What do you think happened next?”
- Let children join in parts of the story as some parts may repeat themselves. For example, “The frog told his friend that he was not a fish. What did he say?” Children chant, “Frogs are frogs and fish is fish, and that’s it!”

Some stories have sound effects such as animal noises. Children can make these when signaled by the teacher, and they can also repeat actions along with the characters in the story.

- After the story, ask children about the story to find out if they understood it. Another option is to encourage children to retell the story from the beginning.

SUPPORTING CHILDREN WITH DISABILITIES

Find ways for all children, including those with disabilities, to join in with the story:

- If a child has a hearing or visual disability, arrange for the child to sit near you.
- Involve different senses to tell the story to keep all children involved. For example, a child can touch or smell an object if he/she cannot see it.
- Make sure a child with a physical disability is comfortably seated.

DRAMATIZING STORIES

Children enjoy acting out stories they know well to other children and their teacher. Let children take turns becoming the characters of the story and act it out. Provide dress-up clothes and other props for this activity.

STORY ILLUSTRATIONS

Children need to see as well as listen to the story. Illustrations and other things for children to look at, touch, or smell make the story come alive. These do not have to be perfectly drawn illustrations.

Teachers can use:

- Pictures that have been drawn or cut out from magazines and pasted onto cardboard
- Real everyday things that can be found in or around the home and can be shown as the story is being told
- Props like a hat, an umbrella, a broom, a shopping basket, a straw hat, or a wooden chair
- Children’s drawings, paintings, and clay models
- Puppets

USING PUPPETS

There are different kinds of puppets: sock puppets, finger puppets, and hand puppets.

Although teachers might feel that they do not have the skills to work with puppets, the children will love them anyway. It may take some time to get comfortable with the puppet, but keep working at it to get positive impacts.

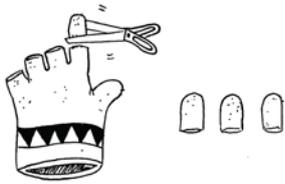
- Each puppet should have its own personality and voice. One puppet could always be very curious and always want to know everything. Another puppet could be shy and need the children to encourage him/her to speak or do things. Give the puppet a name and let him/her visit during story time. Ask the puppet his/her name and other things that will help the children get to know him/her.
- Start with just letting the puppet sing a song with the children. Once they are used to it, you can start to involve it in your storytelling.
- Talk to the puppet about what is happening in the story, or get it to ask children a question about the story.
- Keep the puppet upright during the story.

MAKING PUPPETS

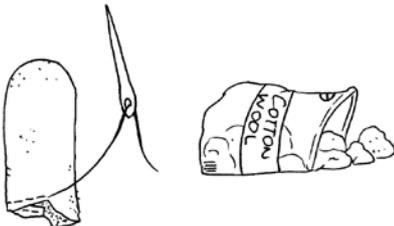
To make a puppet on a stick, stuff a brown paper bag or plastic bag with soft material. Make a face and hair with markers, wool, buttons, etc.

IDEA FOR MAKING FINGER PUPPETS (CRS-LESOTHO)

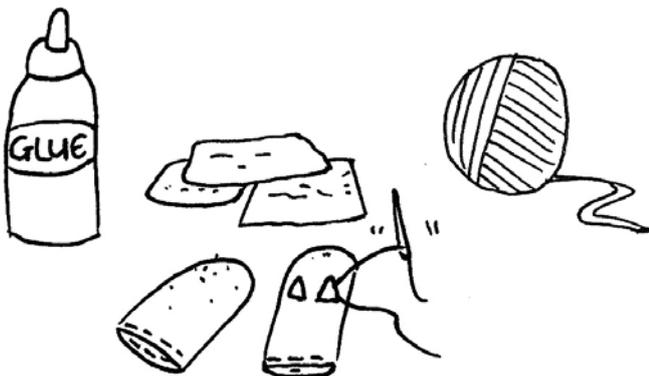
1. Cut the fingers off an old glove.



2. Sew a hem on each finger.



3. Make faces for puppets with scraps of wool, material, etc.



FIELD TRIPS

Children are curious about the things around them, and field trips are an important and fun way for them to understand more about the real world through first-hand experiences. Children look at, smell, listen to, and touch things they might not normally notice. Children can use these trips to interact with the people in their community.

Trips do not have to be expensive or to places far away. They can happen close to the preschool and around the neighborhood. They can also be organized so that children can be taken farther away to different areas and communities.

Children must be able to listen and follow instructions, so trips are usually better for older children (e.g., four to five year olds). The first few trips should be short and not too far away from the center.

WHY TRIPS ARE IMPORTANT

- Children learn about the different people in their world and what they do.
- Children explore nature and living things around them.
- Children develop their thinking skills as they observe things around them.
- Children extend their learning about a topic or theme. For example, if the theme topic is *Community Helpers*, a trip can be organized to the police station, the clinic, or the village chief.
- Children learn to listen and follow instructions and rules.
- Children learn how to get along with others.
- Children develop their language skills and learn words, and they describe and ask questions about what is happening.

PLANNING THE TRIP

Careful planning is necessary, however simple the trip.

Visit the site. The teacher must be familiar with the place to be visited and where possible, she should visit it before the trip to find out what will be interesting for the children. This will help her plan how to help them learn during and after the trip. She can also see where the toilets are and if there is a place to sit and talk or have a snack. She will need to check that sites such as building or road works are safe for children, and make the necessary arrangements with the building foreman or road works operator.

Consider each child. All children in the group need to be able to participate in the trip. If there is a child with a disability in the group, the teacher needs to think about whether the trip will be suitable and what changes could be made so that the child could join in. For example, a parent volunteer could accompany the child and assist when needed. If this is not possible, the teacher should think of another place to visit so that no child feels excluded from a special and exciting experience. Think about where a child could take a nap should he/she get too tired during the trip.

Get permission. All caregivers of children need to give their consent to their children going on the trip. It is recommended that parents sign permission forms so that the preschool is not held liable in case of accidents. Some teachers ask parents to sign a general permission form for all trips at the beginning of the year.

Inform the caregivers. Tell caregivers or parents everything about the trip beforehand, e.g., the purpose of the trip, when and where you will go, how the children should dress, and what they need to bring (food, money, etc.). Telling the parents the purpose of the trip in advance will help them to think of different questions to ask their children when they return home from the trip.

Put safety measures in place. Children need to be well supervised during trips. There should be one adult for every five children. Ask parents and other volunteers to go along on the trip to help supervise. This will also give parents the opportunity to share the experience with their children. Allocate a small group of children to each adult to care for their needs on the trip and go through the rules for the trip.

Take basic supplies as well as any medicines that children may routinely need, such as an asthma inhaler. Take a list of whom to contact in case of an emergency with you.

Go over these important safety rules with the children, as well as others that may pertain to the field trip or your situation:

- Walk at all times.
- Each child is assigned a partner and should stay with his/her partner/group.
- Do not go away from the group.
- If a stranger calls you, tell the teacher immediately.
- Hold hands with your partner.
- Cross the road only when the teacher/parent says so.
- Sit down when you are in the taxi or other vehicle.
- You can touch something if the teacher says so.

Safety should be top on the list of priorities about vehicles to be used for trips. Teachers should consult with a taxi owner whose vehicles are known to be safe and have good drivers.

Prepare the children. Children should be prepared for the trip beforehand. A few days before the trip, teachers can tell them where they are going, and what they will do and see. Answer any questions the children may have so that they will feel comfortable about the trip. Children can draw pictures of what they think they might see or the teacher can tell a story or teach a song related to the trip. Invite parents who are available to join the trip to help manage groups of children and keep children safe.

WHERE TO GO ON TRIPS

Every trip should have a purpose. In order to decide where to go, the teacher should:

- Plan with the educational goals in mind.
- Link the trip to a theme topic.
- Watch the children to see what interests them.

The teacher can also work together with parents. For example:

- Arrange a visit to a farm, because the father of one of the children works there and can help to organize the visit.
- Take a walk to the local store because a child's mother works there. Here are examples of places that could be visited:

1. Near the preschool: Go on a walk to look at the living things close by (e.g., trees, leaves, small animals and insects, worms, common birds, butterflies).
2. Around the neighborhood:
 - Different houses and building (e.g., church, the chief's house, the nuns' house, the teacher's house)
 - The church hall
 - Local stores to learn about what happens in a shop
 - A clinic
 - The police station
 - The primary school
 - A playground to play different games
 - Visit community members such as a grandmother
 - Road works
 - Building sites
 - The taxi rank
 - Workplaces of parents (e.g., the post office)
 - The path
 - The tar road

Be resourceful and look around the community to see what common work activities are done and which could be of importance and interest to take children to visit. Different communities will have different things. Teachers should take children to places where they can experience things through their five senses and not have to stand or sit and listen for long periods of time.

GOING ON THE TRIP

On the day of the trip, the teacher should tell the children and adults what will happen and explain the rules. Talk about any special things that children should look out for and discuss with adults what children can learn and how adults can help children to meet these learning objectives.

Adults should be prepared for unexpected events. Each child is different and will react differently to new experiences. One child may find a new situation a bit frightening; another child may have trouble following the rules. Adults need to respond calmly to any difficulties that arise.

During the trip, the adults talk to the children and help them notice things they see and hear along the way. For example:

- "Why does the house have a roof?"
- "How are the houses the same? How are they different?"
- "How many people do you think are in that taxi?"
- "What sounds are the birds making?"

- “How does it smell?”
- “Why do you think she is dressed like that?”

If there is something interesting that happens, children may want to stop and talk about it. Adults should encourage children to talk about the things they find interesting and ask follow-up questions. Adults should encourage children to look closely at things around them and describe what they see, and be prepared to answer children’s questions. Adults should ask open-ended questions that encourage children to think more about what is happening. For example:

- “How do you know it is a tortoise?”
- “Where do you think it is going?”
- “Why do you think it moves like that?”
- “Does anyone know what a tortoise eats?”
- “Where do you think it sleeps at night?”

Adults should avoid simply telling children what is happening.

AFTER THE TRIP

If it is a short day trip, when children return to the preschool they will probably still be very excited about the trip. Plan a quiet activity like a group time or snack to settle the children.

Over the next few days after the trip, teachers can plan follow-up activities to extend what children have learned on the trip. For example:

- During morning ring, children can talk about what they saw and did.
- Children can draw the story of what happened and dictate it to the teacher. Children’s drawings and stories can be made into books.
- Put extra props relevant to the trip in the fantasy play or building corner so that children can act out their experiences.
- Tell a story or teach children a song that relates to the trip.
- Provide books and pictures about the topic.

Session 3: Program Planning in Early Childhood Environments⁹

LEARNING OBJECTIVES

By the end of this session, participants will be able to:

- Reflect on their own program and identify areas for improvement.
- Plan a balanced daily program with activities to meet children's developmental needs.
- Have a basic understanding of long-term planning.
- Understand how to use weekly planning sheets.



Illustration / CRS Lesotho

For children to learn in the best possible way, teachers must carefully plan their programs. When teachers set goals and work out how to meet these goals they will feel confident about what they are doing. This session will get teachers thinking about their own programs and changes that need to be made to best meet children's developmental needs.

⁹ Adapted from CRS, Lesotho (2012).

PRINCIPLES OF PLANNING

There is no one right way to plan a program for young children but there are some general principles that will guide teachers in their planning:

- The plan should be guided by the educational goals that the preschool is trying to achieve across all developmental areas.
- All activities should be developmentally appropriate and age appropriate.
- Each child's individual needs should be considered, including children with disabilities or other special learning needs.
- Each child's family, culture, language, religion, and gender should be reflected in the program.
- The different parts of the program should connect in some way. When teachers plan according to themes they group topics together and link them to other topics.
- Planning should consider the resources that are available and how these can be used to meet program objectives.

Planning starts with the creation of a daily program.

A DAILY PROGRAM

A daily program means that children do the same kinds of activities at the same time every day. It is important to have a daily program because children like to know what to expect every day. It makes them feel safe and secure. For example, they know that they can choose their own activities after breakfast and that later they pack away the toys and other activity materials to go to the toilet and wash their hands. This helps them learn that things happen in a certain order, which is important for learning about time. Children learn to be independent and take initiative when they know what to do next without having to wait for their teacher to tell them what to do.

A daily program also helps families to know what their children are doing every day so that they can talk to their children about what happened during the school day. It is also helpful for teachers because they know that they need to set out free-play activities in the learning corners and plan morning ring, music and movement, and story activities every day. This helps them to be more organized.

Young children need an environment that gives them direction about what to do and when to do it. A schedule for the day will provide children a sense of routine and direction in their lives. A daily scheduled routine means children do the same kinds of activities at the same time every day.

HOW DOES A DAILY PROGRAM HELP YOUNG CHILDREN?

- Children can predict what they do from one day to the next and from one week to the next.
- Children will feel safe and secure when they know what to expect.
- Children learn that things happen in a certain order, which is important for learning about time.
- Children learn to be independent when they know what to do next without being told.

HOW TO PLAN A DAILY PROGRAM

When planning a daily schedule, consider the following:

1. Children's physical health needs
 - Children have nutritional needs. Time needs to be planned for meals and snacks. These times should be based upon how long the preschool is open and whether or not children receive nourishing food before they arrive in the mornings. Younger children need to eat more often.
 - Children have hygienic needs. Children need to learn how to use the toilet and when to wash their hands. If the latrine is far away, a teacher or volunteer should be available to supervise and help where necessary.
 - Children have health needs. A daily health check should be done when the children arrive to check that they are healthy.
 - Children need to rest. Depending on how long the preschool is open, children need to have a rest period. For example, if the preschool is open all day, children can rest for about an hour after lunch; if it is open until 3.00 p.m., a shorter rest period of half-an-hour can be scheduled. If the preschool is for mornings only, it will not be necessary to have a rest period.
 - Children need to be active. They need time to play and exercise their bodies.
2. Educational goals
 - The schedule should support children's growth and development across all developmental areas: physical-motor, spiritual-moral, cognitive-language, social-emotional, and spiritual-moral.
3. Teachers' needs
 - In planning the daily schedule, the needs of the teachers and other staff need to be considered.
 - Teachers need time to prepare for the day's activities and also be available when the children arrive.
 - Teachers need to manage the children when they go from one activity to another. Teachers also need to make sure that everything is tidied up after every activity.
 - Teachers need time during the day to observe individual children and keep records of their observations. This is an important part of meeting children's individual needs.
 - Teachers need time to write down their plans and keep records like attendance, daily and weekly planning, and observation notes.
 - Teachers need tea times, if possible, away from the children.

TYPE OF PROGRAM

Each daily program will be different according to:

- The hours the preschool is open
- The type of structure (if there is one) and space for activities
- The number of adults in the schedule
- The weather

ACTIVITIES OF THE DAILY PROGRAM

There are three major activities in the daily schedule: **Free-play activity, group-time activity, and routine activity.**

1. Free-play activities

- A large block of time is planned every day during which children choose from the toys and materials that have been set out in the learning corners and play with them in their own way. When planning a daily schedule, teachers should remember that children are most alert and ready to learn in the mornings, and this is the best time for free-play activities. Free-play time includes fantasy play, building, art, science, books and educational toys, and outdoor play.

2. Group-time activity

- Smaller blocks of time are planned when all the children are together and the teacher leads them. Group time includes morning ring, music and movement, and story time.

3. Routine times activity

- Times are set aside every day to meet children's basic health and nutrition needs, like mealtimes, toilet and wash times, and children resting on their mat and looking at books or doing another quiet activity.

GUIDELINES FOR PLANNING ACTIVITIES IN A DAILY PROGRAM

TIME FOR FREE-PLAY	GROUP	ROUTINE ACTIVITIES
Fantasy play, building, art, science, books, and educational toys	Morning ring, prayer, music and movement Story time	Arrival Toilet and wash Mealtimes Rest

The next step is to think about when and how much time to give to each activity.

- **Free-play time:** Children need to spend most of their day playing. Children between three and five years of age should have about 1-1½ hours of free-play indoors and 45 minutes to one hour of outdoor free-play every day. Active activities should alternate with quieter activities so that children will not get too tired.
- **Group times:** Use shorter periods of time for group activity; for children between three and five years of age it should be between 10 and 20 minutes.
- **Routine times:** This will vary between 20 minutes for toilet and wash times to an hour or more for rest times. They should not involve children standing in lines or waiting for a long time. Children are most alert and ready to learn in the mornings and this is the best time for free-play activities.

The daily program is only a guide, and it is important to be flexible. If children are restless during an activity, it is best to shorten it and do something different. It may

also happen that unplanned activities may occur or that children may want to spend longer with an activity, which will also affect the daily program. Having a flexible program will allow teachers to adjust it as the day unfolds.

ARRIVAL AND DEPARTURE TIMES

Arrival: There needs to be enough time planned for the teacher to greet each child as he/she arrives and to talk to family members about their children. As she greets the child, the teacher looks for any signs of ill health such as:

- Cuts or sores that may need attention
- Fever
- Skin rashes or spots
- Irregular breathing
- Coughing or sneezing
- Discharge from the eyes, nose, or ears
- Sleepy or other unusual behavior

Departure: At departure time, the teacher makes sure that children are ready with their belongings and anything else they have made during the day. She talks to family members about their child's day.

TOILET AND WASH TIMES

Children should be taught how and when to wash their hands. They should wash their hands:

- Before eating or preparing food
- After using the toilet or latrine
- After playing outside
- After touching animals

The teacher helps children understand that washing hands keeps them from getting sick. It is important to use running water and soap to clean off germs. When children share basins of water, germs spread. As most centers do not have running water, it is best to pour a small amount of water from the container for the child or adult to wash their hands and then rinse with the water from the container.

The tippy-tap is a simple device that allows people to wash their hands with very little water. It also allows the user to rub his/her hands together while water runs over them. Instructions for making a tippy-tap are provided in *Resource Guide, Module 6*.

SUPPORTING CHILDREN WITH DISABILITIES

There may be a special routine for a child with a physical disability, or he/she may need help with certain hygiene activities. The teacher should discuss with the caregivers of the child how routines are carried out at home and plan ways to support similar routines in the preschool for consistency. This may mean planning to allow more time for the child to get to and use the latrine. The teacher should think about how the child can do things independently and plan appropriately. For example, the child can hold the toilet roll or wash his/her hands. During toilet routines, the child's right to privacy and dignity needs to be respected at all times

CLEANING TEETH

Providing an opportunity for children to brush their teeth in the early childhood center at least once after a mealtime helps them develop good hygiene habits. What is important is that children learn why it is important to keep their teeth clean and that they do so every day with whatever materials are available in the preschool.

- Each child should have his or her own toothbrush. If there is no toothbrush or toothpaste, they can rub their teeth with salt and bicarbonate of soda.
- The teacher should teach children how to brush their teeth properly.
- Toothbrushes need to be stored so that they do not touch one another and are clearly marked with the children's names.
- This routine needs to be supervised. The teacher hands out each child's toothbrush and lets them brush their teeth, rinse with water, and spit out on the grass.
- The teacher talks to children about the importance of teeth brushing and how brushing keeps their teeth and gums healthy.

Meal times

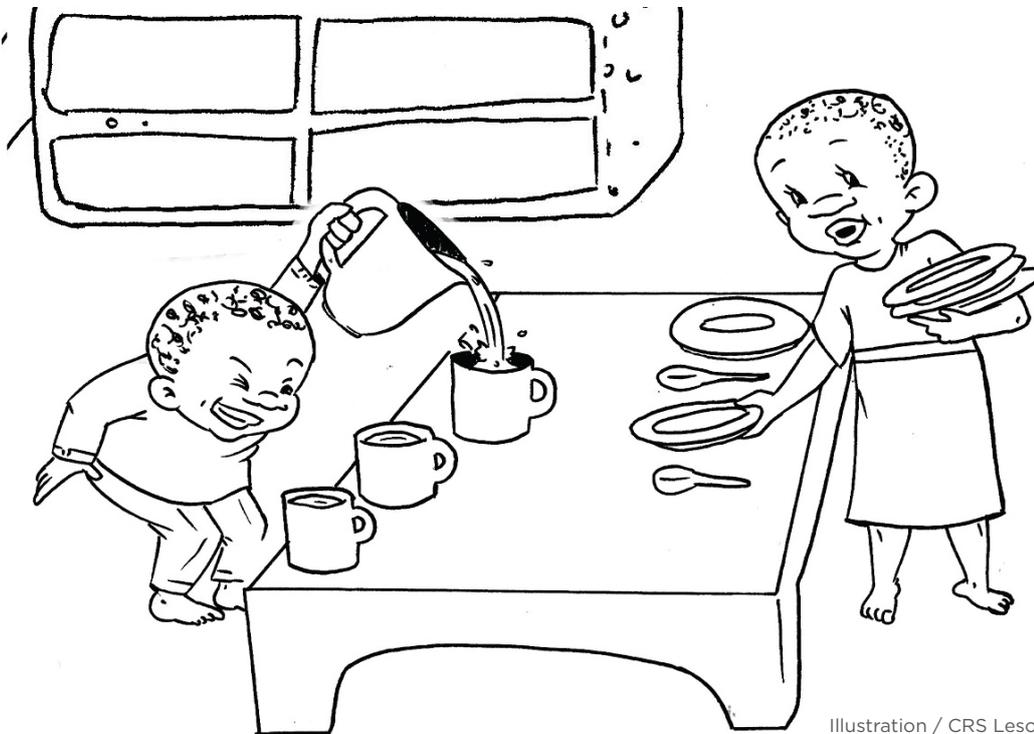


Illustration / CRS Lesotho

Children need to eat a balanced diet with many different kinds of foods to stay strong and healthy. Many families are not able to provide enough food or the right kinds of food, and children often fall below the normal weight for their ages. Furthermore, many children with chronic illnesses also often lose weight and become malnourished. Many preschools run for a few hours in the morning and no meals are provided. If, however, the preschool does provide meals or snacks for children, it is important that nutritious food is provided. When planning weekly menus, teachers should make

sure that meals include energy, growth, and protection foods. If food is brought from home to eat at the preschool, teachers should help parents and caregivers understand the kinds of foods they can send that best meet their child's nutritional needs. If possible, have nutritional food available in case the food sent from home does not meet the child's needs, or parents and caregivers are not able to send food from home.

Note: Guidelines for planning balanced nutritious meals are provided in *Resource Guide, Module 6*.

- Young children have small stomachs, so it is best to feed them small meals at regular intervals.
- When planning a daily schedule, teachers should make sure there is enough time for children to help set out the tables and serve food.
- Meal times should be pleasant times of the day. They are good learning times when the teacher sits with the children and talks to them about the food they are eating and teaches them appropriate eating behaviors.
- Meal times are a social time when all children should be able to communicate with one another. Make sure that children with disabilities are not seated separately. If a child needs help with feeding, an adult can sit with him/her at the table, or bring them to the table where other children are sitting after they have been fed, so that he/she can spend time with their friends. The teacher might need to make some adaptations so that a child can feed himself/herself independently. For example, she can wrap foam around a spoon to make it thicker and easier to hold, or provide a straw if the child cannot hold a cup. Finger foods can be provided if a child is not able to use a spoon.
- If the children spend the entire day in the preschool and arrive early in the morning, it is recommended, resources permitting, that breakfast and lunch are served, as well as a morning and an afternoon snack.
- If the children are only there for a few hours in the morning, a healthy snack could be served sometime mid-morning.

REST TIMES

Rest is essential for children's physical development and is an important part of any schedule longer than five hours. Children should rest for at least one hour, and longer for younger children, usually after lunch time. Teachers should allow time for children to fetch and lay out a mat, take off their shoes, and lie down. Children will not sleep for exactly the same length of time, as the rest needs of each child will differ. Therefore, consider planning some play activities for a child who wakes up early.

TRANSITION TIMES

Transitions are those times when children change activities. When children move from one activity to another, these times need to be well organized so that children do not have to stand in line or wait for a long time. Standing in line or waiting for a long time is when misbehavior most often happens. Proper planning can minimize transition times between activities and help children avoid misbehaving. Consequently, these times should also be included when planning a daily schedule.

At the end of free-play activities, give children plenty of warning and allow time for them to clean up and pack away. A child with a disability may need to start earlier than other children. For transitions from one type of activity to the next, sing songs, clap hands, or beat a drum, as appropriate.

Children should not be rushed through the routine care activities. These are special time for talking individually with children about facial and body parts, about warm and cold water, etc. Allow time for children to help prepare and serve meals.

DAILY SCHEDULES: BALANCING THE DIMENSIONS

When preparing schedules for daily activities with young children consider balancing the dimensions for:

- Indoor and outdoor activities
- Quiet and active activities that encourage mobility
- Individual and small group activities

For toddlers, large group times should be limited to very few activities such as eating or short story or music time. Older toddlers may enjoy group activities for longer times.

Preschoolers are ready for larger group activities 10 to 20 minutes long. The main group time should be in the morning before children become tired. Group time activities include prayer, finger play, movement activities, discussions and storytelling, or reading. They should also include large muscle and small muscle activities, child-initiated and caregiver-initiated activities, and free-play and caregiver-guided play.

Minimize unnecessary waiting; waiting leads to boredom, restlessness, and unpleasant interactions. For example, during a transition from outdoor play to lunch, one caregiver can tell or read a story as children come in from the playground while another caregiver finishes getting lunch materials ready. Children can then wash their hands and go to a lunch table.

The daily schedule is only a guide, and it is important to be flexible. If children are restless during an activity, it is best to shorten it and do something different. It may also happen that unplanned activities may occur or that children may want to spend longer with an activity, which will also affect the daily schedule. Having a flexible schedule will allow teachers to adjust it as the day unfolds.

A child with a disability may need more time to complete a routine or an activity.

EXAMPLES OF DAILY SCHEDULES

Below are examples of a *daily schedule for toddlers and preschoolers*¹⁰. Caregivers or teachers can adapt this example schedule according to their own experiences and national calendar.

¹⁰ Republic of Zambia Ministry of Education, Science, Vocational Training and Early Education (2014).

EXAMPLE OF ZAMBIA DAY CARE DAILY SCHEDULE FOR TODDLERS

DAILY SCHEDULE FOR TODDLERS								
Day	Arrival 8:30	8:30-8:50	9:20-9:50	9:50-10:20	10:20-11:00	11:00-11:30	11:30-12:00	12:00 to 12:30 departure for home
Monday	Indoor free-play	Group time	Early literacy	Toileting	Snack	Outdoor free-play	Rest	Story telling
Tuesday	Indoor free-play	Group time	Early math	Toileting	Snack	Outdoor	Rest	Poems Rhymes Riddles
Wednesday	Indoor free-play	Group time	Social skills	Toileting	Snack	Free-play	Rest	Story telling
Thursday	Indoor free-play	Group time	Early literacy	Toileting	Snack	Outdoor	Rest	Singing
Friday	Indoor free-play	Group time	Early math	Toileting	Snack	Free-play	Rest	Indoor games play

Note: Spiritual development is integrated with other activities throughout the day.

EXAMPLE OF ZAMBIA DAY CARE DAILY SCHEDULE FOR PRESCHOOLERS

DAILY SCHEDULE FOR PRESCHOOLERS									
Day	Arrival 8:30	8:30-8:50	8:50-9:20	9:20-9:50	9:20-11:45	10:20-11:00	11:00-11:30	11:30-12:00	12:00 to 12:30 departure for home
Monday	Indoor free-play	Group time	Early literacy	Early math	Toileting Snack Outdoor free-play Rest	Snack	Outdoor free-play	Rest	Story telling
Tuesday	Indoor free-play	Group time	Early math	Social studies	Toileting Snack Outdoor free-play Rest	Snack	Outdoor	Rest	Poems Rhymes Riddles
Wednesday	Indoor free-play	Group time	Early literacy	Early math	Toileting Snack Outdoor free-play Rest	Snack	Free-play	Rest	Story telling
Thursday	Indoor free-play	Group time	Early math	Art	Toileting Snack Outdoor free-play Rest	Snack	Outdoor	Rest	Singing
Friday	Indoor free-play	Group time	Early literacy	Environ Science	Toileting Snack Outdoor free-play Rest	Snack	Free-play	Rest	Indoor games play

Note: Spiritual development activities are integrated with other activities throughout the day.

MIXED AGE GROUPS

According to the psychosocial theory of child development, younger children can learn from older peers. For this reason, having a mixed-age group classroom benefits young children. Mixed-age grouping means that during free-play activities children of different ages play together. There needs to be a wide enough range of activities that will meet the developmental needs of all children, so that each child can develop at his/her own pace and so that older children don't get bored.

TEAM TEACHING

It is best to have at least two teachers working together as a team. Those teachers who are working alone in their settings should try to enlist the help of one or more volunteers, especially if they have large numbers of children, at least during certain times of the day.



Illustration / CRS Lesotho

Team teaching means sharing the work in order to make the daily schedule run as smoothly as possible. For example, as children arrive, one teacher is responsible for greeting the children and their parents and completing the health check. The second teacher (or volunteer) sets up and prepares things for breakfast. When children sit down for breakfast, one teacher supervises them while the other teacher begins setting out the activities for free-play.

In team teaching, each teacher takes responsibility for particular learning corners. One teacher may be responsible for art, fantasy play, and building corners and the other teacher (or volunteer) for the science, book, and educational corner. During free-play times, she does not work with her own group of children, but with those children who choose to do activities in her learning corners.

Towards the end of free-play time, as children start to pack away the materials and toys they have been using, one teacher takes a few children to the toilet and wash area and then stays there to supervise the children during this routine. The other teacher stays with the rest of the children. She sets out chairs for snack time so that she is ready for children as they come from the toilet and wash area.

The day continues in the same way so that the schedule flows smoothly and the children always have something to do. The children do not have to wait in line or sit quietly until everyone is ready before moving on to the next activity. Before each new activity starts, a teacher needs to be ready and waiting for the children who arrive first.

During group times, children are divided according to their ages for music and movement and story time. The teacher should lead the children through these activities.

Careful planning is needed for team teaching to be effective. Teachers need to work out what duties are needed and how these can be divided equally between the numbers of adults. Teachers will also need to be able to get along with each other.

PLANNING FOR THE YEAR

LONG-TERM PLAN

The long-term plan outlines the general content areas that will be covered for the whole year. It is only a basic guide for the year that gives an indication of the kinds of activities that can be planned to meet the educational goals. There are different strategies that teachers use to develop a plan for the year.

EDUCATIONAL GOALS

1. Read through the developmental milestones that children are expected to achieve for their ages in *Resource Guide, Module 2*.
2. Write down the kinds of activities that will help children of that age develop and learn. For example:

Age group: Four to five years
 Developmental area: Cognitive development

EDUCATIONAL GOALS	FREE-PLAY ACTIVITIES	GROUP ACTIVITIES	ROUTINES
To learn about themselves, their families, and the people around them. Theme: "My home and family."	<p>Fantasy corner: Dress-up clothes for different members of the family and different cultural events, different community people.</p> <p>Building corner: Add materials for children to make houses and other structures; pictures of different structures to stimulate play.</p> <p>Art: Drawing and painting, collages, modeling of families, and people around them.</p> <p>Books: About family life, cultures; traditional stories; books in home language; books about people in the community.</p> <p>Educational toys: puzzles and games of family and community members.</p>	<p>Morning ring: Discussions about family: how they are alike and different, growing up in a family, caring, roles of family members, working, people in the community, going to school, the clinic, what the police do, etc.</p> <p>Stories about family members: (e.g., grandmother, older sister, newborn baby), traditional events, family outing.</p> <p>Stories about community events: (e.g., going to the clinic, first day at school, how a policeman helped), or holidays such as Independence Day.</p> <p>Music and movement: Movements related to what happens in the home, around the community. Songs and finger plays about the family, going to school, the clinic, the police, etc.</p>	<p>Meal times: Set up meal times the way children have them at home. Talk about the kinds of foods children eat at home, special foods for special occasions.</p>

3. List the activities in the order in which they should happen. Decide on the order in which the activities should be offered. This involves using certain sequencing principles:
 - **From the known to the unknown.** Start with what children already know and build on this. For example, children first learn about what happens in their family in their daily lives. Later, they will find out what happens around them in their community, and much later children will be ready to learn about things that are not familiar to them, such as life in the city.
 - **From the concrete to the abstract.** Young children learn when they can see and touch real things, and later start to understand that pictures stand for things they see in real life.
 - **From the simple to complex.** Start with simple ideas and then move on to more complex ones. A child will understand that airplanes fly through the air, but what keeps them in the air is something more complex that they will only start to understand later.
4. Use a calendar for the year to mark in the school and national holidays and any other important community events. Divide the activities into the school terms. Look at the plan to see if there is a balance of activities.
 - Are activities creative and planned for each developmental area and age group?
 - Is there a variety of free-play and group activities?
 - Are the activities divided more or less equally for each term?
 - Is there enough time for children to practice their skills?

EXAMPLES OF A CREATIVE-PLAY ACTIVITY PLAN BY AGE¹¹

Domain of development: Cognition

Specific developmental goals: Imitation/memory

1. Promote children's ability to observe and imitate behaviors and events.
2. Help children to remember an object, person, or event from their past.

¹¹ Catron & Allen (2008); Dodge, Rudick, & Berke (2011).

ACTIVITY FOR INFANT: “PEEK-A-BOO” (INTERACTIVE GAME)

ACTIVITY
<ul style="list-style-type: none">• Save a large screen or blanket.
<ul style="list-style-type: none">• Hide behind the screen/blanket and show your smiling face to the infant in a slow movement, saying with clear and soft voice, “Peek-a-boo!”
<ul style="list-style-type: none">• Do this several times and guide the infant to take his/her turn and play “Peek-a-boo” with you.
Added skills: Social interaction; small motor
ACTIVITY FOR TODDLERS: LET’S REMEMBER A MISSING ITEM (INTERACTIVE GAME)
<ul style="list-style-type: none">• Display various objects (pencils, wooden shapes, small boxes of different color) on the floor for children to see.
<ul style="list-style-type: none">• Name each object by picking one at a time, saying, “This is a blue box,” and so on.
<ul style="list-style-type: none">• Let the children touch and feel each object. Then, cover all objects with a piece of cloth.
<ul style="list-style-type: none">• Say, “Now, I am going to lift this cloth up and you will tell me what is missing from the objects you just saw and touched.”
<ul style="list-style-type: none">• Say in an exciting voice, “Are you ready?” and take one object from the assembly without the children seeing you and uncover the objects.
<ul style="list-style-type: none">• Ask, “Now look carefully. What is missing?”
<ul style="list-style-type: none">• Give each child a turn and talk about the missing object; give children clues to help them remember; talk about the nature of the object with children as you continue to play the game, asking, “Is this object useful? Why?”
<ul style="list-style-type: none">• Give children a chance to take turns and lead the game.
Added skills: Social skills (interactions), early literacy and language
ACTIVITY FOR PRESCHOOLERS: LET’S REMEMBER ORDER: ANIMALS WALKING IN LINE (INTERACTIVE GAME)
<ul style="list-style-type: none">• Collect pictures/drawings of different animals found in the children’s community/country.
<ul style="list-style-type: none">• Display the animal pictures by lining them up in order and saying, “I am going to tell you a story about very nice animals that went out for a trip in a forest. The nice animals were a tiger, a lion, and a monkey and they all walked in line without pushing each other. The tiger was the first in the line, the lion was second, and the monkey was third and the last.” As you tell the story, pick one picture at a time and put them back on the line. Tell children to look at the line of the animals, then reshuffle the order. Ask, “Now, try to remember which animal was walking first, second, and third in the line. Can you put them back in order as they were walking in the forest?”
<ul style="list-style-type: none">• Ask for a volunteer to put the animal pictures back in order and let other children also help. Talk about the animals and invite children to tell a story about the animals, and order them in their own way. Repeat the activity until each child plays the game.
Added skills: Early math, turn taking, early literacy, small motor, language

CREATIVE-PLAY ACTIVITY PLAN FOR SPIRITUAL-MORAL DEVELOPMENT

PRESCHOOLERS ACTIVITY: “MAKING” NEIGHBOR’S BODY (ACTIVE GAME)

Contributed by Assumption Sisters of Nairobi, Kenya

Domain of development: Spiritual and moral

Developmental goal: Appreciation and respect for the body as God’s image

SPECIFIC OBJECTIVES:

1. Encourage children to realize that God created us the way we are and in His own image.
2. Increase children’s ability to respect each part of the body and use them well, for this makes God happy.
3. Respect the way each person is, love each other, and appreciate the different colors of their skin.

CREATIVE ACTIVITY

- Modeling a person using *plasticine* (artificial clay) and narrating the story of creation of Adam.

MATERIALS

- *Plasticine* balls with two different colors: black and brown.

ACTIVITY DEVELOPMENT: PROCEDURES

- A. Tell the children that, using the plasticine, they are going to create the image of their classroom neighbor’s body and its parts.
- B. Ask the children to each pick one plasticine ball and go back to their seats.
- C. Guide children on how to model the body parts; the head, neck, torso, arms, etc.
- D. Invite the children to stand and make a good observation of their **neighbor’s body parts**.
- E. Ask the children to cut a small piece of plasticine and roll it on the table to make a long round thick thread (Model the activity for children first and then ask them to do the same.)
- F. Then ask the children to cut the ‘thread’ and make a round shape to represent the head and place it on the table. Cut other pieces and make eyes, ears, mouth, and nose.
- G. Ask the children to use the same method, cut more pieces, and make the other parts of the body.
- H. When they are finished, ask the children to go around in groups and say loudly what they observe from the different models on each table. Ask “why” questions so that children reflect and learn about the body parts and their use, or the differences of the body in size, color, etc.

When the activity is finished, ask the children to carefully pick their images and place them on the table at the back of the classroom. Then, sing a song with a message about the appropriate use of body parts and respecting differences of body appearances and skin colors (e.g., make the song ahead of time).

REFLECTION-WHAT CHILDREN LEARN

Ask children why they have to be careful with the “body” image they have created, and talk about the **key message** of the activity to children.

- We are all created in God’s image, hence we all look like Him.
- He made us using His own hands (Tell children the story of how God created Adam.)
- By loving others we show love to God.
- Always respect the way each person looks; appreciate and love the different colors of their skin.
- Each part of the body is to be used well, for this makes God happy.

Added skills: Socialization; fine motor skills; cognitive and language

- Children socialized as they create the body image of their peers.
- Skills of hands, finger, and eye coordination
- Songs
- Knowledge of colors

A THEME APPROACH

One way to organize the long-term plan is to organize it according to themes. This means breaking down the year into themes with different topics and then planning a variety of activities around each topic. The topics link to each other which helps children understand how things in the world connect to one another.

Teachers can choose topics for themes based on:

- **The national curriculum.** For example, *Kenya Institute of Education's Handbook for Early Childhood Development and Education* provides a complete guide to planning themes.
- **The calendar year.** Plan around the seasons of the year and important events such as cultural and religious festivals and national celebrations.
- **Children's interests.** Teachers closely observe children at play and take note of what they are interested in. This will help them to decide what topics to choose.

LEARNING THROUGH THEMES

Children need to learn through play. Children use their senses to find out and know more about things in their environment. They learn by observing, comparing, talking about, investigating, and experimenting through the use of their eyes, ears, noses, mouths, and bodies. Teachers should not teach young children about a topic in a formal way. They should plan free-play and group activities that will arouse children's interest in a topic and encourage children to explore and find out for themselves.

Plan suitable activities to fit the topic of the theme. It is not necessary or appropriate to make every learning corner and group activity relate to the theme. Too many activities related to a theme can be overwhelming for children and learning corners often do not fit the topic. It is useful to plan morning rings, stories, and music around a theme topic, but there should also be a balance of other activities that are not connected to the theme during the week.

Children should follow their own interests. Children should be free to use the materials in their own way. Children may be asked to draw or paint something related to the theme, but if a child chooses to use his/her own ideas to create something else, they should be allowed to do so.

PLANNING ACCORDING TO THEMES

Consider the ages of the children. Younger children (three to four years) are more interested in familiar topics about things that happen around them. Older children (four to five years) start to become more interested in the world that is less familiar to them. Most theme topics can be used with both age groups, but activities should be planned to include less familiar things that children do not see in their everyday lives for older children to explore.

Sequence the themes. Teachers need to think about the order in which the themes should be offered, starting with what the child knows. Use the sequencing principles as a guide:

- From the known to the unknown
- From the concrete to the abstract
- From the simple to complex

For example, begin with the child and his/her home and family, move on to people and places in the community, and finally to the world beyond. Think about what topics need to be included in each theme and how to link one topic to another in a way that makes sense to children.

Allocate time to topics. Themes can be for a few days, a week, or several weeks at a time. Once the teacher has identified what and how children will learn from each topic, she can allocate an appropriate amount of time to each theme in her plan. There should be enough time for children to explore and follow their interests about each topic.

Incorporate into the long-term plan. The teacher fits the theme topics on the calendar plan for the year.

MEDIUM-TERM, WEEKLY, AND DAILY PLANNING

MEDIUM-TERM PLANNING

Some teachers find it helpful to have a medium-term plan that provides more detail for each term or each month. Most teachers find that they can plan their weekly and daily activities using the yearly plan, which is broken down into terms, as a framework.

WEEKLY AND DAILY PLANNING

The short-term plan for weekly and daily activities is based on the long-term plan. The short-term plan provides the details of exactly what the teacher will do. Teachers usually combine a weekly with a daily plan. It is at this stage of planning that teachers think about the individual developmental needs and interests of the children in their groups and plan ways to meet these.

STEPS IN PLANNING

PLAN TO MEET

- 1. Developmental needs and interests.** The developmental milestones outlined in this guide will inform the teacher's planning. See also *Developmentally appropriate practice*. The teacher looks at the year plan to see what has been planned for the term. This will include:
 - The ongoing activities to meet the educational goals in the learning corners; for example, drawing, puzzles, and bead-threading to develop small muscles and fine motor coordination
 - Theme topics

The teacher references the developmental milestones and *Developmentally appropriate practice* to find out what children are expected to achieve for each developmental area according to their age groups. This will help her plan age-appropriate activities.

- Most free-play activities can be used with both age groups, but teachers need to be sure that activities include suitably challenging materials for older children.
- More consideration needs to go into planning age-appropriate group activities when children are divided according to their ages.

2. **Individual needs.** *This does not mean providing different activities for each child.* The program activities should already be meeting most of the children's developmental needs. If a variety of materials with different levels of difficulty are set out every day, children with different learning styles and abilities can use the materials in different ways. The teacher needs to carefully observe and get to know each child in her group and find out what skills each child has mastered and where he/she still needs help. *She also needs to consider the social and cultural background of each child such as the language and religion of the child.* During weekly and daily planning, the teacher thinks about the kinds of activities that will help individual children and any extra materials that may be needed, or how an activity could be adapted for a child with a disability or with a different social and cultural background.
3. **Set objectives.** An important part of the planning process is for teachers to decide what they want children to be able to know and do for each goal that has been set. This will help them in planning suitable activities. For example, one of the educational goals is for children to learn about themselves, their families, and the people around them.

Some objectives might be:

- Children need to know and appreciate their families.
- Children need to be encouraged to talk about and develop a sense of pride in their own family and culture.
- Children need to recognize that not all families are alike.

Note: If teachers are using national curriculum for early childhood practitioners, the objectives may already have been identified.

Here are some objectives:

1. Classification activities

Children should be able to:

- Discriminate between and estimate sizes and shapes
- Develop mathematical vocabulary
- Develop reasoning and logical thinking

2. A theme on plants

Children should be able to:

- Name plants growing in their environment
- Identify plants that are useful
- Explain and appreciate the use of plants
- Demonstrate how to care for plants
- Name major parts of plants

PLAN FREE-PLAY ACTIVITIES

Even though children choose and use the materials in their own way during free-play times, the learning corners need to be planned. The materials are always available in each learning corner, but the teacher looks at the educational goals and any theme that has been planned for the week. She thinks about the materials that will help children learn according to the educational goals. She considers other suitable materials that can be added to help children learn more about the theme topic (see also *Sample creative-play activity plans* in this session).

For example, for the building corner, if the educational goal is for children to learn about themselves, their families, and the people around them, and the theme topic is *My home and family*, the teacher will want to add other materials and find or draw pictures of different kinds of homes and other buildings found in the community that can be put up in the corner to stimulate play. She fills out the **weekly planning sheet** for free-play activities in the building learning corner:

WEEKLY PLANNING SHEET: EXAMPLE OF FREE-PLAY ACTIVITIES: BUILDING CORNER

Learning corner: Building	Theme: <i>My home</i>	Age group: 3–4 years
Week ending: October 5, 2014	Sub-theme: <i>My family</i>	Size of group: 22
Objectives <ul style="list-style-type: none"> • To encourage children to create and talk about their own homes and families • To provide opportunities for children to develop their large and small muscles • To provide opportunities for children to practice problem-solving skills • To help children develop their thinking skills and learn concepts like size, shape, and number • To encourage children to learn to cooperate and share 		Learning materials: Building blocks Extra materials: Thatch, leaves, twigs, cardboard boxes of different sizes, pieces of cloth, strips of cardboard, and string Pictures: Brick or stone buildings, school building, thatch roofs, corrugated iron roofs, tiled roofs, rectangular flat iron-roofed building
Evaluation <ul style="list-style-type: none"> • There were children busy in the corner every day. • The older children built houses and other structures together. • Children talked about the kinds of houses they live in with their families. • There were not enough materials for children to make roofs for their building. 		

PLAN GROUP ACTIVITIES

During weekly planning, the teacher looks at the educational goals and objectives and the theme for the week. She uses the developmental milestones to guide her in planning stories, music and movement activities, morning rings, and field trips that will help children develop and learn.

Each group activity should be individually planned with details of the objectives, what materials will be needed, and how the activity will be carried out.

EVALUATE THE ACTIVITIES

An important part of planning is evaluating whether an activity worked or not.

- Were there enough materials for the children?
- How did the children use the materials?
- What did children learn?
- What worked well?
- What didn't work well?
- What could (or should) be done differently next time?

Planning sheets should include a space to record an evaluation.

Session 4: Supporting Young Children in Language and Literacy¹²

LEARNING OBJECTIVES

By the end of this session, participants will be able to:

- Define early literacy and the skills that are important for learning to read and write.
- Know how to provide a print-rich learning environment for children.
- Provide listening and speaking, reading and writing activities to facilitate children's development in early literacy.
- Make connections between the different areas of literacy, e.g., speaking and listening, reading and writing.



Illustration / CRS Lesotho

WHAT IS EARLY LITERACY?

Early literacy is everything children know about listening and speaking, reading and writing, before they have actually mastered the skills of reading and writing.

In recent years, there has been much research done to find out how children learn to read and write, and there are new theories on how literacy develops. It has now been established that:

- Learning to read and write starts very early in life.

¹² Adapted from CRS, Lesotho (2012).

- Language development is an important foundation to promote strong reading.
- Children do not learn to read first and then to write. They learn to read and write at the same time.
- Children learn to read and write when they understand its purpose in everyday life.
- Children learn to read and write when they have many diverse opportunities to read and write.
- Reading aloud to children every day is one of the best ways for children to learn how to read.
- Children go through different stages in becoming literate.

Many teachers in early childhood development centers think that children need formal “reading readiness” lessons and activities before they start school. They give them pre-reading and pre-writing activities, and have them chant the alphabet to teach children letters and words. Children do need many different kinds of experiences before they are ready to read and write, but teachers will need to look at new ways of helping children develop literacy skills. Teaching children to recite the alphabet or giving them worksheets to form letters properly are not the most suitable activities for young children. Teachers can help children develop understandings about literacy by making them aware of how listening, speaking, reading, and writing are useful in their everyday lives.

DEFINITIONS

Instead of “reading readiness,” the term “early literacy” is used to describe children’s early experiences with literacy. **They are not just getting ready to read; they are learning to read and write.**

This guide focuses on the following six literacy skills that are important for learning to read and write:

1. Having an interest in and enjoyment of books.
2. Being able to understand and tell stories and describe things.
3. Having a good vocabulary.
4. Having an awareness of how books and print work.
5. Hearing and using the different sounds of language.
6. Knowing letter names and the sounds they make.

Children develop literacy skills most easily in their home language. This is the language they use to express their thoughts and feelings. It is through their home language that children come to know the values and beliefs of their culture, and learn to appreciate and accept themselves and their culture.

HOW LANGUAGE AND LITERACY DEVELOP

Language and literacy are interconnected, as an important part of literacy involves listening and speaking. **At the same time that children develop their listening and speaking skills, they are also finding out about reading and writing.** Evidence demonstrates that from an early age, babies start exploring books and enjoy having books read to them. Their **scribbling is the first stage of learning to write.**

0-6 months	Babies communicate by smiling, making eye contact, cooing, and babbling. They respond to sounds around them by imitating and repeating them.
6-18 months	<p>Babies start to show an understanding of words. They make word sounds and from about nine months, start to say their first words. One word may stand for different things. At about twelve months children will point at things or use single words.</p> <p>Between seven and nine months, babies start exploring books. They imitate how they have seen other people reading. They pick up books and pretend to read. They point to pictures of objects, animals, and people as they are named in the book.</p>
18 months-2 years	<p>Children's vocabulary increases and they can learn new words quickly. They refer to themselves by name. Children can use two or three words in a sentence but cannot connect words. They start to sing.</p> <p>Children will listen to a book being read. They have their own favorite books which they enjoy being read over and over again.</p>
2-3 years	<p>Children start putting short sentences together. Children enjoy simple stories, rhymes, and songs. They are able to remember rhymes.</p> <p>Children start to understand that stories have a beginning, a middle, and an end. They are able to retell a story that has been read to them.</p>
3-4 years	<p>Most of what children say can be understood. They like to repeat words and sounds. They ask questions like "Who?" "What?" "Where?" and "Why?" They like to sing. By the age of four, children are speaking in sentences of five to six words.</p> <p>Children start to understand that the words on the page are connected to the pictures. They can identify familiar signs and labels in the environment. They can also identify some letters and match some letter names to sounds.</p> <p>Children enjoy listening to stories and talking about them. They also take part in rhyming games.</p>
4-5 years	<p>Children talk in longer and more difficult sentences of about nine words. They can tell stories about things that have happened to them and retell stories they have heard. Children can follow directions with three or more steps. They ask a lot of questions.</p> <p>Children start to understand that the printed letters represent words. They recognize words by looking at them and will point to the words in books and the environment. They understand print concepts like the direction print is read, and begin to match spoken words with written ones. They recognize letters and match them to sounds. They enjoy rhyming.</p> <p>They begin to write letters of the alphabet and some familiar words.</p>

A PRINT-RICH ENVIRONMENT

Teachers can help children understand the purpose of print by having different types of print in the classroom. When surrounded by a print-rich environment, children will see how reading and writing are useful in everyday life.

- **Labeling:** Make labels for various items in the room. This tells children that things can be identified by written words.
 - Label learning corners and containers for toys and other play materials. There should be pictures that go with the words to help children identify the different things and places.
 - Label children's personal belongings and spaces with their names (e.g., their art work, toothbrushes, hooks, or lockers).
 - Children can be encouraged to write their own names on their art work.
 - For a child with a visual disability, make some of the labels from textured materials and encourage the child to feel the words. Do not label everything, as this will be

overwhelming for the children. All labeling should be neat and spelled correctly. The format of the written letters should be consistent with what children will be taught to use when they get to school. All letters should be lower case, with a capital first letter for a child's name or the beginning of a sentence.

- **Charts:** These should be displayed at children's eye level (e.g., an alphabet chart, a weather chart, and days of the week).
- **Word wall:** A word wall is a list of words that are commonly used. The words should be arranged alphabetically beneath each letter of the alphabet chart. The teacher and children add new words to the word wall as they are used and discussed during story and other activity times. A good place to start is to write children's names on the lists according to the first letters of their names. The word wall is not intended to be used to teach children formally. They should be free to use it as they choose as they explore and develop their literacy skills.
- **Learning corners:** Meaningful print materials can be added to the learning corners that encourage children to explore print.
 - **Fantasy play corner:** There is print on everyday household products, which children quickly learn to recognize because of its trademark packaging (e.g., Coca-Cola, matchboxes, plastic containers of rice, empty maize meal bags). This is often the first kind of print that children are exposed to. Empty packaging can be added to the fantasy play area as well as other reading materials like advertising leaflets, magazines, newspapers, and books. Writing materials can be added to encourage children to make shopping lists or mark a calendar.
 - **Building corner:** Make signs for roads and logos for buildings such as Shell or Shoprite. Have writing materials in the building corner so that children can write their own signs.
 - **Educational toy corner:** Environmental print is print that children see around them every day on product packaging, advertising leaflets, shop signs, and road signs. Young children often learn to recognize this print before print in books because of its unique design. Teachers can make matching and sorting cards from environmental print items like advertising leaflets. Matching games (like memory games) can also be made by drawing pictures of animals as well as writing their names on cards. Cereal boxes can be made into puzzles by cutting the front of the boxes into different pieces.
 - **Book corner:** Make sure that the book corner is an inviting place that will encourage children to look at books, magazines, newsprint cuttings, and pictures. Books can include those that children have made and self-made booklets.

ORAL LANGUAGE

Young children learn language through their daily experiences with people and hearing parents, siblings, teachers, friends, caregivers, and other people around them speak. Listening to other people's speech helps children to love language and build vocabulary.

Oral language is a part of literacy development that is often overlooked in early childhood development classrooms, but speaking and listening lead the way to reading and writing.

SPEAKING AND LISTENING

- As children develop speaking and listening skills, they start to make connections between spoken words and written words.
- Children need words to help them understand concepts. The greater their vocabulary, the better they are able to understand and learn new things. A large vocabulary is also helpful for children learning to read because they already know a lot of the words.

HAVE SHARED CONVERSATIONS

Having conversations with children is one of the best ways to help children develop their oral language skills. A shared conversation involves the adult listening to a child as well as speaking. Here are some ways teachers can help children:

- Ask children about what they are doing and help them develop language skills and learn new words. For example, “It’s good that you are watering the garden. The soil was very dry. What kinds of vegetables grow under the ground? Let’s name them all. What kinds of vegetables grow above the ground? Let’s name them.”
- Listen to children when they want to talk and do not interrupt them.
- Use open-ended questions to encourage children to talk about what they are doing, thinking, or feeling. For example, “How do you think the water will help the plants to grow?”
- Model the correct use of language rather than correcting it. Children will be discouraged from talking freely if their grammar is repeatedly being corrected. Teachers can help children learn by saying the correct word or phrase. For example:

Child: “I **forgetted** to water the plants.”

Teacher: “Oh, you **forgot** to water the plants? Why don’t you...?”

- Introduce new words and sentences to explain concepts. For example:

Child: “What is happening to the water? It just goes and goes?”

Teacher: “Yes, it is soaking into the ground. The soil absorbs the water.”

- Answer children’s questions.

Children should also be encouraged to have conversations with each other and practice their language skills. To facilitate this:

- During morning activities, ask children to take turns telling the group what they saw or did over the weekend. Ask children to bring something from home to show and talk about. Have children talk about what activity they would like to do.
- Encourage children to play in the fantasy corner. Children use language to discuss the various roles they play with one another and talk to each other about what they are doing.
- During other free-play activities encourage children to share their ideas with one another.

PLAN ACTIVITIES THAT ENCOURAGE LISTENING AND SPEAKING

- Encourage children to play different roles in the fantasy play corner and practice their listening and speaking skills. Providing children with these types of opportunities is important as children imitate the words and sentences they have heard other people use and will use these interactions to imitate and practice.
- Read to children and encourage them to talk about what they see and hear.
- Plan field trips around the community to expand their vocabulary.
- Provide props and dress-up clothes for children to act out well-known stories.
- Tell stories and encourage children to create their own stories.

EXPLORING THE SOUNDS OF LANGUAGE

An important part of learning to read and write is being able to hear that language is made up of words. Children learn that:

- Sounds make up words.
- Sentences are made up of words.
- Words are made up of separate sounds (syllables).

DEFINITION

A syllable is a unit of pronunciation. Some words are single syllables such as “hat.” Some words have several syllables such as “app-le” and “cat-er-pill-ar.”

Definition: Phonological awareness is the child’s ability to hear and play with the smaller sounds of words. It should not be confused with phonics.

Definition: Phonics is a way of teaching reading that involves print where the child must connect a sound to a letter of the alphabet.

Children need to first be able to hear the sounds that make up words:

- The sounds at the ends of words (rhyming)
- The sounds at the beginning of words
- Breaking down words in a sentence
- Breaking down words into syllables

This does not involve print at all but is an important step towards understanding that words are composed of letters that represent sounds. This important step in language development does not involve connecting the sounds to the written letters of the alphabet. Before this happens, children need to have lots of practice in hearing and playing with the sounds that make up words. These experiences will help children to sound out words when they start to read.

There are many games and activities that teachers can plan to help children hear and play with the sounds of language.

- **Singing:** When children sing a song the words are naturally broken down into smaller parts. For example:

“I hear thun-der

I hear thun-der

Oh don’t you. Oh don’t you.

Pit-ter pat-ter, rain-drops, pit-ter pat-ter, rain-drops

I’m wet through. So are you.”

Children can clap the beat of each word as they sing the song.

- **Rhyming:** Poems, nursery rhymes, and songs that rhyme help children learn that words have similar end-sounds. For example:

*“Hey, diddle, diddle,
The cat and the fiddle,
The cow jumped over the moon.
The little dog laughed
To see such sport,
And the dish ran away with the spoon.”*

When children know the song or rhyme well, the teacher can ask children to guess the missing word. For example:

*“The cow jumped over the moon.
The little dog laughed
To see such sport,
And the dish ran away with the _____.”*

- **Listening games:** Listening games can help children hear the sounds of words, to hear the beginning and end sounds of words, and break words into smaller parts. To reinforce this idea, play the “telephone” game. Have the children stand in a line and the child at one end of the line thinks of a sentence and whispers it to the child next to him/her. The message is passed on to each child in turn and the last child says the sentence out loud.

Here are some more games:

- “Clap if the word starts with a ‘S’ sound.” “Can you find other things that begin with the same sound?” “Whose name begins with this sound?”
- “Stand up if the word rhymes with ‘hop.’”
- “Clap out your name, “Pe-ter.” “Can you guess whose name I am clapping? Is it Pe-ter?”
- “Stomp this beat with your feet” (different beat patterns, e.g., three fast beats, two slow beats).
- Find a way for all children to participate in the games.
 - A child with a physical disability can move a different part of his/her body, choose a song, or give directions.
 - Slow down movements to encourage all children to join in.

STORYTELLING

Storytelling is particularly important for early literacy. When children listen to and participate in stories, they:

- Develop listening skills and start to recognize patterns in sounds
- Get a sense of how a story is structured and the order in which it is told
- Learn the meanings of new words and improve their vocabularies
- Start to recognize words
- Talk about what they hear as the story is being told
- Increase their enjoyment of language

Children usually become very involved in stories that have lots of repetition and rhyme and a predictable plot. These types of stories provide opportunities for children to guess what the story will be about or what will happen next.

Before reading or telling a story, make a list of all the new words and concepts that will be introduced. Plan to incorporate these words into the story with strategies to explain the words to the children. For example:

- Before telling the story, introduce key words or concepts.
- Stop briefly during the story to explain the meaning of new words or concepts.
- After the story, remind children of the new words and concepts introduced.
- Ask for other examples to help children make meaningful connections.

RETELLING STORIES

When children listen to and then retell familiar stories in their own words they:

- Learn to sequence the events in a story in the order in which things happened
- Develop their narrative skills—their ability to describe events and tell stories
- Are better able to understand the story
- Improve their vocabulary

DEFINITION

“Narrative skills” refer to the child’s ability to tell stories and to describe things and events.

It also helps the teacher to see how well the child has understood the story. Well-known and repetitive stories are good for children to retell. The teacher can support the child by using questions to prompt the child as he/she tells the story. For example:

- “What happened next?”
- “Why did he feel that way?”

PRINT AWARENESS AND PRINT MOTIVATION

Print awareness is about noticing print. Children need to develop some basic knowledge and skills before they can begin learning to read. As they explore print, children learn important print concepts and how to handle books.

KNOWLEDGE OF BOOKS

- A book is for reading.
- There is a top and a bottom to a book.
- The book must be held right side up.
- The book has a back and a front and the book is read from front to back.
- The cover gives information about the book.

KNOWLEDGE OF PRINT

- It is the printed words that are read and not the pictures.
- The pictures give meaning to what the print says.
- Start reading on the first line of a page.
- The printed text runs from left to right and, when the line is finished, moves to the next line.
- Print runs from top to bottom down a page.
- Pages are turned in a certain direction.

LETTER AND SENTENCE KNOWLEDGE

- Words are made up of letters that represent sounds.
- Letters can be upper case (capital letters) or lower case.
- Many words combined make a paragraph or a sentence.
- There are spaces between the words.
- Full stops (periods) on a page separate sentences.
- Spoken words can be written down and then read.
- A sentence does not necessarily end with a page or line end, but with a full stop (period).

DEFINITION

“Print motivation” is children’s enjoyment and love for books.

THE BOOK CORNER

Teachers can help children develop a love for books by choosing books with topics that children will enjoy and displaying these in the book corner. Children can select books that interest them. A teacher can help children learn print concepts by:

- Showing children how to hold books the right way up and which is the front and back of a book
- Helping children know where to begin reading and how to turn the pages
- Encouraging children to look at the words as well as the pictures
- Reading a book with a child or a small group of children and pointing to the words as he/she reads
- Encouraging children to talk about the books they have chosen and asking them to explain what the story is about

SUPPORTING CHILDREN WITH DISABILITIES

Make page tabs to help a child with a disability turn the pages of a book by adding large paper clips to the pages.

LETTERS AND WORDS

Children need to know the names of letters and to connect them with the sounds that they make. As children explore print around them, they start to understand that books and other print contain letters of the alphabet. They should not be formally taught the “ABC” in rote fashion but in play activities.

For example:

- Sing songs with the letters in children's names.
- Provide writing activities.
- Let children make letter shapes with their bodies.
- Let children trace over letters or words with their fingers/trace letters in the air.
- Read books to them.
- Put alphabet books in the book corner.
- Say the child's name and let him/her identify the letters that spell their name.

READING ALOUD

KEY IDEAS

Reading aloud is a planned reading of a book. When children listen to stories being read, they start to develop a love for books. They also learn basic skills that will help them become readers.

The best way to help children develop the understanding and skills they need to read is to read aloud to them as frequently as possible. This is particularly important for children living in poverty who may have no age-appropriate books in their homes. When books are read aloud, children:

- Listen to the rhythm and sounds of words
- Learn how to hold and read a book
- Make connections between letters and sounds

Teachers should plan to read a book aloud to children every day, either in the book corner with just a few children or during group times with a larger group of children. Although there is no one way to read aloud to children, there are some skills that teachers can learn.

GUIDELINES FOR READING ALOUD

PREPARE TO READ ALOUD

- Choose a book that will be of interest to children.
- Read the book several times before reading to the children to identify any new words or concepts. Plan when and how to stop the story and explain.

INTRODUCE THE BOOK

- Hold the book so that everyone can see the words and the pictures.
- Show children the cover. Using the cover picture, ask children to guess what they think the story might be about.
- Read the title of the book, the author, and the illustrator, moving your finger along the words.

READ THE BOOK

- Read slowly and clearly so that children can understand and have time to look at the pictures.
- Move your finger under the words as you read them. This will help children understand that the print tells the story, not the picture.
- Point to the pictures after you read the print about them so that children connect the words to the pictures.
- Use different voices to add drama to the story.
- Stop every now and again to make sure everyone understands. Ask questions about what is happening and what children think will happen next.

AFTER READING

- Invite children to tell you what they thought about the story. For example:
 - “What did you think about the story?”
 - “What did you like best?”
- Ask open-ended questions to help children remember the story. For example:
 - “What was the first thing that happened?”
 - “Then what happened?”
 - “How do you think she felt when...?”

Teachers can ask if any children would like to retell or dramatize the story.

SUPPORTING CHILDREN WITH DISABILITIES

Make sure that a child with a hearing or visual disability is seated nearby so that he/she can hear or see the pictures and text.

Make sure that a child with a hearing impairment is seated so that he/she can see the pages of the book.

EARLY WRITING

HOW WRITING DEVELOPS

Research has shown that children go through seven stages of writing. These stages might not be sequential, but all children will go through all of these stages.

Stage 1 Writing by drawing	Children use drawing as a means of communicating a specific and purposeful message. Children will read their drawings as though there is print on it. In this stage, children are working out the relationship between drawing and writing, not confusing the two.
Stage 2 Writing by scribbling	Children intend scribbling to be writing because for children it resembles writing. The process of scribbling is similar because the pencil moves from left to right. The forms of scribbling can be “wavy” or “letter-like.” Pretend writing in any form is an important stage of literacy development.
Stage 3 Writing by making letter like forms	Children make markings that resemble letters, but are actually their own creations.
Stage 4 Writing by reproducing well-learned units	Children reproduce letter sequences that are familiar to them, such as the letters from their names. The forms can be random, patterned, or parts of their names.
Stage 5 Writing by copying	Children will frequently copy shop receipts, their siblings’ school work, and other literature that they see in their homes or school. This is good practice.
Stage 6 Writing by using invented spelling	Children write using many varieties of spelling and at different levels. The use of invented spelling comes about when children do not know the conventional spelling of words that they want to use. One letter can represent an entire syllable. As the writing matures, it will begin to include more conventionally spelled words.
Stage 7 Writing using conventional print	Children’s writing begins to look more like an adult’s writing because they can now spell words in the standard way.

Adapted from Headstart Emergent Literacy Project, Training Manual. *Administration for Children, Youth, and Families* (DHHS), Washington, D.C., Headstart Bureau (1996).

KEY IDEAS

Reading and writing develop together. As children play and explore print in their environment, they start to make sense of written language. Their first attempts at writing are closely related to what they are learning about words.

Children teach themselves to write and do not need handwriting lessons or to be taught how to form letters. The most important thing they need to learn is why writing is important. Children learn this by watching others use writing for a purpose or to accomplish a task. For example:

- Making a shopping list
- Writing a letter
- Writing their names

- Writing an appointment in a diary
- Writing reports
- Signing their names

When children see other people write, they will want to try to write themselves.

HELP CHILDREN BECOME WRITERS

- Children must develop the small muscles of their fingers and hands as well as develop their hand-eye coordination to be able to write. Give children many opportunities to learn to control their small muscles and develop their hand-eye coordination. Provide activities like drawing and painting, cutting, and threading beads.
- Encourage children to write their names. At first this will look like scribbles on the page, but gradually letters will begin to appear until all the letters are present and in the right order.
- Children learn to write when they practice writing. Let children decide what they want to write during play activities. They need to express themselves in their own way. It is not appropriate to give children handwriting worksheets or teach them how to form letters or spell correctly.
- Show children that their attempts to write are valued, even if the letters are not fully developed.
- Model writing. Show children the many uses of writing throughout the day. For example, send a text message, complete planning sheets when children are at rest, or write lists.
- Make books together. Writing down what children say also helps them understand how writing is used. A child can draw pictures and then dictate the story. Write the words under the pictures exactly as the child has said them, and then read them aloud.

PARTNER WITH PARENTS AND CAREGIVERS

It has already been said that parents and caregivers are children's most important teachers. There is much that they can do to support their children's literacy in the everyday activities at home and around the community. Teachers should help parents and caregivers understand how children develop literacy; some examples to share with caregivers and parents are:

- Sing songs and tell stories.
- Point out print when they go shopping.
- Give children things to write with.
- Read and send text messages.
- Talk and listen to their children.
- Have suitable reading materials in their homes.

Session 5: Supporting Young Children in Early Mathematics¹³

LEARNING OBJECTIVES

By the end of this session, participants will be able to:

- Understand that children develop mathematical concepts as they play with real objects in real-life situations.
- Learn how to create a learning environment for children to develop mathematical skills and concepts.
- Explore ways of helping children develop mathematical skills and concepts.
- Help parents and caregivers support their children's mathematical development at home and in the community.



Illustration / CRS Lesotho

WHAT IS EARLY MATHEMATICS?

Early mathematics refers to the processes that young children go through to learn the concepts and skills they need to understand mathematics. Many teachers still use the traditional methods that were used when they were at school, such as rote learning and worksheet activities to solve problems. There are now new and exciting ways

¹³ Adapted from CRS, Lesotho (2012) including illustrations.

to help children learn mathematics that focus on knowledge about the real world. Like all other areas of learning, children in preschool settings start to understand mathematical concepts in real-life situations throughout their day as they:

- Explore and experiment with hands-on materials (not worksheets).
- Sing songs and listen to stories.
- Help with routines like setting the table and packing away toys.
- Play games.
- Observe adults using mathematics in their everyday lives.

HOW YOUNG CHILDREN DEVELOP MATHEMATICAL SKILLS

Children begin to learn some specific ways of thinking about mathematics in their first six years. Below is a brief listing of when some of these basic skills typically develop. Every child is different and will learn each of these skills at a slightly different time.

<p>0-2 year olds</p>	<ul style="list-style-type: none"> • Use all of their senses to identify familiar objects and people. • Begin to predict and anticipate sequences of events. • Notice cause-and-effect relationships. • Start to classify objects in a simple but thoughtful manner (e.g., toys that roll, toys that don't). • Use words to classify objects according to basic characteristics, such as type (e.g., toy animals, blocks). • Begin to use relationship words and comparative language, such as bigger and under.
<p>2-3 year olds</p>	<ul style="list-style-type: none"> • Begin to understand the concept and use of numbers (e.g., realize that when they count their crackers, each is given one number). • Count three or four objects, but then count the same object twice or skip objects. • Understand many directional and relationship words, such as "straight" and "behind." • Fit large puzzle pieces into place, demonstrating an understanding of the relationships between geometric shapes. • Notice patterns in the things they see and hear. • Make cause-and-effect predictions.

DEFINITION

Geometric shapes are shapes that are studied in mathematics. There are flat geometric shapes like circles, rectangles, squares, and triangles. There are solid geometric shapes like spheres, cubes, and pyramids.

3-4 year olds	<ul style="list-style-type: none"> • Recognize and look for geometric shapes in the environment. • Enjoy sorting and classifying objects, usually only one characteristic at a time (e.g., color, shape, or size) • Begin to classify things by their uses. • Notice and compare similarities and differences. • Use words to describe size and quantity relationships (e.g., “My bowl is the biggest!”)
4-5 year olds	<ul style="list-style-type: none"> • Enjoy playing games involving numbers; like to classify objects in their own way rather than being told how to classify. • Count up to 20 objects or people with less skipping of numbers or double counting. • Understand that symbols represent complex patterns. • Solve multiple-piece puzzles by recognizing and matching geometric shapes. • Use concepts such as height, size, and length to compare objects.
5-6 year olds	<ul style="list-style-type: none"> • Start to add small numbers in their heads, but still are more comfortable adding real objects they can actually touch and move. • Classify objects according to more than one characteristic (e.g., sorting the round and blue blocks and the red square ones). • Use positional words to explain spatial relationships (e.g., “On top of the table,” “Behind the chair.”)

MATHEMATICAL SKILLS AND CONCEPTS

There are important thinking skills and concepts that children need to develop that form the basis of their mathematical understanding.

CLASSIFICATION

This means putting objects together according to what they have in common such as color, size, shape, and sound.

CLASSIFICATION DEVELOPS IN STAGES:

Stage 1	By the time children are two years old, they can recognize that things are alike or different.
Stage 2	Three- to four-year-olds can match things that are the same. They can sort things into groups according to a single feature such as “All the blue objects,” “All the round objects,” or “All the children who are wearing hats.”
Stage 3	Older preschool children start to group things together or classify in more than one way (e.g., by shape and color or by size and texture).
Stage 4	By the time children are seven or eight, they can explain why they have grouped things together.

DEFINITION

“Seriation” means to place objects in order according to “what comes next?”

As children play, they begin to order things and describe them. They make comparisons according to size, length, weight, shades of color, sound, texture, and differences in temperature. For example:

- Big, bigger, biggest
- Heavy, heavier, heaviest
- Rough, rougher, roughest
- Long, longer, longest
- Soft, softer, softest

- Dark, darker, darkest
- Cold, colder, coldest

SERIATION DEVELOPS IN STAGES:

Stage 1	Seriation begins when a baby can recognize that one noise is louder than another.
Stage 2	Between one and two years of age, a child can build towers with large blocks on the bottom.
Stage 3	Between three and four years of age, a child can compare as he/she plays. For example, "This block is heavy, this one is heavier, this is the heaviest." A child cannot arrange more than three or four objects in the correct order.
Stage 4	Between four and five years of age, a child can arrange seven to ten things in order by trial and error until he/she gets it right.

MATHEMATICAL QUESTIONS

The kind of questions that teachers ask children as they explore and experiment is important to their mathematical development. Teachers can ask open-ended questions like:

- "What would happen if...?"
- "Can you think of a way to...?"
- "Is there another way?"
- "Why are you doing that?"
- "How is it the same? How is it different?"
- "How can you make it work?"
- "What can you try next?"
- "How can you find out?"
- "How do you know?"
- "How did you do that?"
- "Why do you think that happened?"
- "How could you...?"

AREAS OF MATHEMATICS

In this guide, teachers will learn about the mathematical concepts and skills that children need to develop in the following five areas of mathematics:

1. Number
2. Pattern
3. Space and shape
4. Measurement
5. Organizing data

1. NUMBER—NUMBERS AND NUMERALS

For children to understand numbers and numerals they will need to know that a numeral is the figure that stands for a number (e.g., 5, 16, 23).

Parents, as well as teachers, can help children understand numerals by drawing attention to them in the environment (e.g., on food packaging, clocks, etc.). Teachers can play games that involve numerals and provide books with numerals.

Teachers can encourage children to copy numerals from wall charts or cards when they want to represent the number of things they have counted (but they do not need to be taught how to write numerals).

For children to understand numbers and numerals they will need to know that a number name is the name for the numeral (e.g., five, sixteen, twenty-three). Teachers can help children learn number names by using them whenever the opportunity arises, for example:

- “Yes there are five green crayons in the tin.”
- “You have drawn a dog with four legs.”

COUNTING—ROTE COUNTING

Rote counting involves saying the number names in the correct order. Young children enjoy reciting numbers in games and songs, for example:

“One, two, three, four, five

Once I caught a fish alive

Six, seven, eight, nine, ten

Then I let it go again.”

Or—*Count and sing in the language being spoken at the children’s homes.*

When children sing songs and recite verses, they learn the number names that they need to know before they can begin to count and memorize saying them in the right order. This does not mean that children know how to count.

Rote counting is an important part of learning to count but children should not be drilled in counting. Teachers should plan many songs, finger plays, stories, and counting games for the children in their groups.

RATIONAL COUNTING

Children will only be able to count with understanding when they can match number names to objects.

Rational counting is about counting real objects in order with meaning. A child uses the rules of counting to do this.

- He/she understands that counting can begin with any object and the final count will be the same (order-irrelevance rule).
- He/she says the number names in the correct order. They may not be completely correct, but they are consistent (stable order rule).
- He/she touches one object for each number that they count aloud (one-to-one rule).
- He/she understands that the last number names the total and tells them “how many” (cardinal rule).
- He/she understands that any kind of objects, real or imagined, can be counted, and the above rules will apply no matter what is counted (abstraction rule).

An ordinal number is the place a number has in a sequence, e.g., first, second, third, fourth, fifth. Children use ordinal numbers to count the position of something.

ONE-TO-ONE CORRESPONDENCE

Children need to understand one-to-one correspondence. This is the ability to match one object to one object or number and understand that it only gets counted once. For example:

- Set out one plate for each child during mealtimes.
- Deal one card for each child playing a card game.
- Put a lid on every container.

Teachers need to give children many opportunities to count real objects and develop an understanding of one-to-one correspondence. The concept is important for understanding quantity, e.g., more than, less than, the same, etc. For example, a child who is setting the table may count one fork for each plate. He/she finds out that they need one more fork or that there are fewer forks than plates.

KEY IDEA

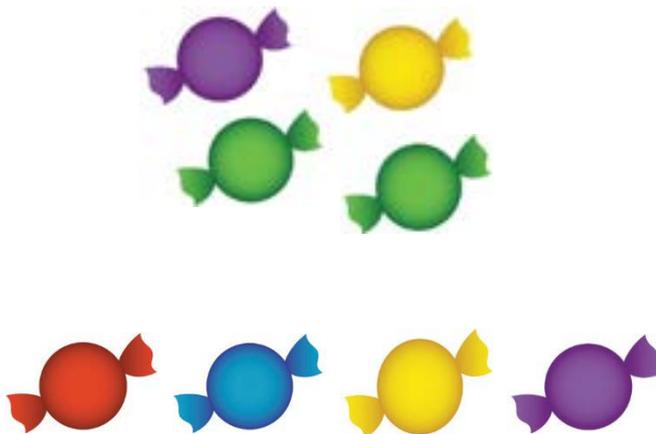
Counting and one-to-one correspondence form the basis for understanding number.

CONSERVATION

Conservation is a mathematical term that means the child understands that something stays the same even when it is rearranged and looks different.

CONSERVATION OF NUMBERS

This is the child's ability to understand that the number of objects remains the same, no matter how they are arranged. Young children often believe that when a group of objects that are closely arranged are spread out, the number of objects becomes greater, for example:



Both groups have four sweets. If a child understands that the number of sweets in both sets is the same, then he/she is able to conserve. As children explore objects, they gradually start to realize that the number of objects remains the same no matter how they are arranged.

WORKING WITH QUANTITY

When children compare things, they begin to identify similarities and differences in those things. Children begin to understand quantity (how much?) when they make comparisons between the numbers of things, for example:

- “There are more spoons than plates.”
- “Paul has poured a little sand into the bucket. I have a lot.”
- “There are not enough blocks for me to build my bridge.”

During the preschool years, young children learn to add and subtract in real-life situations as they start to understand how numbers are built up and broken down to make other numbers. They combine and separate quantities in different ways. For example, these eight blocks can be arranged in different ways:



Children learn as they share things so that everyone has the same, or when they give and take as they play, for example:

- “I will share my sandwich with Mary. She can have this half.”
- “Peter wants two of my sticks. I have five sticks. If he takes away two, I will only have three left over.”

Children in preschool need to have real objects with them as they learn to add, subtract, multiply, or share equally. Paper activities like worksheets do not give children opportunities to solve simple mathematics problems in their everyday experiences. It is also not appropriate for children to memorize sums like “ $1+1 = 2$ ” or “ $2+2 = 4$ ” as it does not build a true understanding of the relationship between numbers. Children need many opportunities to learn through play to explore and find out for themselves.

DEFINITION

“Number sense” is the child’s ability to understand and use numbers in many different ways.

Teachers can provide activities and use experiences throughout the day to encourage children to use numbers in different ways, for example:

- Plan songs, finger plays, stories, and counting games.
- Provide a variety of real objects for children to sort, match, compare, and count in all the learning corners.
 - Sorting trays with different compartments help children compare and count objects.
 - Household objects in the fantasy play corner encourage children to count cups, spoons, and plates as they “set the table.”
 - Building materials of different shapes and sizes encourage children to choose and count those that are the same shape or size.
- Encourage children to point to and touch each object as they are counting.
- Let children use their fingers to count.
- Use routine times to encourage children to think about and use numbers.
 - Let children take turns to help set up for snack and mealtimes. They can count while they set out plates, cups, chairs, and spoons for each child.
 - During morning ring, children can find out how many children are at school when the teacher counts the children.
 - Ask children to help set out materials (e.g., five green crayons, five blue crayons, etc.).
- Help children learn mathematical language.
 - “There is still some porridge in the pot if anyone would like some more?”
 - “There is nothing left over.”
 - “Everyone has the same amount.”
 - “Pour a little water into your hands. No, that’s too much.”
- Ask questions to help children solve simple mathematical problems, for example:
 - “How can you make sure that you and Bertha have the same number of blocks?”
 - “How much sand do you think you will need to fill the bucket?”

SUPPORTING CHILDREN WITH DISABILITIES

- Let children do as much as they can by themselves.
- Allow enough time for children to practice their skills.
- If there is a child with poor vision, have cards made with larger numbers and color contrast.
- A rug with no patterns and dark color will help a child with poor vision to see objects placed on the rug better.

- Encourage a child with a visual disability to touch each object as he/she counts.
- A child with an intellectual disability may need to have a task broken down into small steps. The teacher can demonstrate with steps and then ask the child to repeat the steps, one at a time. Encourage the child to ask for help if needed.
- Pair a child with a disability with another child to help with activities like setting the table, counting out building materials, etc.

2. PATTERNS

DEFINITION

Algebra is a part of mathematics that uses letters and symbols in the place of unknown numbers to find out what the unknown number is. Algebra is used to work out real-life problems in our everyday lives.

A pattern is a regular arrangement of objects (or numbers, shapes, or sounds). Copying and making patterns helps children to develop important mathematical skills that will help them understand algebra later at school.

- They learn to sequence, which means predicting what comes next.

They notice how things stay the same and how they change.

- They recognize that there are patterns in numbers. For example, when counting from 1 to 100, there is a pattern that recurs in which all numerals go from 1 to 9 and then start again at 0.
- They learn to solve problems as they make patterns.
- They follow rules to repeat a pattern.

THE 100 BOARD

1	2	3	4	5	6	7	8	9	10
11	12	13	14	15	16	17	18	19	20
21	22	23	24	25	26	27	28	29	30
31	32	33	34	35	36	37	38	39	40
41	42	43	44	45	46	47	48	49	50
51	52	53	54	55	56	57	58	59	60
61	62	63	64	65	66	67	68	69	70
71	72	73	74	75	76	77	78	79	80
81	82	83	84	85	86	87	88	89	90
91	92	93	94	95	96	97	98	99	100

TYPES OF PATTERNS

Teachers in preschools can help children learn about:

- Repeating patterns: A repeating pattern is a sequence of objects, shapes, sounds, or other features that is repeated again and again, for example:

Picture: (The pattern is two squares, three stars, repeated again and again.)



Teachers can show how there are repeating patterns everywhere:

- On clothing, fences, walls
- On flowers and leaves
- On caterpillars and snakes
- In movements and sounds
- In numbers

Growing patterns: This is a pattern that grows and changes in a predictable manner, for example:



or



HELPING CHILDREN LEARN ABOUT PATTERNS

To help children learn about patterns, teachers should:

- Provide a variety of materials for children to create patterns.
 - Threading-beads of different colors and shapes. Children can make their own patterns or teachers can provide pattern cards for children to copy and extend patterns.
 - A collection of objects for children to make their own patterns.
- Play games with movement patterns for children to follow:
 - Hop, clap; hop, clap
 - Jump to the left, jump to the right, jump to the left, jump to the right
 - Move slow, move fast, move faster; move slow, move fast, move faster
- Let children use their bodies to make patterns (e.g., bend, arms out, legs out, bend, arms out, legs out).
- Teach children a dance that has patterns.
- Create sound patterns for children to follow by clapping or stamping feet:

- Soft, loud; soft, soft, loud; soft, loud; soft, soft, loud
- Clap, clap-clap, clap-clap-clap; clap, clap-clap, clap-clap-clap
- Sing songs and chant rhymes with repeated words.
- Encourage children to listen to sound patterns inside and outside (e.g., a clock ticking, a frog croaking, a bird singing). Ask children to repeat the sounds.
- Let children look for patterns around them, e.g., on buildings and gates and on the clothes they are wearing. Talk about the pattern; where it starts and what parts make up the pattern.
- Read stories that have repetitive words and verses.
- Talk about patterns as children play, and help them understand what a pattern is. Encourage them to predict what will come next, e.g., “I see you are making a gate that has a pattern with one block lying down and the next block standing up, and you have repeated this over and over again. How will you arrange the next block?”
- Ask open-ended questions to help children understand patterns, such as:
 - “What will you do first?”
 - “What will do you next?”
 - “How can you repeat it?”
 - “What is the same?”

SUPPORTING CHILDREN WITH DISABILITIES

- Provide textured pattern cards, threading-beads, and games to help children with visual disabilities learn. Encourage the child to feel the small differences in things.
- Be supportive of a child with poor vision who brings objects closer to the eyes to see them better.
- Find a way for a child with a physical disability to join in with movement activities, for example:
 - The child can nod his/her head or clap hands in time to the music.
 - The child can beat a drum while the other children move around.
 - During group activities, place children who are visually or hearing disabled nearby so that they can see the pictures or hear.

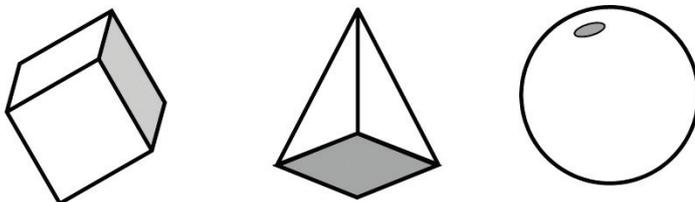
3. SHAPE AND SPACE

EXPLORING SHAPES

As children explore objects in their environment, they learn that objects have shapes and can be called by the name of a shape. After much hands-on practice with three-dimensional shapes, children will begin to identify basic two-dimensional shapes such as squares, circles, rectangles, and triangles—for example, in drawing. Learning about these shapes will help children understand geometry when they get to school.

There are two-dimensional and three-dimensional shapes:

- **Three-dimensional shapes** are solid shapes. They have height, width, and depth, for example:

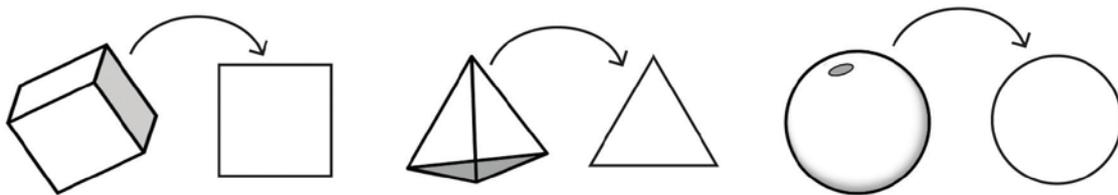


Three-dimensional shapes are readily available in the children’s environment, e.g., a ball (sphere), a tin can (cylinder), a box (cube), or a rooftop (pyramid or cone).

- **Two-dimensional shapes** are flat shapes. They have height and width but not depth. For example:



Children may see two-dimensional shapes in books, on signs, on buildings, etc. Many two-dimensional shapes can be seen on the flat surfaces or “faces” of three-dimensional shapes, for example:



Children in preschool need many opportunities to explore solid (three dimensional) shapes in order to understand the concept of flat (two-dimensional) shapes. Many teachers overlook this stage and give children worksheets and lessons on geometric shapes.

THREE-DIMENSIONAL SHAPES

It is more important for children to experience what solid objects can do than to learn their names. For example, some:

- Can be used to build in different ways
- Can roll
- Can be used to store things
- Are the same shape but different sizes

HELPING CHILDREN LEARN ABOUT SHAPE

Teachers should provide activities that help children learn about both two-dimensional and three-dimensional shapes:

- Provide materials and give children many opportunities to explore and make their own shapes, for example:
 - Building and art activities are important ways in which children develop and learn about shapes (three-dimensional and two-dimensional).
 - Provide sorting boxes with different shapes and let children group them according to how they look alike (three-dimensional).

- Select or make books that have a variety of shapes. Let children point out different shapes in the pictures (two-dimensional).
- Name and talk about the geometric shapes in the environment, such as on paving stones, windows, and doors. It is important for teachers to use the correct geometric names for the shapes (e.g., sphere or circle).
- Encourage children to describe other kinds of shapes such as tree shapes, cloud shapes, sun, moon, and star shapes, and leaf and flower shapes.
- Let children make shapes by moving their bodies in different ways, alone and with other children.
- Display pictures of real things like balls, wheels, boxes of different sizes, tins, etc., as well as the geometric shapes on their 'faces' to help children make connections between three-dimensional and two-dimensional concepts.
- Ask questions as they explore to help them learn more about how objects look and what they can do, for example:
 - “How is this shape the same as that one?”
 - “How does it look?”
 - “How many sides does it have?”
 - “What shape can you use to make the bridge?”
 - “What shape can you use to make the wheels?”
- “What will happen if you use the square shape to make the wheels?”

UNDERSTANDING SPACE

As children play and move around, they become aware of where objects and people are in relation to one another and themselves, for example:

- “Anne is at the **front** of the line. Richard is at the **back** of the line. I am standing **next** to Mary.”
- “All the children sit under the tree for story time.”
- “I found the book on top of the shelf.”
- “I built a tunnel over the road.”

HELPING CHILDREN LEARN ABOUT SPACE

- Introduce spatial language as children play and during daily routines. Talk about the position of people and things, for example:
 - In front of, at the back of, behind, in the middle
 - On top of, under, above, below
 - Before, after, behind
 - Near far, close to, far from
 - High, low
 - Inside, outside
 - Up, down
 - Forward, backward
 - Toward, away from
- Give directions using spatial language. For example, “Please find the plates inside the cupboard and bring them to me.”
- Provide movement games outdoors that help children explore position in space.
 - Obstacle courses allow children to climb onto, under, and through; jump over, step up and down, etc.

- Children learn about high and low, near and far away, over and under, as they throw and catch balls.

SUPPORTING CHILDREN WITH DISABILITIES

Help a child with a visual disability to learn about shape through touch. Encourage him/her to pick up an object and move their fingers around its edges and then describe how the object feels.

Keep the furniture in the same place so that a child with a visual disability starts to feel confident to move around in space.

Encourage a child with a disability to take part in movement activities and learn about his/her body in space. If a child is not physically able to participate, let him/her direct the activity.

4. MEASUREMENT

Measurement involves finding out how much of something there is. Children learn the following concepts of measurement as they play:

- Length, height
- Weight and volume
- Time

Children learn about measurement as they compare different lengths, sizes, and amounts. They will first compare two objects, e.g., “This apple is bigger than that one.” Later, they will compare three or more objects, e.g., “This stone is heavy, this one is heavier, and this is the heaviest stone.” They are learning to seriate, or place objects in order according to “what comes next?”

LENGTH AND HEIGHT

- Children can measure length and height by using blocks, sticks, footsteps, their hands, or their bodies.
- Children can measure things in their environment, such as:
 - How many big steps to the door?
 - Who is the tallest?
 - Who has the biggest feet?

WEIGHT AND VOLUME

- Children use a balance scale to measure weight.
- Children measure volume when they pour water and sand into and out of different sizes of containers.

DEFINITION

Volume is the amount of space an object takes up.

Children go through different stages in developing concepts of weight and volume.

Stage 1	Very young children begin to notice differences in the weight of things they play with and in the quantity of liquid in a bottle or glass.
Stage 2	Children aged three to four years can make general comparisons between different weights and quantities in terms of whether one thing weighs more or less than another (heavy and light) and whether a container is full or empty or contains a little or a lot. They can also judge whether two containers have the same (equal) amounts of liquid or sand and whether two things have the same weight if the containers are the same size and shape.
Stage 3	Children begin to understand that if the same quantity of liquid is poured into a different shaped container it remains the same, but sometimes they get confused (e.g., when water is poured from a wide glass into a long thin glass, because it looks as if it has more).
Stage 4	Around the age of six, children work out for themselves that the quantity (volume) or weight of something remains the same no matter how often its shape is changed or it is divided up (conservation).

Sue Connolly and Ann Short (2005), Ntataise Further Training Program Learner Materials. Ntataise Trust.

TIME

Time is an abstract concept and difficult for young children to understand. They learn about the sequence of time when they understand that things happened in a certain order during their daily activities. For example, in the morning, when it's light, they wake up, get washed and dressed, and then eat breakfast.

Children also learn about time when they remember something that happened the day before or talk about something that will happen the next day, for example:

- “Yesterday it was raining.”
- “Tomorrow it is my birthday.”

ESTIMATION

Estimation is an important part of measurement. This involves making a reasonable guess about measurement, for example:

- “How many blocks will be needed to make a road?”
- “How many cups of water will fill a jug?”
- “How long will it take for the porridge to cook?”

HOW TEACHERS CAN HELP CHILDREN LEARN ABOUT MEASUREMENT

- Provide lots of different objects and things for children to compare and measure in the learning corners.
- Give children the language they need to compare things:
 - “Is that the biggest paintbrush you can find?”
 - “Are those jugs the same size?”
 - “Who is the tallest child?”
 - “Which cup do you think will hold more water?”

- “No they are not the same. This side is high and the other side is higher.”
 - “How can you make the clay flatter?”
 - “Which is longer? Which is shorter?”
 - “How can you put these in order from shortest to tallest?”
 - “Do you think it will be warmer tomorrow?”
- Talk about time and how long things take to do, for example:
 - “Clara has finished already. You did not have to wait a long time to wash your hands.”
 - “There is still enough time to have another song before you have lunch.”
 - “Do you think there will be more rain tomorrow?”
- Provide daily opportunities to discuss the weather today and yesterday, and predict what it will be tomorrow.
 - Use the morning ring to encourage children to talk about what they did yesterday at home or at the center (and help them put events in chronological order). For example, “Did we eat lunch before or after story time?”

5. ORGANIZING DATA

DEFINITION

“Data” is a collection of facts or information about thing, people, or places.

SORTING AND CLASSIFYING

An important part of data handling is being able to sort and classify objects. This involves sorting and grouping objects together because they are alike in some way. Children may group things according to type (e.g., all the animals) color, shape, size, texture, or sound. They should be encouraged to explore as many ways as they can to sort and group the objects, although between the ages of three and five, children mostly sort and classify by one characteristic at a time (e.g., all the yellow objects).

HELPING CHILDREN TO SORT AND CLASSIFY

- Provide a variety of sorting trays in the educational toy corner with many different objects and pictures (e.g., stones, sticks, leaves, seeds, beads, pictures of food, people, animals, and plants).
- Let children decide for themselves how to group objects.
- Choose children to go in groups to the next activity. For example, “All those children who are wearing shoes with laces can go outside first.”
- Encourage children to put things away in the places where they belong (e.g., all the puzzle pieces in the box, all the red crayons in the red tin, all the spoons on the tray).
- Ask questions to extend children’s thinking, for example:
 - “In what ways are they the same?”
 - “In what ways are they different?”

- “Which ones go together?”
- “Why did you put these together?”

MAKING GRAPHS

Graphing helps children learn how to organize information. This will help them to compare things and find common patterns. Even young children can start to make simple graphs about what they have found out by placing objects in different columns.



Illustration / CRS Lesotho

In this example, children are placing all the objects that float in one column and all the objects that sink in the other column. After the activity, the children can draw or make their own graph about what they have discovered. A daily weather chart is another graph that organizes information. Every day, the children can place an appropriate picture in the column for that day. At the end of the week, they discuss how many days the sun shone, the wind blew, or it rained.

- “On how many days did the sun shine?”
- “On how many days did it rain?”
- “Did the sun shine more or did it rain more this week?”

Other graph activities for young children include:

- Graphs of children’s birthdays (How many in January? How many in February? etc.)
- Graphs of children’s favorite foods
- Graphs of children’s clothing colors (How many children are wearing pink? Brown? Blue?)

SUPPORTING CHILDREN WITH DISABILITIES

- A child with a hearing disability may miss important words that describe objects or concepts. Face the child and use simple language. Use gestures, real objects, and pictures to highlight concepts.
- A child with poor vision will need good contrast with colors to see it better. Have the background of the weather chart be black. When white clouds and the yellow sun are placed on it, there will be contrast, which will help the child to see it.
- If there is a child who is visually impaired, adding texture to the weather chart will help. The clouds can be made of cotton or other soft material while the sun can be made of any other material in a round shape. Explain that the soft cotton means clouds and that if there is no sun with the clouds, it is likely to rain.

A MATHEMATICS ENVIRONMENT

It is important for children to learn that mathematics is useful and necessary in their everyday lives. Teachers can set up their classrooms so that children learn mathematics skills naturally as they play and explore their environment.

PRINT AROUND THE ROOM

- Display birthday and weather charts at children's eye level.
- Display charts of mathematical concepts like shape, numbers, and measurement at the children's eye level.
- Label toy containers to tell children how many items there are (e.g., twelve puzzle pieces or six blocks).
- Write the daily program in the shape of a clock.
- Display a poster of numerals in the classroom.
- Make signs for the learning corners to say how many children can play there, for example:



LEARNING CORNERS

KEY IDEA

Children learn mathematics best when they interact with real objects during play. Every learning corner provides opportunities for children to develop their mathematical thinking.

FANTASY PLAY CORNER	BUILDING CORNER
<ul style="list-style-type: none"> • Measuring tools like cups, jugs and spoons, empty tins and bottles • Plates, cups, plastic utensils, pots, and pans • Clock • Play cell phone • Pairs of clothing items (e.g., socks, shoes, earrings) • Handbag or purse with play money • Shop with a cash register, priced items • Advertising leaflets with prices • Empty boxes such as tea or milk containers, empty food packets, and household product containers 	<ul style="list-style-type: none"> • Different shapes and sizes of building materials—at least six of the same type (e.g., cereal boxes, washing powder boxes, toothpaste boxes, round cheese boxes tins [remove sharp edges], cardboard tubes) • Road signs such as for speed limits, inclines, arrows, etc. • Shapes on shelves for children to match the same shape when they pack away • Pictures of buildings and shapes
ART CORNER	SCIENCE AND DISCOVERY CORNER
<ul style="list-style-type: none"> • Painting and drawing • Collage items such as leaves, feathers, string, wool, pieces of fabric • Modeling out of clay dug out of the ground, or play dough (children learn about color, shape, size, patterns) • Things to make patterns or prints (e.g., leaves, sticks, stones, bark from a tree, seed pods) 	<ul style="list-style-type: none"> • Sand and water play household items such as plastic containers, cups, bottles and tins of different sizes, sieves, funnels, scoops
BOOKS	EDUCATIONAL TOYS
<ul style="list-style-type: none"> • Self-made as well as commercial books about counting, size, money, shapes, patterns, numbers, measuring, the weather 	<ul style="list-style-type: none"> • Sorting boxes for children to group according to size, shape, color, texture, etc. • Beads and string to develop pattern and number concepts • Matching games • Counting games (e.g., dominoes, board games, card games), puzzles

MATHEMATICS IN THE HOME AND COMMUNITY

It is important that teachers help parents and caregivers understand how they can help their children learn mathematics during daily activities in the home and around the community. Here are some of the ways in which they can help children:

When children's friends visit:

- Encourage them to play hopscotch and other games outside to learn about number and counting.
- Adapt games like "Simon Says" to include numbers:
 - "Simon says turn around two times."
 - "Simon says jump five times."

When preparing food and serving food:

- Ask the child to help measure a spoonful/cupful of flour or water.
- Let the child scrub different numbers of vegetables for cooking; e.g., put four carrots in the pot.
- Use words like “full,” “half,” and “left-over.”
- Ask the child to serve one potato on each plate or to put more beans on another child’s plate.
- Ask the child to set out a plate and a cup for each family member.
- Let the child find the matching lids to the saucepans or food containers.

When doing the laundry:

- Let the child hand out the pegs for each item being hung on the line and count them; sort and match the clean washing together.
- Let the child put all the things that are the same together (e.g., underwear, t-shirts, clothes belonging to different family members).
- Talk about the patterns on the clothes.
- Ask the child to find the matching socks.

When going shopping:

- On the way, talk about the numbers on people’s huts.
- Ask the child to count out different quantities of fruit for the basket, like four oranges or six potatoes.
- Ask the child to work out how many more, e.g., “We need six bananas but there are only four here. How many more do we need?”
- Discuss how much each item costs and which brand is cheaper. Explain the total cost of all the groceries, the amount of money being given, and the change being received.
- After returning home, let children sort and pack away the groceries according to where they are stored.

Session 6: Administration of Early Childhood Center¹⁴

LEARNING OBJECTIVES

By the end of this session, participants will be able to:

- Learn how to keep up-to-date financial records and record the day-to-day income and expenditure of the preschool.
- Administer the day-to-day income and expenditure of the preschool.
- Identify the records that need to be kept in the preschool.
- Learn how to keep up-to-date administrative records.

ADMINISTRATION OF PRESCHOOLS



Illustration / CRS Lesotho

Administration refers to the daily running and operations of the preschool. It is concerned with the day-to-day operations of the preschool, ensuring that the teachers are present in their classrooms, and that there are teaching and learning materials and resources for work to continue on a daily basis.

In a preschool that has more than one staff member, there has to be a leader; the

¹⁴ Adapted from CRS, Lesotho (2012).

principal. The principal is a key person in the preschool, as he/she is responsible for its day-to-day administrative and educational functions.

FINANCIAL RECORDS

RECEIVING FEES

All fees received from parents and caregivers are recorded in the receipt book.

STEP 1

- Issue the person paying fees with a receipt signed by whomever receives the money. This receipt comes from a special fees receipt book. This book has carbon copies of all receipts issued.
- Keep the collected fees in a locked cash box in a safe place. Try to keep as little as possible in the cash box.

STEP 2

- The principal should regularly total and check all fees collected in the fees receipt book and sign next to the total (see *Step 4*).

STEP 3

- Hand over the fees collected to the treasurer.

EXAMPLE OF A RECEIPT (USE THE OFFICIAL FORM OF YOUR COUNTRY.)

RECEIPTS NO.	FEES RECEIVED	
Date: 2 nd March 2012	5	00
Amount of money received from: Mary John		
The sum of:		
5 Shillings / Cents		
Purpose: Fees		
Signature:		
With thanks		

STEP 4

- Prepare a fees register of all the children at the preschool. This should be separate from the attendance register.
- Enter the fees paid in the column for that week, and put the receipt number next to it. This register should be completed monthly and checked by the principal and treasurer. It will show which parents are in arrears (behind with paying fees).

EXAMPLE OF FEES REGISTER (USE THE OFFICIAL FORM OF YOUR COUNTRY.)

FEES REGISTER:		MONTH: MARCH, 2012					
Child's name	Week ending 2012/4/2	Week ending 2012/3/9	Week ending 2012/3/16	Week ending 2012/3/23	Week ending 2012/3/30	Total for month	Balance of fees owed
Child 1	5.00	5.00	5.00	/	5.00	20.00	/
Child 2	20.00	/	/	/	/	20.00	/
Child 3	10.00	/	5.00	/	5.00	20.00	/
Child 4	/	/	/	/	/	/	20.00
Child 5	10.00	5.00	/	/	5.00	20.00	/
Child 6	5.00	5.00	5.00	5.00	/	20.00	/
Child 7	/	/	/	/	15.00	15.00	5.00
Child 8	10.00	5.00	5.00	/	/	20.00	/
Child 9	5.00	5.00	/	/	/	10.00	10.00
Child 10	/	/	/	/	20.00	20.00	/
Total	65.00	25.00	20.00	5.00	50.00	165.00	35.00

Sometimes, teachers and principals have difficulty collecting the fees, which makes the smooth management of their center more difficult. Here are some suggestions for encouraging the collection of fees:

- Discuss fees (reduced if necessary) at enrollment.
- Discuss reduction for more than one child at enrollment.
- Have a sliding scale according to the parent or caregiver's income.
- Do not allow the amount of sum unpaid to become too big and impossible for parents or caregivers to catch up on.
- Talk to parents or caregivers who have not paid to discuss their problems.
- Negotiate partial payment or paying-off of fees unpaid (arrears).

PETTY CASH BOOK

Record every payment under a suitable type of expenditure category, such as food, cleaning materials, and maintenance materials, in the petty cash book, with a duplicate copy. Keep this book in the petty cash box, if possible. This will be helpful in staying up to date with the balance of petty cash.

When the petty cash gets low and more cash is needed, total the column of entire expenses with the totals of the types of expenditure. The person responsible hands over the top copy from the petty cash book to the treasurer, with all the relevant vouchers stapled to it.

EXAMPLE OF A PETTY CASH (USE THE OFFICIAL FORM OF YOUR COUNTRY.)

PETTY CASH VOUCHER		DATE: 2012/3/2
Requested for: Bread, soap, crayons		
Amount given	60.00	
Amount spent (attach receipt)	53.00	
Change	7.00	
Signature:		
Voucher No. 46		

The treasurer checks the expenses, signs the book, and makes out a check (to replace the amount of money spent) that is the total of expenses.

THE CASH BOOK

The cash book records all the income from the fees receipt book and all the expenditure from the petty cash book.

- The cash book provides a record of the total for the month for all income and expenditure.
- An up-to-date cash book is important for keeping control over the finances because it provides information on the balance (what is left over) at the end of every month.

HOW TO FILL IN THE CASH BOOK

1. Start each month on a new page.
2. On the left hand page, in each column, write the main headings for the preschool's income.
3. On the right hand page, in each column, write the main headings for the preschool's expenditure.
4. Complete the income page for each month by referring to the fees receipt book and fill in the information according to the receipt numbers and dates on which money was received.
5. Complete the expenditure page by referring to the petty cash book and fill in the information according to the voucher numbers and their dates.
6. Add up all the items in each column of the income for the month and write the total for each in the total income column.
7. Double-check the cash book by adding up all the columns across and down. The totals should be the same.
8. Work out the balance (the money that is left over) for the month by subtracting the total expenditure from the total income.
9. Write the balance amount at the bottom of the income page. This amount will serve as the opening balance for the following month.

EXAMPLE OF INCOME REGISTER (USE THE OFFICIAL FORM OF YOUR COUNTRY.)

INCOME		MONTH: MARCH, 2012					
Receipt no.	Date	Received from	Fees	Fund raising	Other		Total income
26	3/2	Mrs. A	5.00				5.00
27	3/2	Mr. B	20.00	80.00	/		100.00
28	3/2	Mrs. C	10.00				10.00
29	3/2	Mrs. D	10.00				10.00
30	3/2	Mr. E	5.00				5.00
31	3/2	Sr. F	10.00				10.00
32	3/2	Sr. G	5.00				5.00
Total			65.00	80.00			145.00

EXAMPLE OF EXPENDITURE REGISTER (USE THE OFFICIAL FORM OF YOUR COUNTRY.)

EXPENDITURE		MONTH: MARCH, 2012					
Voucher no.	Date	For	Food	Cleaning materials	Maintenance	Other	Total expenditure
46	3/2	Bread, crayon, soap	32.44	19.99			52.43
47	3/4	Bread, mop	10.90	19.99			30.89
48	3/9	Soap, bread	10.90	4.99			15.89
49	3/11	Hammer, bread	10.90		30.00		40.90
			65.14	44.97	30.00		140.11

ADMINISTRATIVE RECORDS

The following records are very important for the smooth administration of the preschool.

ADMISSION RECORDS

- 1. Admissions book.** This lists all the children who are enrolled in the preschool, and it provides each child's personal information such as birth date, address, gender, parents' or guardians' names, and the contact details in the event of an emergency.
- 2. Admissions form.** This is a detailed form that is completed with parents and caregivers at registration of their child in the preschool.

EXAMPLE OF ADMISSION FORM (USE THE OFFICIAL FORM OF YOUR COUNTRY.)

Name of child	Surname
Date of birth	Age
Gender	Home language
What contagious illnesses has the child had?	What other illnesses has the child had?
Does the child have a disability or illness that requires special care or treatment? Yes No Describe:	
Are there any cultural or religious requirements? Yes No Describe:	
Names of parents/caregivers/guardians	
Home address	
Parents/caregivers together_____	
Parents deceased_____	
Child living with someone other than parents_____	
Name of persons responsible for bringing and picking up child from the center	
Name of person to be contacted in case of emergency	
Copy of immunization record Yes No	Copy of birth certificate Yes No

ATTENDANCE REGISTER

The attendance register tracks children’s daily attendance at the preschool. It is completed for each day that the preschool is open.

- The teacher enters the date on the page for every day.
- The teacher marks a (✓) for present and an “a” for absent.

The teacher should try to make sure and record the reason for a child’s absence.

HEALTH RECORDS

It is important to have records of the status of each child’s health, such as:

- Whether the child has had any contagious illnesses
- Whether the child has any allergies
- Whether the child’s immunization is up to date

This information can be included in the admissions form and updated on a regular basis.

ACCIDENT OR INCIDENT RECORDS

Any accident or other incident outside out of the normal routine of the day, such as changes in a child’s behavior or signs of illness, needs to be recorded. Records should include the date and time that the incident took place, a brief description of the incident, as well as what action was taken.

All accidents and other incidents must be recorded and reported to the child’s parent or caregiver, who should sign the record to indicate that he/she has received the report.

EXAMPLE OF AN INCIDENT REPORT FORM (USE THE OFFICIAL FORM OF YOUR COUNTRY.)

Name of teacher in charge	Name of child
Describe what happened: When: Where: Who was involved:	
Was anybody injured? Describe.	
What action was taken?	
Was the parent/caregiver notified? Yes No	
Signature of teacher	Signature of parent/caregiver

MEDICAL ADMINISTRATION FORMS

There are two kinds of forms that need to be completed for administering medicine at an ECD center/preschool:

1. Written permission from the parent or caregiver needs to be kept on record.
2. Details of how, when, and by whom medicine is administered need to be recorded.

EXAMPLES OF MEDICAL ADMINISTRATION FORMS (USE THE OFFICIAL FORM OF YOUR COUNTRY.)

Permission to administer medicine	
Name of child	
Medicine	Dosage and how often
Signature of parent/caregiver	Date

MEDICAL LOG

Name of child				
Name of the person who administers the medicine				
Date	Time	Medicine	Dose	Signature

COPIES OF BIRTH CERTIFICATES

It is very important for children to have birth certificates so that they can have access to health and other important services. The birth certificate contains information about the child's date of birth as well as who the parents are and where they live. If possible, a copy of each child's birth certificate should be kept on file. Teachers can help parents and caregivers understand the importance of getting birth certificates for their children and provide guidance on the procedures.

LOG BOOK FOR IMPORTANT VISITS

This is used to keep a record of all official visits that are made to the preschool by government officials, health officers, and other important visitors. Visitors record their names, addresses, and the purpose of the visit and any relevant comments. Each visitor dates and signs the log book.

INVENTORY RECORDS

An inventory is a way of keeping track of all the equipment (stock) in the preschool. The teacher makes a list of all the equipment and checks in on a regular basis, such as once a term. She records which items are broken or lost and informs the management committee, which is responsible for making the decision on how to replace these items.

EXAMPLE OF INVENTORY FORM

DESCRIPTION OF ITEM	DATE PURCHASED	COST	QUANTITY	ASSET ID NUMBER	CONDITION	LOCATION	REMARK

PARENTS' REGISTER

A record is kept of fees payments and balances where applicable.

EDUCATIONAL RECORDS

PLANNING RECORDS

Records must be kept on the yearly, weekly, and daily planning. Standard forms can be photocopied and completed as needed, or the teacher can write all the planned activities in a book.

EXAMPLE OF WEEKLY PLAN FOR FREE-PLAY

Week of:	Theme
ACTIVITY	MATERIALS (✓)
Art corner Objectives	Drawing
	Paper Crayons Other
	Painting
	Paper Paintbrushes Paint colors Others
	Modeling
	Play dough Clay Other
	Collage
	Scissors Glue Other
Evaluation	
ACTIVITY	MATERIALS (✓)
Building corner Objectives	
Evaluation	
ACTIVITY	MATERIALS (✓)
Fantasy corner Objectives	
Evaluation	
ACTIVITY	MATERIALS (✓)
Science and discovery corner Objectives	
Evaluation	

DEVELOPMENTAL RECORDS

An individual record of each child's progress should be kept on file and shared with parents and caregivers once a term.

Records can be:

- Written in individual exercise books
- Organized in a file, with pages separated between each child's records
- Kept in large used envelopes
- Organized in self-made files

HOW TO FILE RECORDS

Teachers deal with many documents and files, and time is often wasted looking for the right file. It is therefore important to organize all paperwork so that it can be easily found when needed.

- Files do not have to be expensive. Records can be kept in large used envelopes that are clearly labeled, or in cardboard boxes such as soap powder boxes with their tops cut off.
- File everything related to one topic together, for example:
 - Admissions forms
 - Children's developmental records
 - Inventory
 - Staff meetings
- Keep completed work separate from current work. All records from the previous year should be moved to a storage place.
- Organize the documents in the files according to date. Write the date on each document and file them in order, with the most recent documents at the top.
- Remember that children's records are confidential and need to be filed in a secure place.

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SESSION 1: THE PHYSICAL ENVIRONMENT

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SESSION 2: GROUP ACTIVITIES IN EARLY CHILDHOOD ENVIRONMENTS

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SESSION 3: PROGRAM PLANNING IN EARLY CHILDHOOD ENVIRONMENTS

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SESSION 4: SUPPORTING YOUNG CHILDREN IN LANGUAGE AND LITERACY

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SESSION 5: SUPPORTING YOUNG CHILDREN IN EARLY MATHEMATICS

- Catholic Relief Services (CRS), Lesotho (2012). *Ngoana Eo Ke Oa Mang? A teacher resource guide*. Baltimore, MD: CRS.

SESSION 6: ADMINISTRATION OF EARLY CHILDHOOD CENTERS

- Catholic Relief Services (CRS), Lesotho (2012). *Ngoana Eo Ke Oa Mang? A teacher resource guide*. Baltimore, MD: CRS.



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