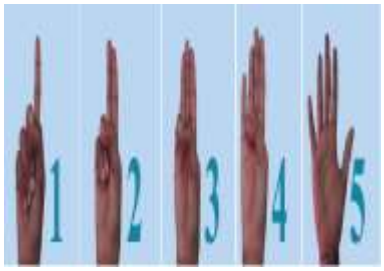
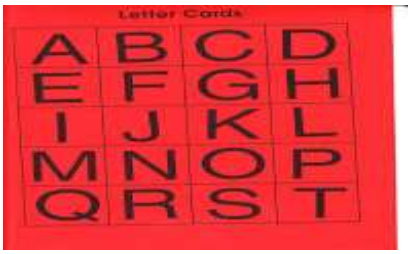
Early Childhood Care and Education (ECCE) Facilitators Training Module





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Early Childhood Care and Education (ECCE) Facilitators Training Module

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Part I

1. Introduction to Child Psychology

Introduction

In the human developmental cycle, the early childhood period is critical period that requires due attenuation and a great deal of investment. Failing to provide children at this stage of development with better nutrition, health care and education deprives them of their right to develop as productive citizens. During early childhood, children make enormous gains in the development of their concepts of self and the ways they interact with family and friends.

Scholars describe how children's problem-solving abilities can be strengthened when they are guided through tasks under adult supervision. When teachers provide children with knowledge in a content area or about a specific topic, the children are better able to use this new information, act on it and continue in the learning process. Such research shows how capable children are of learning a great deal when they are in environments that provide stimulating experiences and responsive adults to support their development.

This part of the module deals with basic child psychology contents and provides an overview child development. Furthermore, this section emphasis on Learning Through Play (LTP calendar) and early childhood developmental aspects, i.e. physical, cognitive, language, social and emotional development and implications to their future life. Thus, it is supposed that this section will serve as a milestone for the ECCE facilitator to teach and care for preschool children.

Objectives of the unit

At the end of this short term training, the trainees will:

- identify the basic child developmental principles and enhance children's developmental needs
- be able to grasp basic concepts in teaching children through play as per the children's needs.
- be curious and be able to explore integrate the child developmental needs into very early childhood education and care (ECCE).
- be able to pay better attention to children's behaviors to prepare them for further development and education.
- be comfortable and enjoy their nearest relationship with children throughout their work.
- appreciate the role of early childhood intervention to further integrated human development over the entire life.

1.1. General concept of child development

Activity 1 ☞1. What does the word "development" suggest to you?
☞ 2.What cause children to develop physically as well as in their capacities for thinking, judgement and independent living?

Before directly defining the term "development", it would be fair to define some similar terms which are interchangeably used.

1. Growth

Growth is a gradual and progressive increase in size such as height and weight of an individual or its parts.

2. Maturation

Maturation refers to innately determined sequence of growth or bodily changes that are actively independent of environmental events. Maturation is genetically programmed, naturally occurring changes overtime. Natural capacities common to every human race such as sitting, crawling etc are the result of maturation.

3. Development

Development is about progressing, physically and psychologically from dependent maturity towards more mature competence and adulthood. Development is the sequence of change over the full life span of an organism which is an irreversible sequence of stages that regularly follow one up on the other. More comprehensively, development can be conceptualized as prenatal development and post natal development.

1. Prenatal Development

Development begins as soon as sperm and egg cells unite. A developmental stage from fertilization up to birth is called prenatal development. Development during the nine months of pregnancy is more rapid than during any post natal period.

2. Postnatal Development

The developmental stage that ranges from birth to death is known as postnatal development. There are two kind of developmental changes, quantitative and qualitative changes that occur at this stage. Quantitative change is a change in number or amount such as growth in height, weight, vocabulary, or frequency of communication. On the other hand qualitative change is a change in kind, structure, organization such as development from a non-verbal child to one who understands words and can communicate verbally. Qualitative change is marked by the appearance of new phenomena not readily predicted from earlier functions such as the use of language.

1.2. Aspects of Development

1.2.1. Physical Development

Children grow fast during the first three years, especially during the first few months, than they will ever again. Physical growth and development follow the maturation principle: the cephaloceudal principle and the proximodistal principle. According to the cephaloceudal principle, growth occurs from top to bottom. Because the brain grow so rapidly before birth, a new born baby‘s head is disproportionately large. The head becomes proportionately smaller as the child grows in height and the lower parts of the body develop.

Picture 1.1: Children’s physical development (gradual advancement)

According to the proximodistal principle (inner to outer), growth and development proceed from the body to the outward. In the womb, the head and the trunk develop before arms and legs, then the hands and feet and then fingers and toes. During infancy and early child hood, the limbs continue to grow faster than the hands and feet. Similarly, babies first develop the ability to use their upper arms and legs (which are closets to the centre of their body) and then forearms and forelegs, then hands and feet and finally fingers and toes.

Motor skills development

Motor skills development refers to growth in the ability of children to use their bodies and physical skills. It is continuous and sequential, which o occurs from general to specific. Two main domains develop simultaneously:

1. **Gross motor skills** - development of large muscles and the ability to move from place to place or do physical activities that involve the large muscles of the body, arms and legs.

2. <u>Fine motor skills</u> - development of small muscles and the ability to control use of the hands and feet, and do activities that involve the small muscles of the fingers, toes and other parts of the body.

Picture 1.2: Gross and motor skills development of children

Many fundamental motor skills the child acquires in the first two years of life continue to be modified and refined in the pre-school and elementary school years. Activities that exercise large muscle attract the interest of toddlers and pre-school – pulling and pushing things, stacking and nesting large objects and eventually riding toys such as kiddie cars and tricycles.

As pre-schoolers begin to organize, and display more interest in energetic games and athletic activities such as jumping, hopping, running, balancing cutting and throwing a ball-feats that emphasize speed, strength and efficiency of performance became ingredient s of their every day schedule. Some motor exercise foster greater competency in self help skills such as (dressing and grooming), assembling items (stacking and puzzle construction) and dexterity such as writing and drawing.

Some examples of preschool children motor skill development are the following.

1. Gross motor skills

- Runs with energy and coordination
- Catches a ball with some practice
- Throws a ball 5 to 15 feet with overhand motion
- Walks up and down stairs alone
- Hops on one foot
- Rides a tricycle and steers well

2. Fine motor skills development

- Builds using blocks stacked on top of each other
- Cuts paper in shapes
- raws with pencil, crayons, other implements
- Turns pages of a book
- Pours water from pitcher to cup

Activity 2☞ What should ECCE facilitators do to enhance better physical and motor skills development of the children they teach and care for?

1.2.2. Language Development

Activity 3

- ☞ 1. Did you try to learn a second language? Do you remember the difficulty you experienced with everything from pronunciation to vocabulary?
- ☞ 2.If learning a second language was this much difficult for you, how do you thing young children learn language?

1.2.2.1. General Concepts of Language development

Language is a form of communication, whether spoken, written or sign that is based on a system of symbols. We need a language to speak with others, listen to others, read and write. Language skills continue to improve during early childhood. Parents, siblings, peers, teachers and the media provide opportunities for children to increase their vocabulary.

A six month old can recognize the vowel sounds that are the basic building blocks of speech. Around the age of twelve, the baby is ready for one of the most magical moments of childhood saying its first word. Language skills are sharpest early in childhood but they continue to grow throughout life.

- Talking to a baby speed up the process of learning new words because babies need to hear the sounds in their language many times before they can put the sounds together.
- Speaking to babies in special sing-song way helps babies learn and connect objects with words.
- Talking and reading to under three strengthen emotional bonds between parents and children , helps the baby's brain to grow and helps the child learn new word and concepts.

Children around the world have the same sequence of early language development. Newborns prefer to hear speech over other sounds- they prefer to listen to "baby talk"- the high pitched, simplified and repetitive was adults speak to infants. The sound of a human voice, whether familiar or strange always fascinates infants.

1.2.2.2. Speech production

At 2 months, infants begin making sounds that are language-based

- Starts with cooing

- They begin by producing vowel-like sounds, such as “ooooo” and “ahhhh”

At 5 to 6 months, infants begin making speech-like sound that has no meaning.

1. Babbling

Babbling is the extended repetition of certain single syllables, such as “ma-ma-ma, da-da-da, ba-ba-ba” that begins at 6-7 months of age.

- Babbling is experience-expectant learning
  - All babies babble
  - All babies’ gesture
  - The sounds they make are similar no matter what language their parents speak

2. First Words

- Infants first recognize words, then they begin to comprehend words
- At about 4 ½ months of age, infants will listen longer to a tape repeating their own name than to a tape of different but similar name
- At about 7-8 months of age, infants readily learn to recognize new words and remember them for weeks

3. Making Sentences

Most children begin to combine words into simple sentences by 18 to 24 months of age. Children’s first sentences are two-word combinations referred to as telegraphic speech-words directly relevant to meaning. Words not critical to the meaning are left out – similar to the way telegrams were written such as:

- function words: a, the in
- auxiliary words: is, was, will be
- word endings: plurals, possessives, verb tenses

Between 3 and 6 years of age

- Children learn to use negation; “That isn’t my toy
  - Children Genet thinks that Yonas took the book”
- Children begin to comprehend passive voice as opposed to active voice
  - “The ball was kicked by the girl” as opposed to “The girl kicked the ball”
- learn to use embedded sentences
  - “By the time most children enter kindergarten, they use most of the grammatical forms of their native language with great skill

Activity 4 ☞ As ECCE facilitator, list down all what you should do to enhance language development of the children you are teaching and caring for?

1.2.3. Cognitive Development

Paiget said that children actively think and seek to construct a more advanced understanding of the world. He stressed that children actively construct their own cognitive world; information is not just poured into their minds from the environment. In his theory of cognitive development, he indicated that children pass through four stages: sensory motor, preoperational, concrete operational and operational stages. According to this theory, pre school children are found at preoperational stage, which lasts approximately from 2-7 years of age.

1.2.3.1. Preoperational thoughts

What are operations? Operations are internalized sets of actions that allow the child to do mentally before she could do physically. In this stage, children begin to represent the world with words, images and drawings. Symbolic thought goes beyond simple connection of sensory information and physical actions.

Thoughts in the preoperational stage is flawed and not well organized. Pre operational thought is the beginning of the ability to reconstruct as the level of thought what has been established in behaviour. Children at preoperational stage have several limitations.

A. Egocentrism

Egocentrism is an important feature of preoperational thought. It is the inability of to distinguish between one's own perspective and someone else's perspective.

B. **Animism**

Another limitation of the preoperational thought is the belief that in animate objects has life like qualities and is capable of action. A child may say " the side walk made me mad; it made me fall down"

C. Centration

Cent ration is the focusing of attention on one characteristic to the exclusion of all other.

1.2.3.2. Features of preoperational thoughts

1. **Representation-** shows the child's growing ability to engage in abstract thinking ability. For example, the word "car" is a representation, since it represents a certain idea.

2. **Differed imitation –**imitative behaviour that continues after the disappearance of the model to be imitated. For example, they walk like an animal that they saw at the zoo earlier in the day.

3. **Symbolic Play-**This is a game of pretending**,** one of the preoperational behaviour pattern. Children enjoy pretending that they are asleep or that they are someone else.

4. **Drawing -** Children of this age project their mental representations into their drawings. Highly symbolic, their art of work reflect the level of their thinking what they are thinking.

Activity 5 ☞ How do ECCE facilitators promote pre-operational thinking of children at this stage?

1.2.4. Psychosocial development

Psychosocial development refers to a child's development in the social realm and how the child fits into his world. This type of development occurs in eight stages that begin with birth and continue through adulthood. One stage must be complete before a child moves to the next one.

The preschool years are associated with major developments in young children's socialization. During early childhood (ages 2–6), children gain some sense of being separate and independent from their parents. On the other hand, parents and teachers are usually worried about physical and intellectual development than they do about the development of social understanding, moral codes and self concept.

Activity 6 ☞ Do you know any adult who has no understanding of the self and Others ?

During early childhood years, children begin to develop the above concepts and able to define who they are, who they were, and who they will be. They may use such expressions as

- "I am, I can, "
- " When I was a baby, I couldn't ------"
- " When I grow up , I will be able to---"

Social skills are learned from birth. Infants need to experience positive interactions and relationships in order to master self regulation and develop healthy relationships later. The development of relationships and social skills is influenced by both interactions with and attachment to caregivers as well as by individual temperaments.

As infants transition to toddlers, they are able to distance themselves more from their educator and begin to see themselves as separate from the adult. This helps children form their own identity and sense of self.

1.2.4.1. Sense of self

Sense of self refers to the development of the sense of who children are as individuals. The development of self begins the moment children are born and continues to grow as they interact with the world. Every time children are held, spoken to or smiled at, they develop a sense of who they are and how others view them. Children who are loved and accepted feel that they are valued. As children‘s basic needs of hunger, warmth and safety are met in a consistent and reliable manner, they develop a sense of trust in the world and a feeling of personal security.

1.2.4.2. Self concept

Self-concept or self-identity is the conceptual understanding that humans have for their own existence. In other words, it is the sum total of one's knowledge and understanding of his or her self. Components of the self-concept include physical, psychological, and social attributes which can be influenced by the individual's attitudes, habits, beliefs, and ideas.

A child's self-concept is her belief about how worthwhile she is. Self-concept is how the child sees herself. It is made up of a sense of belonging and being accepted, a sense of being good, and a sense of being capable of doing things well. A child's self-concept begins to develop at birth. It begins with how adults respond to her. Parents and caregivers create a positive emotional bond with an infant through warm and caring interactions with a lot of eye contact and touch. As the child grows into a toddler and preschooler, her ability to interact successfully with her environment promotes a healthy self-concept. A child will continue to develop a healthy self-concept when she is given the opportunity to explore her environment, to ask questions without feeling she is a nuisance, and to engage in make-believe play activities.

As the child enters school, her self-concept is influenced not only by her parents, but also by a growing circle of other people, including teachers and friends. The child gets feedback from many people on her physical appearance and her school, athletic, and social abilities. All of this feedback influences what she thinks of herself, or her self-concept.

1.2.4.3. Self esteem

Self-esteem is similar to self-worth (how much a person values himself or herself). Self-esteem also can be defined as feeling capable while also feeling loved. This can change from day to day or from year to year, but overall self-esteem tends to develop from infancy and keep going until we are adults. A child who is happy with an achievement but does not feel loved may eventually experience low self-esteem. Likewise, a child who feels loved but is hesitant about his or her own abilities can also

develop low self-esteem. Healthy self-esteem comes when a good balance is maintained.

Patterns of self esteem starts very early in life. The concept of success following effort and persistence starts early. Once people reach adulthood, it's harder to make changes to how they see and define themselves. So, it's wise to think about developing and promoting self-esteem during childhood. As kids try, fail, try again, fail again, and then finally succeed, they develop ideas about their own capabilities.

1.2.4.4. Healthy and unhealthy signs of self esteem among children

Children with healthy self-esteem:

- tend to enjoy interacting with others.
- are comfortable in social settings and enjoys group activities as well as independent pursuits.
- when challenges arise, they can work toward finding solutions and voice discontent without belittling themselves or others. For example, rather than saying, "I'm an idiot," a child with healthy self-esteem says, "I don't understand this."
- know their strengths and weaknesses, and accept them.

On the other hand, children with low self-esteem;

- may not want to try new things and may speak negatively about themselves like
  - "I'm stupid,"
  - "I'll never learn how to do this," or "What's the point?
  - "Nobody cares about me anyway."
- may exhibit a low tolerance for frustration, giving up easily or waiting for somebody else to take over.
- tend to be overly critical of and easily disappointed in themselves.

Activity 7 ☞1.What should ECCE facilitators do to help create positive self concept in preschool children?
☞2.How can ECCE facilitators create health self esteem within the children they teach and care for?

1.2.4.5. How can ECCE facilitators encourage psycho-social development in early childhood?

- Welcome all children warmly so they feel accepted and that you are truly glad to see them
- Identify emotions of the children; for example, "You look sad. You

have tears on your face" or "You look angry"

- When children are upset, help them to relax or divert their attention through comments such as, "Would you like to read a book or play by yourself at the light table for a little while?"
- Assist children in recognizing the feelings of others and model an appropriate response; "Chaltu looks sad, I wonder if she would like her blanket?"
- Praise children for positive choices such as comforting a friend
- Avoid discussing negative observations about children or their families in front of them, even very young children who we may believe are too young to understand
- Follow a predictable schedule that allows children to feel safe and secure

1.2.5.Emotional development in early child hood

Activity 8 ☞1 What are emotions?
☞2.Are emotions inborn or acquired through development?
☞3. At what ages do children begin to experience and express different emotions ?

1.2.5.1. Basic concepts of emotions

Defining emotion is difficult because it is not easy to tell when a child or an adult is in an emotional state because facial expressions can be misleading, individuals' self reports of their emotions can be unreliable. For our purposes, we will relay on definition of emotion as feeling, or affect that occurs when a person is engaged in an interaction that is important to him or her, especially to his or her well-being.
Emotion is characterized by behavior that reflects (expresses) the pleasantness or unpleasantnesses of the state individuals are in, or the transactions they are experiencing. Emotions also can be more specific and take the form of joy, fear, anger, and so on, depending on how a transaction affects the person (for example, is the transaction a threat, a frustration, a relief, something to be rejected, something unexpected, and so on). And emotions can vary in how intense they are. For example, an infant may show intense fear or only mild fear in a particular situation.



Picture 1.3: Emotional expressions of children

1.2.5.2. Primary and self-conscious emotions

Primary emotions are emotions that are present in humans and animals; these emotions appear in the first six months of the human infant's development. Primary emotions include surprise, interest, joy, anger, sadness, fear, and disgust.

Self-conscious emotions require self-awareness that involves consciousness and a sense of "me." Self-conscious emotions include jealousy, empathy, embarrassment, pride, shame, and guilt, most of these occurring for the first time at some point in the second half of the first year through the second year. Some experts on emotion call self-conscious emotions such as embarrassment, shame, guilt, and pride *other-conscious emotions* because they involve the emotional reactions of others when they are generated

Joy

Saddens

Fear

Surprise

Picture 1.4: Children expressing emotions (primary)

1.2.5.3. Development of basic emotions

Infants experience only two general emotions pleasure and distress. This will rapidly change and more discrete emotions will develop, by 9 months infants are thought to experience all basic emotions. Self-conscious emotions do not appear to develop until self-awareness appears in the last half of the second year of life.

At early childhood, the young child's growing awareness of self is linked to the ability to feel an expanding range of emotions. Young children, like adults, experience many emotions during the course of a day. At times, they also try to make sense of other people's emotional reactions and to control their own emotions. During the early childhood years, emotions such as pride and guilt become more common. They are especially influenced by parents' responses to children's behavior. For example, a young child may experience shame when a parent says, "You should feel bad about biting your sister."

Among the most important changes in emotional development in early childhood are an increased ability to talk about their own and others' emotions and an increased understanding of emotion. Between 2 and 4 years of age, children considerably increase the number of terms they use to describe emotions. They also are learning about the causes and consequences of feelings. When they are 4 to 5 years of age, children show an increased ability to reflect on emotions. They also begin to understand that the same event can elicit different feelings in different people. Moreover, they show a growing awareness that they need to manage their emotions to meet social standards

1.2.5.4. Understanding emotions in early childhood

Gains in representation, language, and self-concept support emotional development in early childhood. Between ages 2 and 6, children make important gains in emotional competence.

- First, they gain in emotional understanding
  - becoming better able to talk about feelings and to respond to others' emotions
- Second they improve in emotional self-regulation
  - especially the ability to cope with intense negative emotion
- Finally, they more often experience self-conscious emotions and empathy
  - Which contribute to their developing sense of morality
- 4-5 year olds correctly judge the causes of many basic emotions (ex. "He's sad because he misses his mommy.")
- They have an impressive ability to interpret, predict, and change the feelings of others.

- They can predict that an angry child may hit someone and that a happy child is more likely to share. They try to change a sad child's emotional state by giving urges to reduce the sadness



Excited Worried Happy

Picture 1.5: Children in different emotions

Preschoolers whose parents frequently acknowledge their emotional reactions are better able to judge the emotions of others. 3-5 year olds who are securely attached to their mothers also show better understanding of emotion.

As self-concept develops, children become increasingly sensitive to praise and blame or the possibility of such feedback. They more often experience ***self-conscious emotions*** – feelings that involve injury to or enhancement of their sense of self.

- By age 3, self-conscious emotions are clearly linked to self-evaluation
- Preschoolers depend on the messages of parents, teachers, and others who matter to them to know when to feel proud, ashamed, or guilty
- To induce adaptive levels of shame and pride, parents should focus on how to improve performance, not on labeling the child.

1.2.5.5. Emotion Couching

Emotional coaching is an approach to caring for children that value their feelings while guiding their behaviors. Emotional coaching takes effort and patience. It's not necessarily easy—but it's definitely worth the effort. This approach encourages healthy emotional development so that "children delight in the happy times and recover more quickly from the bad ones." Using emotional coaching does get easier with practice. There are five steps in emotional couching.

1. **Be aware of the child's emotions**
    - Recognize when your child is upset, sad, afraid, or happy.
    - Stand in your child's shoes when he is struggling with an emotion & see things from his perspective.
    - Listen during playtime to find clues about what makes your child anxious, scared, proud or happy.
    - Share your emotions, when it's appropriate.
    - your child is learning about emotions by watching YOU and how you handle your own feelings!

2. Recognize that emotions are opportunities to connect

Emotions are new and sometimes overwhelming for young children. They need adults to teach them how to handle their emotions in a healthy way. The best time to teach children about emotions is *during the experience* when the feelings are real. Pay close attention to your child's emotions-don't dismiss or avoid them!

- Think of emotional moments as "opportunities to draw closer" to your child.
- Encourage your child to talk about her emotions and try to share in the feeling yourself.
- Share your own feelings, when it's appropriate.
- Tell your child her feelings are okay…and then offer guidance in sorting out those feelings

3. Listen with empathy

Two of the most important steps parents can take to help their children deal successfully with their emotions are listening with empathy and supporting a child's feelings. The best way to help children understand their feelings is to put their feelings into words with simple statements.

- Encourage your child to share what he is feeling. ("Tell me what happened/Tell me what you're feeling...")
- Reflect your child's feeling back to her by saying, "It sounds like you are feeling _____."
- Don't dismiss emotions as silly or unimportant. Never criticize your child's feelings.
- Listen in a way that helps your child know you are paying attention and taking her seriously. ("You didn't like it when he said that to you. That really hurt your feelings.")

4. Help children name emotions

Children don't always know the words to talk about what they are feeling. They don't know how to make sense of complicated emotions that overtake them, like jealousy, hurt, fear, or worry. Naming emotions helps different brain areas communicate with each other, which in turn helps children calm themselves. This process is called learning "emotional regulation," which is a critical coping skill needed for managing life's up's and down's.

- Start to name emotions early—even before your child can talk. ("Oh, you're really mad!")
- Work very hard to identify the emotions your child is feeling, instead of telling her what she ought to feel.

- Listen in a way that helps children know you are paying attention and taking them seriously.
- Find a way to show your child that you understand what he or she is feeling—don't judge or criticize the emotion.

5. Set limits and find good solutions

Learning positive ways to express emotions is an important life lesson. The challenge for parents is to accept children's emotions while setting limits on children's inappropriate behavior. Setting limits is the first step in any good problem-solving. Once adults have made clear what children shouldn't do, the next step is helping kids come up with what they can do to solve their problem. This teaches children to find their own solution to problems

- Discipline misbehaving children for what they *do*, not for how they feel.
- Use misbehavior as a 'teaching time' to help your child understand his emotion: give that feeling a name and explain why the behavior was unacceptable.
- When your child has a problem, help him: (1) think about what he wants to see happen, (2) think of several ideas for doing this, and (3) pick a solution.

1.2.6. Moral development in early childhood

1.2.6.1. General concepts of moral development

Activity 9	☞1.What is moral development? ☞2.How and when do children develop an understanding of standards, right and wrong? ☞ 3.How do interactions with teachers and peers contribute to moral understanding of children?

Moral development is the process through which children develop proper attitudes and behaviours toward other people in society, based on social and cultural norms, rules, and laws. During early childhood, children grow in their ability to tell the difference between moral rules, social norms, and personal choices. By around age 5, children see that moral rules are intended to prevent "really wrong" behavior that could potentially hurt or take away from others.

By age 2, children show a developing moral sense, evaluating behavior as "good" or "bad" and showing distress in response to aggressive or potentially harmful acts. All theories of moral development recognize that conscience begins to take shape in early childhood

- At first, conscience is *externally controlled* by adults, but it gradually comes to be regulated by *inner standards*

- Psychoanalytic theory stresses the *emotional side* of conscience development
- Social learning theory focuses on how *moral behavior* is learned through reinforcement and modeling
- The cognitive-developmental perspective emphasizes *thinking* – children's ability to reason about justice and fairness

1.2.6.2. Kohlberg moral development theory

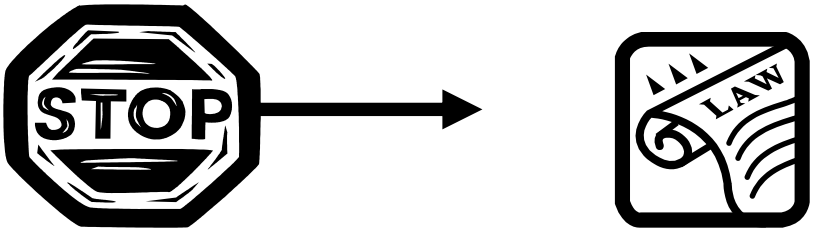
Kohlberg told several dilemma stories and asked many questions to discover how people reasoned about moral issues. He identified three distinct levels of moral reasoning each with two sub stages. People can only pass through these levels in the order listed. Each new stage replaces the reasoning typical of the earlier stage. Not everyone achieves all the stages.

Level I. Pre-conventional Morality

In the pre-conventional level, individuals are unfamiliar with the totality of common norms/standards of society. Within this level are 2 stages:

Stage 1: Obedience and Punishment Orientation

- There is a strict set of rules that must always be followed
- The ideas of punishment and permission are key
- Preconvention thought expressed



Picture 1.6: Pictorial description of pre-conventional morality

During this stage the concern lies strictly in an unchanging set of rules and laws which are always right. Individuals follow the norms of society, but only to avoid punishment.

Stage 2 : Individualism and exchange

- Now there is not one right way of doing things; everything is relative
- Fair exchange policy
- The role of punishment weakens

Individuals in stage two now realize that the set of rules they blindly followed in stage one are subject to change. Morality is relative insofar as rules can be changed in order to attain what's best for oneself. In other words, whatever is best for me is the right decision – it is essentially the idea of fair exchange. I'll scratch your back if you scratch mine. Punishment is only a risk not a certainty.

Level II. Conventional Morality

Stage 3: Good Interpersonal Relationships

- "Good Boy/Nice Girl" Orientation
- People should live up to the expectations of community
- Characters' traits and motives are examined

Stage three is highly dependent on public approval. In this stage, Right is only based on how others would judge your specific actions. Motives and grounds for decision-making are also carefully examined in this stage.

Stage 4: Maintaining the Social Order

- There is an emphasis on obeying laws, respecting authority, and performing one's duties so social order is maintained
- Perspective changes to society as a whole
- Not only does the child say a certain action is right or wrong, they explore the reasons why

Picture 1.7 : pictorial description of conventional morality

Stage 5: Social Contract and Individual Rights

- An individual's moral judgment is motivated by community respect, respecting social order, and respect for legally/determined laws
- Thoughts consider the rights and values a society must uphold

Stage 5 considers social contract and individual rights. There is a deep focus on agreements or pacts as well as respecting laws in order to keep society functioning properly. Stage five languages also include basic human rights including life and liberty.

Stage 6: Universal Principles

- Involves universal principles of justice that apply to all people
- We treat the particular dilemma through unbiased and impartial eyes
- We can only reach this stage by looking at a situation through someone else's eyes

At this stage, we involve universal principles of justice that apply to all people. We treat the particular dilemma through unbiased and impartial eyes. We can only reach this stage by looking at a situation through someone else's eyes

Activity 10

☞1.What implications knowing this fact bring to ECCE facilitators?

☞2.Do you think that identifying the moral developmental stages of children helps you in enhancing positive moral development of the children?

☞3.What can to ECCE facilitators do to nurture children's moral development?

1.2.6.3. How do ECCE facilitators help children in moral development?

- Helping children to develop empathy
- Encourage role playing
- Help children understand how other people feel
- Helping children learn to be generous, altruistic and able to share
- Help children learn to share equipment
- Help children learn that being kind to others feels good. Helping is one way of expressing kindness
- Teach children that everyone has rights…..and that rules apply to everyone
- Emphasise the value of cooperation and compromise
- Model cooperation and helping behaviour
- Teach the art of compromise
- Help children discover the pleasure of friendships
- Creating a constructivist atmosphere in early care and education
- Organising to meet children's needs
  Physiological needs
  Emotional needs
  Intellectual needs
- Avoid sanctions/punishments
- Encourage children's ownership of logical consequences
- When children suggest a consequence that is too severe, ask the wrongdoer to say how he or she feels (and support this feeling)

1.3. Introduction to learning through play (LTP) calendar

1.3.1. Importance of learning through play

It is through play that children begin to formulate an idea of their place in the world and develop their physical, cognitive, emotional and social skills. What may seem like "silly" or "cute" activities to adults are actually the ways in which young people explore the world around them. Every game or activity has its own rules for the way it needs to be conducted and the child needs to use many different skills in order to participate

in it successfully. Here are the reasons for the importance of learning through play in more detail:

1. **Developing Physical Skills**

When babies are born, they are not even able to hold their heads and must develop their motor skills to the point where they can control their muscles and do things for themselves. Play enables children to work with and develop their muscles as well as to improve general coordination and balance.

2. Developing Cognitive skills

These skills are those that relate to thinking and learning. Children develop these skills as they explore new objects, organise them, learn their colours and numbers, identify similar objects, learn to understand rules and much more.

3. Exploring Their Surroundings

As children grow, they learn about everything that surrounds them and who interacts with them. When they play in these surroundings, children begin to gain more understanding of the world in which they live.

4. Developing Emotional Skills

When children are born, their emotions are very closely linked to their basic needs but as they grow, they begin to develop their ability to understand the mood of their parents or caregivers. At a later stage, they begin to recognize their own individual emotions and even learn to manipulate them. It is through play that children begin to understand their emotional selves and how to use emotions and contain them.

5. Learning Social Cues and Social Skills

Most children play more when interacting with an adult or another child, rather than when being supervised by others. Such play activities are opportunities for children to learn the social rules of these interactions. For example, this can include learning to share or take turns or learning that stealing or kicking is not acceptable.

1.3.2. Learning through play calendars (LTP)

The calendar highlights five areas of child development within each developmental stage: sense of self: physical, relationships: understanding and communication. When all five areas are stimulated the child has the best possible chance of developing into a well- rounded individual.

1. Sense of Self

Sense of self refers to the development of the sense of who children are as individuals. The development of self begins the moment children are born and continues to grow as we interact with the world. Every time children are held, spoken to or smiled at, their develop a sense of who they are and how others view them. Children who are loved and accepted feel that they are valued. As children's basic needs of hunger, warmth and safety are met in a consistent and reliable manner, they develop a sense of trust in the world and a feeling of personal security. Respecting a child's individual personality traits, strength and weaknesses helps them learn confidence and, over time understand and accept themselves. This, in turn, helps a child accept and respect others they encounter. The healthy development of a sense of self impacts upon all aspects of children's lives and continue to play a major role as they mature.
After the age of 3 ½ - 4 years, children try to do things by themselves or feel worried or scared to try new or different things. Parents and teachers need to help the children through offering help when children are getting upset, comforting them to feel safe by being calm, telling what to expect, helping to find the right word to express emotions.

Trying to do oneself

Feeling comfort by parent

Strong emotion towards parent

Picture 1.8: Activities that reflecting sense of self development

2. Physical

This area refers to the development of a child's physical skills. The illustrations in the calendars will help parents and teachers to understand this and provide them with activities to assist development; Physical development can be divided into the following two areas.

Gross or large motor skills refer to the child's ability to run, climb or build with large block. Fine motor skills refers to the child's abilities that involved using their hands and fingers, such as drawing, feeding, and picking up small objects, Both are covered in the calendars.

Fine motor skill Gross motor skill

Picture 1.9: Gross and large motor skill Activities

3. Relationships

How children learn to interact with others in their environment is the subject of this area, also often referred to as social development. Initially this revolves around the most significant people in the baby‘s life, usually mother and father. From this starting point children will go on to develop relationships with other caregivers and family members and then other children. The manner in which first relationships are formed and conducted will often form the foundation for future relationships, skills such as relating, sharing and dealing with conflict are highlighted.

Cooperation Recognizing others feeling

Picture 1.10: children attempting to understand the world

4. Understanding

This area examines the growth of children‘s thinking and understanding about the world they inhabit. It is also referred to as cognitive or intellectual development. This includes the understanding that things still exist even when they are not seen, the recognition of colours and the understanding of concepts such as ‘ full‘ and ‘empty‘ children learn through observation imitation and ply.

Their play often features problem solving and experimentation. This is frequently an area of great concern for parents because they all want their children to succeed in school. It is important for parents to understand that this learning occurs through the process of play and that there are many everyday activities that offer excellent learning activities for children.

Picture 1.11: Children in different activities to understand the world.

5. Communication

Communication consists of verbal and receptive language. Verbal or speech refers to the ability to use words to express needs and ideas. Receptive language refers to the ability to use words to express needs and ideas. Receptive language refers to the ability to understand what is said. Both components essential elements of communication. From birth, infants are receptive to the voices of their parents and research has found that very young infants can recognize the voices of their parents compared to others.

Exposing children to communication from birth through talking, singing and reading is vital to ensure development in this area. Each stage of development of the Birth to Three year calendar has a different name. The name identifies the most significant development task the child is experiencing during that are range please refer to the elaboration of the calendar illustrations for further information on these headings.

1.4. Attachment, peer relationship and friendship in early childhood

Activity 11 ☞1. What do you know about attachment?
☞ 2.Who are you attached to?
☞3. List 5 people and reflect on why that relationship involves attachment?

1.4.1. Attachment

Attachment is an enduring emotional connection; a close emotional bond that is "person-specific" and is enduring across time and space. In short, attachment is a close emotional bond between two people.Attachment is a pattern of emotional and behavioural interaction which develops over time as the infant and caregiver interact, especially in response to the infant's needs for attention and comfort.

There are four defining features of the attachment bond:

1. Proximity maintenance (wanting to be physically close to the attachment figure)
2. Separation distress (separation from the caregiver causes distress to the child)
3. Safe haven (retreating to the caregiver when sensing danger)
4. Secure base (the provision of a secure base for the child to explore the world).

1.4.2. Styles of Attachment

Children develop and display either one of the two basic attachment styles which are termed as 'secure' or 'insecure'. The quality and sensitivity of the mother-infant face-to-face interaction from as early as a few months through and beyond the first year of life has been shown to predict attachment style.

1. Secure attachment

Children who experience warm, sensitive and responsive parenting or early care they will develop a secure attachment. This provides children with the opportunity to develop positive expectations about future relationships; to develop trust in others. Self-confidence which enables the child to feel safe and explore the wider world. Child develops basic trust that others will be helpful and supportive when asked.

2. Insecure attachment

Identified by features of instability, including ambivalent behaviour, preoccupation, avoidant responses and a lack of co-operative communication in the mother-child relationship. Insecure attachment is thought to occur when the attachment figure (mother) is not emotionally available to the infant on a significant and repeated basis. Child lacks of confidence to explore the wider world. Insecurely attached children are thought to not feel safe enough with the attachment figure to truly express their negative emotions towards this primary caregiver. This is believed to influence future behaviours, especially the child's ability to form other positive attachments.

1.4.3. Peer relationship in early childhood

Activity 12 ☞ 1. What is peer? How do children form peers?
2. What is the purpose of peer formation?

Peers are individuals who are usually of the same gender, age, and social status and who share interests. As children become increasingly self-aware and better at communicating and understanding the thoughts and feelings of others, their skill at interacting with peers improves rapidly. Peers provide young children with unique learning experiences that they can't get anywhere else. Because peers interact as equals, children must work at keeping a conversation going, cooperating, and setting goals in play.

Picture 1.12: Peer interaction

Purpose of peer groups

- Satisfy certain belonging needs
- Often preferred to other socializing agents
- Influence social, cognitive and psychological development
- Influence development of morals and values
- Interaction provides instruction on acceptable behavior.

Peer groups and play

According to Mildred Parten, in 2-5 year olds, social development follows a 3-step sequence.

- 1st children engage in **nonsocial activity**
  - Unoccupied, onlooker behavior and solitary play

Picture 113: Solitary play

In 3-6 year olds, solitary and parallel play account for as much of the child's play time as cooperative interaction. Most solitary preschoolers simply like to play by themselves, and their activities can be positive. Children who prefer solitary play with materials, puzzles, and building toys are typically well-adjusted kids who, when they do play with peers, show socially skilled behavior

- 2nd children involve in **parallel play**
  - In which a child plays near other children with similar materials but does not interact with them
- 3rd young children develop 2 forms of true social interaction
  - **Associative play** – children engage in separate activities but exchange toys and comment on one another's behaviors

Cooperative play – children orient toward a common goal, such as acting out a make-believe theme.

Activity 13 ☞How should ECCE facilitators enhance positive peer interaction**?**

Carefully arranging the environment, focusing on children's skills and strengths, and regularly celebrating these strengths within early childhood settings can help promote peer interaction among children. Basically, facilitators should focus on physical environment, social environment and teaching strategies to enhance peer interaction.

1. Physical environment

- Make sure there are enough centers to allow the children opportunities for social interaction.
- Offer materials that are motivating, novel, and culturally sensitive.
- Select materials that are relevant to children's needs, interests, and lives.
- Include materials and activities that promote social interaction.
- Give children ideas for using the materials or suggest ways to engage in an activity ("One of you might be the cook and someone else might be the server.").
- Provide visual cues in the environment that support and promote social interaction.

2.Social environment

- Take children's characteristics into consideration when grouping children.
- Consider the number of children in each group or center to maximize social interaction.
- Pair socially competent children with shy or less socially skilled children.
- Give children with limited social skills many opportunities to interact with others.

2. Teaching strategies

- Implement social skill instructions in large group, small group, and one-on-one formats as appropriate.
- Use strategies such as modeling, prompting, and role playing.
- Give children positive feedback for engaging in healthy social interactions.
- Share information about fostering social interaction with family members.

1.4. 4. Friendship in early childhood

1.4. 4.1.General concepts of friendship in early childhood?

Activity 14

- ☞ Do you have friends? How did you manage to get those friends?
- ☞ Did you have friends at your early ages? What did used to do together?
- ☞ How do children develop friendship?

Preschoolers' first friendships serve as important contexts for emotional and social development. Friendship among 4-7 year olds is focused on pleasurable play and sharing of toys. They describe a friend as someone "who likes you" and with whom you spend a lot of time playing. But, friendship does not yet have an enduring quality based on mutual trust.

Children who begin kindergarten with friends in their class or who readily make new friends adjust to school more favorably. The ease with which kindergarteners make

friends and are accepted by their classmates predicts cooperative participation in classroom activities and self-directed completion of learning tasks. Because social maturity in early childhood contributes to later academic performance, some experts propose that kindergarten readiness be assessed in terms of social as well as academic skills. Rather than only academic skills alone

Picture 1.14: Friendship in early childhood

1.4. 4.2. The importance of friends in childhood

Friendships are important for children in many ways and as children grow older they become more and more important.

- As they make friends they learn how to participate in relationships.
- Through watching and joining in with others, children learn many things such as:
  - ways to care for themselves and others
  - how to play different games
  - how to work within rules and feeling worthwhile, and building a sense of belonging to the community they live in.

Some of the things children learn through friendships and relating to other people include learning to:

- develop a sense of individuality and worth
- learn about themselves in their culture
- 'get along' with other people outside their own family
- predict how another person will react to what they do or say
- recognize and respond to other people's feelings
- develop the skills to build relationships
- trust other people
- understand how to talk and listen to others
- work out how to negotiate when there are differences
- solve problems and resolve arguments and
- develop good ways to learn from being with others and doing things together.

Activity 15 ☞ What should ECCE facilitators do to enhance friendship among children?

1. Read "friendship" stories

- Read stories about other children or characters making friends.
- Talk about what the characters in the story say and do to solve their friendship dilemmas and how the children can do the same.

2. Role play & use puppets

- Role play to show facial expressions and words that invite or repel friendship.
- After each short skit, discuss what the person's face looked like and what their voice sounded like.
- Children seem to remember silly skits. Thus, roles play ways to encourage friendship by showing positive actions such as smiling, sharing and helping.

3. Separate children into smaller groups

- Grouping small numbers of children can be less overwhelming for some children. Be sure to say the names of the group members and show the children (not just tell) what is expected of them before leaving children to work together.
- If a child seems really shy, match her/him with one child until she/he seems more comfortable.

4. Play games to help children learn each other's names

Play games that reinforce learning names. For example, have a small group of children sit in a circle. Call out a name and have the child with the ball roll it to the child whose name you said. Repeat.

5. Teach children that friends make mistakes

Young children change their friends often, depending on what happens each day. If yesterday's friend will not share today, children say they aren't friends anymore. They need to learn that all friends make mistakes and will not always agree with them.

1.5. Behaviour management in early childhood

1.5.1. General concepts of behavior

Activity 16 ☞ What is behavior?
☞ What contribution did your family or teachers make to your behavior?
☞ What do you know about behavior management?
☞ What role should you play as a facilitator to help your children acceptable behaviors?

Behavior in its broader sense includes all types of human activities.

Example

- Motor activities (Walking, speaking)
- Cognitive activities (perceiving, remembering, thinking, reasoning)
- Emotional activities (feeling happy, sad, angry, afraid).

Behavior is both mental and bodily. Mental behaviors are thinking, reasoning, imagination and other mental experiences or processes. Bodily behavior refers to the movements and actions of the body in response to a situation.

Behavior is the reaction of an individual to a particular environment. The environment exerts influence on individuals. That influence is called stimulus. The stimulus in turn arouses an activity from the individual and this is called the response. In general, the human behavior consists of physical responses, feelings, emotions and tensions, and all intellectual responses, perceiving, thinking, recalling, and reasoning.

Behavior should be viewed in reference to a phenomenon, an object or person. It can be seen in reference to society norms, or the way in which one treats others or handles objects. Behavior, therefore, is the way an individual acts towards people, society or objects. It can be either bad or good. It can be normal or abnormal according to society norms. Society will always try to correct bad behavior and try to bring abnormal behavior back to normal.

1.5.1. Common misbehaviours in early childhood

Each society has accepted ways of life which are known as norms. The way one conforms to, or deviates from, these norms will form good or bad behavior. In a school, there are rules which govern everyday operations, and all school members have to adhere to them. Any member who deviates from these rules has misbehaved, and is usually reprimanded or punished. Such a member also qualifies as having a behavior problem. Among many others, the following could be some of the misbehaviors observed among pre-school children.

1. **Disobedience**

This can be disobedience, rebelliousness to teachers and school authorities (very common in urban schools). Rigid or poor relationships between teachers and pupils can cause disobedience.

2. **Rudeness**

This includes rudeness to teachers, prefects, servants in the dining-hall, and others. Rudeness can be copied from people in the community. It is also traceable to hereditary factors though it can be controlled.

3. Separation Anxiety

Most children experience some degree of separation anxiety when left with different caregivers. These children experience extreme homesickness and often worry that something bad will happen to their loved ones while they are separated. Children with separation anxiety disorder may act out by crying, screaming and clinging to the parent, refusing to let her leave; these children take an inordinately long time to calm down once the parent is gone and may be uncooperative for the new caregiver.

4. Aggression

when children first start playing with children, they are rarely deliberately aggressive. They may pull a toy away from another child or even push some over, but they do so to get an object or remove an obstacle rather than to hurt. As children grow older, the frequency of deliberate physical aggression increases, normally reaching a pick sometimes during the preschool years and then decline.

Aggression over an object, territory or privilege is known as instrumental aggression. Hostile aggression, aggression that is an attack against a specific someone rather than a fight about something, did not decrease rapidly. Girls and boys differ in how they express their aggression towards peers. Boys tend to harm others through physical and verbal aggression (hitting or pushing others and threatening to beat up others): their concern typically centers on getting their way and dominating others youngsters. Girls, in contrast, tend to focus relationship issues (establishing close, intimate connection with one another): they attempt to harm others by damaging their friendship or feeling of peer-group inclusion by such acts as excluding the child from a group play or purposely withdrawing friendship.

5. Fears

A child may show strong dependency and is likely to experience fears and anxiety, especially if the child is in unfamiliar place. Some of the more common fears are darkness, being alone, storms, ghosts and monsters, animals and insects.

6. Fantasy

Another characteristic of preschool children is that they sometimes have vivid nightmares, elaborate day dreams and imaginary friends and enemies. A child frightened by a parent to be a lion, can be troubled when they see a frightening objects.

1.5.2. Why do children misbehave?

Children may misbehave because of the following reasons.

- Student(s) don't know expectations
- Student(s) don't know how to exhibit expected behavior
- Student is unaware he/she is engaged in the misbehavior
- Misbehavior is providing student with desired outcome:
- Obtaining attention from adults/peers

- Escape from difficult task or non-desired activity

1.5.3. Behavior Management

What is Behaviour Management?

Behavior management is a larger concept than discipline. Discipline is implemented *after* a problem occurs whereas behavior management seeks to *prevent* problems in the first place. The overall purpose of behaviour management is to aid students in displaying behaviours conducive to learning. This is because behaviours can be taught like that of reading or math.

Children are constantly engaged in learning and every experience adds to a child's knowledge base and influences his/her subsequent actions. Thus, teachers should views students behavior as a teaching problem, in which errors need to be eliminated and correct responses need to be taught and strengthened.

Therefore, effective teachers should

- spend more time promoting responsible behavior than responding to irresponsible behavior
- recognize that misbehavior occurs for a reason, & take this into account when determining how to respond to misbehavior focus on what you want students to do "instead" (replacement behaviors)
- look for patterns of behavior that suggest "functional relationships"
- teach replacement behavior and provide multiple opportunities to practice
- deliver high rates of positive feedback/same similar outcome as problem

behavior when students display replacement behavior

Furthermore, ECCE facilitators are advised to follow the following techniques

1. Talk with the family

- Gather information about the child at home, including the influence of the family's cultural background on behavior.
- Describe your concerns about the child's behavior at preschool.
- Check whether similar behaviors occur at home.

2. Design a program

- Note triggers, behavior patterns, 'danger' times and periods when the challenging behavior does not happen.
- Look at the environment, routines, structures and group composition. Are there possible modifications that would encourage appropriate behaviors?
- Assess the impact of the child's behavior on others and address as required

3. Plan, implement and review intervention strategies

The plan will support teaching children functionally appropriate ways to communicate and aim to decrease the frequency and severity of challenging behaviors.

4. Ongoing communication with the child's family

- Maintain a high level of communication about the child's progress, needs and involvement in the program.
- Encourage consistency in approach at preschool and home.

1.6. Motivating children in early childhood education

1.6.1. What is motivation?

A motive is an impulse that causes a person to act. Motivation is an internal process that makes a person move toward a goal. Motivation, like intelligence, can't be directly observed. Instead, motivation can only be inferred by noting a person's behaviour. Motivation is a force that Energizes, Directs, and Sustains behaviour.

- **Energies Behavior**- What initiates a behavior, behavioral pattern, or a change in behavior? What determines the level of effort and how hard a person works? This aspect of motivation deals with the question of "What motivates people?" It attempts to explain the amount of effort or energy and individual puts into a task.

- **Directs Behavio**r- What determines which behaviors an individual chooses among the alternative actions, behaviors, or problem solutions? This aspect of motivation deals with the question of choice and conflict among competing behavioral alternatives. It deals directly with the direction of one's effort.
- **Sustains Behavior**- What determines an individual's level of persistence with respect to behavioral patterns? Why do some individuals keep working at something long after others have quit? This aspect of motivation deals with how behavior is sustained and stopped. It deals with the persistence and consistency of behavior.

1.6.2. How to motivate preschool children

1. Expect excellence

Set high, yet realistic expectations. Make sure to voice those expectations. Set short terms goals and celebrate when they are achieved.

2. Mix it up

Using a variety of teaching methods caters to all types of learners. By doing this in an orderly way, you can also maintain order in your classroom

3. Explain. Teachers should spend more time explaining why we teach what we do, and why the topic or activity is important and interesting and worthwhile.

4. **Reward.** Students who do not yet have powerful intrinsic motivation to learn can be helped by extrinsic motivators in the form of rewards. Small children can be given a balloon, a piece of gum, or a set of crayons
5. **Have students participate.** One of the major keys to motivation is the active involvement of students in their own learning. It is better to get students involved in activities, group problem solving exercises, helping to decide what to do and the best way to do it, helping the teacher, working with each other, or in some other way getting physically involved in the lesson.

6. **Satisfy students' needs.** Attending to need satisfaction is a primary method of keeping students interested and happy. Students' basic needs have been identified as survival, love, power, fun, and freedom.

1.7. Child Abuse

1.7.1. Defining child abuse

Activity 17 ☞1. What is child abuse?
☞2. Do you know any child who faced abuse? What kind of abuse did the child face ?

Any behaviour directed toward a child that endangers or impairs a child's physical or emotional health and development. In a broader sense, child abuse or maltreatment constitutes all forms of physical and/or emotional ill-treatment, sexual abuse, neglect or negligent treatment or commercial or other exploitation, resulting in actual or potential harm to the child's health, survival, development or dignity in the context of a relationship of responsibility, trust or power.

1.7.2. Types of child abuse

1. Physical Abuse

Physical abuse is any non-accidental injury to a child under the age of 18 by a parent or caretaker. These injuries may include beatings, shaking, burns, human bites, strangulation, or immersion in scalding water or others, with resulting bruises and welts, fractures, scars, burns, internal injuries or any other injuries.

2. Emotional Abuse

Emotional abuse includes the failure of a caregiver to provide an appropriate and supportive environment, and includes acts that have an adverse effect on the emotional health and development of a child. Such acts include restricting a child's movements, denigration, ridicule, threats and intimidation, discrimination, rejection and other nonphysical forms of hostile treatment.

3. Neglect

Neglect refers to the failure of a parent to provide for the development of the child where the parent is in a position to do so – in one or more of the following areas: health, education, emotional development, nutrition, shelter and safe living conditions. Neglect is thus distinguished from circumstances of poverty in that neglect can occur only in cases where reasonable resources are available to the family or caregiver.

4. Sexual abuse

Sexual abuse includes any activity with a child, before the age of legal consent that is for the sexual gratification of an adult or a significantly older child. Sexual abuse includes oral - genital, genital - genital, genital - recta l, hand - genital, hand - recta l or hand breast contact; exposure of sexual anatomy, forced viewing of sexual anatomy; and showing of pornography to a child or using a child in the production of pornography.

1.7.3. Health consequences of child abuse

- Cognitive impairment
- Delinquency, violent and other risk taking behaviors
- Depression and anxiety
- Developmental delays
- Feeling of shame and guilt
- Poor relationship
- Poor school performance
- Poor self esteem
- Suicidal behavior and self harm
- Sexual dysfunction
- Reproductive health problem
- Brain injury
- Developmental delays

1.8. Nutrition in early childhood

Early childhood is also a time when lifelong eating habits are formed. Early childhood Education services therefore have an import ant role in creating a culture of healthy eating and helping children to develop healthy behaviors related to food choice.

Good nutrition in early childhood is essential for the normal growth and development of a child. All nutrients required for activity, growth and development must be

provided by the food and drinks consumed. Many children spend all day in childcare, so it is important that the food they are provided with is nutritionally adequate.

Poor nutrition compromises both the quality of life of school-aged children but also their potential to benefit from education. Attaining optimal nutrition involves eating three meals a day and two nutritious snacks, as well as limiting the intake of high sugar and high fat foods. Consuming generous amounts of fruits, vegetables, lean meats and low fat dairy products, including three servings of milk, cheese or yoghurt to meet their calcium requirement, can also prevent many medical problems. This includes becoming overweight, developing weak bones, and developing diabetes. The amounts and types of food the ECE service provides depends on the number of hour's children spend at the centre. Children who attend day care for eight hours should be provided with around half of their daily requirements from each of the four food groups. The rest should be eaten at breakfast and dinner at home.
Under nutrition impair behavioral development.

- Delayed physical growth and motor development
- General effects on cognitive development resulting in lower IQs (lower by 15 points or more in the severely malnourished)
- Greater degree of behavioral problems and deficient social skills at school age
- Decreased attention, deficient learning, and lower educational achievement

Basic nutritional needs of children are similar to the nutritional needs of other family members. Amounts needed differ because of age. As much as possible, offer children a variety of foods from the basic food groups:

- Breads, cereals, rice and pasta
- Vegetables
- Fruits
- Milk, yogurt and cheese
- Meats, poultry, fish, dry beans and peas, and eggs.

Part II

2. Teaching methods from early childhood perspectives

Introduction

All education is based on the conviction that human thought can be developed and expanded. In the classroom, the teacher, through conversation and constructive questioning, can stir the children's imagination and thoughts, and stimulate their minds into activity. The teacher's ability to think and reason in terms of what can be fetched, made and used grows with experience and commitment, which will bring about expertise and excellence. To give the child the opportunity to create and to obtain experience with knowledge is the best preparation for future creative work. A very important of this part is how to apply active learning methods, scaffolding children work, how to communicate with children, basic class room management, how to prepare and use locally available resources, child learning assessment, preparing lesson plans to promote quality teaching and learning in the classroom. This guide can be used as both a training guide and reference resource for teachers (care givers).

In order to make the work participatory, some activities have been included in the units. Participants are expected to work as individuals, or as groups. A plenary session sometimes follows group work and is meant for consolidation of the group work. The feedback session is for both checking participants' competence in the activities and sharing some experiences about the topic at hand.

Objectives

- To enable the trainees to apply different active learning methods while teaching the children
- To enhance the trainees ability to use scaffolding methods while teaching the children
- To increase the trainees ability of facilitating children's communication
- To enable the trainees to apply alternative forms of class room management
- Strategies
- To assist the trainees to select appropriate available resources for the particular learning activity
- To prepare the trainees use assessment result to improve teaching and learning activities
- To help the trainees effectively organize instructional activities and materials

2.1 Active Learning

How do children learn?

From the day they are born, children learn and develop by:

- touching
- seeing
- hearing
- smelling
- tasting
- moving
- doing (for example, playing).

Picture 2.1

Activity 1☞ Think of what you know about active learning strategies turn to your group and share your knowledge

Active Learning is often referred to as 'learning by doing'. It is a way of involving students more actively in the learning process, helping them to develop independent learning, critical thinking and stronger analytical skills. It is a process that encourages students to develop many of the key skills employers look for and is a process that focuses on the student rather than the tutor. It is a learner cantered approach to teaching. A learner cantered approach is more likely to encourage students to reflect on their own learning process.

The incorporation of active learning teaching methods has resulted in very positive feedback from the students involved. In kindergarten, children learn best through active experience. Children learn through exploration and discovery. Teachers combine subject areas to create learning opportunities that resemble real life—for example, playing store as a way of learning letters, numbers and social skills.

2.1.1. Why active learning?

"Providing options for children, rather than expecting all of the children to do the same thing at the same time, increases the likelihood of adjusting for individual differences. "-S. Bredkamp and T. Rose grant"

A. Some children are Auditory Learner: learners absorb information through the spoken word.

Picture 2.2

B. Some children are Visual Learner: they learn ideas, concepts and other information associated with images and play cards.

Picture 2.3

C. Some children are Kinaesthetic Learners: they learn by carrying out different physical activities.

Picture 2.4

Active Learning allows all three groups to use their particular talents in the learning process, thus combining all three approaches rather than favouring one group over another - hence the success of the process.

2.1.2 Benefits of active learning

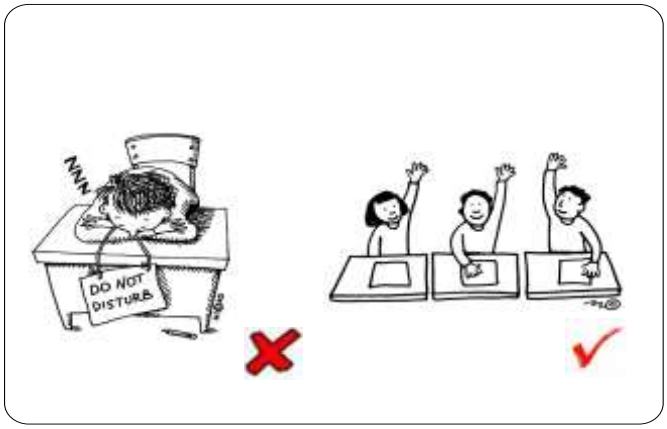
a. Increases social interaction

When children are highly social, who work together on active learning tasks learn to work with other people of different backgrounds and attitudes.

Picture 2.5

b. Children are not attentive to what is being said in a lecture

There are times when children are expected to sit quietly and listen–but most of them are not attentive, kindergarten classes should be filled with sound and activity.



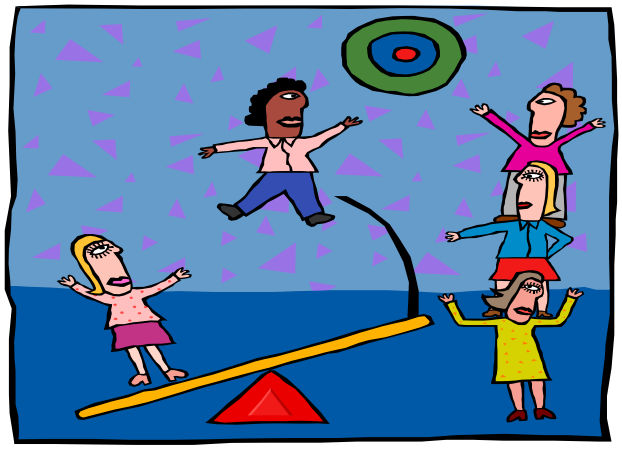
Picture 2.6

c. Children are more likely to access their own prior knowledge, which is a key to learning

Picture 2.7

d. Children receive more frequent and more immediate feedback.
e. Children increase their self-confidence and self-reliance

f. Children learn best when they are having fun



Picture 2.8

2.1.3 How Kindergarten Children Learn

Playing, experimenting, doing things, taking on different roles, imagining, pretending—these are all important learning techniques. Play continues to be important in the early grades and throughout school and life.

For this reason, play is also an important part of the kindergarten program. When children are playing in class, they aren't taking a break from learning, and the teacher isn't taking a break from teaching. Through play, children learn academic skills such as reading, writing, math and science. They also learn problem-solving and creative thinking. And they learn essential social skills.

Activity 2 ☞ Take one lesson from the subject you teach and practice with in your group through playing

Play is child's work

Watch the child at play. Your observations will give you insights into how the child prefers to learn. All play can be a learning experience and following are some ideas to help you make the most of play and learning opportunities.

How the children practices and uses skills and concepts in play

- **Literacy**
  - Uses language to communicate
  - Writes letters and words
  - Reads simple words
- **Mathematics**
  - Uses number concepts
  - Develops mathematical language

- Creates two- and three-dimensional geometric shapes
- Measures time, money

- **Science**
  - Uses recycled materials
  - Explores physical properties of materials
- **Social studies**
  - Develops rules with others and follows them
  - Uses geographic thinking and mapping skills to move marker forward, backward
  - Learns about money and its use
- **The arts**
  - Draws and creates

Drawing can be defined as the organization or arrangement of lines. Arrangement of lines refers to joining lines such as vertical, horizontal, slanting, zigzag and curved. The basic shapes produced by joining lines make the drawing alphabet. In order to make drawings simple, an artist draws the general outline of an object first and adds details later. Everyone can draw; only that those whose drawing skills are dormant or latent appear less artistic whereas those whose drawing skills are active or practiced appear more artistic

Activity: 3 ☞ Relax and try these to start

Picture 2.9

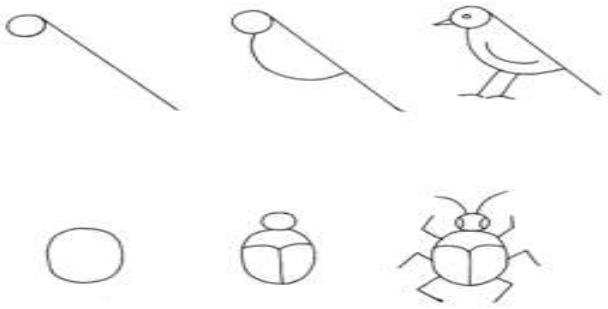
Activity 4☞ Try to work on these structures fast

Picture 2.10

Drawing anything step-by-step simplifies the process of coming up with drawings. For example, the human figure may basically be made up of three ovals, two curved lines and some lines for the limbs. This can be summarized as:

- head – small oval
- chest – a big oval
- hips – a small oval
- neck – curved lines
- spine – long lines
- foot – a triangle

Example



Picture 2.11

Activity 5 ☞Draw matchstick figures to illustrate walking, kicking a ball, jumping and writing.

2.1.4 Play using locally available resources

Locally available resources are natural play materials that give endless fun. Through locally available resources play children learn and practice most of the skills the need for their whole development. They learn social skills such as sharing and co-operation. Language as they talk about what they are doing and what they would like. Their creative and emotional sides are developed as they build. Their science, pre-math, pre-reading and writing skills are developed as they count, sort, measure length, capacity and volume, weight, texture, their size and shapes. Intellectual skills such as thinking and reasoning are developed as they find out the differences between wet and dry sand for instance. Their physical development improves as the play at things such as pouring, sieving, constructing sandcastles and tunnels. They develop independence, they become absorbed, relax and forget angry feelings.

Some examples of learning through play in teaching children

- **Language**

Reading and Writing

- Play "Go-Fish." Put letters of the alphabet on inexpensive playing cards and give seven cards to each player. Take turns asking each other for cards—for example, "Do you have a B?" Each time you make a pair,

discard it. When the game gets too easy for the children, use words instead of letters.

- Make sand paper letters. Have them run their hands over the letters. Add a challenge by having the children touch the letter with their eyes closed to guess which one it is.
- Make your own alphabet book. Let the children decorate each page with drawings and cut-out pictures. Read the book together.
- Have her "write" her own shopping list when you make out yours. Ask her to "read" her list to you. When you go shopping, find suitable items from her list.

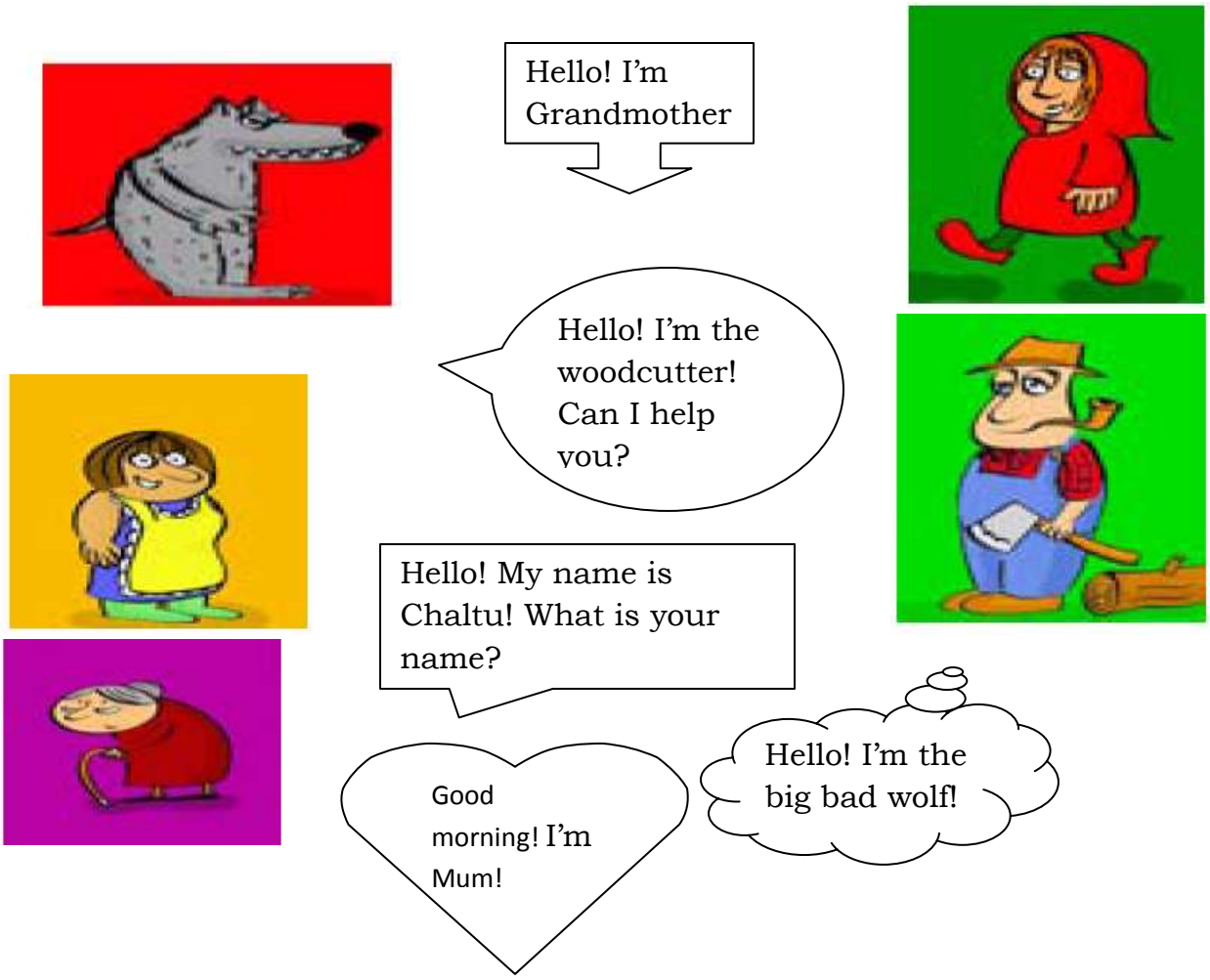
Play bingo

a. Tell your children you're going to play 'Bingo!' Elicit the rules and aims of the game.
b. Give five bottle caps for 3-4 players
c. Tell them to put bottle cap on the letter in their bingo table as a teacher call out a letter
d. The first child to put all five bottle caps shouts, "Bingo!" The one who put correctly according to teachers call will be the winner of the game.

<u>Note:</u> The teacher can make the game easier by arranging the letter in correct alphabet order and harder by arranging the letter in random order.

a	**b**	**c**	**d**	**e**
f	**g**	**h**	**i**	**j**
k	**l**	**m**	**n**	**o**
p	**q**	**r**	**s**	**t**
u	**v**	**w**	**x**	**y**
z				

Read and draw lines from the bubbles to the pictures.



Picture 2.12

- **Mathematics**
  - Play a guessing game. Put buttons in a small jar. Have everyone guess how many items are in the jar, count them and award the winner.
  - Play bingo and dominoes.
  - Play "store" Put price tags on toys and let the children use coins to pay for them. Switch places and let the children be the shop keeper and make change.
  - Create a picture telephone book. Put a picture of people you call regularly next to their phone number and have the children dial the phone number.
  - Sorting/classifying objects – Pupils can collect various materials from the school environment such as bottle tops, beans, stones, sticks, leaves and seedpods. They can be asked to name the objects collected and put them into groups according to similarities and differences in terms of size, color, use, and shape.

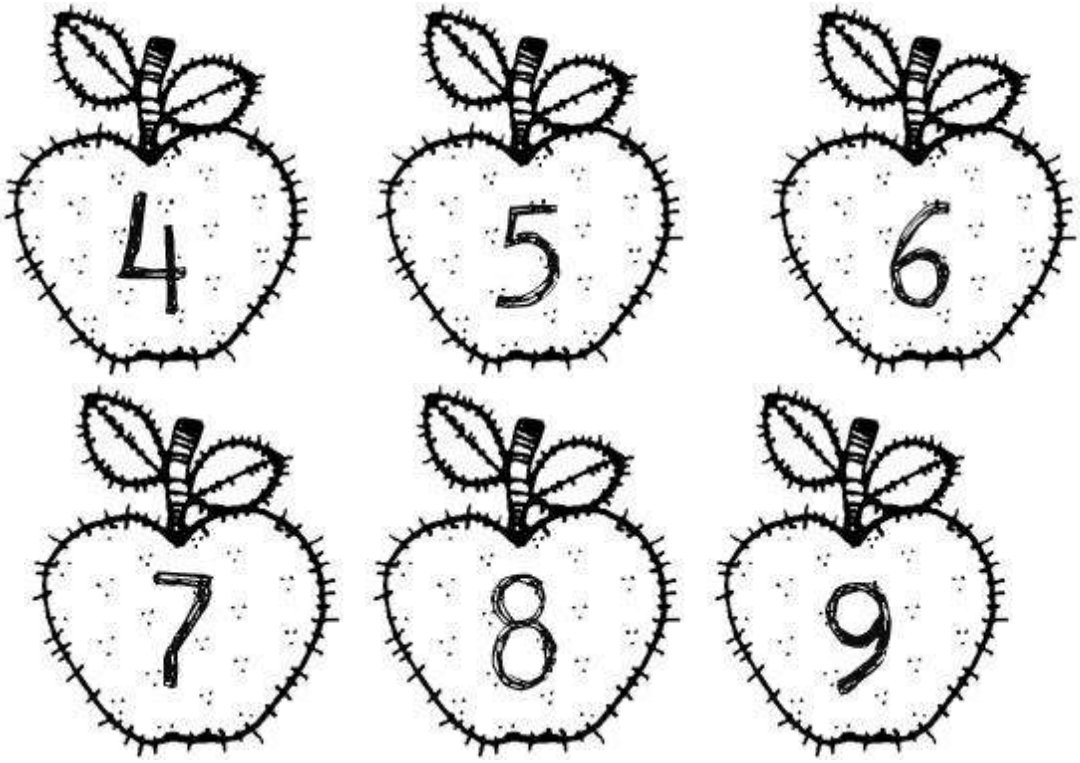
- **Joining objects –** This involves fixing one or two objects onto another in order to extend its length or width or to form a given shape
- **Matching objects** – This involves putting objects similar in characteristics side by side. Pupils are given two groups of objects and are asked to pair objects from one group to other objects in another group.
- **Mixing objects –** This is putting objectives of different characteristics in one group. For example, pupils can put bottle tops, beans, stones and coins in one container and later find out the quantity of each kind of object in the mixture.
- **Ordering objects –** Ordering objects involves arranging things according to given characteristics such as length, size, volume, weight and height. For instance, pupils can arrange groups of objects from that which has the least number to that which has the most.
- **Comparing and contrasting objects –** This is a process of describing similarities and differences between objects. Some of the features to consider in comparing and contrasting include size, weight, length, volume, color and height.

- **Where's the Coin?** Number Identification Game

Directions:

a. Lay the orange out on a flat surface, like a table.
b. Player #1 hides the coin under one of the oranges.
c. The other players take turns guessing which orange the coin is under by calling out the numbers on the oranges.
d. Player #1 turns over the oranges to reveal if they were correct.
e. The player that finds the orange is the winner and gets to hide the coin next!

Note: Make the game easier by arranging the oranges in correct number order and harder by arranging the oranges in random order.

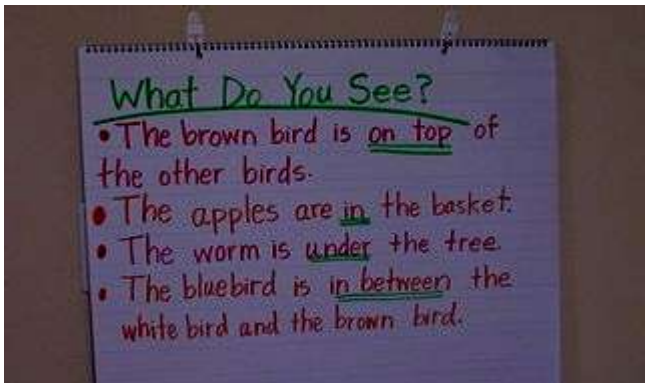


Picture 2.13

- **Teaching position words**

The teacher is looking specifically for descriptions that contain **position words** -- i.e. "**The apples are in the basket.**" If somebody gives you a description that is not position-related, you guide them with questions, most obviously, "**Where is it?**"

You record all of their position-related responses on a chart paper.



Then tell kids that you are looking for words that describe position--or where things are. We work together to find them and underline them.

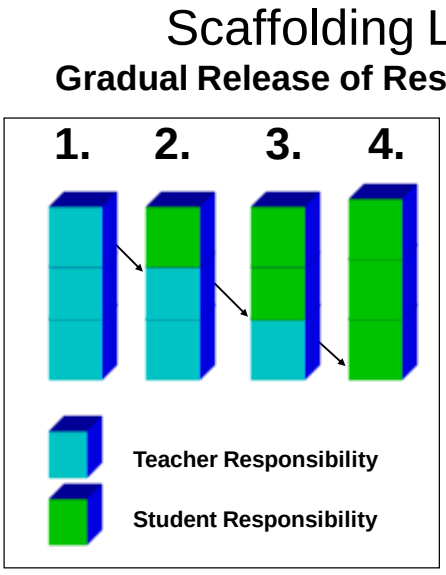
- **Science**
  - ➢Measure the rain. Use a plastic jar with straight sides and a flat bottom and a marker. On the outside, mark "half full" and "full." Keep track of the amount of rainfall.
  - ➢Let the children become a bathtub scientist. Give them different objects and ask them to predict which will float and which will sink, then test the predictions. A plastic container and measuring cups will allow them to practice measuring while in the cup. They can learn about suction from eye droppers and plastic syringes.
  - ➢Teaching sense organs

Good and Bad Smells

Picture 2.14

2.2 Scaffolding

Scaffolding is the provisional device that teachers use to promote students learning. It is the helping system that a teacher puts in place in order to assist students learning.



Picture 2.15

1. Teacher modelling
2. Guided practice
3. Independent Practice
4. Application

Tips for effective Scaffolding

- Anticipate students errors
- Conduct teacher guided practice
- Provide feedback
- Recognize when it is appropriate to fade scaffold

2.2.1 Scaffolding strategies

1. Show and Tell

Show or demonstrate to students exactly what they are expected to do.
You can guide students through each step of the process, model in-hand of the finished product.

2. Tap into Prior Knowledge

Ask students to share their own experiences, hunches, and ideas about the content or concept of study and have them relate and connect it to their own lives. Sometimes you may have to offer hints and suggestions, leading them to the connections a bit, but once they get there, they will grasp it as their own.

3. Give Time to Talk

All learners need time to process new ideas and information. They also need time to verbally make sense of and articulate their learning with the community of learners who are also engaged in the same experience and journey.

4. Pre-Teach Vocabulary

Pre-teaching vocabulary doesn't mean pulling a dozen words from the chapter and having kids look up definitions and write them out. Instead, introduce the words to kids in photos, and in context to things they know and are interested in. Use analogies, metaphors and invite students to create a symbol or drawing for each word and give time for discussion of the words (small and whole groups).

5. Use Visual Aids

Graphic organizers, pictures, and charts can all serve as scaffolding tools. Graphic organizers are very specific in that they help kids visually represent their ideas, organize information, and grasp concepts such as sequencing and cause and effect.

Activity 6☞ choose one scaffolding strategies and apply in your group by taking one lesson

2.3 Communication

Two-way process of reaching mutual understanding, in which participants not only exchange (encode-decode) information, news, ideas and feelings but also create and share meaning. In general, communication is a means of connecting people or places.

2.3.1 Verbal communication

Verbal communication refers to the use of sounds and language to relay a message. It serves as a vehicle for expressing desires, ideas and concepts and is vital to the processes of learning and teaching. In combination with nonverbal forms of communication, verbal communication acts as the primary tool for expression between two or more people.

2.3.2 Non-Verbal Communication/Body Language

Activity 7☞ Mention possible types of nonverbal communication and show how teachers understand child message.

When we interact with others, we continuously give and receive wordless signals. All of our nonverbal behaviors—the gestures we make, the way we sit, how fast or how loud we talk, how close we stand, how much eye contact we make—send strong messages. These messages don't stop when you stop speaking either. Even when you're silent, you're still communicating nonverbally.

2.3.2.1. Types of nonverbal communication

There are many different types of nonverbal communication. Together, the following nonverbal signals and cues communicate your interest and investment in others.

Facial expressions

The human face is extremely expressive, able to express countless emotions without saying a word. And unlike some forms of nonverbal communication, facial expressions are universal. The facial expressions for happiness, sadness, anger, surprise, fear, and disgust are the same across cultures.

Gestures

Gestures are woven into the fabric of our daily lives. We wave, point, beckon, and use our hands when we're arguing or speaking animatedly—expressing ourselves with gestures often without thinking. However, the meaning of gestures can be very different across cultures and regions, so it's important to be careful to avoid misinterpretation.

Eye contact

Since the visual sense is dominant for most people, eye contact is an especially important type of nonverbal communication. The way you look at someone can communicate many things, including interest, affection, hostility, or attraction. Eye contact is also important in maintaining the flow of conversation and for gauging the other person's response.

Touch

We communicate a great deal through touch. Think about the messages given by the following: a weak handshake, a timid tap on the shoulder, a warm bear hug, a reassuring slap on the back, a patronizing pat on the head, or a controlling grip on your arm.

2.3.3 Communication skill for teachers

If teachers really attend to the body language of their students they will know when they are bored or confused. From the body language of their teachers students pick up whether they are confident and enthusiastic. For instance, the sender may not express what s/he wants to say clearly; or the room may be noisy; or the receiver may not understand the words the sender is using. To be effective, teachers have to try to minimize these barriers to communication. We do this in a number of ways – for example, by making sure that the room is quiet and well lit; by speaking slowly and clearly; by only using words which the students should be able to understand.

How can I know whether I am communicating well as a teacher? Communication is a skill – and we improve our skills by getting feedback on the way we perform them give us feedback.

2.3.4 Importance of Communication

Communication is the key which unlocks all the doors to a successful and fulfilling school life experience.

Communication is the key that allows us to feel understood.

Communication is the key to fewer conflicts in the classroom and in the playground.

Communication is the key to everyone feeling safe to be themselves.

Communication is the key to having more fun in the classroom.

2.4 Classroom Managment

Classroom management is the practices and procedures that allow teachers to teach and students to learn. All of the things that a teacher does to organize students, space, time and materials so that instruction in content and student learning can take place.

Activity 8☞ Explain why is classroom management important?

2.4.1 Importance of Classroom Management

- It's motivating the students
- It's providing a safe, comfortable learning environment
- It's building the students' self esteem
- It's being creative and imaginative in daily lessons

2.4.2 Techniques for Better Classroom Control

- A structured and instructionally sound classroom will eliminate a majority of misbehaviours
- Eye contact, facial expressions, gestures, physical proximity to students, and the way you carry yourself will communicate that you are in calm control of the class and mean to be taken seriously.
- Dressing appropriately, educators should dress for respect, credibility, acceptance, and authority
- Do not use corporal punishment
- Parents can be one of your biggest allies in managing the child's behaviour.
- Make positive parent contact before you need their assistance with a problem.
- Contact parents as soon as you see a change in their child's behavior patterns.

Activity 9☞ Write 5 rules that you will use to limits for behaviour in your classroom.

2.4.3 Developing Conducive Teaching-Learning Environment

Establishing rules:

Sample rules:

- Be polite and helpful
- Take care of our school
- Do not hit, shove or hurt others

Rules our family uses at home:

- I will do what I am asked to do without an argument
- I will be kind and respectful to my parents and other family members
- I will ask permission and accept the decision without getting angry
- I will remain calm when I feel angry and talk about how I feel

Giving Rewards

Some examples include:

- Praise
- A note home (Good News Cards)
- Student of the day, week, or month
- Tangible rewards
- Work posted

2.5 Locally available resources

Learning is the process of obtaining and retaining knowledge. Learning resources are materials like books, films, field trips and locally available resources that support or enhance the process of learning.

Activity 10: Identify locally available resources around your school which can be used in teaching and learning.

2.5.1 Principles for selection of teaching and learning materials

- are relevant for the age of the children for whom they are selected and for their emotional, intellectual, social and cultural development
- provide opportunities for children to find, use, evaluate and present information
- appropriateness for the children
- physical quality and suitability of materials

2.5.2 Types of locally available resources

Human resources

Human resources are people who facilitate learning apart from the class teacher. For example, guest speakers from the community such as craft persons to assist in skills development; village heads to talk about their duties or some cultural practices or historical events; medical personnel to discuss health issues and the police to talk about crimes.

Animal resources

- Farm animals such as cattle, goats, sheep, fowls and pigeon
- Pets such as cats and dogs
- Wildlife such as lions, elephants, crocodiles, monkeys, guinea-fowls and other birds
- Animal products such as skins, leather, milk, cheese and meat

Plants

- Fruit trees such as mangoes, peaches, oranges and apples
- Vegetables such as cabbage, lettuce, carrot, tomatoes and spinach
- Tubers such as potatoes, yams, cassava and beet
- Grass

- Indigenous trees

Material resources

This category includes objects such as charts, water, soil, stones, bottles, tins, cloth and plastic sheets.

Non-material resources

- Time
- Personal knowledge, skills, talents and experiences
- Personal qualities such as sense of humour, perseverance
- Language
- Culture (example: games, songs, dances, art, proverbs)

Other types of resources

***Relia*:** these are real objects used as teaching and learning resources. For example, showing a stone, a car, a leaf or a goat during language teaching when these form part of the topic for discussion.

Models: a model is a recognizable representation of something real.

Pictures and drawings: Photographs or drawings may be used as teaching and learning resources. Pictures or drawings can be obtained from newspapers, magazines and textbooks or may be specially drawn.

Activity 11☞Explain why teachers should use locally available resources in their lessons.

2.5.3 Benefits of teaching and learning using locally available resources

- promote meaningful communication
- provide first-hand or direct experience with the realities of the social and physical environment
- stimulate and motivate students to learn
- encourage active participation, especially if students are allowed to manipulate the materials
- reduce the need for a teacher's verbal expression
- encourage creativity

2.6 Assessment

Assessment is a process for obtaining information formally or informally that is used for making decisions about students, curricula and programs and educational policy.

2.6.1 What is child assessment?

A Process of observing, recording, and documenting work of children that allows teachers to make the best decisions for the child.

Activity 12 ☞Discuss in your group on what about a child is assessed?

Kindergarten children are assessed:

Emotional/Social: expressing feelings, forming friendships, resolving conflicts with others

Language: listening and talking

Physical: using pencils (fine motor skills), climbing and running (gross motor skills)

Cognitive: numbers, colors, and patterns

Approaches to Learning: curiosity and excitement about learning and ways of learning new information

2.6.2 Why assess?

- to provide feedback to learners on their progress (e.g. what they have done well and what they need to improve)
- to get information about learners' skills development
- to find out whether learners like or dislike specific classroom activities (you could collect this information by asking and by observing)
- to see whether learning objectives are being achieved
- to provide information to parents

2.6.3 Alignment

Alignment is the connection between learning objectives, learning activities and assessment. An aligned course means that your learning objectives, activities and assessments match up so students learn what you intend and you accurately assess what students are learning.

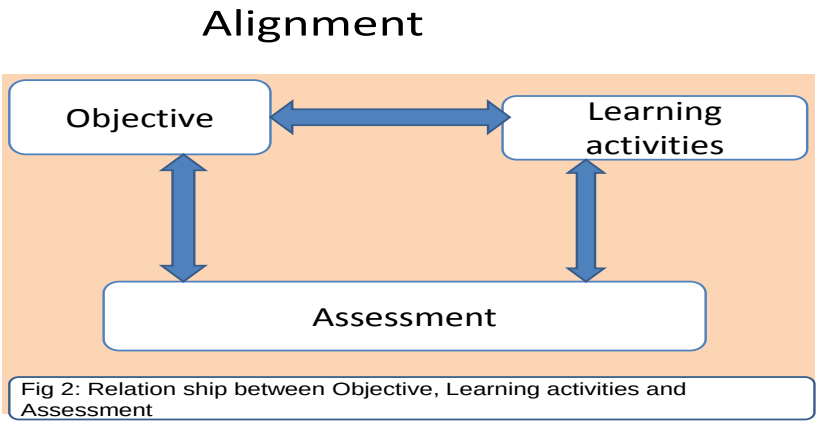


Fig 2: Relation ship between Objective, Learning activities and Assessment

2.6.4 Continuous assessment*:* is an assessment approach which involves the use of variety of assessment instruments, assessing various component of learning, not only the thinking process but also behaviours, personality traits and manual dexterity.

2.6.4.1 Continuous Formative assessment: Monitor learning progress during instruction/each segment of instruction/

2.6.4.2 Continuous Summative assessment: comes at the end of course, unit

Some advantages of Continuous Assessment,

- Understand each child's particular strengths and skills that might need additional attention
- Plan activities that match the skills and abilities of children in their classrooms
- Determine how successful early childhood and school based programs have been in preparing children for kindergarten, and identify gaps in services within their community

Some problems of Continuous Assessment

- Teachers' misunderstanding towards continuous assessment approach
- The problem of record keeping
- Large class size

Table : Format of FCA and SCA

No	Childs Name	Tools for FCA				Tools for SCA			
1									
2									
3									
4									
5									
6									
7									
8									
9									
10									

2.6.5 Kindergarten assessments should

- Be used consistently with the purpose for which the instrument was designed
- Be age appropriate
- Collect information on a range of indicators of a child's development
- Be naturalistic or authentic

2.6.6 How Child Assessment Information is collected

Some approaches schools use to collect assessment data from kindergarten children.

- **Mastery tasks** ask children to perform specific skills and then record the results of the children's performance. An example would be a screening instrument that asks children to hop on one foot, draw a line, etc., and then records whether the child can or cannot demonstrate the particular skill. The data on the child's performance can be collected in a number of forms such as checklists or rating scales.

- **Portfolio assessments** collect examples of the child's work and record observations of the child's behaviour during regular classroom activities.
- **Observational records** provide documentation of a child's behaviour and performance. The observations may be anecdotal records completed by a teacher or parent, or they may be more formal documentation of a child's behaviour in a situation "set up" to see how a child responds.

2.6.7 Authentic Assessments

Children are best assessed through natural or authentic methods. "Real-life" tasks, examples of children's work, observations of children in naturalistic settings, and ratings of children's everyday behaviours tend to be more accurate reflections of their abilities. It's best to collect information from the child's regular classroom on tasks similar to what he or she is accustomed to and from persons with whom he or she is familiar whenever possible.

2.6.8 Benefits of Authentic Assessment

- It assess performance of the children directly
- It assess process and product
- It assess the contents
- It assess social skills and children attitudes

Examples of Authentic Assessments

1. **Check List (Yes/No, 0/1, √/x)**

I. Assessment to Differentiate Colors

Name: _____

Date: _____

Colors	✓ /x	Colors	✓ / x

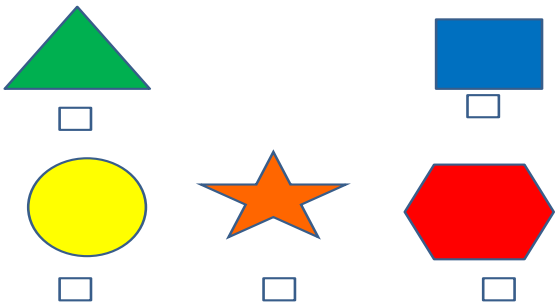
II. Assessment to differentiate small letters

Name: _____

Date: _____

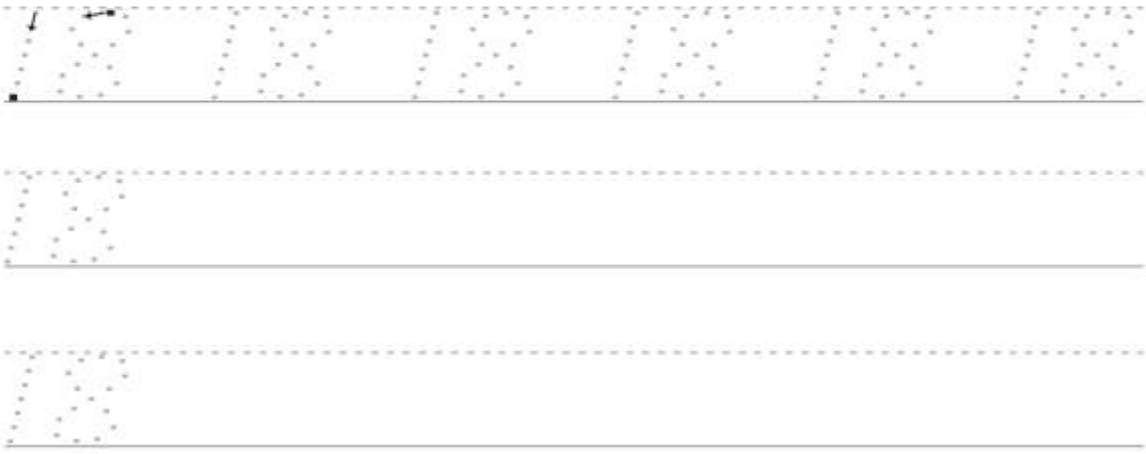
p	a	z	b	n	x	i	h	g	o	w	e	f	j
c	v	y	u	m	k	d	l	q	r	t	s		

III. Assessment to name of shapes
Name:_____
Date: _____



Iv. Assessment to trace numbers

Name:_____

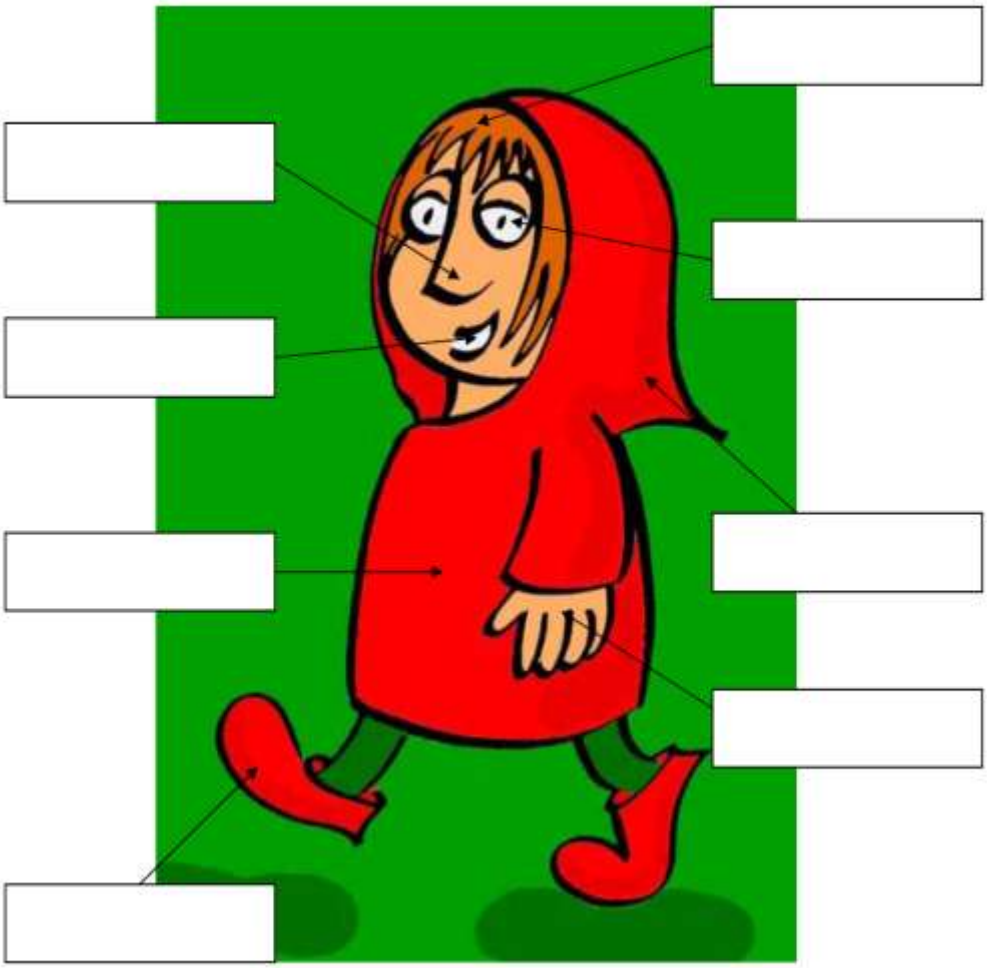


V. Assessment to write words in the correct box

Name: _____

Date:_____

Write the words in the correct boxes



eye nose teeth

hair hand

hood cloak shoe

Picture 2.16

2. Rating Scale

Example of a Rating Scale Rubric for Evaluating Fellow Group Members (suskie, 2009)

Standards

	This group member…(*criteria*)	Almost Always	Often	Sometimes	Rarely
1	Did his or her fair share of the work				
2	Participated actively in the group's activities				
3	Contributed useful ideas, suggestions, and comments				
4	Listened carefully				
5	Was considerate of others and appreciated their ideas				
6	Asked others to clarify their ideas if necessary				
7	Expressed disagreements respectfully				
8	Did not dominate the conversation or interrupt others				
9	Tried to help the group reach consensus				
10	Helped the group stay on task/topic				
11	Helped me learn more than if I had worked alone				
12	This group member…(*criteria*)				
13	Did his or her fair share of the work				

Activity 13☞ what is the main reason that hider teachers to apply authentic assessment

Note: Standardized pencil-and-paper tests should not be used with kindergartners

2.7 Documentation

Documentation typically includes samples of a child's work at several different stages of completion: photographs showing work in progress; comments written by the teacher or other adults working with the children; transcriptions of children's

discussions, comments, and explanations of intentions about the activity; and comments made by parents.

An effective piece of documentation tells the story and the purpose of an event, experience, or development.

Picture 2.17

A parent eyes something on the wall in the hallway near her child's classroom. She stops and looks across the entire wall, as if trying to determine where to start. She moves to the left a bit and scans the bulletin board posted farther down. At one point she nods as if in agreement and mouths a yes.

Activity 14☞ Read the above paragraph, reflects your understanding to the group and comment on it.

2.7.1 The Importance of Documentation

- Children become even more curious, interested, and confident when they think about the meaning of what they have done.
- Children also learn from and are stimulated by each other's work in ways made visible through the documents displayed.
- Documentation provides a basis for tweaking teaching strategies, and a source of ideas for new strategies, while deepening teachers' awareness of each child's progress.
- Documentation helps teachers promote a positive exchange of ideas.
- Documentation makes it possible for parents to become more aware of their children's experience in the school.
- Parents' comments on children's work can also contribute to the value of documentation.

Activity 15☞ from your own experience what should be documented while teaching children

2.7.2 Documentation Artifacts and Evidence

- Photographs of children at work—for example, conducting a science experiment
- Samples of children's work, like a writing sample from the beginning of the year
- Teacher or parent comments about a classroom event—for instance, "It was really fun helping the children measure the ingredients for play dough"
- Teacher transcriptions of conversations during small group time when children are exploring a new topic, such as why snow melts indoors

2.7.3 Possible Topics to Document

- Individual child growth and development, such as language development progression
- Expected behaviors (at group time, in using a certain toy, while eating together)
- Curriculum ideas or events (field trips, presentations, special activities, celebrations)
- Questions and answers of the children, teachers, and families about such topics as classroom routines (like how to wash your hands)

2.7.4 Documentation Format

A bulletin board can be a form of documentation, but there are any number of other possible formats, including a presentation board containing documentation artifacts and/ or evidence (documentation panels), class books, portfolios, slide shows, movies, and other creative products.

2.8 Planning

In general terms, planning means the act or process of making or carrying out plans. Instructional planning is a process of planning the content of instruction, selecting teaching materials, designing the learning activities and grouping methods, and deciding on the pacing and allocation of instructional time, they are actually determining what learning opportunities their students are going to have.

A lesson plan is a written guide for teachers' plans in order to achieve the intended learning outcomes. It provides specific definition and direction on learning objectives, equipment, instructional media material requirements, and conduct of the training.

Activity 15 ☞Discuss on the importance of planning for kindergarten teachers

2.8.1 Good Planning

- Achieves the objectives
- Provides the roadmap and visuals in a logical sequence
- Provides direction to a substitute
- Encourages reflection, refinement, and improvement

- Enhances student achievement

Kindergarten Lesson Plans Format
School Name _____
Teacher's Name _____
Date _____
Objective_____
_____
_____

Contents	Monday	Tuesday	Wednesday	Thursday	Friday
Letters	Sort Ss and Hh word wall cards/pictures on pocket chart. Notice beginning sounds. Cut, sort letters SsHhAa MmTt on 1/6th paper.	Name pictures of things that are in a house (sink, mirror, etc.). Sort them by beginning sound.	Make a snake of Ss words by spiral cutting a paper plate and adding words ending in Ss.	Discuss words ending in S. Write singular words and add S to make them plural. Draw pictures to represent, in journal	Make new words with "the" and "is" on chart paper and with magnet letters (the-he-be-see-me/is-his-sis-tis)
Math	Positional Words: left and right. Trace/cut out hands. Glue.	Draw a pond with animals inside and some outside. Count.	Make a bridge with sticks & glue. Draw birds over & under	Sit on the rug by sorting boys on left, girls on right. Draw.	Patterns test
Science	Weigh pumpkins on a scale. Compare each pumpkin and draw findings in journal.	Measure pumpkins circumference. Compare each then draw findings.	Break dried pumpkin seeds. View with magnifying glass. Record in journal.	Notice changes in matter: how has the pumpkin changed over 2 weeks (mold)	

Social Studies	Getting to know our classroom rules: Hands and feet to self, walking inside of school, raise hand to get the teachers attention, wait your turn to be called upon, use a quiet voice inside of school

2.9 Professional Ethics

Professional ethics is the rule or standard governing the conduct of members of a profession. Professional ethics is ethics in the form of formally framed rules governing professional conduct or conduct of particular class of people. Professional ethics applies to only members of the profession. Violation of professional ethics results in disciplinary measures.

2.9.1 Professional Development

- Professional knowledge and understanding (up-to-date subject matter and curriculum knowledge, good understanding of classroom pedagogy, etc.).
- Teaching skills (learning plans for students' involvement, use of active learning methods, reflect on classroom practices, etc.).
- Values and attitudes (love of profession, form excellent relationship with colleagues, strive for learning and self improvement, high expectations for students, etc.).
- Learning environment (maintaining an attractive and supportive learning environment, creating a safe and orderly environment, use of appropriate teaching aids).

2.10 Early Childhood Care and Education ECCE in Ethiopia

The Government of Ethiopia has recognized the fundamental importance of Early Childhood Care and Education ECCE in accelerating attainment of education for all and the millennium development Goals.

2.10.1 Child Rights protection and care

The review of the national policy and legal frame work on child Right, protection and care revealed the Ethiopia Government's clear commitment to put in to place the appropriate foundation for the promotion of children are provided for under Article 36 of the 1995 federal Democratic Republic of Ethiopia constitution . Through its constitution and the entire international agreement to which it is a party, Ethiopia guarantees the rights of the child and the right to quality education. This implies an obligation to support the development of ECCE, including the development of a policy framework as a means to implements the right guaranteed to the Ethiopia child. In relation to the child's right to be protected from violence, it has been stated that policy guidelines exist but that implementation and enforcement are ineffective (2006 Africa child policy Forum) culturally adults consider certain forms of physical and

psychological punishment. The ministry of Education and the regional educational bureaus issued school regulations that prohibit any form of corporal and emotional punishment against children, but due to insufficient progress in the field, pupils are still subject to physical and psychological punishment. The unsuccessful implementation of policy and legal codes is an indication that considerable work is still required to protect children from violence and for the government to live up to the obligation it has agreed to.

2.10.2 Roles and responsibilities of partners in the provision of ECCE services

Management of ECCE service and programmes through various sector ministries and organization should be streamlined and approached in an integrated way. Numerous partners will work together in the provision of Early Childhood Care and Education and collaboration should be regulated by the comprehensive policy framework. The following sectors point to some of the role and responsibilities of the major stakeholders.

2.10.2.1 Parents and caregivers

Parents and other caregivers are the most important persons in the life of child. They play a key role in children development. Their role is to socialite the child and inculcates life principle and spiritual, cultural and moral value for his/her character development. They also provide an enabling environment for the child's growth and development, and early stimulation for his/her future development.

2.10.2.2 The community

The community supports the parents' efforts providing for the child's holistic needs. It makes support services available for the young children and provides protective environment and physical facilities. The community safeguards the children's right and mobilizes resource to enhance their holistic development.

2.10.2.3 Ministry of education

The ministry of education provides policy guideline on early childhood care and education certifies ECCE teachers and trainers, develops play and teaching materials and maintains standards and quality assurance.

2.10.2.4 Ministry Of health

The ministry of health is responsible for primary health care services at the community level. The Health Extension program (HEP) is the tool of the ministry of health for brining key maternal, neonatal and child health interventions to the community and has special attention to mothers and children.

2.10.2.5 Ministry of women's Affairs

The ministry of women's Affair shall among many others be engaged in identifying and promoting use full child rearing practices across different cultures. At the same time it will mobilize the community to eradicate harmful practices by educating the general public about the negative effects of such practices on the overall development of children, and creates awareness about chider's rights and welfare.

2.10.2.6 Ministry of finance and Economic Development (MOFED)

The ministry of finance and Economic Development shall be engaged in budgetary allocation for ECCE and will integrate and mainstream the ECCE program in to development planning at all levels. It will facilitate the mobilization of local and international resource to support ECCE program and provide fund across the ministries for such programs.

2.10.2.7 Religious Institution/Faith-Based organizations

They mobilize resource and provide funding for ECCE. Carry out advocacy and the Provision of technical support, to support the implementation of the policy Frame work. They play also a role in capacity building and establishing/strengthen linkages and collaboration among partners.

2.10.2.8 Bi-lateral and Multilateral Development Partners

They mobilize resources and provide funding for ECCE. Carry out advocacy and provision of technical support, to support the implementation of policy frame work. They also play a role in capacity building and establishing linkages and collaboration among partners.

Part III

3. Early Childhood Literacy

Introduction

Mother tongue refers to the language that human learn from birth. Other term like "first language" and native language" are all related to this same idea, and refer to the language a child exposed to particularly from birth to some years. Many researches results reviled that learning through mother tongue allow children to express fully range of knowledge and experiences and demonstrate their competence. Learning in the mother tongue plays decisive roles in child development. As brain growth, the ability to learn multiple languages is much higher among children who start their pre-schools in their mother tongue. Knowing this, teachers of the kindergarten should help the children in developing the four skills of languages learning

Objectives: At the end of this lesson, the trainees will:

- Have concepts of reading and writing skills.
- Identify the components of reading and writing skills.
- Help children to read and write letters, words and simple sentences.
- Acquire the knowledge of teaching children through associating letters with sounds
- Be familiar with factors that affect the reading and writing skills and help children accordingly.
- Equipped with some strategies of teaching children in the kindergarten level.
- Prepare teaching materials from locally available material

3. Helping children to read and write: letters, Words and simple sentences.

3.1. Concepts of reading and writing skills.

Activity 1☞ Discuss the following questions in group and report to the class.

1. What are the reading and writing skills?
2. Do you think that these two language skills have relations? How? Please discuses them briefly.
3. What do you think are the components of reading and writing?
4. What kind of relationships do letters and sounds have?
5. List some factors that you think affects the reading and writing ability of children at the kindergarten stages.

People have different definitions about reading and writing. These often reflect different ways of thinking about reading and writing. Some people focus on ability to transfer printed symbols in sounds that combine to make familiar words and that words organized in to sentences and paragraphs to make stories, informational

articles and poems. These definitions focus on **the code.** That is ,authors encode speech into print .And readers decode print in to speech .This definition emphasizes mechanical skills of letter recognition ,letter discrimination and word recognitions that are necessary to read and write ,and best for memorization.

Other people would agree that the true of reading is the ability to construct meaning**.** In other words, authors construct meaning when they put their ideas into print. And readers construct meaning when they interpret or reflect on what an author has written. This definition emphasizes **cognitive process** necessary to read and write.

In the kindergarten level there are two main methods to teach the reading skills "**Phonic**" method, that helps to teach children individual letters and their combinations so that they can "**sound**" out words that they want to read .The "**Look and say method**" This is based on words and phrases than letters. It makes a lot of use of flash cards. Students look at words and phrases and say what it is. The important part of such an exercise is looking and understanding the word.

Activity 2☞ Be in pair and exchange your opinion on the following questions.

1. As kindergarten teacher, which skills do we need our children have?
2. At this level, which skills need more emphasize? Why?

3.2 Components of reading and writing.

Activity 3☞ Be in group of four and discuss the following question.

1. What do you think are the reading and writing components?
2. Please, can you list them? List as much as you can.

Phonics and **spelling**: Is the methods of teaching and reading and writing in language by developing children's' phonemic awareness – the ability to hear, identify, and manipulate phonemes – in order to teach the correspondence between these sounds and spelling patterns that represent them. The goal of phonics is to enable beginning readers to decode new written words by sounding them out, or in phonics terms, blending the sound-spelling patterns. Since it focuses on the spoken and written units within words, phonics is a sub lexical approaches and, as a result, is often contrasted with whole language, a word-level-up philosophy for teaching reading. Phonics is a component of reading and writing skills. It is the relationship between **letters and sounds.** Readers use their knowledge of letters and sounds they represent to figure out how to pronounce words when they read, and how to spell words when they write. Mother tongue has special patterns and phonics rules that must be taught to students. This is because; some languages like English do not always represent the same sounds of letters as they do in most language. This makes English difficult to learn, and some words cannot be sounded out letter by letter. Fore example, take the

letter '**C**". It has different sounds like [**ss**] in [**see]** [**KKK**] as in [**cat**] and '**C'** in [**city**]. But, in some languages like Amharic and Afaan Oromo we can't face this problem.
Therefore, to equip kindergarten learners with the skills of read and write, the pre-school children must be able to identify all of the letters of alphabet and their sounds in the language in which they are reading and writing (mother tongue or regional). They should also, understand the sound that these symbols represent when they read and write.

3.2.1 Teaching phonics in kindergarten.

Letters and sounds: In kindergarten school, teaching letters and sound are the first phase of teaching phonics. This phase supports the development of speaking and listening skills of children and awareness of sounds. The main objective of this phase is to teach children the important basic elements of letters and sounds such as oral segmenting and blending of familiar words**.** This will be achieved through making children to exploring and experimenting with sounds and words and make them to distinguish sounds and phonemes in environment and show awareness of rhymes and alliteration. It falls largely within the communication, language and literacy area of learning in the early year's foundation stage. It also draws on and promotes other areas of learning, particularly personal, social and emotional development and creative development.

3.3 How do we teach Letters and Sounds?

Alphabetical languages are made up of letters. Each letters stands for one or more sounds .Some letters are called consonants. These letters almost always stand for single sound and that sound is always the same. Other letters are called vowels. These letters change the sound of the consonant.

Example. of Consonants:

B ,C ,D, F, G ,H, J, K ,L, M, N, P, Q, R ,S, T, V, W, X, Y ,Z

Example of vowels:

A, E, I, 0, U

For example. **In English language**.

"b"* letter. It represents the symbol of the Letter that has only one sound

**/b/ ***sound. It represents the sounds of the letter that have more than one sounds. Like:

/**be, bu, bii, ba, bie, bi, bo/.** In the case of mother tongue, rather than Amharic, except lengthening Afan Oromo follows the same patterns.

To teach these letters and sounds**,** we play a variety of games and activities that are led by adults. Because, the way we model speaking and listening, interact and talk with the children is critical to the success of promoting the children's speaking and listening skills. We also provide opportunities on daily basis for children initiated learning where the children can play and explore their new found skills. This plays a very important part in their development. With children songs and rhymes have a key part in developing children's language.

Activity 4☞ Be in pair and discus on the following question.

1.What are the effective activities to be designed by the kindergarten teacher to teach letters and their sounds?

3.4 Activities for teaching Letters and Sounds.

Listening walks: Small group go out to listen for specific sounds, like **dog**, **ship**, **hen**, c**at** or any sounds in their environment they are familiar with or listen to these sounds identify them and say them.

Sound pattern: Play hidden instruments and child identifies them and play them back. For example, clap your hand or tap a spoon on a table in a specific pattern and make them to repeat the beat.

Copycat: repeat the rhyme**.** Play instruments, body parts, or equipments and children copies.

Cross the river: blue fabric represents river and child crosses it if they have the correct sound. This could be animals, instruments, letters sounds or rhyming object.

Sing nursery and songs rhymes: They create a meaningful situation for children to practices in language, numeracy, literacy and life skills. Learning becomes joyful and fun .Songs and rhymes are effective methods that allow children to hear sounds of the language they are learning… For many children, certain sounds such as /r/, /q/, /c//v/or/p/are very difficult to sound it. This may affect their ability to listen, understand and speak it. Songs with your class or teaching them rhymes will help to introduce them to different and such difficult sounds. At kindergarten level, related to the alphabets .yes of course the, ABC is great one to sing, but don't limit to just that one. Sing the alphabet letters to different tunes and rhythms.

Example1 a, b, c, d, e, f, g, h….etc. with different tunes.

Example1 **Singing sounds**

Baa Baa Black Sheep
Baa Baa,

Black sheep,
Have you any wool?
Yes sir, yes sir,
Three bags full:
One for my master,
One for my mother,
And one for the father**!**

Example 2

Down, down, down, down,
The leaves are falling down,
In their lonely dress,
Or red and brown.

Picture 3.1

3.4.1 Steps to teach children phonics

The phonic process teaches children how to break down words and how to use spelling rules step by step and build the ability of reading words and sentences. To equip children with these skills, teachers should the following steps:-

1. Spend at least five to ten minutes a day teaching children the letter names. Start with vowels then move on to consonants .Because they are so interested in their names ,start with teaching those letters, then continue until they can look at a letter flash cards, and say the name without hesitation .Once they can run through the complete alphabet, upper and lower case, they are ready to move on.
2. Recognize letter sounds as the next steps in teaching phonic. This can be started as they learn the letter names, but don't overwhelm a child too much to remember. Learn the vowel sound first, since most vowels have two or more sounds.

   Example**. Shake!**

   a---Shake your **hand**....**a, a**

   e---shake your **leg**....**e, e**

   i---shake your **hip....i, i**

   o---shake your **body**....**o, o**

   u---shake your **thumb**....**u, u**

3. Purchase or make your own sound flash cards. Use letter sound songs that children love to sing which speed up the learning

Example.	**a, b, c, d**	**E, f,g,h**
	i, j,k,l	**m,n,o,p**
	q,r,s,t	**u,v,w**
	x,y,z	

4. Begin to teach sound combinations such as "**at"** "**to"** and then latter, **ilk**" and"**ink**"…etc. Because, sounding letters is an important step in reading complete words. Here, start with the simplest words before moving up to four and five letter words.

5. Implement letter and sound combination work sheets to show how well the child is understanding. Point to words as you read together and help them in sounding out letter and recognizing sound combination until they are able to see a word and read it with little difficult time. Be patient and consistent.

6. Identify first and last letter sounds in a word, slowly in corpora ting into learning letters and sound combinations. Start with recognizing beginning letter sounds followed by recognizing ending letters. One way to test them is to show pictures of things that start with the same letters, then add one that start with different letters

Example.

c		**t**
r	**a**	**t**
f		**t**
h		**t**

Book

Look

Cook

7. Teach the child to put separate letter sounds together when forming words. Using plastic letters, or letter cards, point to the first letter and ask them to sound it out. Such as **b-a-t**. Each time they repeat the sounds, move the point quicker and quicker until they are actually saying the word

8. Show children how to sound out words by remembering the sounds combination, such as b**-at**. As they sound **/b/** and **/at/** repeatedly, they will soon sound the word as a whole and understand how to break down letters sounds to read words. Once words are read with ease, teach the child that a string of words put together in cohesive way makes a sentence. Soon they will be on their way to reading independently.

3.4.2 Locally available Resources for teaching letter sounds.

After kindergarten kids begin recognizing specific letter of alphabets, it's time to work on beginning sounds. Learning the beginning sounds of letters is one of the first steps in learning to read, and it's an exciting time for parents as well as kids . The following kindergarten lesson on beginning sounds will help you teach your child in a way that makes learning fun through games and entertaining activities. Your child looks forward to these fun and easy methods of learning.

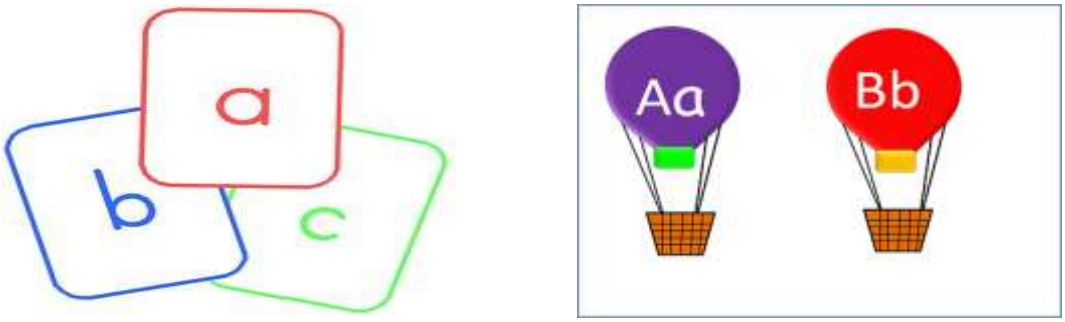
Alphabet Cards

A set of lower and upper case alphabets cards is a great learning tool since they help kindergarten kids learn letters by sight, but they are also great for teaching and learning sounds. Once kids have learned to recognize specific letter, it's important to start working on beginning sounds. Before long your kindergarten student will be reading.

For example

Picture 3.2

After the child says the letter, have him or her say the beginning sound. start with consonant, and as always, have a lot of practice. Work on just a few at a time for comprehension. It takes kids time to learn and retain 26 capital letters and their lower case counter parts as well as the sounds each letter make



Picture 3.3

Fun Word Games

Word games are a great way to help teach kindergarten kids beginning sounds. Once your child learn to recognize specific letters and the beginning sound associated with those letters, hand your child one card at a time, and ask him or her to say a word that start with each letter. Allow them to keep a card for every word they correctly choose. Whoever end up with the most cards after goging through the series of letters or the entire alphabet is declared the winner. Either way your child wins since this is fun and easy way to practice and learn.

Sound Recognition Game

Another fun word game involves beginning sound recognition, and this game can be played in any place, like where you and your children have a few minutes to spare. Begin by saying a word that start with specific letter they know, and ask your child to say a new word that starts with the same letter. Be sure to make a big deal out of correct answers, and always allow your child to try again if he or she makes a mistake. Learning takes time, and mistakes can be expected.

Example.

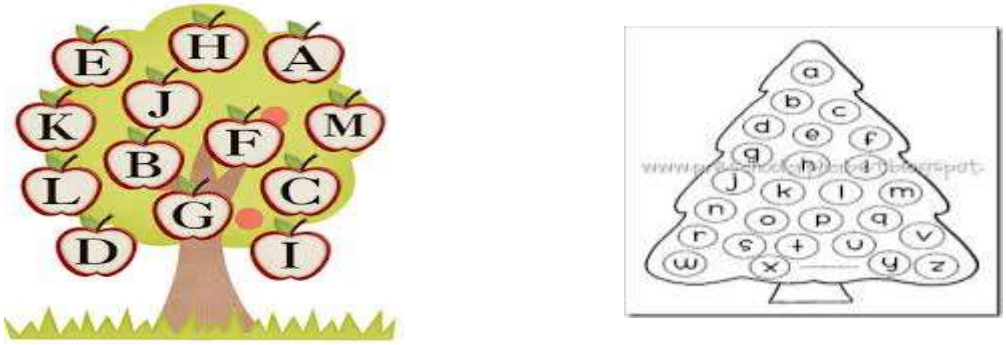
The teacher may say"**b**ag"

Children may add any word that start with latter "b" like "**b**all, **b**asket, etc.

Make a Letter Tree Game

A letter tree can make learning fun by providing and incentive and creativity. Make a paper tree with construction paper leaves of various colors, and each time your child learn a new beginning sound ,have them glue a leaf to the tree . Before long your kindergarten student will have a tree full of leaves and a mind filled with valuable lesson that will help them in learning to read.

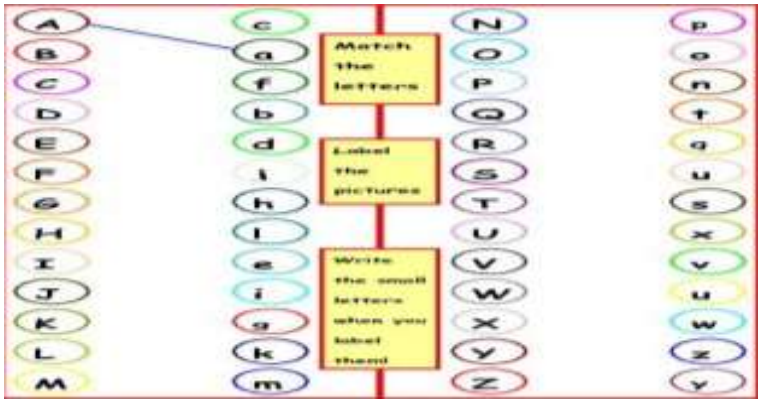
For example



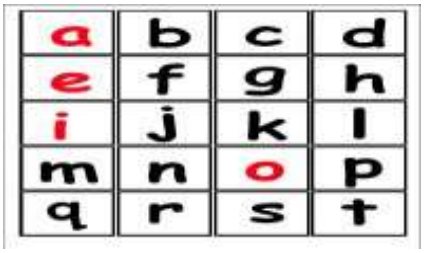
Picture 4.4

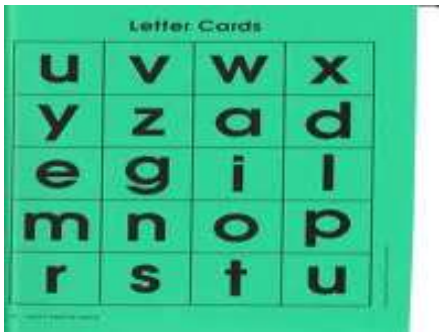
Matching Games: kindergarten letter matching game is also fantastic way to learn the beginning sounds. Make or print out a pairs of cards with letters and beginning sounds your kindergarten student knows. Lay the cards face down, and each time your child pick two of the same, if successfully say the beginning sound of the letter, they keep the pairs. Once they have matched all of the pairs, the game is over, but, the learning never ends with this fun and easy lesson especially for kindergarten kid

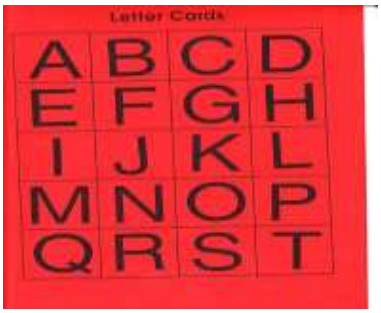
Example: matching the letters.



Example. **Letter cards**







Example: **Matching letter with the objects name**

A✱  B✱  Ball

Apple

C✱  cat D✱  Dog

Picture 3.5

3.5. Fluency

Activity 5 ☞. Work 0ut these questions and give your suggestion.

1. How do you understand fluency?
2. Why do you think fluency skill in reading of children is important?

Fluency is the quality of being able to speak or write a language easily and well. Reading fluency is one of several factors necessary for reading comprehension. If children read out loud with speed accuracy and proper expression, they are more likely to comprehend and remember the material than they read with difficult and in efficient way. Therefore, the reading and writing fluency requires children are familiar with pronouncing spelling patterning that they can spell hundreds of high frequency words, simple sentences and at large text structures. Fluency is a set of skills that allows readers to rapidly decode text while maintaining a high level of comprehension (National reading panal, 2001) .Fluency encompasses a number of related but separable skills such as:-speaking, and reading writing skills

3.5.1.Oral fluency: Is almost the same as reading fluency .It specifically refers to being able to the smoothness or flow with which sounds ,syllables, words and phrases are joined together when speaking quickly, and understood by its' speaker.

3.5.1.1 Methods of teaching oral fluency

Modification: A fun variation of this activity is to time the children and see how quickly the children can go through the entire set of letter cards. You can either do this with entire class or as a competition between individual children.

To do this the teacher needs use realia .This is to bring letters or words to life using the correct representation of those letters or words available to children.

For example: **necklace**, **hats** and **walking sticks.**

Describing pictures: Ask what do they see? What do they think is happening?After you have talked about these pictures, turn over and ask them what they can remember.

Picture 3.6

Comparing things

Big / Small / Long / Short

You are going to fill a bag with objects. Get 2 of each object, but make sure one is bigger than the other. For example, a big and a small car, big and small plastic apples, long and short pencils, etc. In the class, pull out each and elicit the object and adjective ("It's a big apple"). Throw the objects around the room as you go. Once all the objects are out of the bag (and scattered around the room you can do one of the following: 1. ask each S in turn to retrieves one object ("Freddy, can you give me the long pencil, please"). 2. Shout out each object and let all the Ss race to get it. 3. Play "Touch" ("Everybody, touch the small apple")

Stories:-

Example 1 TWO Red Apples

Away up high in the upper tree.(**reach arm up**)

Two red apples smile at me**.(smile**)

I shook that tree as hard as I could.(**shake tree**)

Down came the apples.(**hands motion to ground**)

And m-m-m-they were good.(**rub mouth**)

Example 2. Retelling stories:-Retelling story is a good way for children to practice putting words together to form simple sentences and putting sentences together to form idea. In kindergarten, the teacher select simple story from the text book and read to them or orders them to bring simple story from their parents and ask them to retell the story in their words to a class. This help children to develop oral fluency of listening and speaking that lead them to the skills of understanding through literary questioning that help them for cognitive development.

Example

A Loin and a Rat

One day a lion caught a rat. The rat said "Please don't eat me I will help you someday"; so the lion let him to go. One day, the lion was caught in a net. The rat came there on hearing the lion roar. The rat cut off the hunter net with his sharp teeth and set the lion free. The lion and the mouse became friends.

Literary questions:-

1. Who are the two friends
2. What did the loin do?
3. What did the rat say to the lion??
4. What happened to the lion?
5. What did the rat do?
6. Did the lion and the rat become enemies?

Animal riddle

For example: **"**I have two legs, and lay an egg" what am I? (**hen**)

"I am very big and my tusks are long", what am I? (Elephant)…etc.

People riddles:

For example: "I make chairs and tables, who am I? (**a carpenter**)

Other riddles:

For example: You keep me on a ring. I can turn. I can open doors. What am I? (**key**)

Picture story: you could make some story cards .The children put these in correct order and tell the story.

Example:

A

B

C

D

E

Picture 3.7

Song and Rhymes: there are many songs and rhymes that can help child to learn the latter name .The alphabet song is often used to teach the names of letters in the English alphabets.

Example1. Teaching English alphabets.

You do not have to teach the entire rhyme at once; you can simple teach two lines, since they are beginners.

A IS for **A**pple, **B**, is for **B**all,
C is for **C**at, **D** is for **D**oll,
E is for **E**gg, **F** is for **F**eet,
G IS for **G**irl, and **H** is for Heat,
I is for **I**nsect, and **J** is for **J**og,
K is for **K**ite, and **L** is for Log,
M is for **M**ango, **N** is for **N**est,
O is for **O**range, **P** is for **P**est,
Q is for **Q**ueen, and **R** is for Rail,
S is for **S**itting, and **T** is for **T**ail,
U is for **U**ncle, and **U** is for **U**mbrella and **U**se.
V IS for **V**acation, and **V**olcano and **V**iew,
W is for **W**indow, **W**histle and **W**ax,
X is the end of Fox, Box and Tax,
Y is for **Y**ellow and Year and You,
Z is for **Z**ero and **Z**ebra, a

Example 2.words each line rhymes with the last word in the next line.

"**ball**" and "**doll**" **" rail" and "tail".** This rhyme helps to teach the letter names and also begins to show the letter sounds**.**

Tongue Twister: is a group of words difficult to say particularly if you try to say them quickly. Children have to listen to them carefully and start précising them very slowly.

Example: " Red leather, yellow leather"
"She sells sea shells on near sea shore"

True or False games:

For example: I sleep with my eye closed (true)
Cats fly in the air.(false)…etc.

2.5.2. Oral Vocabulary fluency

2.6.

Activity 6 ☞ First think individually then discuss the following question in group of three then report to the whole class.

1. What is vocabulary?
2. When do children start learning vocabulary?
3. From where do children start learning vocabulary?
4. What can teachers do to increase the vocabulary of children who start? education with a limited vocabulary?
5. What do you think the impact of having limited vocabulary in the Children' future career?

Children have four types of vocabularies: Listening, speaking, reading and writing. Oral vocabulary is learning new unfamiliar words and how to use them in every day spoken language. Children start school with a vocabulary which has been learned mainly from their contact with parents and the literacy environment at home, as well as their experience with the wide world. A child vocabulary at this stage will largely be oral. That is words which they can understand when heard and use them. Recent research shows that vocabulary growth is largely determined by parental practices, particularly before the age of 7(Biemiller2003). Children mainly use words their parents and other adults use with them in conversation, and acquire larger vocabularies when their parent's use more words, and vice versa (Hant and Risley, 1995).Vocabulary is a strong indicator of reading success, having a low vocabulary can trap children in a vicious circle, since children who cannot read more simple and advanced texts miss out opportunities to extend their vocabulary and are less successful in using strategies for word learning.
Therefore, taking these in to account, kindergarten teachers should read to children and getting them to read themselves for vocabulary growth, together with engaging children in rich oral language and encouraging reading and talk both at home and at school.

3.5.2.1. Locally Available Resources for teaching Oral Vocabulary in Kindergarten.

Our ability to function in today's complex world is greatly affected by our language skills and word knowledge. Perhaps one of the greatest tools we can give our student is a large and rich vocabulary. Thus, how do kindergarten teacher teach their children vocabulary? Many teachers still teach vocabulary the way we were taught years ago. But drill lists of spelling and isolated content words can be boring. Instruction in vocabulary involves more than looking up words in dictionary and using them in sentences. It's possible to teach a child to read orally, with understanding the meaning of a sight words. It can be done through phonics and teaching the rules of syllabication, but it is really an exercise in futility.

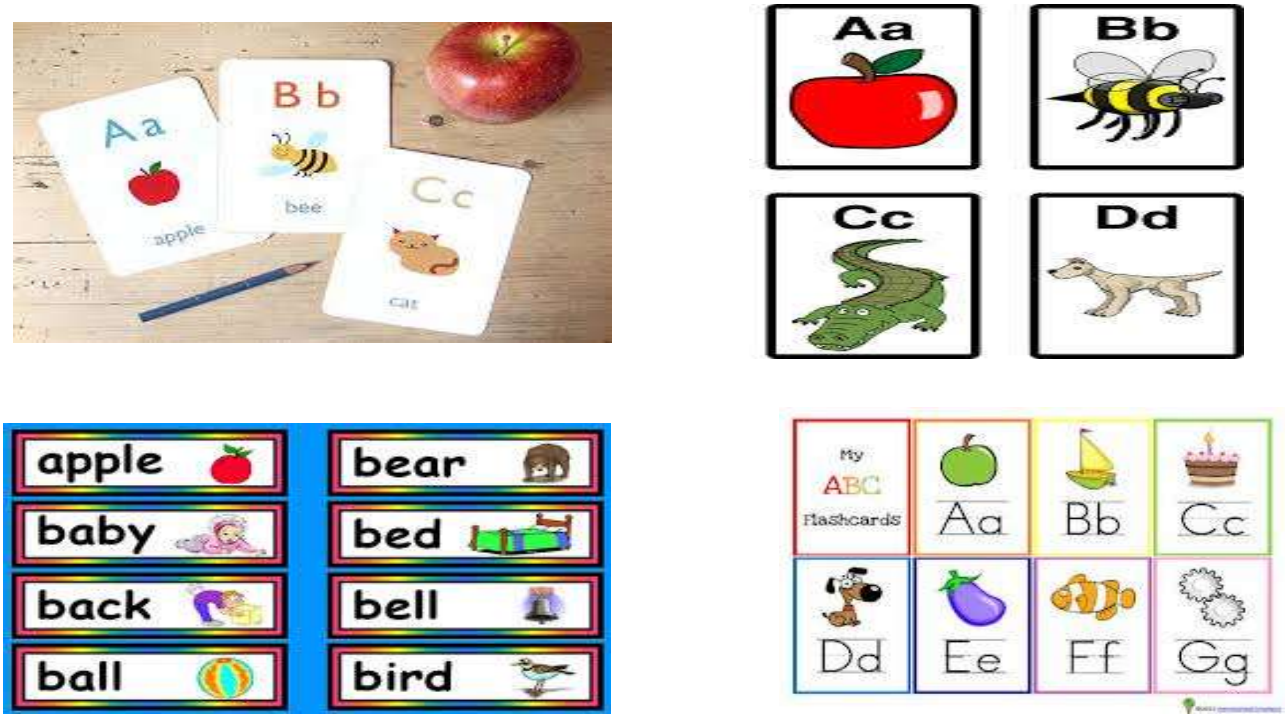
We need to focus on teaching vocabulary through a variety of fun word learning strategies.

3.5.2.2. Strategies of teaching Oral vocabulary in the kindergarten.

Oral vocabulary begins to develop at very young age as children and parents interact with one another in the natural surroundings of the home environment. A child's home environment greatly impacts the rate, quality and ability to communicate with others. Thus, in kindergarten stage, to accommodate different vocabulary ability of the children, teachers need to use different vocabulary teaching strategies.

Flash cards: teachers can use flash cards to teach a variety of words. They can also use flash cards to give children repeated practice of these words. Flash cards can have

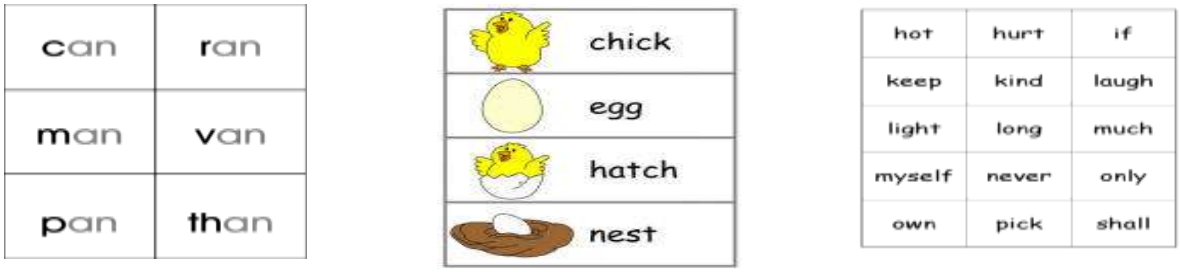
pictures, objects, colors, numbers, or shapes on them depending on the objectives of the lesson



Picture 3.8

Word walls: are great places to display content rich vocabulary as you and your students explore across the curriculum**.** By nature word walls should be visible and accessible to students, they are more likely to see them, think about them, and use them. The word wall should be front and centre, large and easy to see.

For example



Picture 3.9

Hand Book: Students can create short books about the words they have learned. In a year children can create portable vocabulary flip book as reference for words they have

learned in class. All you need is a metal ring for each student. As students learn new words, they add them to their ring.

Drawings: Is a great way to help kids process the meaning of new vocabulary words. Here is what the teacher should do. Assign students a different word that they learned each week; thoroughly research the words and its meaning. After this is done, have your children to sketch a picture to illustrate the word. Later when the word is used or its meaning discussed, they have an image to associate it with**.**

Example. Words could be like:

Ball, **hen, man**…etc

Categorizing words: Categorizing words help children to build their oral vocabulary about certain topic .It helps children to organize words in their brain. Categorizing words can be used for many different types of lesson objectives(example, learning words for types of food, clothes, animals, family, body part or household items) The kindergarten teacher should identify a category and call a students to brainstorm the different words they know that belong to that category .

For example, they might brain storm "**eye**""**nose**""**leg**", or"**foot"** when thinking about the topic "**body parts**"

Picture 3.10

3.6. Reading fluency

Reading fluency is the ability to read text accurately and quickly. The first bench mark for fluency is being able to "sight read" some words .The idea is that children will recognize on sight the most common words written in their native language and that such instants reading of these words that will allow them to read and understand text more quickly.

Many parents think that by sending their children to play canter, the children will be taught to read and write. Before children are ready to read and write they need to carry out many kinds of activities to lay foundation for those important skills. Whenever children listen, compare, sing, talk, exercise, sort, looking carefully, draw and play are preparing for reading and writing.

Activity 7 ☞ Be in group of three and discuss the following question then report to the participants.

1 .When do you think the kindergarten child start reading?
2. What do you think children need to learn before they are ready to read?
3. What do you think the role of parents and kindergarten teachers will be in developing children's reading skill?

To develop the child's reading skills, they need: to use and understand many words in speech. Listen and speak in play. Listen carefully to sounds of all sort. Copy sound patterns they hear. Develop memory. Listen to and tell stories, rhymes, drama. Develop hand-eye-co-ordination.

3.6.1. How to teach children the reading fluency

To teach child how to read, the skilled teacher needs to know the following important points:

1. Is a child ready to read?
2. does a child show interested in books?
3. Do you want him/her to read?
4. Do you quite know where to start?

What do you think all the above questions are about?

3.6.1.1 .Activities for teaching reading

There are many activities that are important for pre-reading and writing development. They include:

- Identifying similarities and differences.
- Matching and sorting, classifying things
- Hand-eye co-ordination activities like drawing around shapes –etc

3.6.1.2. Important Steps to teach children reading

"Reading involving looking at words and sentences and understanding them. It's the process of making sense of written language. In the early stage it may help to say the words but this is not an essential part of reading" (Doffo). Thus, at the kindergarten level we need to prepare our children for the ability of reading and extracting ideas from the written text.

1. **Teach the sound of the letters together with their names**. The sound (sounds) of the letters is often different from the name of the letters. In reading it's the sound that counts. For example as it is mentioned above; in English language; take the letter '**C**". It has different sounds like [**ss**] in [**see]**

[**KKK]** as in [**cat**]

2. **Do not be rigid in how the child pronounces the sound**. Regional accents and weak auditory skills make it hard for children to say most sounds in academically correct way. Accept a reasonable effort. Recognizing that learning sound is only an intermediate step to learn to read.
3. **Teach the lower case letter first.** Have you noticed that nearly all **ABC** books for young children teach uppercase first? Yet capital letters account for only five percent of all letters in writing. Do not worry about grammar at this point. Kindergarten children cannot handle complicated concept. Therefore at this stage you need to concentrate only on mechanical skills of reading, that learns to decode new words and incorporating them in memory to build fluency.

a b c d e f g h
i j k l m n o p
q r s t u v w x
y z

4. **You read to your children every day**. This help your children build his love of reading and books. In this case parents should have a great initiations in developing children's' reading habits.

Picture 3.11

5 .**Teach your child reading along with writing**. Children learn to read faster and

easier if they learn to write at the same time. The motor memory of the letters, listening to their sounds and seeing them in writing reinforce new learning. So teach your child to write letters and words.

6. **Limit the initial reading vocabulary**. Reading is very complex process. Not all words can be read using simple phonic rules. Many important words need to be learned by sight. Teach only simple common words at first.

3.7. Writing fluency

Activity 8☞ Being in pair discuss on the following questions and share your idea with another pair.

1. What do you think writing is?
2. Is it important to learn this skill at early stage? Why?
3. When do you think kids start basic writing activities without any help?
4. How can kindergarten teachers help kids in writing?

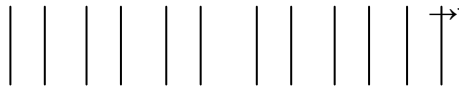
The ability to formulate written texts in the language .Kindergartens are actively engage in all aspects of language art as they develop their oral language skills and begin to read and write. In kindergarten, children learn to recognize the letters of alphabet and understand the sounds letters make. Kindergarteners become aware that letters can be arranged in to words that words have spaces between them, and that print is read from left-to-right and from top-to bottom. Students in kindergarten learn to hold a crayon and pencil correctly and print the letters of the alphabets in upper-and lowercase forms. In kindergarten, students listen to verities of children's literature, respond to questions, and retell stories. Students learn to read some words by **sight** such as "**the**" and write **consonant –vowel-consonant** word such as "**cat**". While children at different rates, by the end of kindergarten, most children should be able to use their knowledge of sounds and letters to write simple sentences and write their names. Children may also create stories with pictures and words, revise their writing with assistance, and then bullish or share it with assistance.

Children should be learning to print, legibly. With consistent training and practice our child can be successful unless she or he has a physical disability that affects the function of her or his dominant hand. Eye-hand co-ordination and sensory integration are based to good penmanship. Efficient, legible printing is a motor activity that involves … visual-motor integration, fine-motor skills, pressure, proper position of pencil and paper posture ,both hands(one to hold the paper, the other to hold the pencil)…and balance. So how can kindergarten teachers help children to develop these skills?

3.7.1. Methods of teaching hand writing

3.7.1.1. Basic lines to write

Before kindergartners are introduced to different types of writing in a variety of ways, they should know some basic lines that help a child to write down any letter, sounds, words and at large simple sentences.

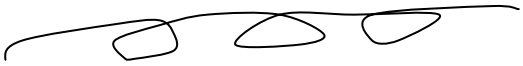
1.  →vertical line

2.  →down ward stroke

3.  →Wave line

4.  →Zigzag line

5 →Loops like line



6. →circle

7.  →half circle

Activity 9 ☞ What kinds of activities can kindergarten teacher design to teach the Child writing skills?

1. First, practice your children how to hold their exercise book and pencil.

Example 1: How to hold pencil

Picture 3.12

2. Practice to write these basic lines first, on air then on sand from simple to complex.

Example 1. writing in the air

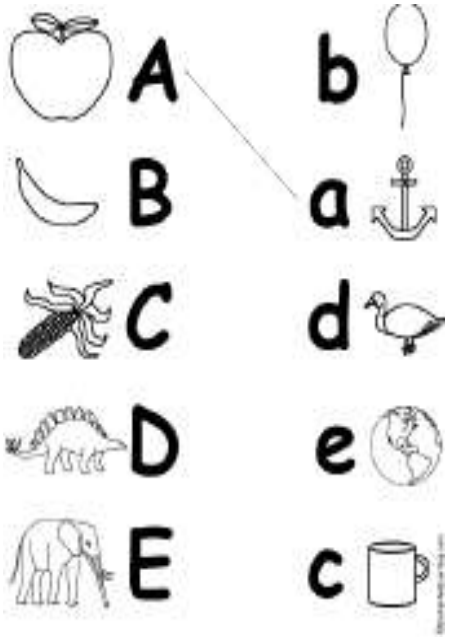
Example2. Writing on sand

Picture 3.13

2. Writing alphabet letters steps by steps in the lower and uppercase (Aa,Bb,Cc,…) and make them to match the upper case with the lower case and vice versa.

For example

a	h	c	n	o	s	a	k	u
b	l	z	a	b	c	t	u	y
c	a	d	f	l	u	w	b	c
d	m	j	f	a	c	r	g	d
e	c	d	h	e	s	y	p	o
f	e	z	n	y	o	k	x	f
g	p	q	j	g	f	x	m	b



3. Write and re-write letters independently according to their ascending descending order.

a	b	c	d
_____	_____	_____	_____
----------	----------	----------	----------
_____	_____	_____	_____

4. Revising the alphabet letter in advanced manner. For example, make them to write the name of an object that start with the same sound "**a**" "**b**","**c**" or "**d**"

Example starts with **"a"**

Picture 3.15

_____ _____ _____

5. Draw two or more picture that start with the same letters under one picture write the word and give chance for children to write the name of the picture.

Example .the picture of (car, cat…etc)

Cat _____

Picture 16

_____ _____

6. Introduce the concepts of vowels and consonant. After that, make them to circle the vowels from the words they learned before.

Example

ball **elephant** **doll** **book** **car** **camel**...etc

7. Matching words from the table or lists with the given pictures.

Example.

words	doll	bag	hen	dog

Picture 3.17

8. Draw some picture they have practiced before and make them to write their name.

Example

_____ _____

Picture 3.18

_____ _____ _____

3.7.1.2. Using pictures completing simple sentences

Example

The children are_____

These____family members.

Picture 3.19

3.7.1.3 Writing sentences using pictures.

1._____

2. _____

3._____

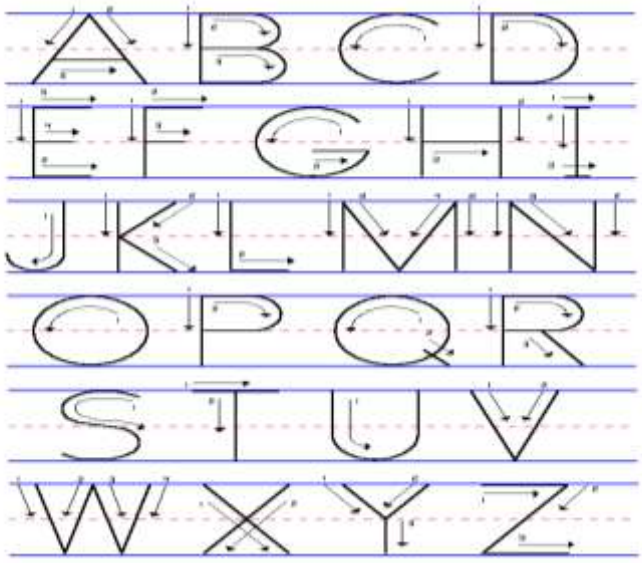
4._____

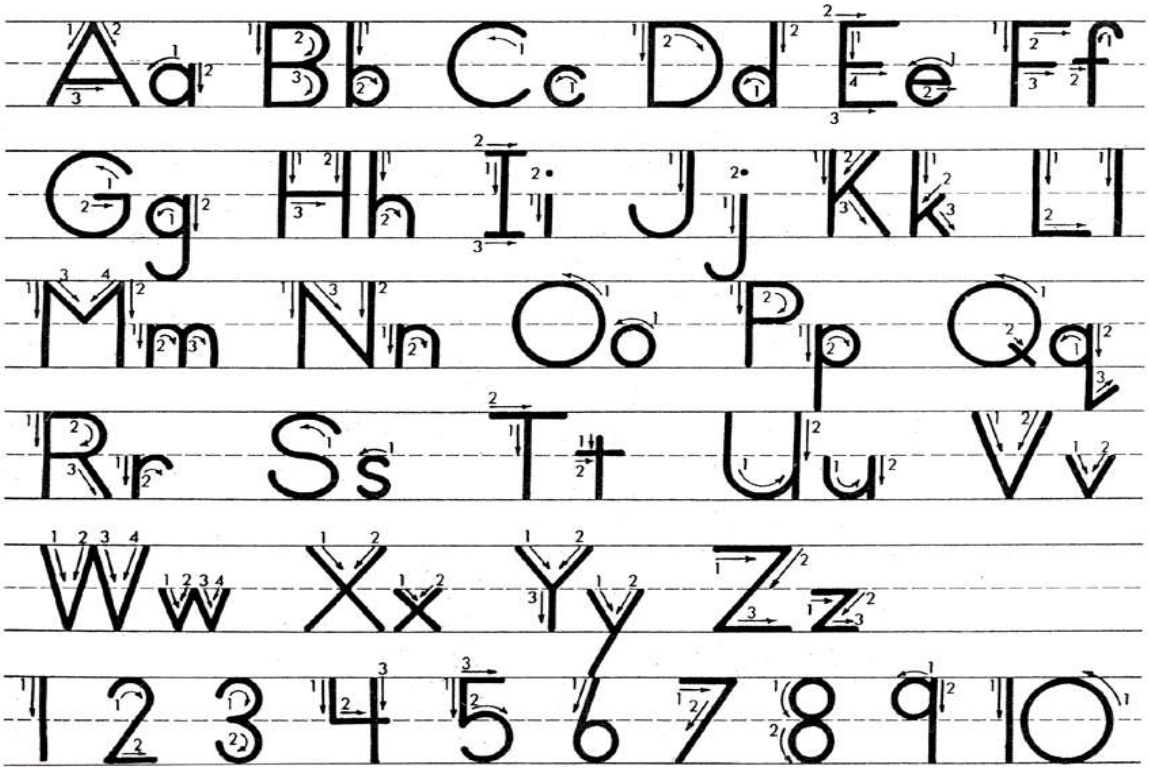
5._____ 6 _____

7._____ 8._____

Picture 3.20

Guider on How to write Capital Letters




Aa Bb Cc Dd Ee Ff
Gg Hh Ii Jj Kk Ll
Mm Nn Oo Pp Qq
Rr Ss Tt Uu Vv
Ww Xx Yy Zz
1 2 3 4 5 6 7 8 9 10

Part Four

Early Childhood Numeracy

4. Number, Shape and Size concepts in early childhood

Introduction

Mathematics provides a powerful means for understanding and analyzing the world. Mathematical ways of describing and representing quantities, shapes, space, and patterns help to organize people's insights and ideas about the world in systematic ways. Some of these mathematical systems have become such a fundamental part of people's everyday lives—for example, counting systems and methods of measurement. In this material (module), we provide an overview of the mathematical ideas that are appropriate for preschool children and we also discuss some of teaching methods that help kindergarten teachers (caregivers or facilitators) teach the chosen contents for this level. For children of kindergarten age, the most important strategy for helper is to form relationships with them. Because it is through relationships that caregiver of young children can guide their learning and behavior. In building a table or repairing a roof, no carpenter tries to do each part of the work with a
single tool. Like competent carpenters, good helper has to have many methods or instructional strategies, to facilitate (encourage) the learning of children. The best strategy to use at any given moment depends on the learning goal, the specific situation, and the individual child.

4.1.The concept of size

Objectives: At the end of this lesson the trainees will be able to:

- explain the meaning of size.
- list the words that describe size.
- explain how to teach size indicating words.

Activity 1☞ 1. What is size?
2. List size indicating words (the size terms).
3. Explain how to teach size indicating words.

In Kindergarten children may be learning simple measurements using
non-standard units, such as measuring how long something is using their body parts, instead of a ruler. They come to learn how to classify objects based on weight (heavy/light); capacity (holds more/holds less); and length (long/short). However, children will not know that the amount of liquid in a short, fat cup remains the same even if the liquid is poured into a tall, thin cup. They will think that the taller cup has "more" in it because it looks like more. Because of this it is important to help and guide children by using different activities related to this problem.

Size is something that can be measured, counted or can be weighed.

There are words that indicate size in general. Some of these words are short, long ,tall, light, heavy , holds more , holds less , big, small , many, few, little, large , fat , thin ,wide , narrow , and the like. These words help us estimate size without measuring and counting. Exact size is obtained by measuring and counting. Children can distinguish (identify) different sizes by their sense organs especially (particularly) by seeing and touching. Some of the above words describe length, weight, capacity, area, or amount in number. Hence we will discuss them accordingly.

4.1.1 Length

The length of an object is the distance of separation between any two points at the extreme ends of objects. To measure the length of an object we use nonstandard units (foot, forearm etc) and standard units (meter, centimetre, millimetre etc).The children may measure the length of objects by using nonstandard units and standard units (using ruler). But in this material we will focus on the words "**short and long (tall).**"

Teaching strategies

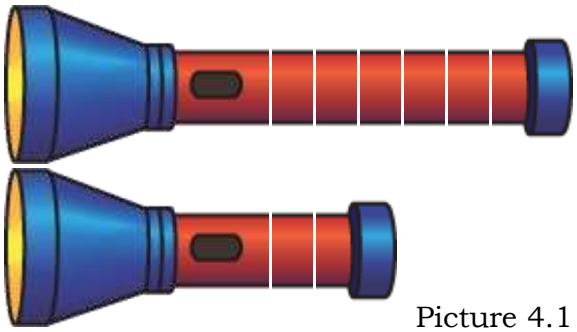
To introduce the concept of "**short and long**" and help the children grasp the basic concept of these words use real objects to compare the length of objects by using these words.

Examples:

i. Use different rods (sticks) of different length and the same thickness. Then let and encourage the children identify the longer and shorter rod.

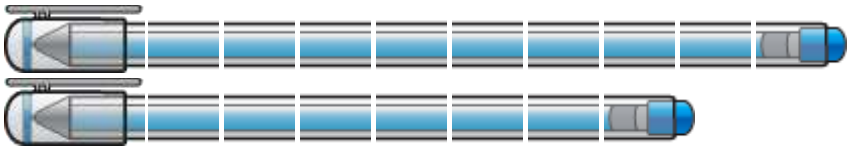
ii. Gradually by using real objects and pictures of objects of different thickness help the children use the word long and short appropriately. By changing the position (orientation), horizontal, vertical, slant (tilt) - of objects ask the children to identify which object is longer or shorter. Bring different objects to the class and allow them to practice. Using hands-on methods and activities help the children understand the concepts.

a. Which flashlight is **longer**?



Picture 4.1

b. Which pen is **shorter**?



Picture 4.2

C. Which pencil is **longer**?

Picture 4.3

iii. Invite two children to come to the front of the room and stand up. Ask them to answer the questions, who is longer (taller)? Who is shorter? Ask the children to stand up near the longer child in turn. Again ask them to sit near the shorter child in turn. To enable them understand the concept of these words help and encourage them by letting them play this game**.** You can also use some other games and songs relating to these words.

4.1.2 Weight

The standard units of weight are gram, kilogram, milligram, centigram etc. Some children may able to measure the weight of objects by using these standard units according to their age level. But in this material we will focus on how children can compare weight of objects using words **Light and Heavy.**

Teaching strategies

i. Use two objects of the same shape. Two tables, two stones, two books, two balls and the like. And ask them to identify the lighter and the heavier one.

Picture 4.4

Which table is heavier?

ii. After they enable to identify the heavier and lighter objects of the same shape you can help them develop the ability of identifying the heavier and lighter objects by using objects of different shape.

Examples: a. Which is **lighter**?


Picture 4.5


b. Which is **heavier**? Picture 4.6

iii. Ask one child to bring two objects from his/her center compound. Then ask the children to identify the heavier object and the lighter object. Help and encourage the children to understand the concept of these words by playing this game and allow them to work and play together collaboratively.

iv. Invite two children to come to the front of the room and stand up. Ask other children to answer the question, who is fat? Who is thin? Who is heavier? To enable them understand the concept of these words help and encourage them by letting them play this game**.**
You can also use some other games and songs relating to these words.

4.1.3 Capacity

Capacity is the amount of fluid (things) an object can hold. The standard units of capacity are liter, milliliter, kiloliter, centiliter etc. We will see how children can compare the capacity of some things using **holds more and less.**

Teaching strategies

Here to help or to encourage the child understand the concept of capacity use real objects (containers) and ask them to identify the container that contains or holds more or less . Let them play in turn by filling the container with sand or water or soil there by knowing that different sized containers will hold more or less. Bring different containers of different size to the class. Then ask the children to put the containers in order of capacity. Ask them to fill one container with water or sand or soil. Then ask them to pour the water or the sand or the soil into other containers one at a time. In this way children will visualize the concept of capacity by estimating the capacity of various containers. For example, you may use **jug** and **bucket**. Then ask them "how many jug of water does the bucket contain?" This is also a way for children to see what the different amount look like with real objects.

Examples: a. Which briefcase holds **more**?

Picture 4.7

b. Which shopping basket holds **more**?

Picture 4.8

c. How many jugs of water or soil does the bucket contain?

Picture 4.9

You can prepare your own containers from locally existing materials.

In a similar way you can use real objects that can be counted to help child understand the concept of **"many and few."**

For example, there are few books on the shelves; there are many books in the library.

Again you can use concrete objects to enable the child identify the concept of **"big and small."**

For example, bring two balls to the class and ask the children to identify the big ball and the small ball. Again you can use real objects to help the children understand the words fat, thin, wide and narrow. For example, you may ask the questions: Who is fat in this class? Who is thin? Is this class wide or narrow?

4.1.4 Time

The concept of time

Can we relate to the world around us without the concept of time? This is the basic question that helps us understand the concept of time. Time is system of distinguishing events, a limited period during which an action, process, or condition exists or takes place. Time is an abstract concept. It is a way of measuring how long events take to occur. Time is the measure of duration of events and the interval between them. Time is in everything we do, think, talk about; time is a component of life that is completely man made. To most of us, it means clocks and schedules, hours and minutes. But at a kindergartener's level, time is about **morning, noon, afternoon, evening,** and **night, longer** and **shorter**, **days** of the week, and, eventually, relating numbers on the clock to events in daily life. Even young children realize that some things take longer to do than others. It takes longer to make a cake than to eat a piece of cake. It takes longer to walk to school than to run. It takes longer to write a paragraph than to read this paragraph. These basic ideas of longer and shorter time are key to understanding hours and minutes as well as elapsed time. As experience shows of the children at age 5 and 6 can identify weeks and months.

The knowledge that the children have concerning time is different depending on their age level.

Teaching strategies

Since time is an abstract concept it will be important for children to understand this concept in depth. Children can start their study of time with something very familiar that is, night and day and then move on to time periods (times of the day) within day and night such as morning, afternoon, and evening. As the meanings of before, after, next and today are established, children can begin thinking about and identifying days as yesterday and tomorrow. By helping children relate the above time describing terms to events they are familiar with, you can enable them build new ideas and refine existing ones. Some activities happen in the daytime and some at night. Identifying times of day and associating events with those times establishes basic reference points for our sense of passing time. For example, you can ask the children the following questions to help them understand times of day.

- Hawi is eating breakfast. What time is it? (morning). Chaltu is waking up from sleep. What time is it? Kebede is going to sleep. What time is it?
- What do you do in the morning? What time do you wake up? What time do you go to school? What do you usually have for breakfast?
- What do you do in the afternoon? What time do you have lunch? Do you play with your friends after school? What do you do in the evening? What time do you have dinner? What do you do after dinner? Do you watch TV in the evening? What do you do at night? Do you usually dream at night? When do you go to bed (What time do you go to bed)? When do you eat dinner? When do you dream? What do you do at day in general? At night?
- Remind them the events that take place at times (period) of day. When does the **sunrise**? When does the **sunset**? What do your parents do in the morning? In the afternoon? At night? In the evening?
- You can also use different pictures that show different events that occur at the times of day and cultural games which related (associated) to these words).

Children must learn to compare time duration of events as longer, shorter, and about the same. Again, if you help children build on their knowledge of familiar occurrences or tasks such as washing their hands, eating breakfast and eating lunch, they can help children judge whether one event takes longer than another. Events in sequence also can be related to everyday occurrences. Children can identify events that happen before and after other events, and they learn to identify events that come first, second, and last on the daily classroom schedule. Ask which activity would take a long time? a short time? Encourage children to use the language that describes the events. Continue to offer children lots of experiences until they are comfortable with the concept of time. Encourage children to share their activities and tell whether they take a short time or long time. Similarly you can help the children understand the words today, tomorrow, yesterday, day of week and months by using different activities.

Encourage the children to explain these words in terms of concrete events that happen at this time.

Examples:

- We start to go to school on Monday. But on Saturday and Sunday we do not go to school. When is the children's TV program? On which day do you or your parents go to church? Mosque?
- Encourage them to tell you the name of the week's days in turn.
- Use the calendar that shows days of a week and months of a year.

4.1.5.Money

From their experience children at each age level may know the name of coins and birrs. But they may not know the relationships between them.

To help children identify coins and birr and to enable them understand the relationship between them you may use the following strategies.

a. Coins of Ethiopia

- Ask the children to tell you the name of coins as many as they know in turn. Encourage and motivate them to participate actively.
- Put all the coins(1 cent , 5 cents , 10 cents , 25 cents , and 50 cents) on the table and ask each child to pick(choose) one coin and show the coin to the other children by telling its name. Motivate them to play this game and to identify what both sides of each coin looks like. Ask them to tell you the pictures on the both sides of each coin. Then help them to answer the following questions in group by playing with their partners.
    - Where is the lion's head? (on one face of each coin)
    - Are the pictures on the second face of each coin the same? (No. So what are they?)
- Ask them how much each coin worth? Put some amount (some number) of the same coin, say three five cents, on the table. Ask them the question, how much money is there? Help them to solve the problem by counting method. One five cents contains 5 cents. The second one contains 5 cent, and the last one contains 5 cents. Therefore there are fifteen cents. Similarly mix different coins, say- two five cents, two ten cents, and ask them how much money is there? In this way they can develop their recognition of the relation among different coins. Look at the following relation.

  2 five cents = 1ten cents

  5 five cents = one 25 cents

  10 ten cents = one 50 cents

Picture 4.10
Both sides of coins

b. **Notes of Birr: Notes** of birr are 1br, 5br, 10br, 50br, and 100br.
You can use similar strategies as that of coins to help children understand and identify the notes of birr. Show them notes of 1 birr, 5 birr, 10 birr, 50 birr, and 100 birr to identify these notes and help them to understand their relation.

4.2 Locations (Positions)

Objectives: At the end of this lesson the trainees will be able to:

- explain the concepts of position.
- identify positions words
- explain teaching strategies that enable them to introduce the concepts of positions

Activity 2 ☞ 1. What is position?
2. List positions words?
3. Explain teaching strategies of positions.

4.2.1 The concepts of position

Position is the space or the distance between two or more objects. It is the place where somebody or something is, especially in relation to other things. All objects in our surroundings have their position relative to other objects. The concept of position is primarily based on the movement and direction of objects. Knowledge of positions is essential as children communicate in the classroom and in the real world.

4.2.2 Position words

Position words enhance children's ability to follow and give directions and to use language precisely. A variety of positional words may apply to a situation such as describing the location of a book on a shelf: A book may be above table, on the top

shelf, to the left of another object, and on top of another book. Position words are words that represent physical relations or positions.

There are different words that describe position. They are inside, **in , outside , left, right, middle, between, top, bottom, above, over, under, on, below , behind , in front , near , far ,beside , next to,up,down ,front , back ,**and the like.

Teaching strategies

Using position words in connection with concrete objects and situations helps children develop vocabulary. Modeling situations with emphasis on positional words also helps children learn the meanings of the words. To introduce the concept of position and help children grasp this concept you can use real objects and pictures and ask the children questions that reflect the concept of position and encourage them as follows:

1. **Inside and Outside**

Examples:

a. Use small carton box or any box avialable and any object familiar to the children such as **stones ,pencils, pens , books , exercisebooks,carrot , lime, or any other household materials.** Put a pen in the box and ask the children "Where is the pen?" Then take the pen out. Ask the children "Where is the pen?"

b. Similarily you may use pictures . Show the children pictures and ask them where the picture is. In this way you can help them understand the concept of positions words.

- Is the carrot inside or outside the bucket? How about the lime?

Picture 4.11

c. Ask them "Where are you? " Guide them to answer correctly as, we are in the class, or we are outside the class, depending on where they are.

2. **Left and right**

Examples:

a. Which object is on the **right**? Which object is on the left?

Picture 4.12

b. Which object is on the **right**? Which is on the left?

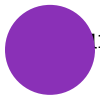
Picture 4.13

3. Top, Middle, and Bottom

Examples:

a. Which shape is in the **middle**?

Red square



rple circle

Figure 4.1

Blue oval

b. Where is the flower? (Top, middle, bottom)

Picture 4.14

4. above and below

Examples:

- Which shape is above the red square?(yellow triangle , blue circle)
  Which shape is below the yellow triangle?

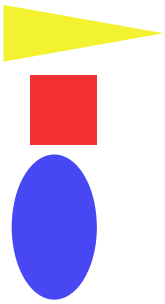


Figure 4.2

Gradually to help children to develop their understanding of the concepts of positions and position words you can use the following activities:

- Hide something which is familiar to the children in the room. Ask the children to find an object and to tell you where the object is. Help them to say, it is under

the chair (table), it is near the corner of the room and so on. Children can take it in turns to hide an object and the others guess where it is using all the words for position.

- Let children walk behind each other carrying flags. The leader points the flag in various directions and the others copy. Another game is for the leader to call directions "up, side, left, right, front, back " and the others point their flags in the correct direction.

4.3 Sorting, ordering, and classifying

Objectives: At the end of this lesson the trainees will be able to:

- explain how to help the children sort items into groups or categories by similar properties such as color, shape, size, material, etc.
- use appropriate strategies to enable the children to sort items into groups by using two properties such as size and color, shape and size or shape and color.

Activity 3 ☞ 1. Explain the concept of sorting, ordering and classifying.
2. Why sorting and classifying are considered as fundamental skills in mathematics?
3. Explain how to help children grasp the concepts of sorting.

4.3.1 The concept of sorting and classifying

Sorting, ordering, and classifying are logical thinking activities. You sort and classify objects every day, whether you realize it or not. For most of us, it's an automatic process and doesn't seem to be mathematics. But **sorting** and **classifying** are fundamental skills that help form the basis of geometry and pattern recognition. Young children are developing skills in matching and sorting. Children need opportunities to freely manipulate items. **Play is a natural teacher**. They collect items around the room when they begin to move. They line up items they have collected. And they sort and match items based on self selected characteristics. When you sort and classify objects (or pictures, or words, or anything else), you determine characteristics that the objects share and characteristics they don't share. In other words, you identify how they are alike and how they are different. These characteristics are commonly called attributes. For example, the following set of objects is sorted by the attribute of **shape (not color).**

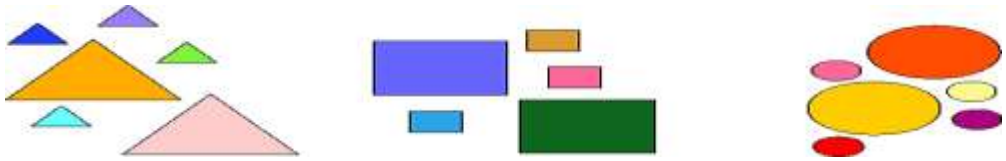


Figure 4.3

You could also sort the same set of objects (the above objects) by the attribute of size**.**

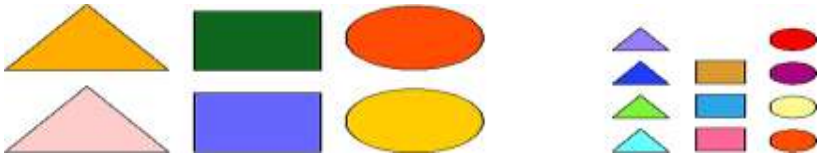


Figure 4.4

Deciding the attribute that help us to sort something is an important reasoning skill. It is also important to recognize that many sets have several different possible classifications. Most things we encounter have more than one attribute, so they can be sorted in at least as many ways as they have attributes. These activities encourage children to think and explain their reasons in words. All children may be able to do these activities. It depends on each child's abilities and how difficult you make it.

Teaching strategies

- Help and encourage children to practice sorting and classifying different kinds of objects by making some attribute items, such as **picture cards** with familiar objects on them, **animal cards**, cards with different shapes, sets of four cards with three identical pictures and one different picture, **color cards**, and so on. Then laminate them. By providing sets of items for the children to sort and classify you can enable them to grasp the concepts of sorting.
- Tell them why it is important to sort objects. Encourage children to tell how they use sorting, such as when they go to the library and want to find a book or when they want a specific item at a store. You might point out how much easier it is for them to find a book on the shelve when the books are sorted into categories. Or, you might ask what would happen if you didn't sort the dishes by **size** and **shape** when you stacked them in the cupboard.
- Ask the children to sort a variety of objects in different ways (color, shape, size, texture). For example, they may be given stones, and small and large leaves to sort. One child may sort all these objects into two groups such as, stones in one group, and leaves in the other group. Another child may sort them into three groups (stones, small leaves, and large leaves). Both are correct. Expect that each child may think of a different answer. All are correct if they have reasons. Ask each child to give you reasons why s/he sorted in the way s/he did.

- Give the child different objects for example a red flower, a blue button, yellow bead or green feather. Then ask them to place the item in the container that has the same color as the item.
- Place a variety of familiar objects on the ground and ask the children to match them. For example, two stones, two leaves, two feathers, two buttons, two bottle tops, and so on. Finally help them to match items according to their uses such as a cup and teaspoon, sock and shoe, and the like.
- You may use the pictures to show an idea.

i. Given the shape below which of the following shapes is the same to this given shape?

Figure 4.5

ii. Which one is **different**?

Picture 4.15

- Ask the children to compare objects around them by looking, feeling, smelling, touching, and tasting to see how they are the same or different.
  Let the children visit their surroundings and ask them to look for something different each day such as, small animals, big animals, trees, and so on. Ask them to tell you similarities and differences between animals such as, a spider, an ant, a grasshopper, a cow, a chicken, a snail, a lizard, a butterfly, a rat, a cat, a dog, and a frog. Then ask them "Where do we find them? Where do they live? How do they move? What do they eat? Are they harmful or helpful? Do they make noises? If so, how? What they look like?

4.3.2 The concept of ordering

- Ask them to put objects in order from smallest to largest, lightest to heaviest, etc.

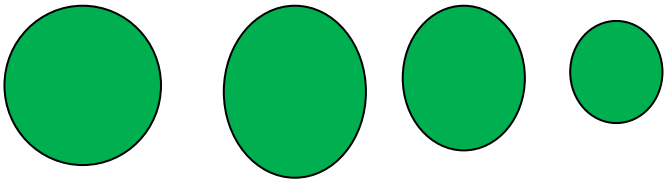


Figure 4.6

- Help them cut out pictures of items from magazines and place (or glue) them in order from smallest to largest.
- Ask the children to sort themselves into big and small, fat and thin, children.

- Show the children two leaves (a large one and a small one). Then ask them "which is the big leaf, which is the small leaf? Let them practice with many different objects, slowly increasing the number of items to be ordered. Children can play with these objects by sorting them from the smallest to the biggest or from the biggest to the smallest. In general collect several things from children's surroundings which are easy to classify according to size- big and small, tall and short, wide and narrow, thin and fat.
- Hang different rods in front of the room and ask which is the longest or which is the shortest. Ask the kids arrange the rods by lengths from shortest to longest.

4.4 Numbers, Numerals and Digits

Objectives: At end of this lesson the trainees will be able to:

- explain the difference between number and numeral.
- define digits
- explain the teaching strategies that enable children understand the concept of numbers.
- use different teaching strategies to help children understand numbers size and their numeral shape.
- use different teaching strategies to help children compare and put numbers in order.
- identify and use teaching methods of basic operations according to the child's level.

4.4.1 The concept of Numbers, Numerals and Digits

Number is a fundamental way of describing the world. We can't live without numbers. We need them in our daily life activities especially in ordinary household tasks. It is important to enable children understand the concept of numbers. In this section we will discuss the difference between number and numeral and how to teach them.

Activity 4 ☞ 1. What is a number? What is a numeral? Give examples.
2. Explain some of teaching strategies to teach the concept of numbers.
3. Explain teaching strategies of addition and subtraction.
4. Explain teaching strategies of comparing numbers.

Difference between number and numeral

A number is an idea that is used to refer to amounts of things. A number is a way of thinking, an idea that enables us to compare very different sets of objects. A number is an idea, or an abstraction that represents a quantity that is, five children, five on a die, five pieces of candy, five fingers, five years, five inches, five ideas. **What are**

abstract numbers? They are numbers used without connection to any particular object as 3, 6, and 7. But when these numbers are applied to any thing as 3 birr, 6 boys, 7 cars, they become **concrete numbers**. A numeral is a symbol used to represent a number. It is used to name number. Numeral is a number symbol (A number symbol is called a numeral). Number symbols are marked or written down. When we read a numeral out loud, we say **the number word for that numeral**. When we want to write a number, we can write the numeral or the word. For example, if we want to write the number six, we write the word six or the numeral 6. The numeral 2 is the name of number two. Two is the idea that describes any collection of two objects. That is two marbles, two books, two people, two boys, two pens, two pencils, two sheep, two goats, and so on. These are all different ways of referring to the same number. We recognize that these collections all have the quality of **'twoness'** eventhogh they may differ in every other way. Digits are the alphabets of numerals. Just as we use the twenty-six letters of the alphabets to build words , we use the ten digits **0,1,2,3,4,5,6,7,8,**and **9** to build numerals and in everyday numbers.

A digit is a **single symbol** used to make numerals.

For example 12 is not a digit. It is a numeral formed from the two digits, 1 and 2. We can summarize the above ideas as follows**:**

We write or talk about numbers using **numerals** such as "5" or "five".

A numeral is a **symbol or name** that stands for a number. So the number is an idea, the **numeral is how we write it.** The relation between these three can be shown as illustrated below.

Digits ⟶ **Numerals** ⟶ **Numbers.** So digits make up numerals, and numerals stand for an **idea** of a number. Just like letters make up words, and words stand for an idea of the thing.

There are several kinds of numbers. There are **cardinal numbers**, **ordinal** numbers, **nominal use of numbers**, and **denominate numbers**.

Cardinal numbers tell how many things there are in the set. That is the cardinal number states how many objects are in the group of collection. Here what should be known is that the number associated with the set has nothing to do with the **size**, **shape**, **color**, or **position** of the items in the set.

For example, observe the sets in the following figures.

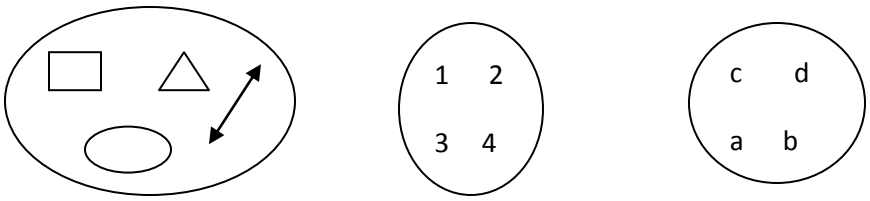


Figure 4.7

You can see the following from figures. There are no common elements. The first set is made up of shapes, the second is consisting of numbers, and the last is made up of letters. The sets are equivalent. That is, each set can be matched with every other set. There are infinitely many sets that can be matched with these sets. The common idea

that is associated with all of these equivalent sets is the number 4. That is the number four is the attribute common to all sets. Similarly, the whole number 2 is the common idea associated with all sets that have two elements. All other none zero whole numbers can be conceptualized in a similar manner. Zero is the idea, or number associated with empty set. The number reflects only how many objects are in the set.

Ordinal numbers tell the position of something in an ordered set. That is an ordinal number gives us the rank or order of a particular object. For example, there are four books on the shelve. Here four is a cardinal number. But fourth is an ordinal number. Chaltu is sixth in line for lunch. **Denominate numbers** tell how many units of something there are, as in I weigh 65kg. Denominate numbers are also called measure numbers. **Nominal numbers** are used to name something by giving it a code.

Although the discussion regarding the concept of a whole number in the above paragraph may seem routine for you, there are many difficulties for children who are learning the concept of numerousness for the first time. They may count objects. However, counting and understanding the concept of number is not the same thing. Children need to make sense of the ways numbers are used in their everyday world. Number senses and concepts develop gradually over time as young children explore, manipulate and organize materials and as they communicate their mathematical thinking. Counting is one of the earliest number concepts; it begins with developing oral counting skills or rote counting. One-to-one correspondence follows rote counting, which means linking one number, and only one, with each item in a set of objects. Other number concepts addressed within the early mathematics curriculum include quantity, comparisons and number symbols. Quantity is the concept of an entire set: knowing that the last object counted represents the entire set of objects. Hence the caregiver must help and encourage the children understand this number concept by using different teaching strategies. It is important to enable the children to develop the concept of numbers at kindergarten level, because numbers are the basic concept in most of school mathematics lesson and for child's life.

4.4.2. The whole numbers up-to 10

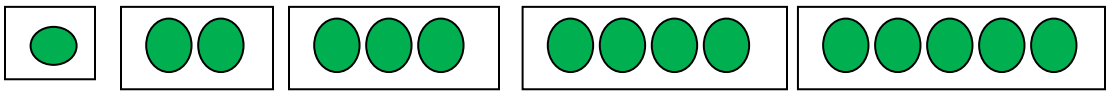
a. **Teaching strategies of numbers and numerals up-to five**

From experience children may count objects by ones up to five orally (verbally) and sometimes beyond, but not necessarily in the correct order. They fail to assign a word to each object, or they count one or more objects at least twice. They may accurately count the first few objects. During their counting, they may **skip** objects, **reuse** objects that have already been counted, or fail to **link** their counts to any objects at all. To make sense of numbers, children must earn not only the verbal counting sequence but also the way to connect each count with an object (one-to-one correspondence) and the fact that the last spoken number corresponds to the number in the counted set (cardinality).Therefore it is important to help children to be able to count by ones up to five verbally in the correct order and able to determine the number of items (objects) in a collection of up to five objects by using one-to-one counting, or

enumeration, that is, the child labels each item in a collection with one and only one number word from the counting sequence to determine the total number of objects in the collection The children should identify numbers size before they learn numerals shape. To enable the children understand the concept of numbers in-depth (to develop a better understanding of number concept) you can use the following strategies.

- Ask the children to count in turn orally from 1 to as high as they can count without using objects to identify their status of counting. Let and help them practice this activity in turn. Record the last correct number. Repeat and compare the current score with the recorded score.
- Ask the children to count their body parts, for example, how many ears , eyes, fingers, toes, hands, feet, legs, noses, lips, chins, stomach, tongue, knees and head do you have? Ask the children to point to it, touch it, and count it. Hold up your five fingers. Then ask them to count.
- Ask the children the questions: How many brothers do you have? How many sisters do you have? How many people are there in your family?
- Use different games (**number actions**). Games are the best way to learn mathematics. **Clap** your hands five times. Then ask them, how many times I clap my hands? Invite one child to clap his/her hands three times and ask the other children to answer the question, how many times this child clap his /her hands? Let children choose partners and sit down or stand opposite each other. Ask them to clap hands together. Clap right hand to partner's right hand four times. Clap left hand to partner's left hand five times. Similarly ask the children to **jump up**, **bounce** a ball, **hop**, and **ring** a bell a certain number of times (1-5). Ask children to share some things they know about frogs. What do they do? The frog gets around by jumping or hopping. Let children pretend they are frogs and hop. Ask, "How can we tell how far the frog has gone?" (Answer "We can count its hops.") Let children **call out a number and hop that many times,** getting their whole bodies involved in counting. Help and encourage the children to answer the questions by counting and playing these games. Ask the children to close their eyes. Then bounce a ball five times. Let children silently count by listening only to the sound. Ask each child to tell how many bounces he/she counted. Record the correct answer and help the children accordingly. Let the children have a turn bouncing the ball as well. Make common animals sound (**dog**, **cat**, **hyena**, **horse**, **donkey**) three or four times. Let the children count the sound you made. Let the children have a turn and make the sound in group.
- Let and help the children to count real objects up to five that can be counted such as seeds (maize,peans,beans etc),marbles,pens,pencils , erasers, exercise books,birr,coins,rods,beads,windows,doors,tables , chairs , bottle caps , buttons , spoons , forks and so on. Let them count anything and everything possible at home and at centre. Help them count the objects by touching the objects as they count.

- Use **flash cards** containing 1 – 5 dots and ask the children to count and tell you the number of dots. Remember that flash card is a card with words or numbers printed on it that is briefly displayed as a learning device.



  - Invite five children to the front of the class and ask the children to count these children in group or individually.
  - You can use number puzzles and number games:
    - Puzzle: I am a number. I am in the middle of the numbers 1 to 5. What am I?
    - Game: What is one? One bead.
      What is two? Two is goat's teats.
      What is three? Three is the three fire place stones
      What is four? Four is cow's teats.
      What is five? Five is human's fingers.
- Give **1 – 5 beads** to each group or to each child. Then ask them to put the beads on the table as many as the number you tell them. For example ask them to put 4 beads on the table.
- Use different pictures on large paper and ask the children to tell you the number of pictures orally by counting. Using the pictures we can represent numbers up-to 5.

Examples:

1. How many oxen are there?

Picture 4.16

2. How many jackets are there?

Picture 4.17

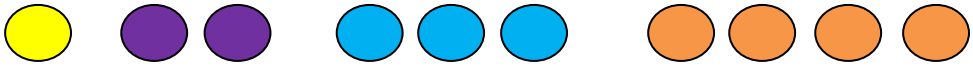
3. How many shoes are there?

Picture 4.18

4. How many dogs are there?

Picture 4.19

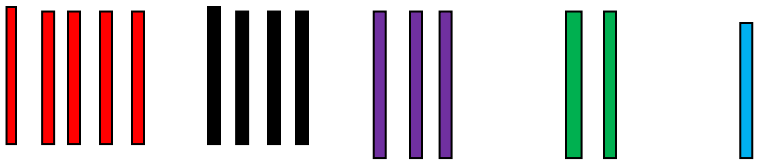
- Help them to associate number word and the number of objects correctly as follows:



One Two Three four

It is also important to encourage and help children to count down- up to 5 by using real objects (some pictures).

Example:



These pictures show you how to count down from 5. When you count down from 5, you get 4. Count the sticks in second set of sticks. This picture shows 4 sticks. Again count down from 4 to get 3. In the third set of sticks there are 3 sticks. Then count from 3 to get 2. In 4th set of sticks there are 2 sticks. Finally count down from 2 to obtain 1.

b. Teaching strategies of whole numbers 6 - 10

As the activities above, guide and encourage the children to continue to practice counting objects and represent numbers up-to 10.

- Use real objects that are familiar to the children such as sticks, stones, trees, buttons, pens, pencils, books, chairs, bottles caps, seeds (maize, beans) and so on. Point to each object with the pointer and ask the class to count aloud. Let the children count by pointing to the object in turn. This will model a way to become better at **1-1 correspondence**. That is pairing each object with one and only one number name and each number name with one and only one object (linking one number and only one, with each item in a set of objects). Help them understand that the last number name said tells the number of objects counted and the number of objects is the same regardless of their arrangement or the order in which they were counted. If we place some amount of objects very close to each other and if we put the same objects apart from each other the children may think that the number of those objects which are close to each other is less than the number of those objects which are apart from each other. So, help them accordingly.
- Invite one child to come to the front of the class, and ask him/her to hold up his/her two sets of hands, and count the first and then the second set of fingers by 1's. Let the children repeat this activity in turn.
- Let children sit in group and give 10 beads for each group. Ask them to put 6 beads on their table. Let them continue this activity up-to 10 beads.
- Use an **abacus** consists of ten or more beads**.** Ask children to count the beads in turn and to tell you the number of beads they counted. The abacus is a counting frame to aid in arithmetic computation. A simple form of abacus

consists of a series of parallel wires or rods fastened in a wooden frame. There are counters or beads which are moved along each rod. The position of each rod represents a certain place value.

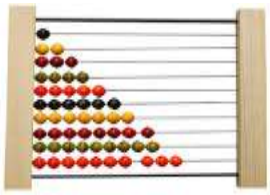


Figure 4.8

- Invite 6 or 10 children to come to the front of the class and line them up. Let every second child sits while the others stand. Ask the children the questions, how many children are sitting? How many children are standing? Can you tell me anything about what you see? Guide them to say that some Children are sitting and some children are standing. If another child joined the invited children, would that child sit or stand? Help and encourage them to come to the conclusion that depending on what position the last child is in; the next child will either sit or stand.

In addition to the concept of numbers, this activity helps the children to recognize the concept of pattern. Something that repeats over and over in the same order is called pattern. Children see patterns everywhere (on the clothes and some decorations), but they may not be aware of what they are seeing until a pattern is pointed out to them. Simple repetitive patterns may be explored by children as early as kindergarten. Using hands-on materials to make patterns gives children the opportunity to try the extension of a pattern and make changes as they experiment with the pattern repeat.

For example, the first pattern matches the second one.


Picture 4.20

- Use a variety of pictures and ask them to count by pointing to each picture and help them to tell you the number of pictures in a set.

Examples:

a. How many **hens** are there?


Picture 4.21

b. How many **chairs** are there?


Picture 4.22

c. Which picture shows **ten** hats?

Picture 4.23

d. Which picture shows **nine** chicks?

Picture 24

- Ask the children to count the letters on the **flash cards**.

G G G G G G
G G G G

T T T T T T U L

- You can use different types of cultural or any other games, puzzles (riddles), songs and stories that reflect the ideas of numbers. You may invite children's parents (any other body who is well experienced) to share you some experiences about games and songs.
- Ask the children to practice the following and help them to arrive at correct answer. These activities help the children to count up and down by numbers and pictures.
  a. Counting **up** from **3**, which number comes next?
  b. Counting **down** from **6**, which number comes next?
  c. Count the sweaters.

Picture 4.25

Now choose the picture that shows how you count up by 1.

Place 5 beads on the table. Direct children to look at the table.

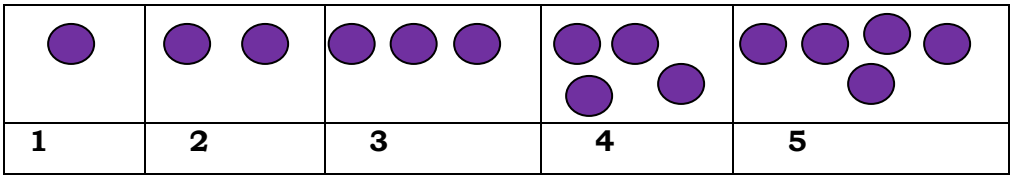
- Ask, *how* many beads are there? Children should say "5." Place the 5 number card where children can see it. Remove one bead from the table.
- Ask, if I take away one bead, how many beads are left? (4). Place the 4 number card to the left of the 5 card. Repeat, removing of one bead until all of the beads are removed. Then ask them "Is there any bead left on the table?" Help them to say nothing and it means zero. Place the number cards for 0 to 5 in a line. Help them come to the conclusion that 0 represents a count of no objects. That is zero is the idea, or number associated with empty set.
- Show a container containing some amount of things (objects) and pour these objects into another container and ask them "how many objects are left in the container?"
- Use a song that helps children understand the concept of zero.

Teaching strategies of Numerals 1- 10

When counting things, the counting action matches each count word to one thing. But cardinal number word refers to how many things there are in the whole set of things. For example, when counting 3 books 1, 2, 3, the three refers to the one last book you count when you say 3. But then you must shift to thinking of all of the books and think of the 3 as meaning all of them; there are 3 books. This is a major conceptual milestone for young children. To teach numerals to kindergarten children, make sure that kids master a base of counting, both forwards and backwards, using 1-1 correspondence and then help the children recognize numerals in print. So have the children master how to count from one to ten. Help them practice counting backwards from ten down to zero. After the children able to count concrete objects and pictures and to associate number word and the number of objects correctly you have to introduce number symbols (numerals) and help them read and identify the shape of each numeral. There are many ways that you can best introduce teaching numerals to young children.

To introduce numerals up-to 10 you may use the follow strategies.

- Use concrete objects to familiarize children with the basic idea of numerals.
- Hold up the card that contains 1-5 dots and the numerals 1, 2, 3, 4, and 5. Ask the children to count the dots and associate the number of dots with the numerals in turn. Then help them identify the number word and corresponding numeral.

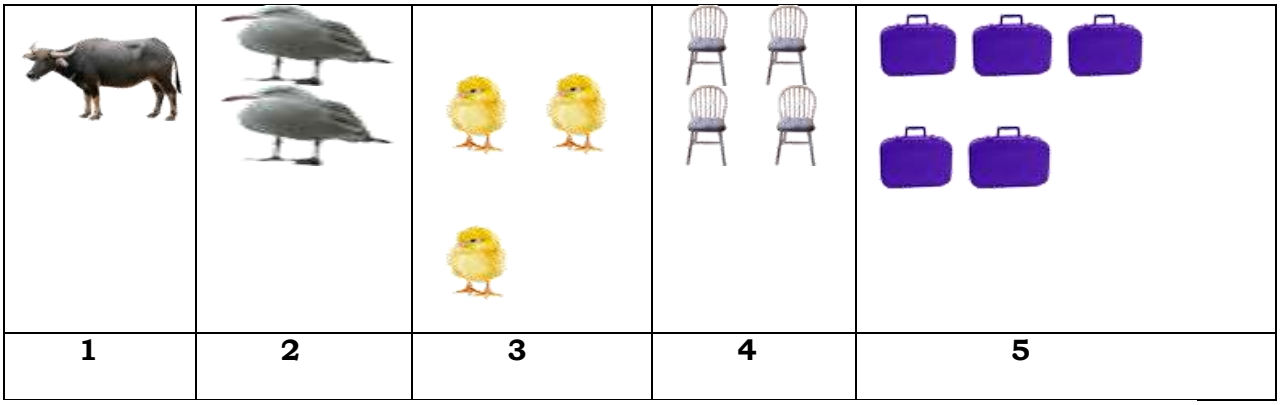


Similarly use flashcards to introduce numbers one through ten. Flashcards should have both the numeral and the word for each number.

- Hold up your hand showing your fingers and the numeral 1-5.

Picture 4.26

- Use a set containing 10 concrete objects. Ask children, "How many objects are there in a set?" Help them to say 10 objects by counting orally. Write the numeral to tell how many are in a set, and select the corresponding numeral from a given set of numerals. Give children a small card with a number on it. Put a large number card on the floor and ask children with the matching card number to hop, jump, etc., and then place their small number card on top of the big one. Continue until everyone matches their numbers.
- For each child give cards containing the numerals 1 to 5. Put small objects, such as **buttons, toothpicks, beads and bottle caps** in front of them. Ask them match numbers of small objects with numerals cards. (1 toothpick for the numeral 1, 2 buttons for the numeral 2, etc.)
- Use different pictures on large paper containing numerals that show the corresponding number of pictures. Then ask them to associate numerals and the number of pictures and help them identify the shape of numerals.



- Put cards containing numerals on the table. Ask a child to come and pick up a card and to read the numeral on it by showing to his or her partners. Let them continue this activity in turn.
- Prepare number chart on the large paper and hang it on the classroom wall. Then ask them to read the numerals in group or individually.
- **You can use puzzle: I am look like a duck. What am I? (2)**
  It looks like my father's walking stick? What is it? (7)
- You can use different types of games and songs.

Example:

Pull down, that's it — that's 1.
Pull down, that's it — that's 1.
Hi-ho for numbers, oh.
Pull down, that's it — that's 1.
Half-circle, slide right — that's 2.
Half-circle, half-circle — that's 3.
Make an L, pull down — that's 4.
Down, around, top line — that's 5.
Circle left, close the bottom — that's 6.
Slide right, slant down — that's 7.
Make S, close it up — that's 8.
Small circle, pull down — that's 9.
Make 1; add 0 — that's 10.

- When the children are able to read numerals, you may move on to help them writing the numerals.
  - Encourage them to practice writing numerals on sand, soil, flour, and in the air by their fingers. Children will develop number sense through verbalizing numbers in order and connecting them to counting experiences, kinesthetic experiences involving writing number names and numerals, and practice with conservation and one-on-one correspondence.
  - Let them practice drawing different lines (vertical , horizontal, slant and curved lines):

  - Help them write the broken lines that show the shape of particular numeral on their exercise book.
  - Help them write the numerals repeatedly as follows.

- Give a card containing dots to a child. Ask them to tell you the number of dots on the card. Then ask them to write that number.
- Ask children to count the number of **leaves** and write the corresponding numeral on the provided line. Provide children with resources such as a number line or number chart. You can use worksheet to help them practice writing out numbers like 1, 2, 3, 4, 5, 6, 7, 8, 9,1o.
- Ask them to make groups whose number of elements is the same as the

number you call out. For example if you say ***"Four"*** children should make groups of four and when you call out the next number they should run around trying to get into appropriately sized groups. For another activity split the class into two to four teams. Each group should determine in what order children take turns and be given a portion of the board to write on. When you say a word aloud, the child whose turn it is should run to the board and write the numeral. At the end of the game, the group with the most points wins.

4.4.3 The whole numbers up-to 20

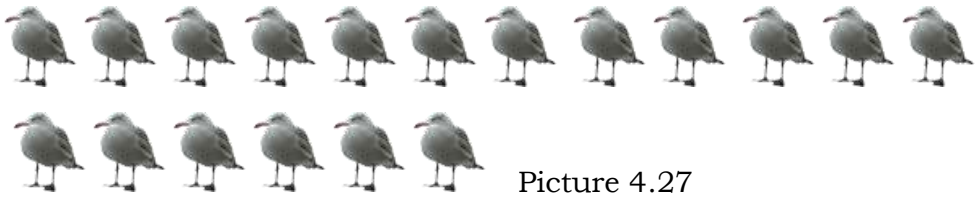
Teaching strategies of numbers and numerals up-to 20

Numbers 11-20 will be harder to learn, so you'll want to give your children lots of hands-on practice to help them know the numbers to twenty. Help them learn to count to twenty with different mathematics activities. Use the activities with the whole class, in small groups, or in individual. Before children begin kindergarten, many of them may be familiar with rote counting and the recitation of numbers. However, careful development of the concept of number gives meaning to counting. In the above section we saw a set of a specific quantity and recognize that the set contains a specific number of items.

Use the same activities as we did for counting –up to 10 to count up and down -up to 20.

- Let all children stand by their chairs. Use the stick as a pointer. Then point to each child with the pointer and ask the class to count aloud. Help and encourage them to repeat this activity in turn.
- Use an **abacus consists of 20 or more beads**. Let children practice counting. Finally, help them recognize that every number has its own word name.
- Ask them to count and answer **"how many"** questions about as many as 20 things arranged in a line, a rectangular array, or a circle or as many as 10 things in a scattered configuration. Give them a number from 1-20 and ask them to count out that many objects (beads, marbles, leaves, rods, etc).
- You can use large paper containing different pictures as follows.

Examples: a. How many birds are there?

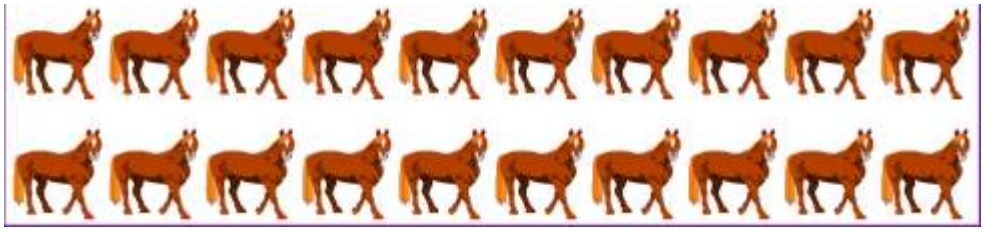


Picture 4.27

b. How many balls are there? How many balls are on the top of the others?
How many balls are at the bottom of the others?

Picture 4.28

c. How many horses are there?

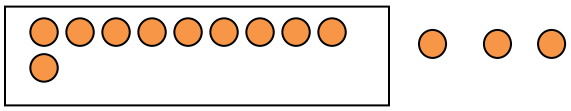


Picture 4.29

One way to help children prepare to understand greater numbers is to emphasize the concept of ten and some more as often as possible. Let children work with numbers 11-20 to gain foundations for place value.

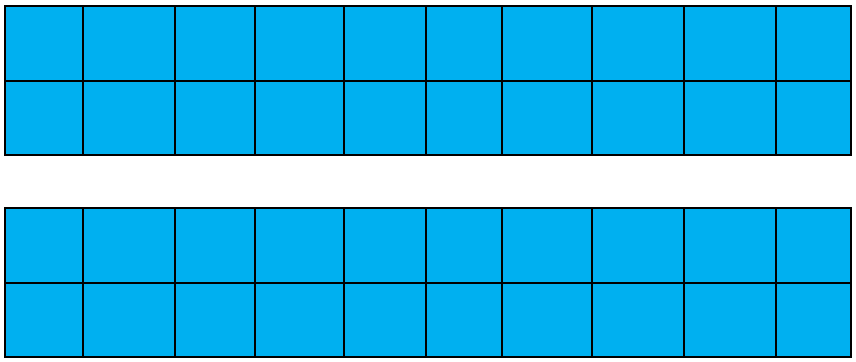
- Help them compose and decompose numbers from 11 to 19 into ten ones and some further ones by using **objects** or **drawings** and understand that these numbers are composed of ten ones and one, two, three, four, five, six, seven, eight, or nine ones. Provide opportunities for children to discuss the meaning of a composition or decomposition problem (e.g.18 mean, one group of 10 and 8 ones). Encourage them to draw something to represent this idea. Demonstrate 10 and 7 ones make 17, one group of 10 and 7 ones.

Example: How many tens and ones are there?



- Give each child a double ten frame organizer (two rectangles each divided into ten small rectangles or unit squares) and about twenty familiar objects. When you use the double ten frame, show the children how to use the objects to make the numbers 11-20. For eleven objects

the first ten frame (rectangle) will be full, with only one object in the second. For twelve there will be two in the second ten frame, etc. Build each number together. Then call out numbers in random order (from 11 to 20) for the children to make with their objects. For another ten frame activity, give each pair of children a paper with cards or slips of paper with the numbers 11-20 written on them. Ask each child to draw a number and make it with objects on her or his double ten frames. Next the two children compare the numbers and decide which is larger. Then they can clear their ten frames and draw two more numbers until all of the numbers have been made.



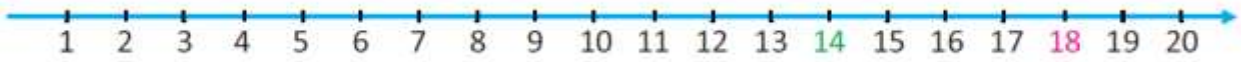
- Invite two children to come to the front of the class, and ask them to hold up their two sets of hands, and count the first and then the second set of fingers by 1's. Then ask them how many fingers does the first child has and how many fingers the second child has. Allow them to repeat this activity and play in turn.

- **Use song**: Invite children to sit in a circle. Help them sing the following.

Ants are all around us,
Ants are having fun.
One ant runs out, [Another ant runs out,]
Away goes one.
Ants are by my shoe . . . Away go two;
Ants are by a tree . . . Away go three;
Ants are on the floor . . . Away go four;
Ants are by a hive . . . Away go five;
Ants are on some sticks . . . Away go six;
Ants are up in heaven . . . Away go seven;
Ants are at the gate . . . Away go eight;
Ants are in a line . . . Away go nine;
Ants are here again . . . Away go ten;

Ants are near Kevin(oven) . . . Away go eleven;
Ants are on a shelf . . . Away go twelve.

- Provide kids with numbers ray that go up to 20. Ask the children point with their fingers and look at each number as they say it. After they practice counting, say "Show me 16" and ask all of the children find the number 16 on the number ray and point to it. Call out several numbers for the kids to find, focusing on eleven to twenty, to help them learn to recognize these larger numbers.



- Give each child a small flashcard with the numbers 11 to 20 written on the pages. Then give him or her a certain number of beads and ask him or her put the appropriate numbers of beads on each page. For an easy matching game, write the numbers from 11 to 20 on flash cards and then use rods to make sets of each number on another card. Spread the cards out face up and ask the children work in groups of two or three to pair up the numeral with the set that matches. Ask the children to place all of the cards face down and turn over two at a time, looking for matches.
- Place small containers filled with different objects in groups of numbers from eleven to twenty (eleven buttons, fourteen rods, twenty beans etc) in your classroom for the children to practice counting. Place sticky notes with the correct number on the bottom of each container, so that the children can check their counting.

Comparing numbers up-to 20

- Ask children to match (compare) members of one set with the members of another set (use concrete objects or pictures). Then help and encourage them to come to the conclusion that if the sets have the same number, they are **equal,** if the sets do not match one-to-one, one set has **more** members and the second has **less**.
  - Give 7 beads to a child and let him or her to have 5 beads in one hand and 2 beads in another hand. Ask him to compare the number of beads by counting. Help them to come to the conclusion that 5 is greater than 2 or 2 is less than 5. Give a chance for each child to practice this activity in turn
  - Ask them to compare the number of cubes in vertical pile and horizontal pile.

- Prepare flashcards on which 1-20 numbers are written. Mix these cards properly. Arrange the children in a group and ask them put the cards in ascending or descending order. This concept helps them in adding and subtracting numbers.
- Use number ray containing some numbers from 1-20. Then ask them to fill the remaining numbers.
- Ask them the predecessor and successor of any number from 1-20. For example, what is the predecessor and successor of 17? (16, 18)
- Finally introduce and help them understand and use the relation symbols (<, >, =) by using different activities.

- Use more activities that help them understand the concept of comparing.

Look at this group of bags:

Picture 4.30

Now select the group that shows **fewer, more, and equal**.

Let the children practice the above activities by playing in turns. Then help and motivate them to compare numbers –up to 10.

Activity 5 ☞ Be in a group and discuss on how to enable children to identify numbers up-to 20 . Prepare lesson plan for this activity.

4.4.4 The whole numbers up-to 100

Teaching strategies

After many counting experiences, children can develop their understandings of our number system. For numbers greater than 10, developing understanding of numbers becomes more complex than for smaller numbers because of the following reasons. First, the verbal number sequence becomes longer and harder to memorize. Second, quantities associated with large numbers are bigger. This leads them to miscounting. To simplify counting a large number of objects, it is better to **group** them, for example, into 10's. Then link each count to a group of 10 objects. Help them understand the role that 10 plays in the structure of our number system. All the children could count by **1's to 20** and by **10's to 100**. If the children were to understand numbers to 100, help them recognize the meaning of composition and decomposition. For example 11 is composed of one 10 and one one's, 24 is made of two 10's and four 1's, and so on. In previous section we have seen how to help children recognize and understand the size and their numerical shapes of

numbers 1 to 20. In this section we will see how to help children understand numbers up 100.

Activity 6 ☞ 1. What are multiples of ten from 10 to 100?
2. How can you help children understand multiples of 10 up-to 100?
3. How can you help children understand any two digit numbers that are not multiples of 10?

- **First help children understand the concept of multiples of ten up-to 100.** To this end help children count by ten's up-to 100.
  - Let three children come to the front of the class, and ask them to hold up their two sets of hands. Then ask the class how many fingers does each child have? Allow them to repeat this activity and play in turn. Ask the class how they could count the fingers. Then help and encourage them to count by tens as **"10, 20, 30,"** pointing to each of the child in turn. Finally help them conclude that there are 30 fingers.
  - Use bundles of rods or match's stick (straws). Have ten rods tied together. Another ten rods tied together, and so on. Then help them count these bundles of rods (match's stick).

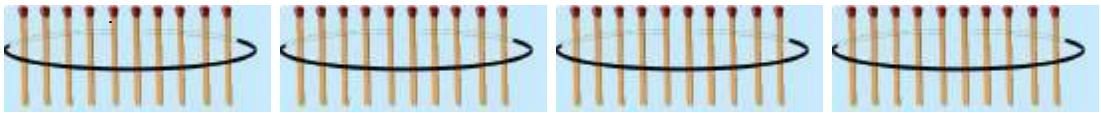


Figure 9

  - By using 10 cents coins ask them to count as 10, 20, 30…, 100.
  - Using 10 birr notes ask them to count as 10, 20, 30,…, 100.
  - Use rectangles that are divided into ten unit squares. Then ask them to count the unit squares by tens.

Figure 4.10

  - Provide kids with numbers lines that contain multiples of 10 up-to 100. Ask the children point with their fingers and look at each number as they say it. After they practice counting, say "Show me 50" and ask all of the children find the number 50 on the number line and point to it. Call out several numbers for the kids to find, focusing on multiplies of ten, to help them learn to recognize these larger numbers.

➢ Encourage children identify number patterns when counting by tens: When you count by tens the numbers create a pattern. All the numbers end with a zero. The first digits (digits in the ten's) are just like the numbers when you

count (1, 2, 3, 4, 5, etc.). This pattern gives the numbers **10, 20, 30, 40, 50, 60, 70, 80, 90, 100.**

- **Help children identify the size and shape of all other two digits numbers up to 100(11,12,13,...,21,22,23,...31.32,...41,42,...,99).**
  - Help and encourage children to develop their counting skills for numbers greater than 20 by decomposing a given number into a group of ten and ones.

Examples: How many dots are there? How many rods are there?

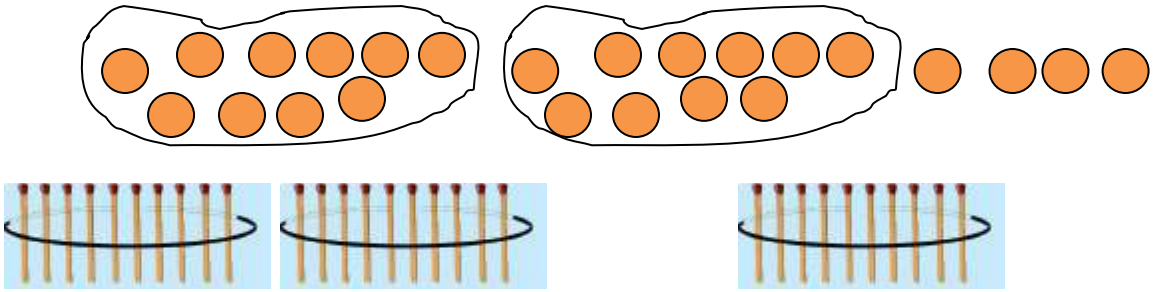
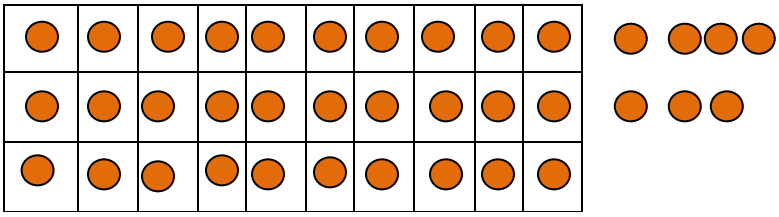


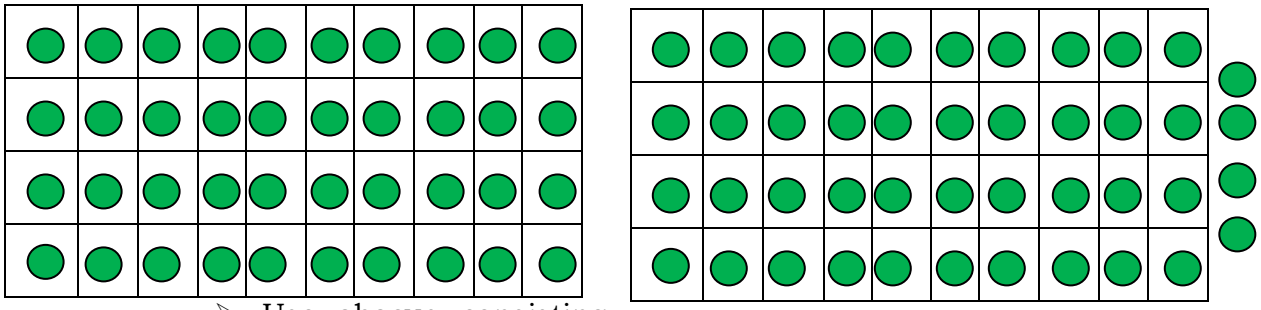
Figure 4.11

- Use **flash cards** as follows:

a. How many dots are there?



b. How many dots are there?



- Use abacus consisting of 100 beads.

Figure 4.12

- **Use puzzle: Missing Number in this Sequence**

Can you discover the missing number in this series?

37, 10, 82 29, 11, 47 96, 15, 87 42, ___, 15

Solution: The missing number is 6.The number in the middle of each triple is the same as the digits of either end's number when added together.

3+7=10 =8+2 and so on.

- Invite the parents to the centre to share you their experiences of Songs, games, and stories from a variety of cultures.
- Use number chart and help children to understand the pattern formed as follows:

Numbers chart help them to keep track of counting each number and this also helps them recognize the numbers.

The numbers from 10 to 100

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.

You can see a pattern in these numbers. Each number has two digits. Each time you count up, the second digit increases by 1 unless the second digit is a 9. If the second digit is a nine (such as 29), the first digit increases by 1 and the second digit becomes 0. The next number after 29 is 30. The first digit is called the tens place. It tells you how many sets of ten are in the number. The second digit is called the ones place. It tells how many ones there are in the number that is not included in the full sets of ten. In the number 99 there are nine sets of ten plus nine ones. With base-10 mathematics there are only ten "characters (digits)" to learn (0-9) plus these characters roles in "**place value**". When a child understands 84 is eight-tens and four ones, then they understand mathematics. Then help Kids to be able to tell the difference between the values of 67 versus 76 etc.

4.4.5 Addition and subtraction of whole numbers up to 20

Addition is combining groups of items or increasing the number in an existing group. Subtraction is removing some objects from a group. For example, 7 – 5 = 2 means “Five objects are taken away from a group of seven objects and two objects remain.” So, subtraction is taking away or separating items from a group and finding how many are left. This means, count out things in a group, take the known addend number of items, and then count the items that are left. **Subtraction** and **take away** are the

same terms. By this point, children have already had various informal experiences with grouping.

Teaching strategies

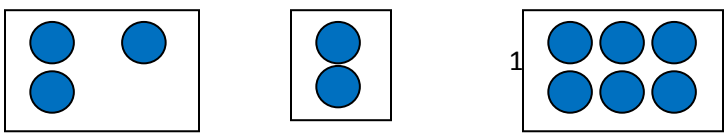
- **Counting all (combine):** Let children count out things for one addend, count out things for the other addend, and then count all of the things. With objects children keep track of how many words to count on so that they stop when they have counted on the second addend number of words and the last word they say is the total. For example 6 + 3 =? Would be "six, seven, eight, nine, so the total is nine. We counted on 3 more from 6 to make 9." 6 - 3 =? Would be six, five, four, three. Here we counted down 3 more from 6. Then we arrive at 3. Add and subtract whole numbers up to 20, using concrete objects.
- Help them explore addition and subtraction concepts more formally, initially through the use of manipulative (using concrete objects) and later through pictures. Modeling addition and subtraction involves using manipulative, such as beans, and marbles, as well as pictures, to represent combining groups (increasing a group) or separating items from a group and finding how many are left. Children at this age are not ready to understand addition and subtraction at the purely symbolic level. They need to work with actual objects so that they can form a concrete understanding of addition and subtraction. At this point, children cannot be expected to memorize number facts and will rely on being able to count the objects in each group to find the **sum** and to count the objects remaining in a group to find the **difference.** Once children have had many experiences joining (breaking apart) groups of actual objects, you can use drawings and other pictorial representations to model addition and subtraction. Drawing sketches and viewing pictures helps prepare children for the transition to a more symbolic understanding of addition and subtraction. These visual models make the connection between the actual items in groups and the numbers and operational symbols used to represent them in an addition and a subtraction sentence. After children have had ample opportunity to model addition and subtraction with a variety of materials, the plus and minus sign and equals sign can be introduced but, again, only in the context of grouping or separating real objects.

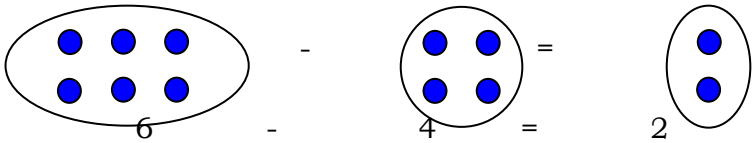
Example:

a.

4 1 5

b. You can use beads to model adding two to a number 4 + 2 = 6.



c. 

Children first learn the concept of addition by adding 1 more to numbers from zero to 20. At the Kindergarten level they will model addition by counting on and recording the number of items in all.

- Have two children come up to the front of the classroom. **Ask them** *"How* many children are at the front of the room?" Ask another child to come to the front of the room. Now one more child is at the front of the room. Let's count how many children are at the front of the room now. Have the children count aloud to 3. What did we do when we asked another child to come to the front of the room? (We increased the group by one.) Continue adding one more child and counting the new number until five children are at the front of the room. Children should see that when you add one to a number, you get the number after it. Place 5 marbles on the table. Direct children to look at the table. Ask how many marbles are there? Children should say "5." Place the 5 number cards where children can see it. Remove one marble from the table. Ask *"If I* take away one marble, how many marbles are left?" (4) Place the 4 number card to the left of the 5 card. Repeat, subtracting one until you have placed the number cards for 0 *to* 5 in a line. ***Ask,*** do you see a pattern? Children should see that when you subtract 1, you count back 1. *So* subtracting one is like counting back one.

Continue as above, modelling different subtraction sentences with objects.

The strategy of modeling subtraction can be used to teach a variety of concepts such as subtracting 1 or 2 from a number and the relationship between addition and subtraction.

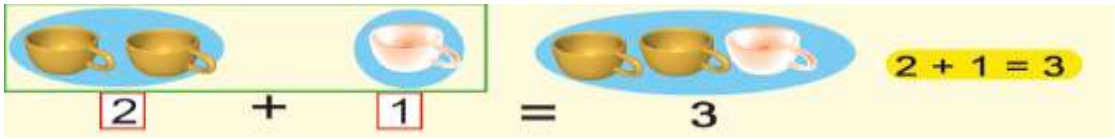
- Once children have had practice adding 1 to numbers 0 through 20, you can introduce the concept of adding 2 to a number. Then you can focus on different ways to make a number, up to 20, include adding doubles.
- You may use **puzzle**: Find two numbers whose sum is 8.
  Encourage children to ask questions. But it is better not to answer the children's questions directly but help them to learn how to find out the answer themselves. That is if a child has difficulty with an activity allow him or her to try the activity again and help him or her.
  Now, the answer for the above puzzle is;

  4 + 4 = 8
  5 + 3 = 8
  6 + 2 = 8
  7 + 1 = 8

Let's look at all the different ways we found to make eight. Have children countdown each column from top to bottom saying “4, 5, 6, 7” and then “4, 3, 2, 1.” Do you see a pattern? Children should say that each number in the first column is 1 more than the number above it and should say that each number in the second column is 1 less than the number above it.

Addition and subtraction with pictures

Once children have had a wide range of experiences of combining (breaking) groups of actual objects into two parts, you can use drawings and other pictorial representations to model addition (subtraction). That is use pictures, to represent addition or subtraction facts and addition or subtraction problems.

a. 

b. 

Picture 4.31

c. You can use addition and subtraction problems as follows.
Addition and subtraction of whole numbers is naturally motivated by everyday experience.

Examples:

1. Hawi washed 2 small plates and 2 large plates. How many plates did she wash in total?
2. Kebede removes 4 bananas from a jar. There were originally 10 bananas in the jar. How many bananas are left in the jar?
3. Bontu has two candies. If her mother gives her four more, how many candies will she have?”
4. Obsa has nine birr. If he gives four birr to her friends, how many does he have left?

As they progress in mathematics, children will continue to use manipulative and pictures to model concepts such as addition and subtraction of greater numbers and the relationship between addition and subtraction.

.5 Simple Geometric shapes

Shape recognition and drawing

Objectives: At the end of this lesson the trainees will be able to:

- identify specific shapes.
- identify and use teaching strategies to enable the children to recognize

shapes in the environment.

- use appropriate teaching strategies to develop the ability of children to identify, name and describe simple geometric shapes (circle, square, rectangle, and triangle).
- help the children to interpret the physical world with geometric ideas and using corresponding vocabulary.

Activity 7 ☞ 1. What are some basic shapes? Where are these shapes found?
2. Explain how to teach geometric shapes in kindergarten.

Children come to school with a great deal of background knowledge. As kindergarten teachers (as caregivers), it is our job to build upon and extend that knowledge. So it is better to try to frame the lesson in a way that children will understand by connecting it to things they already know.

Use mathematics vocabulary and everyday language interchangeably. For example at this level vertices means corners. Children know what corners are and can easily identify them on a shape. The ability to accurately identify shapes is a foundational mathematics skill, and it is quite rewarding for children because their world is full of shapes. Understanding shapes will enable children to be more exposed to the world around them and see the connections between objects, as well as being better able to appreciate artistic works.

Shape is a fundamental idea in mathematics and in development. Beyond mathematics, shape is the basic way children learn names of objects. Shapes are all around us. For example, you can see circular pool, circular garden, and the rectangular parking space. Shape recognition is a basic mathematics skill.

Children see shapes everywhere in their environment. The classroom can provide many opportunities for identifying and sorting shapes. Identifying shapes and their characteristics will help children to develop spatial sense. Through explorations, children will draw conclusions about differences and similarities among shapes. Those conclusions will lay the foundation for combining parts to make a whole. Children will also use their knowledge about shapes to work with patterns**.**

It is important to help children develop basic concepts of geometric shapes since geometry is rich in concepts, problem-solving experiences, and applications.

Some of the simple shapes are circles, triangles, squares, and rectangles.

4.5.1. Circles

Teaching strategies

How to teach the circle concept to preschoolers?

- Use your own bodies to make circle as follows. Then show them to tell you the shape you have made.
    - Use your fingers on one hand and on two hands to make a circle
    - Make a circle with two arms
    - Make a circle with your whole bodies

Ask them to make a circle using their bodies as you did and help them.

- Arrange the children in a ring. Ask them, “What shape are you standing in?”
- Invite a few children to lie down making a circle in turn.


Picture 4.32

Help and encourage them to identify the shape of circle (circle has 1 curved side and no points or corners)

- **Use objects:** Ask children, “Is there any circular shape at your home? In your surrounding?”….(**coins**, **plate**, **oven**, **the wheels on the bus** etc) Ask the children to think of everyday items, such as **dinner plates**, **clocks**, **traffic signs** or even the **sun** and the full **moon**. Ask them to pay attention when they go home to see how many circles they can find in their own home or neighborhood.
- Draw large circular shape in the sand(on the ground) and ask the children to:
  - walk around the shape counting their foot spans. Then ask them “How many spans is it? Is it the same for each child?”
  - look at the features of the shape. Ask them “Are there any corners?” Is the path *curved line or straight line?*
- In order to help the children to identify circles you may use different models of circles and different figures of circles. Ask them, “What shape is this?”
- Mix circular shapes and other, and ask them to select circles and stack their circles one on top of another. Then help them to understand basic properties of circles such as, **its edges are curved**, **it doesn't have any flat sides or corners, and it goes round.**

For example ask them “What shape is this?”

- **Use Circle Songs**

IT'S A CIRCLE
here is a circle, here is a circle,
How can you tell, how can you tell?
It goes round and round, no end can be found,
It's a circle, it's a circle.

- Give each child a piece of paper with drawings of two or three circles in various sizes. Ask the students to trace each circle and then color it in. As they trace, ask questions like, "Does a circle have any sides? Corners?" Show the students how to draw a freehand circle on the back of the paper and allow them to practice several of their own. Help them practice drawing the

circle on the sand, soil, and in the air by their fingers. Then help them practice to draw circle on the paper.

- You can also give children thread (string) and ask them to make circles in turn.

4.5.2 Squares

The square has four sides. The sides are equal. It has four angles. All angles are congruent. That is they have equal degree measures. Each angle measures 90^0.

Teaching strategies

How to teach the square concept to Preschoolers?

- Use your own bodies to make a square as follows. Then show them to tell you the shape you have made.
  - Use your fingers on two hands to make a square. Make a square with two arms (hands).
  - Make a square with two legs (feet).

  Ask them to make a square using their bodies as you did and help them.
- Arrange the children in a square. Ask them, "What shape are you standing in?"
- Invite a few children to lie down making a square in turn.

Example:

Picture 4.33

Ask them, "How many children are required to make the shape? Suggest that four children make this shape. Help them identify simple properties of square - Square has 4 equal straight sides and 4 points (corners). Guide the children in describing the shapes.

- **Use objects:** Ask children, "Is there any square shape at your home? In your surrounding?" Encourage students to find squares on their clothes and in the classroom.
- Draw large square shape in the sand(on the ground) and ask the children to:
  - walk around the shape counting their foot spans. Then ask them "How many spans is it? Is it the same for each child?"
  - look at the features of the shape. Ask them "Are there any corners?" Is the path *curved line or straight line?*
- You can also give children sticks (straws) and ask them to make squares in turn. Ask them the number of sticks required to make a square.
- Show children many shapes and have them sort to find only the squares.

- Let students practice making a square by forming it in the air, on the floor, with their foot, fingers etc. Then help them practice to draw squares on the paper.
- **Use song**: **This is a square as you can see.**
  It has 4 sides all the same.
  This is a square as you can see.
  Now draw it in the air with me!

4.5.3. Rectangle

A rectangle has 4 sides. The sides do not have to be equal. A rectangle has 2 short sides and 2 long. It has four angles. All angles are congruent. That is they have equal degree measures. Each angle measures 90^0. Rectangles are a fairly easy shape to work with, since kids see so many rectangles in their world.

Teaching strategies

- Use your own bodies to make a rectangle as follows. Then show them to tell you the shape you have made.
  - Use your fingers on two hands to make a rectangle. Make a rectangle with two arms (hands).
  - Make a rectangle with two legs (feet).

  Ask them to make a square using their bodies as you did and help them.
- Arrange the children in a rectangle. Ask them, "What shape are you standing in?"
- You can also give children sticks (straws) and ask them to make rectangles in turn. Ask them the number of sticks required to make a rectangle.
- **Use objects:** Ask children, "Is there any rectangular shape at your home? In your surrounding?" Encourage children to find rectangles on their clothes and in the classroom. What other objects can children think of that are in the shape of a rectangle? Ask your child what shape the bricks on a neighbor's house are made of, What is shape of, notes of birr, and top of table, faces of box, doors.
- Show children many shapes and have them sort to find only the rectangles.
- Draw large rectangles shape in the sand(on the ground) and ask the children to:
  - walk around the shape counting their foot spans. Then ask them "How many spans is it? Is it the same for each child?"
  - look at the features of the shape. Ask them "Are there any corners?" Is the path *curved line or straight line?*
- Invite a few children to lie down making a rectangle in turn.

Ask them, "How many children is required to make the shape? Suggest that four children make this shape. Help them identify simple properties of a rectangle – It has 2 short sides and 2 long sides (It has 4 straight sides and 4 points (corners). Guide the children in describing the shapes.

- Let children practice making a rectangle by forming it in the air, on the floor, with their foot, fingers etc. Then help them practice to draw rectangles on the

paper. Read the rectangle poem. Teach students the 'Rectangle Shape Song' in which it is emphasized that 'a rectangle has 2 short sides and 2 long.'

4.5.4 Triangle

Triangle has three sides and three angles. The sides and angles do not have to be equal.

Teaching strategies

- Use your own bodies to make a triangle as follows. Then show them to tell you the shape you have made.
  - Use your fingers on two hands to make a rectangle. Make a triangle with one arm (hand).
  - Make a triangle with two legs (feet).
  - Invite children to use their bodies to make a triangle.
- You can also give children sticks (straws) and ask them to make triangles. in turn. Ask them the number of sticks required to make a triangle.
- Invite a few children to lie down making a triangle in turn. How many children will they need to make the shape? Suggest that three children make the triangle shape.

Picture 4.34

- Draw large triangles shape in the sand(on the ground) and ask the children to:
  - walk around the shape counting their foot spans. Then ask them "How many spans is it? Is it the same for each child?"
  - look at the features of the shape. Ask them "Are there any corners?" Is the path *curved line or straight line?*
- Arrange the children in a triangle. Ask them, "What shape are you standing in?"
- **Use objects:** Ask children, "Is there any triangular shape at your home? In your surrounding?" Encourage children to find triangles on their clothes and in the classroom. What other objects can children think of that are in the shape of a triangle?
- You may use the '**Triangle Shape Song**' in which it is emphasized that 'a triangle has 3 corners and 3 sides.'
- Let children practice making a triangle by forming it in the air, on the floor, with their foot, fingers etc. Then help them practice to draw triangles on the

paper. Show children many shapes and ask them to sort to find only the triangles.

After you introduce young children to basic geometric shapes (circles, squares, rectangles, and triangles), you have to encourage children and enhance their shape recognition by using the following activities since it is you who lay a foundation for their future mathematics learning.

- Help children to recognize and describe squares, rectangles, triangles and circles by comparing and contrasting the properties of each shape. Provide many examples and describe the shape using mathematical terms, including "**sides,**" "**corners,**" **and** "**two-dimensional.**"
- Continue to review all the shapes until the children can easily identify and describe each shape.
- Group children. Display the shape drawings and ask children to identify them. Write the name of the shape onto the corresponding drawing. Engage children in a discussion about the different shapes. Ask them to describe how they are similar and how they are different. How many lines do the specific shapes have? Which shapes do you see that do not have straight lines?

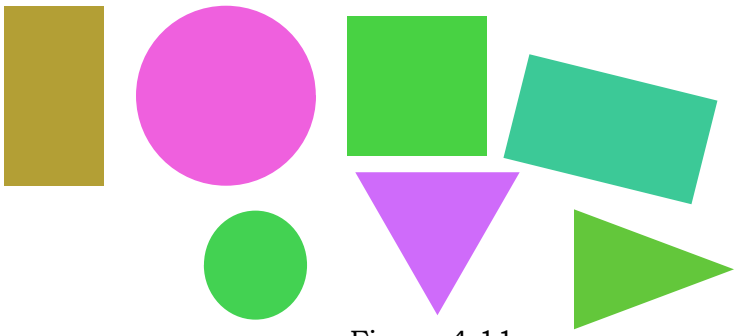


Figure 4.11

- Using the construction paper, cut out squares, circles, triangles, and rectangles. Keeping all shapes the same color helps kids focus their attention on the shape itself, rather than the color from which it's made. Then ask and help the children to identify the shapes as four sided, three sided, and round. Then ask them sort and classify the shapes to recognize their attributes.
- Draw one large shape. Let the children take turns walking, crawling or hopping around the edges of the shapes. Or ask the child to first identify the shape before walking around it.

- Talk about patterns that children see in the classroom and on their clothing. Remind children that a pattern has items that repeat according to rules. Try to have children identify any shapes in the patterns. Place shapes on the floor in the following pattern:

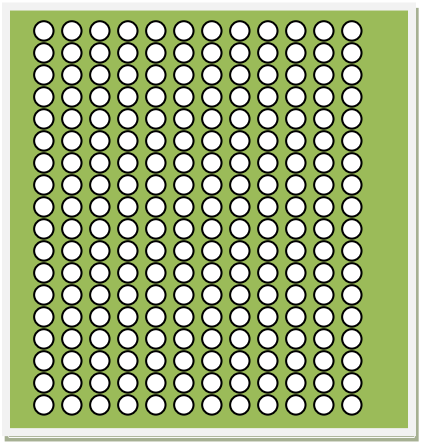
Figure 4.12

Ask the children how they could describe this pattern? What shape is this? How do you know? Children may say that it is a circle because it has curved lines or does not have straight sides or corners (goes round). Then point to the square.

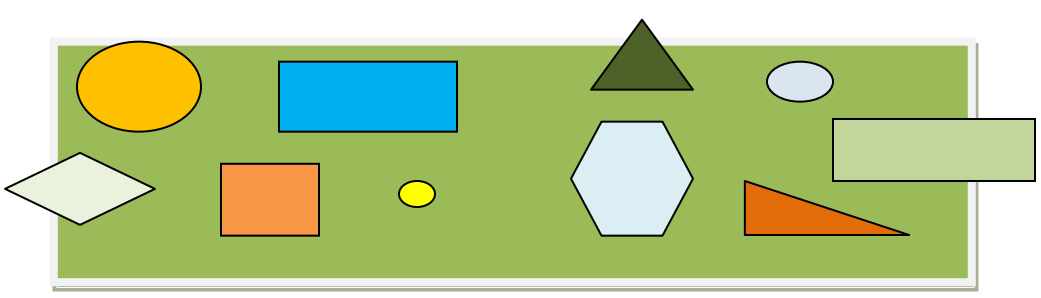
Ask the children how many straight sides of the same length does this shape have? How many corners? What is the name of this shape?

Discuss children's answers.

- You can use geoboards. Help the children to practice drawing of shapes. When drawing shapes, kids really have to think about them. Will they need straight lines or curved lines? Are the sides all the same length or different lengths? Keep the shape drawings and play the game again with the group. Divide them into teams and see which team can make the shape the fastest.



Arrange the children in groups. Place a sheet containing different shapes in front of the group. Give each group certain amount of beads. Then ask the group to place the beads on all of the circles. Repeat this activity for other shapes.



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