Curriculum for EARLY CHILDHOOD CARE AND EDUCATION

2017

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PREFACE:

Ministry of Federal Education and Professional Training (MoFE&PT) spearheaded the process of Curriculum Revision a decade after its development under the slogan of Education Sector Reforms (ESR-2001-2004). MoFE&PT has led the initiative under the advice from President of Islamic Republic of Pakistan to synchronize National Curriculum with the rapidly changing international norms in education development and research. The National Curriculum Revision 2017 has underlying theoretical perspective to rejuvenate the existing National Curriculum to match the renewed requisites of rapidly changing international educational scenarios on one hand and to add aspect of preparing generations who are well aware of their expected role of globally competent, responsible citizen and custodian of human heritage and resources.

National Curriculum of Early Childhood Education (NCECE) caters to the need to streamline the guidelines to develop a road map for designing activities and scheme of studies for pre-schoolers (age 04-05 years*) under the notion of developmentally appropriate practices for this tender aged students. This curriculum is aimed to foster children's overall well-being and to ensure the best possible conditions for growth and development in a conducive, child friendly and all-inclusive environment where they can experience choice and freedom of actions in a safe, guided and healthy environment. This provision is aimed to help them develop into individuals who are able to learn through play, discovery, experimentation and collaboration.

This curriculum revision is aimed to develop indicators in Early Childhood Care and Education (ECCE) to cultivate an environment where children learn pro-social behaviours helping them to learn through collaborative processes, cooperation, sharing and caring for others, and to be confident in not feeling threatened by the debilitating effects of continued competitive environment. The focus of this curriculum framework will remain on the provision of such environment where development of skills like research/probing, decision making, inquisitive learning and leadership with increased emphasis on practice of values like patience, tolerance, empathy and civic education can take place and become part of child's personality. Other vital underlying theme is personality development with local, national and global perspectives where the aim is to help child become a responsible law-abiding citizen fully aware of his/her role as custodian of national heritage and natural resources aiming to conserve and replenish.

The revised National ECCE Curriculum is articulated under the renewed national commitments at international forums like United Nations and E-9 forums as well as latest researches and established theories of child development encompassing all aspects of physical, cognitive, social, emotional and ecological developmental domains. It is divided in four chapters to ease the understandings of concepts and their implications.

Chapter 1 introduces the significance of ECCE while providing the underlying theoretical frameworks of developmental domains catered for in this document. Chapter 2 enlists the key learning areas, competencies and expected learning outcomes for each developmental domain while identifying implementing ideas for teachers, practitioners and text books/material developers. Chapter 3 provides detailed guiding principles for establishing the learning environment in an ECCE classroom, assessment and evaluation, teachers' selection, training and continuous professional development programmes, devising roles of schools administrators, developing text book/material for ECCE, and suggested timelines for future curriculum revisions and its practical implications. Chapter 4 provides with developmental theoretical perspectives of age appropriate brain development, cognitive development, psycho-social and emotional development and ecological system development theories to help understand the holistic development of child.

This curriculum framework is a reference document for all ECCE stakeholders, particularly teachers, school administrators and has been developed to provide a national tool for guiding the implementation of Early Childhood Care and Education catering to the needs of all predefined parameters. At all levels of planning and implementation of ECCE curriculum it needs to be kept in consideration that education is linked to culture and constant change in local, national and global society. This factor should always be sensitively taken into account in the continuous assessment of implementation mechanism of ECCE, goal setting, setting expectations of learning outcomes and future revisions of Curriculum.

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*Here the age specified for pre-primary grade (04-05) directly connotes to the existent structure of ECCE grade as Prep/Nursery/Katchi/Undakhil as prevalent across the country. However it must be well noted here that this curriculum framework for ECCE has the scope to expand and pre-primary grade for age 03-04 years can also be derived if need arises. It is relevant to state here that Sustainable Developmental Goal for Education (SDG-4) indicates the implementation strategies for 02 years ECCE and therefore probability for introduction of 02 years pre-primary grades (03-05 years) is increased. This document will provide for the baseline of such introduction of extended pre-primary grades in the Education System of Pakistan.

CHAPTER 01: INTRODUCTION TO THE NATIONAL EARLY CHILDHOOD CARE AND EDUCATION CURRICULUM

1.1- THE SIGNIFICANCE OF EARLY CHILDHOOD CARE AND EDUCATION(ECCE)

It is now widely acknowledged that the effects of what happens during the pre-natal period and thousand days (three years)of a child's life can last a lifetime. This is because the kind of early care a child receives from parents, pre-school teachers and caregivers determines how a child learns and relates to school and life in general. The most important contribution towards holistic development of a child revolves around the social, emotional, moral, cognitive and physical development, which defines the overall personality of a child in later years. It is during early care that a child develops all the key elements of emotional intelligence, namely confidence, curiosity, purposefulness, self-control, connectedness, the capacity to communicate and cooperativeness.

Emotional Intelligence is now considered crucial for educational success. Students who have higher levels of emotional intelligence are more likely to remain in education, whereas, those with emotional difficulties tend to drop out.
The early years are also critical for the acquisition of the concepts, skills and attitudes that lay the foundation of lifelong learning. These include the acquisition of life skills such as self-awareness, critical thinking and conflict management, language, perception-motor skills required for learning to read and write and basic numeracy concepts and skills.

Interventions in the earliest years in social awareness and well being are in fact the sine qua non for reducing help the social and economic disparities and race and gender inequalities that divide our society. It is especially the children of our poor rural and poor urban communities who are most likely to benefit from and who most urgently need investment in early childhood development. It is through initiatives in ECCE such as this, that we can begin to put an end to inter-generational cycles of poverty, disease, violence and discrimination.

By the time children reach the age of three (latest research brain development to be incorporated briefly), their brains contain as many synapses and use up as much energy as the brain of an average adult. The complexity of this development is described by scientists as a magical "dance" which lies at the very heart of every human being and his or her learning process, beginning at birth, and even before. This relatively new understanding of brain development, has critical implications for society, and particularly for educators and the way children are taught.

It is evident that it is within the crucial early years, when experience is moulding the brain, that the foundations of learning are also set. A person's ability to learn and his or her

attitudes towards learning stem from their early years. A stimulating and receptive context can set a young child on the path of discovery, openness to the outside world and the capacity to integrate information. The brain is never as elastic again as it is in childhood, in terms of receptivity and vulnerability. Adults are capable of assimilating new knowledge, but can never rival the child's brain in its mastering of new skills and its discovery of learning. Early childhood experiences are the building blocks of this development and the child is architect of his or her own brain, piecing together the puzzle and reacting to the outside world.

1.2. PHILOSOPHY AND VALUES IN ECCE:

Every child should have the opportunity to grow up in a setting that values children, that provides conditions for a safe and secure environment, and that respects diversity. Because children are both the present and the future of every nation, they have needs, rights, and intrinsic worth that must be recognised and supported.

Children must receive appropriate nurture and education within and outside their families from birth onwards, if they are to develop optimally. Attention to the health, nutrition, education, and psychosocial development of children during their early years is essential for the future well-being of nations and the global community. Knowledge about human development is now more substantial than at any time in history. The new century offers opportunities to consolidate recent gains and respond to new challenges that lie ahead. It is important to bear in mind that children, just like adults, need to be respected as capable, thinking and feeling individuals with unique personalities.

Central to the values of the curriculum, to which the Government of Pakistan is signatory, is the Convention on the Rights of the Child (CRC). A core value of the CRC is the human dignity of the child. Related to this basic value, the Convention consists of the four following overall principles:

1. Non-discrimination
2. The child's best interest
3. The child's right to life and full development
4. Giving due weight to the views of the child

Learning through Play

All young children need periods of uninterrupted time in which they can engage in active learning, explore their environment, make their own discoveries and set their own challenges. They need opportunities to work with other children, and they need adults who are able to understand and extend their natural interests. Above all, they need opportunities for learning through play.

"Play acts as an integrating mechanism which enables children to draw on past experiences, represent them in different ways, make connections, explore possibilities, and create a sense of meaning. It integrates cognitive processes and skills which assist in learning. Some of these develop spontaneously, others have to be learnt consciously in order to make learning more efficient. We would all like children to become successful learners."

Bennet et al (1997)

1.3. NATIONAL COMMITMENTS TO ENSURE STEPS TO BE TAKEN TO IMPROVE STATISTICS AND QUALITY OF EDUCATION IN THE COUNTRY:

1.3.1- EFA- EDUCATION FOR ALL

Advancing research on education and human development, highlight the crucial nature of the early years and it's implication for a healthy and peaceful life at later stages. The world recognised the importance and need for ECCE (Early Childhood Care and Education) by endorsing expansion and improvement of comprehensive early childhood care and education, especially for the most vulnerable and disadvantaged children as a key means for creating a better world.

The Education for all declaration and subsequent reiteration at World Education Conferences has brought ECCE into the main policy discourse of more than 180 countries. As a signatory to the framework, Pakistan has also made a commitment to support ECCE programmes in the country.

1.3.2. COMMITMENT TO ACHIEVE EFA GOALS AT E-9 FORUM:

Recognising that the 'Education for All' goals remains unachieved in the nine most populous countries of the world, E-9 member countries gathered to sign a commitment to strengthen collaboration with each other to improve education standards in their countries. The E-9 Initiative, **a consortium of the nine most populous countries of the South** was put in place in 1993, following the World Conference on EFA in Jomtien, Thailand in 1990. "E" stands for education and "9" for those nine countries which are home to over half of the world's population as well as to almost half of the world's out of school children and two thirds of the world's illiterates: **Bangladesh, Brazil, China, Egypt, India, Indonesia, Mexico, Nigeria and Pakistan**. The nine countries committed to pursue "with determination" the Jomtien goals and have become over the years a driving force within the Education for All partnership.

"**Inclusive, relevant quality Education for All**" has been identified as the thematic focus for cooperation among the E-9 countries. With contribution from high-profile academia from all the E-9 signatory countries, following four sub-themes have been identified:

1. Qualifications framework and competency standards for inclusive quality education

2. Management of teacher education and the issue of quality inclusive education

3. Teacher education and training for inclusive quality education

4. Financing teacher education for inclusive quality education

(UNESCO, 2012)

1.3.3. SUSTAINABLE DEVELOPMENT GOAL FOR EDUCATION (SDG-4):

Pakistan is also a signatory to Education 2030 vision which was adopted in the Incheon Declaration on May 21, 2015 at the World Education Forum (WEF 2015) held in South Korea. The Incheon Declaration constitutes the commitment of the education community to Education 2030 and the 2030 Agenda for Sustainable Development, recognizing the important role of the education as a primary driver of development.

Education 2030 proposes ways of implementing, coordinating, financing, and monitoring efforts to achieve equal education opportunities for all, outlining how the commitments made in Incheon Declaration may be translated into practice at national, and global levels. It also includes indicative strategies which countries may contextualize in light of their national realities, capacities and their own national policies and priorities. It thus presents a serious attempt at providing guidelines for overcoming deficits in implementation when global reform agendas are agreed upon.

In post-devolution national scenario all provinces and areas have developed their own Education Sector Plans and also working on implementation plans for SDG-4 along with participating at the active forum of Inter-Provincial Education Ministers' Conference (IPEMC) to discuss key issues, make recommendations and develop collaboration among all provinces and areas. IPEMC provides an excellent forum to all the provinces and areas to share their experiences in implementation oftwo years pre-primary grades and to develop a way forward.

SUSTAINABLE DEVELOPMENT GOAL FOR EDUCATION (SDG-4):

Obtaining a quality education is the foundation to improving people's lives and sustainable development. Major progress has been made towards increasing access to education at all levels and increasing enrolment rates in schools particularly for women and girls. Basic literacy skills have improved tremendously, yet bolder efforts are needed to make even greater strides for achieving universal education goals. For example, the world has achieved equality in primary education between girls and boys, but few countries have achieved that target at all levels of education; hence the need is to renew world's commitment to achieve education related targets by 2030. A summary of SDG-4 targets is:

4.1: By 2030, ensure that all girls and boys complete free, equitable and quality primary and secondary education leading to relevant and Goal-4 effective learning outcomes

4.2: By 2030, ensure that all girls and boys have access to quality early childhood development, care and pre-primary education so that they are ready for primary education

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4.3: By 2030, ensure equal access for all women and men to affordable and quality technical, vocational and tertiary education, including university

4.4: By 2030, substantially increase the number of youth and adults who have relevant skills, including technical and vocational skills for employment, decent jobs and entrepreneurship

4.5: By 2030, eliminate gender disparities in education and ensure equal access to all levels of education and vocational training for the vulnerable, including persons with disabilities, indigenous peoples and children in vulnerable situations

4.6: By 2030, ensure that all youth and a substantial proportion of adults, both men and women, achieve literacy and numeracy

4.7: By 2030, ensure that all learners acquire the knowledge and skills needed to promote sustainable development, including, among others, through education for sustainable development and sustainable lifestyles, human rights, gender equality, promotion of a culture of peace and non-violence, global citizenship and appreciation of cultural diversity and of culture's contribution to sustainable development

4.8: Build and upgrade education facilities that are child, disability and gender sensitive and provide safe, nonviolent, inclusive and effective learning environments for all

4.9: By 2020, substantially expand globally the number of scholarships available to developing countries, in particular least developed countries, small island developing States and African countries, for enrolment in higher education, including vocational training and information and communications technology, technical, engineering and scientific programmes, in developed countries and other developing countries

4.10: By 2030, substantially increase the supply of qualified teachers, including through international cooperation for teacher training in developing countries, especially least developed countries and small island developing states

(United Nations, 2015)

SDG target 4.2 is directly linked with the provision of quality access to Early Childhood Care and Education or pre-primary education regardless of gender or area. Though little have been done under the slogan of EFA and efforts to introduce and implement at least one year pre-primary education across the country, a lot remains to be done for ensuring quality ECCE across Pakistan.

1.4. PRINCIPLES UNDERLYING A QUALITY ECCEPROGRAMME:

Schools should be ready to accommodate and cater the needs of the young learners by providing adequate resources including sufficient space.

Children learn best when:

- The environment provided is secure and enabling, where teachers appreciate their previous experiences, and take them forward from where they are.
- A partnership between home and school is valued.

- Adults are interested in them and the interaction between them is positive.

- They are respected; a positive self-image and high self-esteem are fostered.

- They are motivated to be independent active learners through first hand experiences

- They are given opportunities to make choices and decisions which develop their confidence, helping them to take responsibility for their own learning and growth.
- Activities are planned to match their own pace, and are varied, with periods of activity and quiet reflection.
- The experiences offered are relevant to their immediate interests and match their individual needs.
- The programme is holistic and not compartmentalized with an established daily routine.

1.4.1. HOLISTIC DEVELOPMENT THROUGH EARLY CHILDHOOD CARE AND EDUCATION:

One of the guiding principles of holistic childhood development is that it is the unfolding and process of learning that is more important than the product. It is the approach to, and process of learning that stimulates a willingness to learn rather than the simple ingesting of facts and figures. Pushing children to absorb facts and knowledge will not increase their desire to learn. It will, in fact, be to the detriment of the child's later development and ability to learn effectively. Learning by doing and the very basic need to know are the main motors in stimulating children.

All educators, implementers and policy makers have a huge responsibility to ensure that children who enter school at age four, are given a quality early childhood learning environment. It is important to have a fair level of understanding about the different domains of development, so that developmentally appropriate provision can be made in response to children's collective and individual needs.

Development is not a linear process; it is simultaneous and integrated. However, for the purposes of explanation and understanding, the domains have been compartmentalized into the following major areas.

- ***Physical Development***: Involves the way children use their muscles, both large and small. The large muscles are used for activities such as walking, jumping and lifting large

objects. The small muscles are used for fine motor activities such as threading beads, writing, and drawing, cleaning rice and working with small objects. Exposures to activities that help in muscle development help children in doing small tasks on a daily basis. They start feeling capable of helping elders and gain confidence in them.

- *Social and Moral Development:* Refers to those processes where children develop relationships with their culture, with people around them and the environment in general. The social setting and value system form the core of a person's identity – children at a very young age try to figure out what is good, what is appreciated or beneficial, based on what they observe in their surroundings. A quality ECE environment provides opportunities for children to form positive relationships with other children and with elders, and to engage in conversations about social norms and ethical issues.

- *Emotional Development:* refers to the development of a child's capacity to experience, manage and express a full range of positive and negative emotions. The development of self-esteem is critical throughout the early years and having positive experiences in a quality environment is essential at this stage. Feeling important, actively taking responsibility, being listened to and cared for, are the essentials for creating a positive self-concept in children.

- *Language Development:* refers tothe process by which children make sense of the words, symbols and information around them. Children are born with the ability to learn language but again, a quality learning environment is essential to help them develop optimally. Learning to read and write the Alphabet and make small sentences is just one component of language development. Over emphasis on this component especially through rote memorization, without giving children a chance to process the information and relate it to their lives, cripples not only their language development, but also their cognitive capacities.

- *Cognitive Development*: refers to the development of mental processes and capabilities; it focuses on how children learn and process information. It is the development of the thinking and organizing systems of the mind. It involves language, imagining, thinking, exploring, reasoning, problem solving, developing and rejecting ideas and concepts, memory, expression through multiple media and experimenting and applying what they learn. When they come to school, children are already equipped with the basic thinking and processing skills - they have learnt it all as part of growing up. Sound cognitive development enhances critical thinking and creativity in human beings. A quality ECE environment provides learning opportunities where children are given the freedom to explore, think, imagine, question, and experiment, as they develop the ability to create novel ideas and solutions.

1.5. THE AIMS OF EDUCATION

"To educate Pakistanis to be:

▪ Seekers of truth and knowledge who can apply both for the progress of society;

▪ Creative, constructive, communicative, and reflective individuals;

▪ Disciplined, productive, moderate and enlightened citizens;

▪ Capable of effectively participating in the highly competitive global, knowledge-based economy and the information age; citizens committed to creating just civil society that respects diversity of views, beliefs and faiths."

(Ministry of Education, Government of Pakistan, 2006)

It is further suggested during thorough deliberation and group discussion that following aims of education should be added at National level that aim of education should also be *to educate Pakistanis to be:*

▪ Empathetic & patient participants in the world around them;

▪ Contributors towards building harmonious and tolerant society;

1.5.1. A STATEMENT OF BELIEFS:

The principles given below carry important implications for practice:

- The whole child is important - social, emotional, physical, cognitive and moral developments are interrelated.
- Learning is holistic and for the young child is not compartmentalised under subject headings.
- Intrinsic motivation is valuable because it results in child-initiated learning.
- The child's sense of dignity, autonomy and self-discipline are of critical importance.
- In the early years, children learn best through active learning (using all five senses) - learning by doing.
- What children can do, not what they cannot do, is the starting point in children's education.
- There is potential (multiple intelligences, p. 88) in all children which emerges powerfully under favourable conditions.
- The adults and children to whom the child relates are of central importance.
- The child's education is seen as an interaction between the child and the environment, which includes people as well as materials and knowledge.

- The teacher understands the importance of inclusive education and also practices it in the classrooms.

1.5.2. A STATEMENT OF OBJECTIVES

The National ECCE Curriculum aims to:

- Provide for the holistic development of the child, which includes physical, social, emotional, cognitive and moral development.

- Develop critical thinking skills.

- Nurture tolerance and respect for diversity.

- Nurture in children a sense of identity and pride in being Pakistani.

- Provide knowledge and understanding of Islam and Islamic society.

- Develop an understanding and respect for the beliefs and practices of all other religions.

- Create in children a sense of citizenship in community, country and the world.

- Foster a sense of independence, self-reliance and a positive self-image.

- Equip the child with life-long learning skills.

- Provide opportunities for active learning.

- Provide opportunities for self-initiated play and decision making.
- Developing values, morals, ethics and civic sense.

CHAPTER 02: KEY LEARNING AREAS, COMPETENCIES AND EXPECTED LEARNING OUTCOMES FOR ECCE

2.1. AN INTRODUCTION TO THE KEY LEARNING AREAS AND COMPETENCIES:

The key learning areas outlined in this curriculum contains competencies, or goals which have been outlined for children at the pre-primary stages of education. These six areas of learning provide a foundation for later learning and achievement. It is important to remember that children progress at different rates, that individual achievement will vary and that ECCE teacher must appreciate that recognise the language and culture of the children.

Children whose achievements exceed the expected outcomes should be provided with opportunities which extend their knowledge and skills. There may be others who will require continuous support to achieve all or some of outcomes at entering Grade I. Care must be taken to ensure that they get the opportunities of revision and reinforcement. Children with special educational needs may also need varied kinds of support throughout school.

This curriculum for the early years has been divided into the following key learning Area. Each key learning Area has been assigned between three to seven competences of learning goals.

2.1.1- PERSONAL AND SOCIAL DEVELOPMENT
These outcomes focus on children's learning how to work, play, co-operate with others and function in group beyond the family. They cover important aspects of personal, social, moral and spiritual development of personal values which should be agreed by the adults in the community, including the parents.

2.1.2- LANGUAGE AND LITERACY
These outcomes cover important aspects of language development and provide the foundation for literacy. At the start, the language used in the programmes for all six areas of development, could be in mother tongue, based on local culture and it can then gradually and progressively be further developed to acquire competence in English (where applicable). Children should be helped gradually to acquire competence in Urdu, making use

where appropriate, for developing understanding and skills in languages. The outcomes focus on children's developing competence in talking and listening and becoming readers and writers. The other areas of learning make a vital contribution to the successful development of communication and literacy.

2.1.3- BASIC MATHEMATICAL CONCEPTS:

These outcomes cover important aspects of mathematics understanding and provide the foundation for numeracy. They focus on achievement and application through practical activities and on using and understanding mathematical language.

2.1.4- THE WORLD AROUND US

These outcomes focus on development of children's knowledge and understanding of their environment, other people and features of the natural and "man" world. They provide a foundation for historical, geographical, scientific and technological learning.

2.1.5- HEALTH, HYGIENE AND SAFETY

These outcomes focus on children's development physical control, mobility awareness of space and manipulation skills in indoor and outdoor environment. These include establishing positive attitudes towards a healthy and active way of life.

2.1.6- CREATIVE ARTS

These outcomes focus on the development of children's imagination and their ability to communicate and to express ideas, feelings, and observations and experiences in creative ways. They include encouraging children to think about new and innovative ideas which can be expressed through varied media.

2.2. AN INTRODUCTION TO EXPECTED LEARNING OUTCOMES FOR ECCE:

Children learn at their own individual pace according to their interest levels and learning styles. At the young age of 4-5 years children should not be forced to learn beyond their capacity because this will impede their learning and cognitive development.

The National ECCE Curriculum charts out learning outcomes that young children are expected to attain. However, given the diverse learning styles and paces, many children may not achieve all the outcomes in the one year that they are in the pre- primary grade. Therefore, the outcomes for the subject pre-primary grade are termed "**Expected**" and educators and supervisors should not be overly concerned about children completing activities or meeting each and every outcome. It is the process and not the production of the learning that is more important at this stage!

For all the key Learning Areas, and Competencies there is a list of Expect Learning Outcomes which start with, "By the end of the year, children will begin to develop the attitudes, knowledge and skills …"It is important to reiterate that in the early years, children learn and

achieve the expected outcomes by the end of the years. This is why the outcomes in the National ECCE Curriculum are called expected learning outcomes and not student learning outcomes, as are in the curricula for Grade 1-12. As long as the teacher is providing continuous and varied opportunities for hands-on learning and children are engaging enthusiastically, teacher supervisor and parents should not be overly concerned.

2.3. AN INTRODUCTION TO EXAMPLES AND IDEAS FOR IMPLEMENTATION

An additional column containing examples and ideas for implementation has been added to this curriculum to provide some suggestions for implementation, for teacher writers of Teachers' Guide and for those who will develop teaching-learning resources for this age group.

As the term suggests, these are examples and ideas only, and are not intended as prescriptive or exhaustive list of activities for teachers to follow. It is hoped that teachers will use these suggestions as a starting point, and localize the ideas to meet the needs of the children's context.

2.4. COMPETENCIES, EXPECTED LEARNING OUTCOMES AND IDEAS FOR IMPLEMENTATION FOR KEY LEARNING AREAS OF PERSONAL AND SOCIAL DEVELOPMENT:

Competency 1: Children will develop an understanding of their likes, dislikes, strengths, emotions and self-grooming.

Expected Learning Outcomes	Examples and ideas for implementation
By the end of the year children will begin to develop the attitudes, knowledge and skills to; a. Share what they like about themselves and what they like about a friend. b. Identify different occasions when they feel happy, sad, loved, angry, excited. c. Choose an activity/work that they enjoy doing the most in class d. Express their likes and dislikes and talk about their strengths/what they are	*This competency focuses on developing children's self-confidence and understanding of their lifestyles and preferences.* **Teachers can facilitate learning in the following ways:** • Ask "Why" questions so that children can think about their responses. For examples, if a child says I want to be a pilot, teachers should also be ask her why she/he wants to become to pilot-what does she/he like about pilots?

good at doing. e. Understand how to dress up, know about eating habits, proper posture while walking, talking and sitting. f. Take care of his/her and others' belongings g. Perceive himself/herself in a positive way h. Ask for help when needed i. Learn honesty, fairness and trustworthiness	• Be patient with children so that they have adequate time to think and then respond they should never be rushed into answering. • Encourage children to keep learning areas tidy and should keep only those things in his/her bag which belong to them • Encourage children to seek permission before taking others belongings • Putting lunch-boxes and water-bottles at the assigned places in the shelves and remember to take them back home.

Competency 2: Children will be willing to share and work in collaboration with their peers, teachers, family and neighbors regardless of gender.

Expected Learning Outcomes	Examples and ideas for implementation
By the end of year children will begin to develop the attitudes, knowledge and skills to: a. Show an understanding for the feeling of their peers. b. Cooperate with peers, teachers and community members. c. Work and share materials amicably in groups. d. Form friendly and interactive relation with peers and adult around him/her e. Learn to respect others' opinion f. Learn to make queues whenever needed	*This competency focuses on developing children's relationship with the people they interact with on a daily bases.* **Teachers can facilitate learning in the following ways:** • Encourage children to help each other carrying out small tasks, like handling and using class materials such as, book, block and beads. • Help children to work and play amicably by being friendly and respectful towards each other. • Help children make queues when going out of the class for outdoor activities, during break, for washing hands and coming back to the classroom. • Help children take turns during classroom discussion, be attentive and respectful when peers or teacher are sharing their views and experiences. • Be available to support children resolve conflicts, using a problem solving approach.

Competency 3: Children will develop an appreciation for the diversity of people around them.

Expected Learning Outcomes	Examples and Ideas for Implementation
By the end of the year children will begin to develop the attitudes, knowledge and	This competency focuses on making children pluralistic in their attitudes and thinking i.e;

skills to: a. Cooperate with and be sensitive to, peers, elders, and neighbours who may have learning or physical disabilities. b. Respect the feelings and views of others.	they consider everyone as equal and not discriminate against anyone on the basis of their identity. Teachers can facilitate learning in the following ways: • Tell/read stories, recite poems or sing songs about people from various countries and cultures and about people with disabilities. • Discuss similarities and differences between themselves and people in their environment and talk about everyone's strengths and unique qualities. • Encourage children to interact openly and sensitively with all their peers and listen to what others are saying respectfully, without interrupting them.

Competency 4: Children will develop an understanding of their own religious values and practices as well as the appreciation, respect and acceptance for others' religious values and practices

Expected Learning Outcomes	Examples and ideas for implementation
By the end of year children begin to develop the attitudes, knowledge and skills to: a. Able to recognise, appreciate and respect similarities and differences among people b. Able to associate and mingle with children having diverse abilities c. Know that religion of most people of Pakistan is Islam d. Know that other religions exist and people belonging to other religions also live in Pakistan e. Name their religion. f. Know that love, care peace and respect for others are common values across religions. g. Muslim Children will: • Know Allah is the Sole Creator and Prophet Muhammad ﷺ is His last and most beloved Prophet.	*This competency focuses on developing children's concept of religion and respect for all religious.* **Teachers can facilitate learning in the following ways:** • Celebrate harmony days (cultural games, food, dresses etc.) • Assign tasks to mix-ability groups with pre-defined rules (displayed in the classroom as classroom norms) • Promote the values of tolerance and respect for everyone. Young children should be made confident that God loves them. He has created them with love and wants them to love their fellow-beings. Notions of 'fear; or 'punishment' should not be inculcated at this young age. • Recite small dua'as so that Muslim children are introduced to the ethics of Islamic living. Help children understand the significance of dua'as. For example

- Know that Islam stands for peace and harmony. - Recite the first Kalma. - Recite small dua'as and know why they should be recited h. Children belonging to other religions learn about and practice their own religion. i. Respect other religions and have tolerance for other religion.	why we should recite prayers before eating or sleeping – what do they mean and how they communicate our gratefulness to Allah. Encourage children belonging to other religions to recite their own prayers and shares their beliefs.

Competency 5: Children will demonstrate a sense of responsibility for self and others in class, school, home and neighbourhood.

Expected Learning Outcomes	Examples and ideas for implementation
By the end of the year children will begin to develop the attitudes, knowledge and skills to: a. Manage small tasks leading to self-reliance. b. Take care of their own belongings and put classroom materials back in the right place after use. c. Identify and implement small tasks leading to a sense of responsibility for school and public property. d. Recognise that water, food, electricity and paper are very important and need to be used responsibly. e. Recognise and practice their responsibility in keeping the environment, home, classroom and neighbourhood clean.	*This competency focuses on developing children's confidence and self-reliance, and on developing an understanding and appreciation for the responsible use of scarce resources.* **Teachers can facilitate learning in the following ways:** - Encourage a sense of care and responsibility in children. For example, turning pages of books with care; helping in setting the snacks carefully; returning materials to the designated place after use. - Stand back and let them resolve little problems independently, until they ask for help. Encourage them to help other children and adults in the classroom and neighbourhood. - Discuss respect for others' property and give them responsibility for; - Performing tasks assigned individually and in groups - Cleaning up after snack time. - Using materials with care, keeping tables, shelves and walls clean. - Using waste bin for throwing litter and wrappers, after checking for 'junk' that can be recycled. - Taking pride in clean, environment.

| | • Returning things that do not belong to them, to an adult, switching off fans and lights when leaving room.
• Group leader will bring materials for group work from the learning corners
• Group leader helps others within the group to complete task
• Talk about the importance of water, food, electricity and paper. Discuss in simple terms where they come from; how we need these in our daily lives and how these can be depleted and 'hurt' the earth if we don't use them carefully. |
|---|---|

Competency 6. Children will learn about and appreciate heritage and culture of their own family, their peers and neighbours.

Expected Learning Outcomes	Examples and ideas for implementation
By the end of the year children will begin to develop the attitudes, knowledge and skills to: a. Talk about the cultural aspects of their lives, such as, clothing, lifestyle, food, traditions and customs. b. Talk about the spaces in their culture for sharing family and community gatherings. c. Narrate stories heard from elders. d. Play local games (hide and seek, jumping, gudda-guddi ki shaadi, ghar ghar khail,tug of war, clay modelling, cat's cradle etc.) e. Develop basic knowledge about Pakistani culture. (i.e. know about the national game, flag, flower, food, folk dances, etc.)	*This competency focuses on developing children's understanding of life, cultures and history. This competency aims to develop children's appreciation of culture that is part of their daily lives.* **Teachers can facilitate learning in the following ways:** • Initiate discussions about culture events which the children experience directly. • Talk about their cultural spaces, such as *autaq, katcheri, Jirga, majlis, chopaal* depending on the local culture. Discuss how some spaces are used to solve problems and to meet with neighbours. Help them observe and identify the beautiful and unique patterns in old building and cultural spaces. • Encourage them to talk about and play their favourite local games.

Competency 7: Children will use common courtesy expressions like greetings, please, thank you, sorry, excuse me.

Expected Learning Outcomes	Examples and ideas for implementation
By the end of the year children will be able to develop the attitudes, knowledge and skills to;	*This competency focuses on developing children's courteous conversation and mannerism to help develop positive and*

a. Speak politely. **b.** Understand the term kindness and the importance of being kind to others **c.** Take turns when speaking and respect the right of others to speak **d.** Respect everyone	*healthy relationships with peers and elders.* **Teachers can facilitate learning in the following ways:** • Present herself as a role model in front of students by always practicing polite expression. • By providing reinforcement through role-plays and practice during the classroom activities. • By displaying some charts/pictorial displays reflecting common courtesy expressions.

2.5. COMPETENCIES, EXPECTED LEARNING OUTCOMES AND IDEAS FOR IMPLEMENTATION FOR KEY LEARNING AREA OF LANGUAGE AND LITERACY:

All following competencies require that teachers start the language and Literacy program in children's Mother Tongue, based on local culture and gradually add Urdu and then English (wherever applicable), and also reference from the wider culture. Children need the confidence that their mother tongue is valued.

2.5.1. LISTENING AND SPEAKING SKILLS

Competency 1: Children will engage in conversation with others and talk confidently about matters of immediate and personal interest.

By the end of the year children will begin to develop the attitudes, knowledge and skills to: a. Listen attentively in small and large groups, peers and teachers share their views about every event and special occasions. b. Talk about their experiences and feelings with peers and adults. c. Show respect for a variety of ideas and beliefs by listening and responding appropriately. d. Wait for their turn to speak and not interrupt when others are talking. e. Respond to and verbally express a range of feelings, such as, joy or sorrow,	*The primary function of Competency 1 is to enhance children's confidence and ability to communicate with fluency.* **Teachers can facilitate learning in the following ways:** • Engage children in conversation by talking about special cultural and national events which are meaningful for them. Encourage at school, at home. Initiate the conversation by sharing own news experience and feelings, taking care that these are appropriate for the children. Following the weekend, ask learning questions or comments such as, "I wonder if anyone went to the park

wonder and anger. f. Initiate conversations with peers and adults. g. Recognition of letters with their initial sounds h. Able to recognise and differentiate between sounds in the environment. i. Understand and follow instructions. j. Use correct pronunciation. k. Draw on words from and enhanced vocabulary. l. Make eye contact while speaking to the audience	yesterday ….; or "I can see that Ayesha has mehndi/henna on her hands; Do you think someone in her family is getting married?; It looks like Ali has had a haircut." • Introduce sounds using cassette player for practicing • Encourage children to listen different sounds in environment for example, paper tearing, dropping and hitting things, animal voices, wind blowing, audio players and musical instruments. • Establish an environment where children feel free to talk, by placing self at children's physical level. Be available to converse with all the children throughout the day. Refer one child's questions and problems to another • Listen actively to children and wait for them to complete what they are saying. Be patient with their hesitation and at the same time help other children to listen and wait, by holding up a hand, and nodding, assuring them that they will get a turn. Display appropriate facial expressions and body language to communicate respect, joy, sorrow or wonder. • Play games where they have to understand and follow simple instructions. For example, "Ayesha, touch your head and then your nose and then clap your hands." • Teacher will use phonic rhymes and sounds in audio/video form. Children will learn the rhyme and will identify letters with their initial sounds. • Repeat the correct pronunciation of word that children may have mispronounced, without telling them that they are wrong. • Help them enhance their vocabulary, by encouraging them to use new words which have been introduced through discussions and stories. Action poems and songs are a good way to learn words.

Competency 2: Children will describe objects, events and their plans for the day.

Expected Learning Outcomes	Examples and ideas for implementation
By the end of the year children will begin to develop the attitudes, knowledge and skills to: a. Name things in their environment. b. Describe and talk about pictures. c. Share their plans for the day d. Express their ideas with clarity. e. Extend their ideas or accounts by providing some detail about their topic	*This competency is designed to help children to process and comprehend spoken language and to communicate their thoughts, need, interest and feelings to others.* **Teachers can facilitate learning in the following ways:** • Take children for a walk around the school and play a game of naming objects that they see in the environment. Back in the classroom, encourage children to try and recall what they had seen in the environment. • Talk about and discuss pictures form children's story books, or pictures that have been cut out form old magazines or newspapers. • Sing songs and recite poems in a similar manner with action and encourage children to role play. • Play games where children have shut their eyes and listen for the different sounds in the environment. For example, the sound of a bird, a cat or dog, a rickshaw or a bus. At other times, make sound such as clapping, tapping or stomping your foot and ask them to identify the sound. • Listen to the children as they work and play, and make up chants and rhythms along with them. Recite rhyming words, even if all of them don't make sense and laugh at these together. Develop a playful interest in respective sounds and words, aspects of language such as rhythm, rhyme, and alliteration, and an enjoyment of nonsense stories and rhymes.

Competency 3: Children will enjoy listening to stories and poems/rhymes and make up their own stories and rhymes.

Expected Learning Outcomes	Examples and ideas for implementation
By the end of the year children will begin to develop the attitudes, knowledge and skills to: a. Respond to stories, songs and rhymes by joining verbally or with actions as appropriate **b.** Recognise and differentiate between sounds in the environment **c.** Appreciate the concept of words rhymes and syllables.	*This competency focuses on enjoying stories, poems and songs and on making up their own stories and taking part in role play with confidence.* **Teacher can facilitate learning in the following ways:** • Tell children traditional stories and tales which have cultural relevance for them. Occasionally, use simple props such as puppets and masks and local toys made by local *kumhar.* • Sit with children on the floor, on a *darri* so that you are closer and at the same physical level as them. • Tell stories without props too, so that children can rely and build their imagination. • Maintain their interest in stories and poems by being animated and telling or reading a story with pleasure. Pause for children's comments or questions and enjoy their responses. • Sing songs and recite poems in similar manners with actions and encourage children to role play. • Listen to the children as they work and play, and make up chants and rhymes along with them. Recite rhyming words, even if all of them do not make sense and laugh at these altogether. Develop a playful interest in repetitive sounds and words, aspects of language such as rhythm, rhymes, and alliteration and an enjoyment of nonsense stories and rhymes.

2.5.2. READING SKILLS

Competency 4: Children will enjoy age appropriate books and handle them carefully.

Expected Learning Outcomes	Examples and ideas for implementation
By the end of the year children will begin to develop the attitudes, knowledge and skills to: a. Enjoy skimming/scanning through age appropriate big books. b. Hold, open and turn pages of a book with care. c. Predict what comes next in stories. d. Repeat simple repetitive sequences in traditional and popular children's stories. e. Tell a simple story by looking at pictures. f. Retell a favourite story in correct sequence.	*This competency focuses on pre-reading skills. Children will enjoy books and handle them carefully.* **Teachers can facilitate learning in the following ways:** • Hold up books for children when reading a story and show them the pictures. Show enjoyment and respect of books through actions and facial expressions. Share own feelings about books during greeting circle time. Encourage the children to tell a story by looking at the pictures. If they make up their own stories, just accept them. However, if they are re-telling a favourite story, and they miss important steps in the sequence, help them to remember by questioning gently and appealing to their sense of reason. • Establish a library area in the classroom. Encourage children to bring books (used books) from home (wherever possible) to keep in the library area for a few days. • Show children how to hold and open a book without spoiling or tearing it. Show them also how to turn the pages with care. Learning to respect other people's property is an important part of learning about right and wrong. • Build up a sense of anticipation and give children the opportunity to guess what will happen next in a story. Also wait for and encourage them to join in when a sentence is repeated in a familiar story.

Competency 5: Children will understand how books are organized.

Expected Learning Outcomes	Examples and ideas for implementation
By the end of the year children will begin to develop the attitudes, knowledge and skills to: a. Differentiate between the parts of a book. b. Know that some books tell stories and others give information. c. Know that Urdu is read from right to left and top to bottom. d. Know that English is read from left to right and top to bottom.	*This competency will help children understand the different parts/sections of a book, the different kinds of books and the orientation of different languages.* **Teachers can facilitate learning in the following ways:** • Tell them in a conversational tone, what the different parts of a book are, such as the cover, the end, the spine. When reading out a story, show them, without expecting them to understand or remember straight away, where a sentence begins and which direction we read in and how we read from top to bottom. • Talk to them about different kinds of books that some tell us story and other tell us about so many different things, such as animals, plants, buildings, and history.

Competency 6: Children will recognise familiar words in simple texts.

Expected Learning Outcomes	Examples and Ideas for Implementation
By the end of the year children will begin to develop the attitudes, knowledge and skills to: a. Understand that words and pictures carry meaning. b. Identify and name the characters in a story. c. Recognise their names in print (Urdu & English). d. Begin to recognise letters of the Alphabet. e. Identify sight words that are meaningful for them. f. Identify letter sounds through words that have personal meaning for them. g. Associate initial letter sounds with	*This competency will help children recognise familiar words in simple texts. They will begin to associate sounds with letters of the alphabet and also to recognise letters of the alphabet by shape and sound. They will begin to recognise their own names and other familiar, often repeated words.* **Teachers can facilitate learning in the following ways:** • Provide a print rich environment. Children learn to read by trying to make sense of the print they come across to support their efforts by labelling objects and areas in the classroom. Place plenty of books in the learning environment for

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names of objects in their classroom environment. h. Think of a variety of objects beginning with a single letter of the alphabet.	them to look through, and to tell each other their stories. • Create symbols for their names and draw these along with the written name on a label which can be pinned (safely) on their clothes. Let them find their own name tags each day when they arrive. When they are confident and can identify their names easily, remove the symbol and leave only their name on the name tag. • Prepare little cards with letters of the Alphabet (remember to move from mother tongue to Urdu to English) and play matching games. Match the cards to objects and pictures which begin with a particular alphabet. Say the initial alphabetical sounds of objects and match these to sounds of the alphabets present. Begin with words that are personally meaningful for the children like their own name, names of family members, pets, favourite food and places. Keep an ear open for children's interests and use words that are important for them to help them "read" the respective alphabet and sight words.

2.5.3. WRITING SKILLS

Competency 7: Children will use pictures, symbols and familiar letters and words to communicate meaning, show awareness of some (symbols, letters and words) , for the different purposes of writing.

By the end of the year children will begin to develop the attitudes, knowledge and skills to:	*This competency will help children use pictures symbols and familiar letters and words to communicate meaning, showing awareness of some of the different purpose of writing. It will also focus on learning the skills they will need in writing legibly.*
a. Make marks and scribble to communicate meaning b. Draw pictures to communicate meaning. c. Hold a pencil correctly. d. Colour a simple picture keeping within designated space. e. Trace, copy, draw and colour different	**Teachers can facilitate learning in the following ways:** • Provide a variety of writing and drawing materials to give children marks on

shapes, such as circles, squares, triangles and rectangles.

f. Trace and draw vertical, horizontal and wavy lines and simple patterns made up of lines, circles, semi circles and other simple shapes.

g. Trace copy and write the letter of Urdu alphabet.

h. Trace copy and write the letters of the English alphabet.

i. Write their own names in English &Urdu with appropriate use of the upper and lower case letters.

paper. Accept children's scribbling/drawing as their first attempts at writing. Look carefully to find letters and images emerging form their scribbling. Gently, help them to hold their writing tools correctly; use computers with children's software where possible.

- Talk to them about their drawing and write a word or sentence, exactly as they say it, and then let them trace over it if they want to. They may return to it the next or another day and "read" what was written. This will help them see that pictures communicate meaning.

- Provide a tray with sand in it. Encourage children to draw lines and patterns in the sand and then later on paper. They can trace or copy lines and patterns that have been made for them.

- Give them plenty of opportunities to trace, draw and colour pictures prepared for them and simple shapes which have been introduced earlier. Let them trace and copy letters of the alphabet (mother tongue, Urdu, English) and their own names.

2.6. COMPETENCIES, EXPECTED LEARNING OUTCOMES AND IDEAS FOR IMPLEMENTATION FOR KEY LEARNING AREA OF BASIC MATHEMATICALCONCEPTS:

Competency 1: Children will develop basic logical, critical, creative and problem solving skills by demonstrating an understanding of the different attributes of objects, such as colour, size, weight and texture, and match, sequence and classify objects based on one/two attributes.

Expected Learning Outcomes	Examples and Ideas for Implementation
By the end of the year children will begin to develop the attitudes, knowledge and skills to: a. Recognise, name and differentiate between colours.	*This competency requires that children use mathematical language as they explore the similarities and difference between the attributes of objects. It focuses on enhancing children's thinking skills through pattern*

b. Differentiate between the objects on the basis of size, weight, length, width and textures(smooth & rough).
c. Arrange objects and later pictures, according to their size/length, going from smallest to biggest, biggest to smallest, shortest to the longest and longest to shortest.
d. Arrange objects and later pictures, according to their weight and width, going from highest to lowest, heaviest to lightest and narrowest to widest and vice versa.
e. Match and compare one object with another on the basis of similar attributes.
f. Sort and group objects (classify) based on a single attribute (for e.g.; colour) and based on two attributes (e.g. colour and weight).
g. Observe, identify and extend patterns developed with various concrete materials.
h. Observe, identify and extend the given picture/symbol patterns.
i. Group objects together according to their shapes and colours.
j. Sequence objects according to their size, shapes and colours
k. Identify and differentiate between broad and narrow
l. Identify that 'some' is less than 'all'
m. Differentiate between' more', 'less' and 'equal.
n. Create own patterns using concrete materials and pictures and explain them.
o. Observe and identify the "odd one out" from the given set of concrete material or pictures and explain the answer.

identification and through building relationship.

Teachers can facilitate learning in the following ways:
- Give the children freedom to explore patterns and relationship. Give them the opportunity to come up with different answers or solutions and accept what they come up with.
- Design various interesting activities using simple everyday material to help children build their skills. A few ideas are given below:
  o Use concrete materials such as, beads, blocks, and buttons. Help them recognise and describe the attributes of these objects.
  o Ask children to compare the given objects and identity similarities and differences between them. Encourage them to group various objects and explain the reasons for doing so.
  o Use a variety of materials to help children build their classification skills. For example, give children red and blue beads of the same size and ask them to sort these in two groups. Later, give them red and blue beads in small and large sizes and ask them to sort these. In the second case, children may come up with different ideas. They can make four groups (small red beads, large red beads, small blue beads and big blue beads). They may make only two groups (red beads and blue beads or small beads and big beads. (Encourage children to consider various attributes while sorting.
  o Use the concept of sorting and sequencing in daily class activities, such as making a queue of children in the order of height, dividing the children for various group activities,

	organizing class materials in boxes and arranging books in various piles.
	• Use low cost materials, such as, beads, peanut shell, ice cream sticks and pebbles for pattern seeking exercises. Start by showing a few patterns to children, and then engage them in extending the given patterns and developing their own patterns using concrete materials and pictures.
	• Engage children in observing the environment and identifying various patterns. For example, pattern on floor tiles (one red tile and one blue tile) pattern of lines and flowers on various clothes and patterns of day and night.

Competency 2: Children will develop a basic understanding of quantity, counting up to 100 and simple number operations of 0-9.

Expected Learning Outcomes	Examples and Ideas for Implementation
By the end of the year children will begin to develop the attitudes, knowledge and skills to: a. Differentiate between <u>some</u> and <u>all</u> from a given set of objects, and understand that <u>some</u> is less than <u>all</u>. b. Understand one to one correspondence. c. Count up to 100 orally. d. Use numbers to represent quantities in daily life interaction. e. Compare quantities of objects in different sets and describe which sets are equal, which have more objects, and which have lesser objects than another. f. Begin to develop an understanding of the concept of zero. g. Identify and write correct numerals to represent numbers from 0-50. h. Sequence numerals correctly from 0-50. i. Identify which numeral represents a bigger quantity. j. Identity ordinal numbers up to nine.	*This competency focuses on nurturing children's emerging number concepts, through concrete experiences. It aims to develop an understanding of basic numbers and simple mathematical operations.* **Teachers can facilitate learning in the following ways:** • Encourage children to sing number songs and poems, count different objects in the environment, count while bouncing a ball /clap / jump. • Engage children in hands-on activities to help them build an understanding of numbers and their numeral representation. • Provide manipulative material, such as counting bars, small blocks, balls, spoons, ice-cream sticks and engage children in sorting the given objects in groups; counting the number of objects in each group; comparing the quantities in the

k. Add concrete objects in two given sets. l. Identify the signs of addition and equal to. m. Substitute numerals for concrete objects during the process of addition. n. Use mathematical language, such as, <u>adds</u> and <u>makes</u> to describe the process of addition. o. Use the concept of addition in their daily lives. p. Remove the identified number of objects from a given set, and tell how many objects are left in the set. q. Identity the sign of subtraction. r. Substitute numerals for concrete object during the process of subtraction. s. Use the concept of subtraction in their daily lives.	various groups; and identifying which one has more objects than the other, which has less and which two groups have equal numbers. • Provide daily opportunities to the children to count and recount objects in the environment. • Encourage children to compare relationships between quantities in their daily life. Ask question to stimulate thinking. For example: - Are there more brown objects or black objects in our class? - Are there more girls or more boys in our class? - Do more children in our class like bananas or do more like apples? • Give two sets of materials (such as, cups and spoons) to children, and ask them to arrange them in one to one correspondence. • Introduce numeral representation once children have developed a good sense of numbers and their values. For example, count objects and show its numerals to children on a card or on the board; give number cards (cards on which different numerals form 1-9 are written) and various objects to children and engage them in: sorting the objects in groups; counting the objects in each group; and placing the right number card alongside each group. • Give children picture cards and number cards and engage them in counting the number of pictures in each card, and matching the picture cards with their corresponding number cards. • Engage children in various activities using concrete materials to build the concept of addition and subtraction. • Provide opportunities to use addition and subtraction in daily life. For example, Ali has two books. Asma has three books. How many books does that make? Saima had four biscuits. She ate two now, how

| | many biscuits does she have?
• Use mathematical language to describe number operations and encourage children to do the same. |

Competency 3: Children will recognise basic geometrical shapes and the position of objects in relation to each other.

Expected Learning Outcomes	Examples and Ideas for Implementation
By the end of the year children will begin to develop the attitudes, knowledge and skills to: a. Recognise, name and draw two dimensional shapes, such as circle, oval, square, rectangle or triangle. b. Identify the shapes in their environment. c. Draw object of their own choice using various shapes. d. Develop understanding and describe the position and order of objects using position words such as, in front of, behind, up, down, under, inside, outside, between and next to.	*This competency will help children to develop a sense of shape and space. It emphasizes the provision of hands-on experience to understand the position of objects in space.* **Teachers can facilitate learning in the following ways:** • Provide several sets of shape cards in the same colour, and ask children to sort the cards using their own criteria; describe their sorting and talk about the criteria they used; and name each shape. Children may use and name each shape. Children may use various names, and at this stage, it needs to be accepted. • Introduce the shapes and their proper names. Involve children in identifying and talking about similarities and differences among the shapes. • Take children on a 'shape walk' looking for geometric shapes in the environment. • Provide experiences in making shapes with natural and recycled materials, such as, clay string and ice-cream sticks. • Introduce and use various position words to describe the position of objects in daily activities. For example, Akram is putting the ball <u>on</u> the table; Salma has put the pencil <u>next</u> to her book; Zehra is standing between Ali and Asma. • Engage children in various games in which they give instructions to each

	other using position words.
	• Involve children in describing pictures using position words.

Competency 4: Children will develop an understanding of measurement.

Expected Learning Outcomes	Examples and Ideas for Implementation
By the end of the year children will begin to develop the attitudes, knowledge and skills to: a. Describe and compare object using length; weight and temperature (hot & cold) as measurement attributes. b. Observe various objects and estimate their weight and length. c. Verify their estimations using simple tools. d. Understand informal time units and know that clocks and calendars mark the passage of time. e. Sequence events in time and anticipate events.	*This competency emphasizes developing basic ideas about measurement and measuring attributes through hands-on experiences.* **Teachers can facilitate learning in the following ways:** • Provide concrete materials to children such as long and short pencil, strips of paper or strings, heavy and light blocks, toys and pebbles and engage them in comparing and describing the relationship between these objects, using words such as, longer or <u>shorter than, heavier</u> or <u>lighter than</u>. • To lead children towards estimating the measurements, show them a few objects and ask questions, such as, which one seems to be the heaviest/lightest, longest/shortest? To verify their estimations, use simple tools such as, their own hand span, a simple balance, rope, scale or measuring tape. • Using a calendar indicates special days, months, birthdays and use terms such as yesterday, today or tomorrow. Use a clock in the daily routine to anticipate what will happen next. Anticipate how many months before Ramadan and Eid, summer holidays, going to the next class, and other events that are of relevance to the children.

2.7. COMPETENCIES, EXPECTED LEARNING OUTCOMES AND IDEAS FOR IMPLEMENTATION FOR KEY LEARNING AREA THE WORLD AROUND US:

Competency 1: Children will develop an understanding of how families are important and talk about their family history.

Expected Learning Outcomes	Examples and Ideas for Implementation
By the end of the year children will begin to develop the attitudes, knowledge and skills to: a. Talk about their family members and each one's role and importance to the well-being of the family. b. Collect information about their family members. c. Talk about their family history like their grandparents and where they used to belong and what they used to do. d. Identify various ways of showing love and respect for family members.	*This competency is designed to help children recognise the importance of family relationships and to learn more about their own families and those of their peers.* *The key processes children can be engaged in, are the collection and sharing of information about their family.* **Teachers can facilitate learning in the following ways:** • Talk to children about their family members and about their roles and responsibilities. This can be initiated by choosing stories based on family relationships. • Help children think of a few questions they could ask their family members, in order to learn more about them, such as, their likes and dislikes, hobbies and favorite food etc. Children can talk to their family members at home, to their family members away from home by telephone or e-mail, and then share the collected information with their peers in small groups in class. Children can also bring photographs of their family members to show to their friends. • Help children think of ways in which they can show their family that they love and respect them.

Competency 2: Children will develop an understanding of the people and places around them.

Expected learning Outcomes	Examples and Ideas for Implementation
By the end of the year children will begin to develop the attitudes, knowledge and skills to: a. Talk about various community members and explore their roles. b. Recognise places such as, school, library, clinic/hospitals/dispensary, shopping malls/markets, post office, cinema, banks, parks, museum, zoo, mosque, airport, train station, and talk about their purpose and importance. c. Talk about food, water and clothes. Discuss where they come from, who brings them to markets and homes and how they get there. d. Identify and explore various means of communication and transportation.	*This competency focuses on exploration and enhanced understanding of the environment. It also focuses on helping children realize the importance of community structures and their services to the community.* **Teacher can facilitate learning in the following ways:** • Help children identify and learn more about community members, who are most relevant to their context. These may be the people who provide services to others such as, lady health visitors, carpenters, cobblers, milkmen, sweepers, doctors, drivers, tailors. • Help children identify and learn more about community places which are of significance in their local community. Children in different schools may explore different places. • Take children on field trips where they can observe the places and talk to the people there. • Invite various community members to class to talk about their work. Encourage children to have discussions with them. • Pick a few necessities of daily life and engage children in reflecting and talking about their sources. For examples, teachers can choose 'Bread' as a topic and ask questions to help children trace the path to its source: • Where do you think we get bread from? • I wonder where bakers get bread from? • What do you think bread is made from? • Where does flour come from? • Organize interesting exploration activities to help children learn about communication and transport. Engage them in observing various modes of

	transportation. Ask them to compare these, and sort them in groups using their own criteria. Discuss with them their reasons for why they sorted as they did.
	• Give children a choice of drawing or making clay models of imaginary forms of transport, for examples, a flying rickshaw. Encourage children to come up with their own ideas. Talk to them about their experiences of travelling and mode of commutation as used by them.
	• Involve children to collect pictures of different places mentioned above (like museum, hospital, post office, railway station etc) from newspapers, sticker charts or other means and share with their friends in the classroom. This activity can also be designed as group presentations.

Competency 3: Children will recognise the plants and animals in their environment and explore their basic features and habitat.

Expected Learning Outcomes	Examples and Ideas for Implementation
By the end of the year children will begin to develop the attitudes, knowledge and skills to: a. Recognise animals and explore their basic features. b. Compare a variety of animals to identify similarities and differences and to sort them into groups, using their own criteria. c. Recognise plants and explore their basic parts of plants. Know that there are different types of plants. Some are in door while some are out door. Some can be grown in pots while others grow as big trees. Some give flowers, some give fruit and some give vegetables. Know that some are useful plants and some are weeds.	*This competency is designed to engage children in the careful observation and comparison of various animals and plants in their surroundings. It also aims to develop a caring and loving attitude towards animals and plants.* **Teachers can facilitate learning in the following ways:** • Read or tell animal and plant stories, and talk to children about their observations and experiences with animals and plants. • Ask children to observe local animals and their basic features, such as, body parts, sounds, habits, food and homes. • Organise trip to park to observe different types and sizes of plants/trees. • Organise field trips to the zoo to see

d. Talk about the significance of animals and plants for human beings and their relationships with each other like some plants provide food for animals and some give them homes.

e. Practice how to take care of animals and plants.

f. Take actions to demonstrate a caring attitude towards plants and animals

g. Know that animals have different types of homes. Some live on land, some live in water and some can fly.

h. Know that some animals are friendly (pet animals), some are useful (farm animals), some are dangerous (wild animals), some can fly (birds) and some are very small (insects).

animals that are not locally observable. In the classroom, they can depict various animal movements.

• Help children recognise the main parts of plants, such as, root, stem, leaves, flowers and seeds and compare the parts of various plants. Give them the opportunity to touch, smell and feel the different textures of leaves, and talk about similarities and differences.

• Organise a pet day in class where children who have pets at home can bring them to the classroom.

• Encourage children to reflect on and share ideas about actions which are harmful for animals and plants, for example, beating animals and pulling off flowers and leaves from their stems. Discuss ways of showing respect and care for animals and plants. Talk to children about organisations and people who love and protect plants and animals.

• Involve children in a role play to show how to take care of animals and plants.

Competency 4: Children will observe the weather and develop an understanding of the seasons and their significance to people.

Expected Learning Outcomes	Examples and Ideas for Implementation
By the end of the year children will begin to develop the attitudes, knowledge and skills to: a. Observe and describe daily weather conditions. b. Record daily weather condition on a weather chart using symbols. c. Describe key features of different seasons, based on observations and experiences. d. Explore and discuss how the changing seasons affect our food, clothes and lifestyles. e. Explore and discuss how climate change affects our environment (Global warming	*This competency focuses on helping children understand their environment by becoming good environmental observers and explorers.* **Teachers can facilitate learning in the following ways:** • Spend a few minutes each day, talking about the daily weather conditions, using simple indicators such as sunny, cloudy, warm, cold, rainy, windy, dry, or humid day. • Use simple symbols/pictures to help

and pollution).	children record the weather. For example, put up a big chart in the class with boxes for each day and ask children to draw symbols in the relevant box to record their observations. • Engage children in discussions, during winter, about food, clothes and lifestyle related to winter. In summer, design activities to facilitate children to explore summer and help them notice how various aspects of our life changes with the change in seasons. • Show them pictorial display and/or video to know the harmful effects of cutting old trees and pollution caused by plastic bags, smoke, putting fire on rubbish. • Engage children in discussion to understand the harmful effects of these acts (like rise in temperature) and know the importance of planting tree. • Engage the children in activity of planting and adopting a tree.

Competency 5: Children will develop a caring attitude towards the environment.

Expected Learning Outcomes	Examples and Ideas for Implementation
By the end of the year children will begin to develop the attitudes, knowledge and skills to: a. Understand the need for clean air and how to prevent air pollution. b. Understand the uses of water and the need to conserve. c. Identify pleasant and unpleasant sounds leading to an awareness of noise pollution. d. Discuss and implement the careful use of resources/materials in everyday life. e. Explore alternate uses of waste material. f. Identify practices that are useful and harmful to the environment and suggest alternatives to harmful practices.	*This competency focuses on nurturing children's abilities to think critically about sustainable development. Identifying problems, thinking of alternatives, generating diverse solutions and asking and responding to open-ended questions, are the key processes in which children need to be engaged.* **Teachers can facilitate learning in the following ways:** • Work with children on puzzles and general problem solving activities. Select tasks which can be solved in a variety of ways, which have optional solutions, instead of just one correct answer. • Children in activities which encourage them to think of alternatives. For

examples, ask children to think of various possible uses for an empty plastic bottle, an old calendar, an empty carton or biscuit box.
- Discuss and share ideas for replacing environmentally harmful practices with better alternatives. For example, use of cloth/paper bag instead of plastic bags.
- Engage children in answering open-ended questions which are imaginary and from daily life, such as
    1. If you could choose, would you rather be a flower or a bird? Why?
    2. What would happen if all the toys are disappeared from the world?
    3. What could you do if you saw two of your friends fighting in the playground?
    4. What would you do if your teacher was not in the class and your friend got hurt?

Competency 6: Children will recognise and identify natural resources and physical features of Earth.

Expected Learning Outcomes	Examples and Ideas for Implementation
By the end of the year children will begin to develop the attitudes, knowledge and skills to: a. Introduce and explain with example from real life; • Different physical features like mountains, desert, forests, sea etc. • Natural resources such as water, wind, forests and minerals b. Name at least three natural resources and three physical features	*This competency focuses on developing abilities to observe and differentiate amongst land features around them. It also sensitise them towards the importance of land diversity and importance of its conservation.* **Teachers can facilitate learning in the following ways:** • Use stories and poems about mountains, jungle, sea, rivers, desert etc. • Encourage children to share their experiences if they have seen any of these resources and features. • Use flash cards to make children familiar with the names and pictures (of Natural resources/physical features)

	• Encourage children to talk with their family about these natural resources/physical features. • Involve children in the discussion to know the responsible use of resources like water, energy means like electricity and gas.

2.8. COMPETENCIES, EXPECTED LEARNING OUTCOMES AND IDEAS FOR IMPLEMENTATION FOR KEY LEARNING AREA OF HEALTH HYGIENE AND SAFETY:

2.8.1. PHYSICAL DEVELOPMENT AND SAFETY

Competency 1: Children will develop a sense of balance, agility and coordination.

Expected Learning Outcomes	Examples and Ideas of Implementation
By the end of the year children will begin to develop the attitudes, knowledge and skills to: a. Move in a number of ways, such as running, jumping, skipping, sliding and hopping. b. For balancing, walk on a straight and curved line. c. Refine and improve their movements as they repeat actions. d. Develop gross motor development and flexibility through physical exercise, such as stretching, bending and other drills. e. Move through spaces with consideration of other children/people and objects in the environment. f. Show respect for other children's personal space while playing. g. Development of spatial intelligence. h. Demonstrate the control necessary to hold objects or hold themselves in fixed positions for a couple of minutes. i. Explore a variety of ways to represent	*This competency focuses on children's developing physical control, mobility and awareness of space in indoor and outdoor environments. It includes establishing a positive attitude towards a healthy, active way of life.* **Teachers can facilitate learning in the following ways:** • Monitor children's height and weight on a monthly basis and keep the record. Identify the children who are falling behind in physical growth according to the National Health Standards. • To help children learn to balance by engaging them to walk with a book on his/her head and/or with spoon having a small potato holding in his/her mouth. • Integrate health and safety activities throughout the day, in different segments of the daily routine**.** • Model healthy and safe practices and promote healthy lifestyles for children. • Provide safe spaces and opportunities for

ideas through actions and movements.	• children to walk, run and climb every day. • Provide opportunities to throw ball at a certain distance, walk backwards, climb on a ladder and stairs, jump over small objects with balance and control. • Support children in using outdoor gross motor equipment such as swings and climbing frames, safely and appropriately. • Encourage both girls and boys to participate in active play. • Participate in gross motor activities during transition time, from the segment of the daily routine to another. For example, "hop to the table" or "jump five times while you wait to wash your hands."

Competency 2: Children will have increased hand-eye coordination and the ability to handle tools and materials effectively.

Expected learning Outcomes	Examples and Ideas for Implementation
By the end of the year children will begin to develop the attitudes, knowledge and skills to: a. Use a range of child-appropriate tools with increasing control and confidence. b. Handle malleable materials safely with increasing control. c. Show increasing control over fastening of clothes and utility items. d. Able to manipulate small objects with ease (string beads, fit small objects into holes), pick up small objects with fingers.	*This competency focuses on developing children's skills to accomplish tasks and activities that require balance and safe handling of tools and objects.* **Teachers can facilitate learning in the following ways:** • Provide opportunities to use simple tools such as, scissors, thread, paper knives, hammers and screw drivers. • Provide sensory experiences to children such as water and sand play where children can pour, fill and empty. • Organise activities which involve dressing-up using varied fasteners, such as, buttons, hooks, laces and zips. Involve children in opening and closing bottle caps and boxes and bags of various designs and sizes. • Routinely check the environment to ensure that healthy and safe practices are followed. Review safety rules before

	involving children in activities, such as cutting, so that children are conscious of them while working.

Competency 3: Children will develop sensory motor skills

Expected Learning Outcomes	Examples and ideas for Implementation
By the end of the year children will begin to develop the attitudes, knowledge and skills to: a. Differentiate between different smells b. Differentiate between different taste; sweet, bitter, salty, sour, spicy etc. c. Differentiate between texture; smooth, rough, hard, soft, silky, fluffy, bumpy, slimy d. Enhance observation skills by looking at the environment around them e. Differentiate between different sounds; loud, soft, shrilly etc. f. Differentiate between different temperatures hot, cold, warm etc.	*The main focus of this competency is to help children through a variety of activities to develop their sensory skills:* **Teachers can facilitate learning in the following ways:** • Take a bag full of different objects with different textures (mystery bag) to be given to children and they will identify by just putting their hand inside the bag and will identify the objects without looking into the bag. • Introduce different smells through opaque jars containing different smelling objects such as onion, garlic, swab of perfume, vinegar, talcum powder, soap etc. Children will smell each jar and identify the smell like bad, good, strong, light, fruity, flowery, pungent etc. • Teacher will place an object on the table and will ask the children to describe it in 2 to 3 sentences verbally. Teacher will show different pictures to the children and will ask them to describe those pictures. Children will be asked to name objects in the class. • Teacher may involve children in different activities and games to identify different sounds; for example, tapping table, bouncing ball, clapping, musical instruments, dropping things, sounds in the environment etc.

2.8.2.SAFETY AND HYGIENE PRACTICES:

Competency 4: Children will develop an understanding of the importance of safe, hygienic practices.

Expected Learning Outcomes	Examples and Ideas for Implementation
By the end of the year children will begin to develop the attitudes, knowledge and skills to: a. Demonstrate an awareness of healthy lifestyle practices. b. Recognise and follow basic safety rules. c. Identify and seek adult help if feeling unwell, hurt, unhappy or uncomfortable. d. Take care of their personal hygiene (cutting nails, keeping hair clean and tidy, keeping teeth clean, taking bath and proper use of toilet and keeping belongings clean). e. Identify healthy and unhealthy food. f. Identify people in the community who care for health needs. g. Understand the importance of milk h. Understand the importance of clean water i. Learn healthy eating habits j. Learn to cross road carefully k. Aware of harmful effects of taking medicines without adults' supervision l. Seek adults' help whenever required	*The main focus of this competency is on hygiene, safety and wellbeing. It emphasizes helping children to internalise the importance of hygiene where children know they can talk about how they are feeling.* **Teachers can facilitate learning in the following ways:** • Model hygienic and safe practices and read stories about healthy lifestyles. • Establish a physically and emotionally safe environment where children know they can talk about how they are feeling. • Discuss safety rules on a regular basis, before starting an activity or going outdoors to play. Discuss hitting, touching others, being touched (and not liking it) pushing, being considerate and walking slowly in a queue, so as not to bump into others. • Discuss and put up pictorial messages/signs in the classroom about broken wires, loose switch, sharp edges and tools, door and windows handling and broken glass etc. • Display safety rules/signs on a prominent place in the classroom. • Discuss how germs are spread. Talk about buying snacks from vendors who do not use covers, and allow flies to sit on the food which in turn spread diseases. Discuss the hazards of spitting in the surroundings and the risks of smoking and air pollution. • Talk about the importance of washing hands, keeping bodies clean, brushing teeth regularly and wearing clean clothes. Demonstrate these practices through action rhymes and songs.

	• Engage children in a discussion on food types. Over a period of time, children can talk about benefits of healthy food and harmful effects of junk food for example the hazards of eating *meethi-chalia,* chewing gum, excessive intake of oily foods, sweets/toffees and fizzy drinks. • Encourage children to drink milk and plenty of clean drinking water. • Talk about clinics, hospitals, doctors, dentists and other health professional and their role in society.

Competency 5: Children will develop an understanding of personal safety and security.

Expected Learning Outcomes	Examples and Ideas for Implementation

By the end of the year children will begin to develop the attitudes, knowledge and skills to:
a. Demonstrate an understanding on private body parts (good touch and bad touch)
b. Understand that except their parents and doctor no one else can touch those body parts
c. Understand that they must report parents and teacher immediately if someone touches them inappropriately
d. Understand that they should not
   • talk to strangers
   • go with strangers
   • take anything from strangers
	This competency focuses of promoting self-awareness of personal safety and security to help them safeguard from unseen/unpleasant happenings in their environment.
	
	Teachers can facilitate learning in the following ways:
	
	• Telling short stories from daily life and fiction.
	• Show videos related to know the importance of being careful from the unpleasant happenings.
	• Discussion with children about private body parts and how good touch is different from bad touch.
	• Role plays to emphasize the importance of being careful of strangers.

2.9. COMPETENCIES, EXPECTED LEARNING OUTCOMES AND IDEAS FOR IMPLEMENTATION FOR KEY LEARNING AREA OF CREATIVE ARTS:

2.9.1. VISUAL ARTS

Competency 1: Children will express themselves through the use of drawing and colours.

Expected Learning Outcomes	Examples and Ideas for Implementation
By the end of the year children will begin to develop the attitudes, knowledge and skill to: a. Hold crayons/colour pencils/paints correctly. b. Recognise and use a variety of media and colours to express their imagination and observations. c. Recognise colours and use them to express their thoughts and feelings.	*This competency focuses on helping children to initiate the process of building their skills and understanding of drawing and colours. It does not require proficiency in drawing specific objects or to use colours with great skill. Emphasis should be placed on the enhancement of children's confidence to use colours and various drawing tools for self-expression.* **Teachers can facilitate learning in the following ways:** • Introduce a variety of drawing media such as, crayons, charcoal, paint, chalk, and drawing tools on children's computer software (where possible) and provide children with opportunities to experiment with all of them. Give children the assurance that they can draw anything they like, and can use colours of their own choice. • Introduce a variety of colours, including black, and provide opportunities for children to explore these colours by mixing them in water and applying them on large sheets of paper and newspaper. Give children the freedom to represent their thoughts and feelings through the use of these colours. • Provide sufficient time for children to work on their painting. Encourage them to talk about the process of creating their art pieces and their finished product. • Display children's paintings in the class,

	and place samples in each child's portfolio.

Competency 2: Children will work with a variety of low cost and waste material to create craft project of their choice.

Expected Learning Outcomes	Examples and Ideas for Implementation
By the end of the year children will begin to develop the attitudes, knowledge and skills to: a. Share ideas for creating various objects from waste material. b. Create objects of their own choice using a variety of waste and indigenous materials collected from their immediate surroundings. c. Use various art techniques, such as, drawing, colouring, collage or printing to create their craft work. d. Talk about the process of constructing their craft project, giving reasons for choice of materials.	*This competency focuses on nurturing children's creativity, decision making skills, and confidence in their choice of materials.* **Teacher can facilitate learning in the following ways:** • Ask children to collect waste material such as used ice cream cups, pieces of cloth, used tissue boxes, straws, pencil shavings and peanut shells, from their home, school and neighbourhood. • Involve children in sorting the collected materials and organizing them in boxes and jars. It is important to place all the material within easy access of children. Materials for colouring, sticking and cutting should also be made available. • Invite children to share ideas for creating new projects. • Encourage them to decide what they want to make and to work in pairs or groups, if they choose to. • Provide sufficient time for children to work on their projects, and to discuss the process and the product. Display children's final products in the class. When possible place samples of work in each child's portfolio. • Encourage them to make unique stuff using their imaginations.

Competency 3: Children will experiment with a variety of materials to represent their observations and imagination, in the form of models/sculptures.

Expected Learning Outcomes	Examples and Ideas for Implementation
By the end of the year children will begin to develop the attitudes, knowledge and	*This competency focuses on nurturing children's creative abilities by engaging them in designing*

skills to:	*and developing models/sculpture) using clay, papier-mâché, and other available modelling materials.*
a. Feel comfortable and enjoy engaging with clay, paper match and other available modelling materials like play dough and plasticine. b. Create various sculptures/models. c. Colour or decorate their models if they choose to do so.	**Teachers can facilitate learning in the following ways:** • Engage children in thinking about their ideas and providing them the material, freedom, and encouragement to create sculptures of their own choice. • Provide freedom of selection of modelling material and be able to give their reason of selection. • Provide sufficient time for children to work on their projects, and to discuss the process and the product. Display children's final products in the class and encourage them to present their work as well as appreciate/comment on others' projects.

Competency 4: Children will learn the skills for collage work and printing and use these in a variety of ways to create their own art pieces and patterns developing their fine motor skills.

Expected Learning Outcomes	Examples and Ideas for Implementation
By the end of the year children will begin to develop the attitudes, knowledge and skills to: a. Identify a variety of material for collage making. b. Make personal choices from the available material for creating their own collage. c. Create their collage by pasting materials of their own choice. d. Identify a variety of material for printing. e. Make personal choices from the available material for creating their own art work. f. Create own patterns and designs using different techniques for printing.	*This competency focuses on nurturing children's creative abilities and thinking, through collage work and printing. Like other competencies, it emphasizes on children's choice and decision making for creating designs and use of material. The competency also focuses on the development of fine motor skills.* **Teacher can facilitate learning in the following ways:** • Involve children in the collection of materials for collage work, such as, pieces of paper, old photographs magazine cut-outs, cotton wool, used buttons and pencil shavings. For printing, collect materials, such as, thread, sponges and tops of vegetables that are usually thrown away. • Place all the collected materials and other

	necessary items such as glue, scissors, paper and colours, in a place which can be easily accessed by children.
	• Show the children some samples of collage work prior to the activity day/ during story time. Engage them in thinking about their ideas for collage work.
	• Encourage children to develop their own collage by selecting materials of their own choice.
	• Demonstrate a variety of printing techniques such as: sponge printing, stamping (with wooden stamps, rubber stamps) thread printing, bubble printing, hand/foot printing, flower/leaf printing and block printing.
	• Engage children in the process of developing their own prints, using their own choice of techniques.
	• Provide sufficient time for children to work on their projects, discuss the process and the product. Display children's final products in the class. When possible, place samples of work in each child's portfolio.

Competency 5: Children will observe, practice and explore various techniques of folding, cutting, tearing and weaving paper to make objects and patterns.

Expected Learning Outcomes	Examples and Ideas for Implementation
By the end of the year children will begin to develop the attitudes, knowledge and skills to: a. Fold paper in a variety of ways. b. Observe adults and practice using various techniques of paper cutting and paper folding to make simple objects and designs. c. Explore various ways to make different objects by folding and cutting paper.	*This competency focuses on paper art for the expression of children's creativity and imagination. Like other competencies the elements of imagination, choice and decision making are critical ones.* **Teachers can facilitate learning in the following ways:** • Demonstrate the art of paper folding step by step, for example, how to fold paper in halves, quarters, diagonals, etc. with increasing precision. • Organise activities where children can practice paper folding and making a few

	simple objects such as, a fan or a boat with the help of demonstrations. Later, encourage them to explore their own techniques to make objects. Encourage them to manipulate the paper in various ways.
	• Demonstrate and engage children in paper weaving to develop patterns by varying the width and colour of strips or to make objects, such as, mats.
	• Provide sufficient time for children to work on their projects, discuss the process and the product. Display children's final products in the class. When possible place samples of work in each child's portfolio.
	• Clean up the name and place at the end of all activities.

2.9.2. SOUND, RHYTHM AND ACTION

Competency 6: Children will listen to, identify and appreciate a variety of sound patterns, rhythms and rhymes as a form of expression.

Expected Learning Outcomes	Examples and Ideas for Implementation
By the end of the year children will begin to develop the attitudes, knowledge and skills to:	This competency focuses on developing children's sense of sound in terms of rhythm and rhyme, using a variety of objects from their environment.
a. Listen to and identify sounds and rhythms in their surroundings.	
b. Experiment with different sound producing objects and observe the differences in the sounds produced by them.	**Teachers can facilitate learning in the following ways:**
c. Produce sound patterns/rhythms by counting out beats.	• Collect several sound producing objects such as, wooden and metallic spoons, wooden sticks, hard plastic tubes, metallic and plastic bowls.
d. Explore the sounds made by various musical instruments.	• Engage children in exploring sounds produced by various objects when they are struck with another object, (such as a spoon or stick) or tapped with the fingers. Provide opportunities to explore the difference in sound when a bottle/container is filled with different levels of water and when it is empty.
e. Recite poems, folk songs, national songs in chorus and solo.	
f. Participate in teacher guided action poems.	• Engage children in producing repetitive sounds using various objects, leading to

musical patterns. For examples, gently tapping a metallic bowl and plastic cup with a metallic spoon in sequence and listening to the sound and then changing the sequence and observing the difference.

- Demonstrate beats and rhythms by clapping out number patterns, for example, 1-2-3 stop 1-2-3 stop. These beats can then be played out by tapping or shaking various sound producing objects.
- Engage children in reciting poems, folk songs and national songs in chorus and in solo with rhythm and appropriate actions and expressions.
- Sound boxes/shakers can be made with empty boxes, grains and pebbles.

2.9.3. DRAMATIC PLAY

Competency 7: Children will participate with increasing confidence in a variety of dramatic play activities to express themselves.

Expected Learning Outcomes	Examples and Ideas for Implementation
By the end of the year children will begin to develop the attitudes, knowledge and skills to: a. Explore and enact a variety of roles. b. Imitate the movements they observe in nature, and of various modes of transport. c. Perform/depict a variety of roles and situations in front of the class with increasing confidence. d. Dramatize stories, poems and folk tales individually, and in groups. e. Enact daily experiences and fantasy while working/playing cooperatively with other children.	This competency focuses on building children's confidence, enhancing their imagination and nurturing creative expression by encouraging them to participate in dramatic play activities. **Teachers can facilitate learning in the following ways:** - Help children to develop the confidence to participate in dramatic play activities by engaging them in various mimicking and enacting games such as: o 'Let's pretend to be…' In this game, children identify an object and try to mimic it. For example, 'let's pretend to be a train': children can make a line and enact the movement and sound of a train. In the same way, encourage children to depict animal actions,

	plants in the wind, the different movements of water, airplanes and whatever else they can think of. Children can enact the roles of various family members and the occupations of community members, such as, a doctor, a carpenter, a dhobi, a tailor or a policeman.
	o -'Guessing games,' In these games, children think of a situation, a person or an object. The chosen subject is depicted in front of the other children and they try to guess what is being enacted.
	o -Engage children in acting out poems and stories by selecting roles for themselves.
	o -Children can be invited to represent their own imaginations through role play. For examples, children can develop a role play to depict 'If I were a magician, I would…'

2.10. SUMMARY OF KEY LEARNING AREAS AND COMPETENCIES

Key Learning Areas	Competencies
Personal and Social Development	**Competency 1**: Children will develop an understanding of their likes, dislikes, strengths, emotions and self-grooming. **Competency 2:** Children will be willing to share and work in collaboration with their peers, teachers, family and neighbours regardless of gender. **Competency 3:** Children will develop an appreciation, respect and acceptance for the diversity of people around them. **Competency 4:** Children will demonstrate a sense of responsibility for self and others in class, school, home and neighbourhood. **Competency 5**. Children will learn about and appreciate heritage and culture of their own family, their peers and neighbours. **Competency 6:** Children will use common courtesy expressions like greetings, please, thank you, sorry, excuse me.

Language and Literacy	**Competency 1**: Children will engage in conversation with others and talk confidently about matters of immediate and personal interest. **Competency 2**: Children will describe objects, events and their plans for the day. **Competency 3**: Children will enjoy listening to stories and poems/rhymes and make up their own stories and rhymes. **Competency 4**: Children will enjoy age appropriate books and handle them carefully. **Competency 5:** Children will understand how books are organized. **Competency 6**: Children will recognise familiar words in simple texts. **Competency 7:** Children will use pictures, symbols and familiar letters and words to communicate meaning, show awareness of some for the different purpose of writing.
Basic Mathematical Concepts	**Competency 1:** Children will develop basic logical, critical, creative and problem solving skills by demonstrating an understanding of the different attributes of objects, such as colour, size, weight and texture, and match, sequence and classify objects based on one/two attributes. **Competency 2:** Children will develop a basic understanding of quantity, counting up to 100 and simple number operations of 0-9. **Competency 3:** Children will recognise basic geometrical shapes and the position of objects in relation to each other. **Competency 4:** Children will develop an understanding of measurement.
The World Around Us	**Competency 1**: Children will develop an understanding of how families are important and talk about their family history. **Competency 2**: Children will develop an understanding of the people and places around them. **Competency 3:** Children will recognise the plants and animals in their environment and explore their basic features and habitat. **Competency 4:** Children will observe the weather and develop an understanding of the seasons and their significance to people. **Competency 5**: Children will develop a caring attitude towards the environment. **Competency 6:** Children will recognise and identify natural resources and physical features of Earth.
Health, Hygiene and Safety	**Competency 1:** Children will develop a sense of balance, agility and coordination. **Competency 2:** Children will have increased hand-eye coordination and the ability to handle tools and materials effectively. **Competency 3:** Children will develop sensory motor skills. **Competency 4:** Children will develop an understanding of the importance of safe, hygienic practices. **Competency 5:** Children will develop an understanding of personal safety and security.

Creative Arts	**Competency 1:** Children will express themselves through the use of drawing and colours.
	Competency 2: Children will work with a variety of low cost and waste material to create craft project of their choice.
	Competency 3: Children will experiment with a variety of materials to represent their observations and imagination, in the form of models/sculptures.
	Competency 4: Children will learn the skills for collage work and printing as well as use these in a variety of ways to create their own art pieces and patterns developing their fine motor skills.
	Competency 5: Children will observe, practice and explore various techniques of folding, cutting, tearing and weaving paper to make objects and patterns.
	Competency 6: Children will listen to, identify and appreciate a variety of sound patterns, rhythms and rhymes as a form of expression.
	Competency 7: Children will participate with increasing confidence in a variety of dramatic play activities to express themselves.

CHAPTER 03: CREATING A POSITIVE AND CONDUCIVE ENVIRONMENT FOR ECCE CLASSROOM:

3.1. GUIDELINES FOR ESTABLISHING A CONDUCIVELEARNING ENVIRONMENT FOR ECCE:

Young children learn by interacting with their environment, with other children, and with adults. Learning is an active and creative process in which children are working at making sense of the world around them. We need to give them the opportunity to engage in this process purposefully and actively, by using all five senses and their imagination. A wide range of experiences and activities provide children with the opportunity to develop their knowledge, skills and attitudes in a meaningful way.

An ECCE environment is a whole formed by physical, psychological and social elements. It includes the built facilities, the immediate neighbourhood, and psychological and social settings and also the materials and equipment. A 'rich' and flexible environment is conducive to learning, and attracts interest and curiosity in children and encourages them to experiment, act and therefore, extremely important for teachers to provide a stimulating, pleasant environment for the children.

Conventional furniture, such as desks is inappropriate for young children. If resources allow, then small, child-sized furniture can be purchased or else a *darri* will suffice. A central place will be required, where the children can come together for Greeting Circle, Group Work, Planning/Review Time and Story Time.

3.1.1. CREATING LEARNING CORNERS (GOSHAY):

Young children look for causal links in their experiences. For example; what happens when they pile up 20 blocks on top of each other, or what happens when they drop a pencil into a tub of water or what happens when they move a pencil or crayon on a flat surface, such as a wall, slate or paper? They need opportunities to explore these situations and come to their own conclusions. Their conclusions, however, may differ from an adult's as they are based on limited experience. Having designated areas or learning corners for specific activities and storage of classroom equipment is an efficient and effective way of organizing, and optimizing children's learning experiences. Learning corners encourage children to learn in ways that are natural to them; they allow children to work independently, in small groups or one-on-one with the teacher. Learning Corners provide for a wide range of abilities and interests where children can progress at their own rate and repeat an activity for pleasure or reinforcement. Learning corners encourage children to be independent, make decisions and solve problems. They foster experimentation, curiosity and creativity.

These corners are ideal work spaces for children where they can learn in simulated real life situations. Working in different corners helps develop children's ability to:

- Take initiative; make choices and decisions about what they are going to do (i.e. plan) and how they are going to do it.
- Complete self-chosen tasks and review their plans.
- Question, experiment, discover and make sense of the world around them.
- Work, share and cooperate with other children, thereby developing their social skills.
- Work independently towards mastery of different skills.
- Conform and adhere to classroom rules.
- Reason and express themselves in a wide range of naturally occurring situations, thereby building their self-confidence.

Learning corners need to be separate from each other. They also need space, such as low shelves or boxes/cartons to store the materials, books and toys for the various corners. Three or more of the following learning corners can be set up at any given time:

- **Language Corner.** This corner should be equipped with material related to increasing vocabulary and learning reading skills.
- **Library Corner.** This corner should be set up with age appropriate big and small colourful books to promote the reading habit and to learn how to care for and value books.
- **Art Corner.** This corner provides children with opportunities for creative expression.
- **Maths Corner**. Appropriate material for the Math corner includes objects that will help children grasp basic math concepts of size, shape, width, classification and number through direct experimentation.
- **Science Corner.** This corner should provide children with opportunities for observation and experimentation in order to understand the world around them.
- **Home Corner.** The home corner should reflect the cultural background of the children where various kitchen utensils, clothes, small furniture and dolls can be provided. From a kitchen it can be later transformed into a shop, office or a doctor's clinic.

The Learning Corners should be organized in the context of the Key Learning areas and expected Learning Outcomes, so that children have the opportunity to experiment with concepts and skills that have been introduced by the teacher.

3.1.2. THE DAILY ROUTINE OF AN ECCE CLASSROOM:

Young children need the comfort and security of a daily routine. They need to know what to expect during the school day. A daily routine provides a consistent, predictable sequence of events that gives them a sense of control over what they will be doing during the day. To make optimal use of the valuable time young children spend in school, a schedule needs to be made. The teacher's tasks become more focused and relatively easier to follow if a consistent routine is established, and children also get used to working in an organized and methodical way. A daily routine is important because it:

- Makes children feel secure when they know what to expect.
- Creates an organized environment that is conducive to the learning process.
- Helps children learn about sequencing.
- Helps children understand the concept of the passage of time.
- Helps teachers organize themselves.
- Helps children realise that an activity has to be completed within a set time-frame.

A sample daily routine and explanation is given below. It can be varied depending on the school's hours and needs. The daily routine should be displayed using symbols/pictures for each activity, so that children, who are not yet reading can understand it.

Serial No	Activity	Suggested Duration
01	Dua/National Anthem	15 minutes
02	Greeting Circle	15 minutes
03	Group Work Time	40 minutes
04	Outside Time	30 minutes
05	Snack Time	30 minutes
06	Plan-Work-Clean up Review ❖ Planning Time ❖ Work/Gosha Time ❖ Clean-Up Time ❖ Review Time	90 minutes 15 minutes 45 minutes 10 minutes 20 minutes
07	Story and Rhyme Time	20 minutes

1. **Dua/National Anthem:** All the children get together to say a small prayer and sing the National Anthem. This can be done along with the rest of the school or a separate assembly can be held for the 4-5 year olds. It is essential to consider alternatives or inclusive prayers for children of minority religions.
2. **Greeting Circle:** This is the time of day when the teacher gathers all the children together and greets them with a warm welcome by saying 'Assalam-u-Alaikum', 'Good morning', how are you? I am glad to see you here. Then the teacher will initiate general discussion that will include date, day, weather of the day, sharing what they did at home the previous day. The teacher can utilise this time to inculcate moral values among children for example being truthful, respectful, patient, tolerant, fair, just and polite. The teacher can also help children develop democratic and problem solving skills by putting issues in front of the kids and seeking their suggestions to resolve it.
3. **Group Work Time:** During this segment of the daily routine, the teacher discusses concepts from the different Key Learning Areas, with all the children. Once the concept

has been discussed, the teacher forms small groups and gives children activities to work on. The activities done at this time are planned and initiated and facilitated by the teacher.

4. **Outside Time:** This is the time for physical education exercises. The teacher can plan a series of bending, stretching, jumping and balancing activities for children's physical development. Equipment, such as large balls for catching and throwing, old tyres for walking in and out of, and medium-sized boxes for jumping over can also be used. Children will play on swings and slides, merry-go-round, and games like *see-samunder* under the supervision of the teacher. This is also a time to discuss safety rules, such as making queues, avoid pushing and taking turns.

5. **Snack Time:** A lot of valuable learning can take place if children have their snacks indoors in an organised way, under the teacher's guidance. They can learn to spread the *darri/dastarkhawn* and sit around it, giving each other space without pushing. They can say *"Bismillah"* together and share their snack if someone has not brought their own. This is a good time to reinforce the importance of clean, boiled water and healthy food brought from home. The children can talk about the different kinds of food, healthy eating, learn to pour water without spilling, and clean up when everyone has finished.

6. **Plan – Work – Clean up – Review Time**

   I. **Planning Time:** Planning should be done in the central space on the *darri*. This is the time of day when children have the opportunity to initiate the activity and take responsibility for their own learning. During planning time, children plan which Learning Corners they would like to work in, and what they hope to accomplish there. It is important to allow children to choose the *gosha*/s themselves, and to encourage them to make their own decisions about what they will do there.

   II. **Work/Gosha Time:** During this time, children carry out their plans in the learning corners. In consultation and through discussion with the children, teachers should set some ground rules at the beginning of the year and discuss these frequently with them. For example: sharing and taking turns with the material; sharing materials and being considerate; talking very softly in all the corners, especially in the library corner; listening and responding to the set signal when the time for *gosha* work is finished; and tidying up and returning material to the designated place at the sound of the signal.

   III. **Clean-up Time:** When the pre-determined clean-up signal is given by the teacher, children must tidy up and return the material they were using to their designated places.

   IV. **Review Time:** Children come back to the central space on the *darri* and talk about their *goshas* work and whether they accomplished their plans for the day. Reviewing is a very important part of children's planning and working. There will be some children who may not have implemented their plans. They should be supported to identify reasons for this, by asking open-ended questions and letting them arrive at the answers. Where there are too many children in a class, this will undoubtedly be difficult; the teacher should ensure that each child gets the opportunity to review her/his work at least twice a week.

V.   **Story and Rhyme Time:** This time is set aside for storytelling and for songs and poems with actions. The children or the teacher can choose a book from the library corner for story time. Children should be encouraged to tell stories that they have heard at home or in school or make their own stories.

3.2. GUIDELINES FOR DEVELOPING CRITERION OF ASSESSMENT:

Research indicates that formal tests and examinations are not at all accurate when measuring young children's abilities. Many children do not perform well in situations where they have to answer specific questions or complete specific tasks because they may not be familiar with the testing language, they may be shy or frightened in a new situation, or they may be tired, bored, upset or unwell on the day of the test. When a child does not do well on a test for any of these reasons, a teacher may attach a negative, inaccurate label (she/he is weak, lazy, dull) to that child which is then difficult to replace and can be harmful for the child's development.

Tests usually suggest that we compare one child's score with another's, which is inappropriate for children, particularly young children. This comparison is meaningless because children develop at their own individual and unique pace. This scoring and comparison may be harmful to children whose score is low, because they may be made to feel like 'failures' when, in fact, their development is normal and will soon catch up with the others.

Children's progress should be measured by the teacher's on-going observations during the entire year. Their progress should be compared to their own previous level of development and not to that of other children. The results of evaluating a child's progress should be used to plan the future learning programme for the ECCE classroom.

3.2.1. CHILD ASSESSMENT AND RECORD KEEPING

Throughout the day, ECCE teachers will have to observe children as they participate in different activities. Sometimes they can stand back to observe, but more often than not they will be involved in the activities with the children.

This is a skill that teachers have to develop, to be actively involved, picking up cues from the children and at the same time observing each individual child. What is the teacher supposed to look for? The teacher observes and assesses the different areas of learning and development.
The following methods of assessment and record keeping are strongly recommended:

A) CHECKLIST OF CHILDREN'S PROGRESS

For each child, teachers should maintain a checklist of the Expected Learning Outcomes which are given in the section on Key Learning Areas. Any special comments and anecdotes the teacher may have about a child must be recorded here.

B) PORTFOLIO OF CHILDREN'S WORK

Teachers should also maintain each child's art work, and literacy and numeracy related worksheets in their individual folders. Each sheet will have the child's name, and date the work was done, written clearly on it. The portfolio will aid the teacher in assessing the progress children have made in their art work, writing, and understanding of numeracy related concepts.

C) PROGRESS REPORT FOR PARENTS

The teacher should meet parents in school to discuss the child's progress in class or send the progress report home. This report will be based on the Expected Learning Outcomes. The teacher should fill in the progress report, twice a year, using the portfolio and monthly checklist as a base, to support her/his evaluations. From their observations, monthly checklists and portfolios, teachers can assess each child's progress. When progress is recorded regularly and efficiently, the teacher builds up a comprehensive picture of each child. The process of recording helps the teacher to be aware of all areas of the child's learning and development.

3.3. GUIDELINES FOR EFFECTIVE IMPLEMENTATION OF QUALITY ECCE

3.3.1. ESSENTIALS FOR DEVELOPING A TEACHER' GUIDE

ECCE teachers need to have certain essential attributes such as gentleness, thoughtfulness, effective interpersonal skills (patience, tolerance, and effective communication) and a generally positive and caring attitude. They need to possess or develop specialized skills to engage with very young children effectively. A teacher's guide can help teachers to understand their task and accomplish it professionally.

> "The teacher of little children is not merely giving lessons. She is helping to make a brain and nervous system, and this work which is going to determine all that comes after, requires a finer perception and a wider training and outlook than is needed by any other kind of teacher."
>
> Margaret McMillan (1930)

A) FORMAT AND SUGGESTED CONTENT

It is crucial that the developers of the Teachers' Guide are familiar with the National Curriculum for ECCE (NCECE) and that this document is attached as an appendix to the Teachers' Guide. All ECCE teachers must be well-versed in the contents of the NCECE.

It would be most effective to have the Teacher's Guide in Urdu. This is necessary as these concepts will be new to most teachers, so it is important that the ECCE teachers understand the content and the concepts contained in the Teacher's Guide.

SECTION I: KEY COMPETENCIES FOR ECCE TEACHERS:

This section will describe the key competencies that are essential for ECCE teachers. ECCE teachers need to have specific knowledge, skills and attitudes for the effective implementation of the NCECE. It is important for them to know what these basic competencies are, also that they can reflect and assess themselves and then work on their own professional growth. Some basic competencies are given below; these should be further elaborated on, in the ECCE Teachers Guide.

Knowledge: Teachers need to possess comprehensive knowledge and understanding about the following:

- Knowledge and understanding of child development from zero to eight.
- Theories of learning and methods of teaching.
- Family Structures and the role of parents, families and communities in shaping children's development.
- Knowledge and understanding of active learning and the value of play.
- Services available within the community to get support for the development of children.
- Knowledge and understanding of pro-social behaviour.
- The National Curriculum for ECCE.
- Knowledge of catering children with differently able children.

Attitudes: Teachers must realise the importance of relationships for holistic development in early childhood, and the attitudes required for developing a warm, caring and trusting relationship with children and their families. Teachers need to ensure that their interaction with children and their families demonstrates the following aspects:

- Respect for children's abilities and the wealth of knowledge, skills and individual potential they possess.
- Care and consideration for all children.
- Patience while interacting with children/parents/families and responding to their questions, requests, concerns.
- Unbiased and non-judgmental dealing with all children and their parents.
- Appreciation and acknowledgment of diversity.
- Pro-activity in identifying, exploring and accessing services available in the community for children.
- Willingness to reach out to parents and families to build relationships with them for the effective learning and development of children.
- Willingness to engage self in a continuous process of learning in a variety of ways.

- Acceptance for children with different abilities.

Skills: Teachers need to have the following skills to function effectively as early childhood teachers:

- Pedagogical skills to facilitate the learning process of young children such as, engaging them in group work, organizing discussions, and a variety of play activities, asking meaningful questions, handling children's responses, and facilitating them during outdoor play.
- Skills for developing and organizing learning resources including displays, manipulative material, worksheets, charts, and posters.
- Skills for observing children and documenting the observations, maintaining children's progress record and developing progress reports.
- Communication and presentation skills to effectively engage with children, parents, families, communities and other services related to early childhood development.
- Counselling skills to work with parents and children regarding their learning.
- Independent learning skills for engaging self in an on-going process of learning.
- Conflict management skills among children and colleagues and handle behavioural issues.
- Possess skills to dealing with differently able children.

SECTION II: EARLY CHILDHOOD DEVELOPMENT

This section will help teachers to understand the basic concepts of early childhood development under two key themes;

1) Holistic Child Development, and

2) Early Childhood Development and Relationship Building.

Holistic Child Development:

This theme will help teachers to understand the key aspects of early childhood development. The following points need to be incorporated and elaborated on, in the text:

- Developmental milestones of children aged 0-8. All the developmental domains, such as, physical, cognitive/intellectual, emotional, social and moral development must be included.
- Brain development in the early years and its importance and implications for designing early learning experiences.
- The role of schools, parents and communities in children's development

Early Childhood Development and Relationship Building:

This theme will elaborate on the importance of relationship building and ways of building positive relationships in the early years. It is recommended that the text of this theme should incorporate some basic and simple research findings. Key points around which this theme will be developed are:

- The importance of bonding and healthy relationships for optimal development in early childhood.
- Building healthy, positive relationships with children.
- The importance of nurturing pro-social behaviour among siblings and peers.
- Understanding the underlying causes of problem behaviour.
- Understanding the reasons for social conflict in the classroom and learning conflict resolution strategies.

SECTION III: KNOWLEDGE AND UNDERSTANDING OF THE NATIONAL CURRICULUM FOR ECCE

This section will help teachers to understand the key features of the National Curriculum for ECCE

Key features of the NCECCE

- The philosophy and objectives.
- The importance of play in children's learning.
- Key Learning Areas and their importance.
- Expected Learning Outcomes (ELOs) and their importance.
- Using the ELOs as guideposts for designing classroom activities.
- Teaching and learning approaches.
- Organization of the learning environment and the daily routine.
- The assessment framework.

SECTION IV: UNDERSTANDING LEARNING AND THE LEARNING ENVIRONMENT

This section will help teachers to build their understanding about the overall teaching and learning approach, and the learning environment proposed for ECCE classes. This section will be organized under three themes:

1) Learning and teaching for the early years,

2) Learning activities, and

3) The learning environment. Ideas will be presented in detail using text, graphics and pictures to aid understating.

Learning and Teaching for the Early Years

This theme will highlight the following important points:

- Learning in the early years; explaining the key points about natural learning processes.
- An Active Learning Approach: Understanding active learning, its importance and how it is different from traditional approaches to learning in schools. Ways of involving children in an active learning process, with examples. Understanding the 'plan – work - clean – review' cycle, its importance and implementation. Involving children in free play and exploration activities and organizing hands-on experiences for

children in all learning areas. Involving children in discussion, role-play, creative thinking, questioning and problem solving.

- Dealing with diversity in the class; concepts of learning styles (page, 91), learning differences and multiple intelligences. Explaining that each child is unique in terms of his/her social and cultural background, developmental milestones, experiences and learning potential.
- Ways of creating an inclusive ECCE class. The attitude and skills required by an ECCE teacher to engage with individual children as per their needs.

Learning Activities:

It is suggested that under this theme various learning activities may be added for classroom use:

- Examples of learning activities should be arranged according to the learning areas, so that teachers can use them easily to link with various Expected Learning Outcomes. The ideas presented here will be useful for planning their lessons and to design their own activities.
- Besides suggesting activities under various learning areas, teachers should be given an understanding of how to design integrated lessons. Examples need to clearly demonstrate how one learning activity can contribute towards the achievement of a number of different ELOs.

Learning Environment:

This theme will provide detailed guidelines to teachers for setting up their classroom in terms of space and time according to the principles of quality ECCE practice. It is recommended that this section should be supported with many good quality photographs of a variety of creative classroom arrangements in different contexts with different resource constraints. These visuals will help teachers to understand the possibilities of different types of classroom floor plans and will offer them options to choose for their own classrooms. The theme will explain the following essential aspects of the learning environment.

- The term 'Learning Environment' and what constitutes the learning environment in an ECCE classroom, including the physical, social and emotional environments.
- Key features of an ECCE classroom and its physical features, such as, cleanliness, light, ventilation, seating(age appropriate and child friendly furniture), kinds of material needed, placement of materials, accessibility of materials by children and safety aspects in the classroom. This part will also present different ideas for arranging the classroom.
- Creating Learning Corners *(Goshay)*: This theme will help teachers understand the basic ideas about learning corners, the objectives behind setting up learning corners, their importance and the materials required for each corner and how to use them effectively.
- Classroom display: This part will help teachers understand the importance of classroom displays in ECCE classes, and give them ideas on how to involve children

in classroom displays. Some photographs as examples of quality classroom displays are recommended.

- Classroom Management Techniques: Classroom norms and responsibility chart should be developed with children's consent and reviewed regularly and displayed in the room. Message of the day or a week should be practiced regularly and to be displayed in the classroom.
- Daily Routine: To make optimal use of the valuable time young children spend in school, teachers will be familiarized with the importance of a consistent daily routine and shown some examples of daily routine scheduling. An explanation of routines and the importance of flexibility to meet children's spontaneous needs will be stressed.
- Classroom Management Checklist: This part will provide a handy sample checklist to teachers to assess their own classroom environment and its appropriateness for quality ECCE practice.

SECTION V: ASSESSMENT AND EVALUATION

In order to change classroom practice, it is essential to bring about changes in the understanding of assessment as part of the teaching process. This section is recommended to help the teachers to understand the following:

- Focus of assessment: This part will explain the purpose of assessment in an early years' classroom.
- Observation as a tool for assessment: This part will highlight the importance of observation as an effective tool for assessment and provide teachers with guidance about when, how and what to record during observations.
- Use of checklist for assessment: This section will help teachers to understand checklist, and how to create, administer and analyse checklists.
- Portfolio of children's work: This section will introduce the concept of portfolios to teachers and will explain its importance for assessment in the early years. It will also guide teachers on how to maintain a portfolio.
- Progress report for parents: This part will help teachers to know the importance of progress reports, creative and appropriate formats, ideas and important points for writing comments and effective ways to share the reports with parents.

SECTION VI: THE IMPORTANCE OF PLANNING

This section will explain the following points:
- The importance of planning before a lesson:
- Planning schedules: yearly, quarterly, monthly, weekly, daily.
- Characteristics of a good planning process and planning document.
- Planning a day for young learners.
- Elements of flexibility and adaptation in the plan to cater to the needs, interest and moods of children.

3.4. GUIDELINES FOR DEVELOPMENT OF THE TEACHERS' GUIDE

A) PLANNING

1. Forming a team by identifying people with good writing skills. The team of writers must include people with the relevant experience (practitioners) of working at the ECCE/Primary level. They should also have a deep understanding of teacher education and adult learning.
2. Reading and understanding the NCECE and this section on the development of the Teachers' Guide.
3. Meeting with the curriculum development team to understand the philosophy and principles on which the ECCE curriculum is based, and to clarify the aspects of the curriculum which are unclear to the writers.
4. Understanding and reviewing the suggested format for the guidebook, and finalizing the format and procedures for writing.
5. Deciding the roles and responsibilities of each team member, dividing the work and setting deadlines.
6. Forming a review team.

B) DEVELOPING

1. Producing initial, individual drafts as per decisions taken at the planning level.
2. Reviewing the drafts and existing relevant documents.
3. Soliciting feedback from the review team.
4. Incorporating the feedback and revising the initial drafts.

C) PILOTING

1. Sharing the complete draft with teachers in public and private schools and in teacher training colleges.
2. Sharing key areas with them in which feedback is required, such as language of the guidebook, format of the book, missing content and clarity of ideas presented in the guidebook.
3. Meeting with the people piloting the guidebook, and collecting data on their experiences.
4. Asking them to share the areas which they found difficult or ambiguous or needing greater emphasis.
5. Reviewing and revising the guidebook in light of feedback from piloting, to develop the final version of the guidebook.

D) EDITING

1. Getting the services of editors to ensure the accuracy of language and formatting.
2. Revising the draft further to incorporate the editors' recommendations.

E) PUBLISHING

1. Finalizing the details of the layout and graphics.
2. Composing the book.
3. Proofreading the composed draft.

    4. Printing of required number of books.

F) DISSEMINATION:
1. Ensure the timely distribution of the documents to the teachers, head teachers, principals and education officers.

3.5. GUIDELINES FOR DEVELOPING A TEACHER EDUCATORS'/SCHOOL ADMINISTRATOR'S GUIDE:

Young children need very skilful and caring facilitation from adults in order to explore their environment and build an understanding of it. An adult, who understands children's potential and possesses an ability to develop trustful relationships with them, can create an environment conducive to nurturing children's innate potential. At schools, teachers need to have an understanding of the ECCE curriculum besides having a loving and caring attitude. In order to ensure that teachers have the required understanding, skills and attitude to work with young children, they need to be engaged in the process of learning and professional development. The role of teacher educators is to design and implement programmes to facilitate teachers to learn about the basic concepts of Early Childhood Education and Development and build the required skills to work effectively with children.

3.5.1. FORMAT AND SUGGESTED CONTENT
It is crucial that the developers of the Teacher Educators' Guide carefully read and understand:

1. The National Curriculum for Early Childhood Education.
2. The Teachers' Guide Book.
3. Sections II-VI of the chapter titled, Essentials for Developing a Teachers' Guide, in this document.

The Teacher Educators' Guide will be divided into sections which will elaborate aspects that are essential for ECCE teachers to know and understand. These sections will help teacher educators to understand the need, content and design aspects of a professional development programme for ECCE teachers. The following sections are recommended as components of the Teacher Educators' Guide.

3.5.2. KEY COMPETENCIES FOR TEACHER EDUCATORS/SCHOOL ADMINISTRATORS:
This section will describe the key competencies essential for teacher educators. It is essential for all teacher educators to understand the competencies given below, so that they can assess themselves, as well as design professional development programme, in line with the competencies required by the teachers.

Teacher Educators assume the important and sensitive responsibility of facilitating teachers to learn and improve their understanding and skills. In order to accomplish their task effectively, they also need to possess a certain level of competence in terms of knowledge, attitudes and skills. These are the key competencies essential for a teacher educator:

KNOWLEDGE:

Teacher educators need to possess comprehensive knowledge and understanding about the following:

- Theories of Child Development from zero – eight.
- Brain development research.
- Theories and methods of child learning and development.
- Theories and methods of adult learning, support and development.
- The National curriculum for Early Childhood Education, and ECE Teachers' Guides.
- The Role of parents, care-givers, families and communities in nurturing children.
- Services available within the community for the development of children.
- Assessment of teacher learning.

ATTITUDES:

Teacher educators must realise the importance of building rapport, i.e; a close and harmonious relationship with teachers and groups of teachers, and show concern and understanding of their background and current needs. They need to ensure that their interaction with teachers demonstrates:

- Respect for the knowledge, skills, experience and individual potential possessed by each teacher.
- Consideration, respect and empathy towards all teachers.
- Patience while interacting with teachers and responding to their questions, requests, concerns, ideas, and feedback.
- Unbiased and non-judgmental behaviour in dealing with teachers.
- Pro-active approach in identifying, exploring and accessing the services available for the support of teachers in the community.
- Willingness to engage self in a continuous process of learning.

SKILLS:

- Andragogical skills to facilitate the learning process of adults.
- Providing positive reinforcement.
- Skills for designing, conducting and assessing workshops/seminar/courses for ECE teachers.
- Skills for developing resources to support teachers' learning.
- Observation skills to assess teachers during workshops/courses and in the classroom.
- Documentation skills to record observations and maintain records of teachers' participation and performance.
- Communication and presentation skills to effectively communicate with teachers.
- Communication skills to provide constructive feedback to teachers about their performance.
- Counselling skills to work with teachers and head teachers on a one to one basis for school development.

- Independent learning skills for engaging self in an ongoing process of learning.

EXPERIENCE:
It is important for ECCE teacher educators to have the following experiences:

- Teaching experience at ECCE or primary level classes.
- Mentoring experience with ECCE or primary level teachers to support their learning.

3.6. GUIDELINES FOR PLANNING CONTINUOUSPROFESSIONAL DEVELOPMENT PROGRAMME (CPD) FOR ECCE TEACHERS:

This section will facilitate teacher educators/school administrators/training departments in understanding the important steps they need to undertake in order to design a professional development programme for ECCE teachers:

- **Analysing the needs:** Assessing the needs of teachers and understanding their current competencies.
- **Reading the Teachers' Guide thoroughly:** Before designing a professional development programme for ECCE, it is essential that teacher and educator read the Teachers' Guides thoroughly, to understand the scope, nature of work and expectations of an ECCE teacher.
- **Forming a team:** Relevant Education Department needs to form a team of teacher educators to design and conduct the programme. The team may include other teacher educators or competent ECCE teachers/head teachers.
- **Developing a detailed plan:** The training team should design a detailed plan for implementation by identifying content, strategies and activities; resources required; and assessment techniques. The Guidebook should contain some sample templates for planning.
- **Collecting/developing resources;** before the programme commences, the team needs to develop and collect all the required resources for the implementation of the programme.
- **Setting-up the room.** The space where the programme will be run needs to be properly organized. The implementing team needs to ensure that the space is:
  o Neat and clean.
  o Well lit and ventilated.
  o Organised with appropriate and comfortable seating arrangements, drinking water and with clean washroom facilities nearby.
  o Provision of internet connection, multimedia and relevant material that include reference books.
  o Attractive with relevant displays and all other teaching-learning resources at hand.

3.7. GUIDELINES FOR DEVELOPING CONTENT OF AN ECCE CONTINUOUS PROFESSIONAL DEVELOPMENT PROGRAMME:

Most of the content for a professional development programme will be derived from the key competencies described above and will facilitate the teachers to enhance their overall competence level.

This section will elaborate on the concepts that have been given in **Sections II – VI** of the chapter titled Essentials for Developing a Teachers' Guide in this document:

- **Section II** Early Childhood development: Child Development and Early Childhood Development and Relationship Building.
- **Section III** knowledge and Understanding of the National Curriculum for ECCE
- **Section IV** Understanding Learning and the Learning Environment: Learning and Teaching for the Early Year, Learning Activities and Learning Environment.
- **Section V** Assessment and Evaluation.
- **Section VI** Importance of Planning and Reflection.

3.7.1. DESIGNING A TEACHER EDUCATION PROGRAMME

This section will provide guidelines to teacher educators for the actual design of the programme. A few ideas are presented here which can be further elaborated on, and more ideas added to the guide. Teacher educators can design pre-service or in-service courses/workshops/seminars for teachers, depending on the findings of the need analysis, available time and other context-specific circumstances. Below are the three key approaches which can be used to design a professional development programme. A mix of all three approaches would be greatly beneficial for teachers.

ORGANIZING LEARNING SESSIONS

Learning sessions are a key component of any professional development programme. These sessions can be in the form of workshops, seminars, and discussion forums. The main purpose of these sessions is to provide an opportunity to teachers to get together, share ideas and experience and learn about various aspects of their work under the guidance and facilitation of an experienced facilitator. It is recommended to hold cluster wise meeting and assign responsibility to a district education officer to ensure these meetings.

There could be a series of learning sessions at the beginning of any programme related to the basic ideas and then the remainder of the sessions could be spread over a period of time. Weekly sessions and fortnightly seminars can also be organized. In these sessions, teacher educators can engage teachers in a variety of activities related to the components of the programme. Teacher educators need to ensure that their learning sessions demonstrate the following key features:

- Use of an active learning approach in which teachers are engaged in a variety of activities to explore and understand the various aspects of teaching and learning and an ECCE curriculum. Teachers should not be merely lectured on various topics but

they need to be involved in reading, discussions, presentations, simulations, role-play, and debates. They need to be practically engaged in most of the learning approaches or techniques which they are supposed to use in the classroom. This will help them to experience such processes and their impact on learning.

- Provision of practical, hands-on experiences to teachers during learning sessions in order to help them to develop the skills they will need, such as developing material of ECCE classes, developing plans, demonstrating lessons.
- A collegial and respectful environment in the sessions so that teachers of varied experiences, qualification and personalities feel comfortable, and can concentrate on their own learning, and can also support others to learn.

FIELD BASED SUPPORT

This approach is used to ensure that the newly trained ECCE teachers get enough support and guidance for the implementation of new ideas in the classroom. The new ECCE teachers are mentored/coached by the teacher educators or by experienced and skilled teachers already present in the school. Such support may include providing the new ECCE teacher help in planning lessons, observing ECCE class and helping teacher to reflect on the lesson, help teacher in the class to demonstrate and practice specific skills. It may also be used to assist new ECCE teachers in accessing or developing resources. This support is essential as it actually helps the new ECCE teacher to reflect on the issues, identify solutions and move ahead with new ideas. It also makes such teachers enthusiastic and accountable for the implementation of new ideas.

Teacher educators can visit and work with the new teachers in the school on particular days. They can also introduce the following strategies to initiate an on-going process of learning and support within the school:

- Identifying senior and competent teachers in the school and getting their support for helping new teachers in the field. These teachers can help the new teachers by planning together, observing each other's classes, reviewing the work of new teachers and organizing small learning sessions within the school for new teachers.
- Peer Coaching or encouraging teachers of the same level to work together and to support each other in learning. They can observe each other's classes, review each other's material, and do joint planning.
- Taking help from supervisors in public schools, and guiding them to provide needs-based support to teachers when they visit the schools.

ARRANGING & PARTICIPATING IN ON-GOING REVIEWS AND REFLECTION SESSIONS

These sessions provide a platform to the teacher to get together and share their successes and challenges with each other. They can learn from each other's experiences and provide necessary support to each other. These sessions provide

teacher educators with a valuable opportunity to understand the common issues of all teachers enabling them to improve the design of further learning sessions. These sessions can be facilitated by teacher educators, or the head of a school, or supervisors in public schools.

ARRANGING ORIENTATION SESSIONS FOR HEAD TEACHERS AND PRINCIPALS
- The orientations session should cover all the key areas of the training attended by the teachers.
- Head teachers and principals should know what the trainee teacher is expected to do in the school.
- Head teachers and principals should facilitate and provide support to the trainee teachers.

3.8. GUIDELINES FOR DEVELOPING ASSESSMENT OF ECCE TEACHERS' TRAINING, LEARNING AND CPD PROGRAMMES:

It is important for teacher educators to use specific methods to assess the relevance and delivery of their programme, as well as its impact on teachers' learning and classroom practice. Given below are guidelines to teacher educators to develop tools and processes for the assessment of teacher learning sessions. It is recommended that detailed guidelines for the following key areas be provided in the guidebook:
- Purpose of assessing learning session and fields based support.
- Purpose of assessing teachers' competence levels.
- Methods of assessing learning sessions and fields based support.
- Taking participants' feedback at the end of the programme through questionnaire, checklist or rating scale. Some sample tools can be included in the appendices.
- Asking participants to talk about the session/field based support provided, in terms of what added to their learning, what did not and what needs to improve.
- Inviting experienced individuals to provide feedback to teacher educators to improve the sessions.
- Reflecting daily on the sessions/field based work by teacher educators themselves, in order to identity the strengths and weaknesses of their programmes and then taking action to improve.
- Techniques to assess teachers' competence and professional growth.
- Observing teachers in action in the school and classroom and assessing their competence in all areas.
- Discussing their work with teachers and asking for a self-analysis on their learning.
- Studying and analyzing teachers' work such as, plans developed by them for their classes, learning material produced by them.
- Discussing teachers' performance with the head of the school.

3.9. GUIDELINES FOR ECCE LEARNING MATERIAL DEVELOPERS:

3.9.1. KEY CONSIDERATIONS FOR MATERIAL DEVELOPMENT

- **Goals and Objectives:** The first step towards developing learning material is to account for its utility and impact on children's learning. It is critical to identify specific learning areas and key competencies for which the learning materials will be used, and this information should be included in the packaging/literature. Consequently, focused materials development and effectiveness of pre-testing will be ensured. If this information is provided to teachers, parents and educators, it will facilitate the effective utilization of the learning materials.

- **Interactivity of Materials:** Children at the ECCE stage of development need hands-on, concrete activities to make sense of the world around them.

- **Quality and Relevance of Content:** A key aspect is to look at the content for its quality. Depth, range, comprehensiveness and accuracy of information shared, defines the quality of the materials. For example, depicting a whale as fish is inaccurate. Checking the learning content for relevance with respect to the age, context and key competencies is essential for producing quality learning material. It is also entirely possible that correct information can be irrelevant. For example, describing the internal parts of a computer at the ECCE level is irrelevant and unnecessary, even though the information may be accurate. Material must be assessed for both quality and relevance.

- **Language and Text:** Developers should ensure that words used in the material are appropriate to the learner's as well as the teacher's literacy level. Complex sentence structures and archaic words should be avoided. For ECCE materials, language must be simple and creative. Care should be taken to ensure that language and text used for materials do not violate the principles of inclusiveness and diversity mentioned below. All learning materials should be free from stereotyping and should respect the social diversity of the context. Stereotypes may be understood as ideas about people that are widely held and accepted, though they may not necessarily be true, such as, only men as breadwinners, and women as housewives only. The title of the material, especially in the case of booklets, guides and displays should be engaging and meaningful.

- **Visuals:** Visuals and illustrations at the ECCE level play a key role in stimulating children's thinking and developing their meta-cognitive skills. The illustrations and graphics used in the material should be accurate, attractive, bright, colourful, and engaging. However, they should not be too busy or cluttered, thereby making it difficult for children to focus on the main points. Visual content should be free from all types of stereotyping whilst retaining relevance and respect for social contexts. For instance, check the illustrations and see if the dominant characters are mainly from one cultural group or are all men. Who is doing what? Are children with disabilities passive onlookers, or are they actively involved? Do they look enthusiastic? Is the imagery in any way promoting violence? Responding to such

questions will ensure that illustrations are not perpetuating the taboos and misconstrued notions widely held in society.

- **Incisiveness of Teaching Materials:** It is of utmost importance that the teaching and learning materials are incisive in nature. As charted out by UNESCO, learning materials become incisive when they:
  - Include all children, including those with diverse backgrounds and abilities.
  - Are relevant to the children's learning needs and abilities, as well as their way of life.
  - Are appropriate to the culture and value social diversity, for example, socio-economic diversity: poor families can be very good families for children; they can come up with creative solutions for problems, and they could be depicted as inventive.
  - Are useful for their future life.
  - Include males and females in a variety of roles.
  - Use appropriate language that includes all of these aspects of equity.

  Checking the story line is also critical for making the material incisive and respectful. Consider how problems are presented, conceived, and resolved in the story. Does the story line encourage passive acceptance or active resistance by "minority" characters, such as persons with different abilities? Are the successes of girls and women based on their own initiative and intelligence, or are they due to their good looks? Could the same story be told if the action or roles given to men and women in the story were reversed? It often goes without any realization but most commonly told tales like Cinderella, present gender biased and stereotypical roles.

- **Safety of Materials:** Learning resources related to the Key Learning Area should be produced as far as possible with natural materials. The concept of safety is broader than ensuring that materials do not have sharp edges. For instance, many toys and learning materials are made of poor quality plastic which is detrimental to health and is carcinogenic. Where possible, environment friendly materials should be used.

3.10. A SUGGESTED LIST OF MATERIALS FOR THE ECCE CLASSROOM:

Given below is a list of learning materials which teachers can place in the Learning Corners/Goshay and use during Group Work Time as well. It is highly recommended that the materials are from the local context to begin with. Not all materials have to be purchased; families and community members will certainly be willing to share old/used (but clean) objects and "junk" which can be very useful to build up a conducive and equipped ECCE learning environment. However there is no limit to quality and if resources permit an ECCE classroom must be the best equipped classroom in any school. Materials which can be recycled and reused are strongly recommended. Teachers must check for breakage, safety and cleanliness on a daily basis.

For Creative Art Work

- Materials for mixing and painting
  - Paint/powder paint
  - Soap shavings, Pencil shavings, Wood shaving
  - Plastic bottles
  - Jars for storing paints
  - Paint brushes of different sizes
  - Saucers, dishes for paint
  - Sponges
  - Smocks, T- shirts
  - Toothbrushes
  - Clothespins, bits of wood
  - Small pieces of cloths
  - Egg shells
- Materials for representation
  - Pencils, crayons, markers, chalk
  - Magazines, newspapers, catalogues
  - Paper of different sizes and textures
  - Wax paper, tissue paper
  - Scraps of paper, paper plates

- o Invitation/greeting cards

- o Shoe boxes, small/large boxes

- o Clay, plasticine

- o Buttons, straws, small empty cartons

- o Empty thread spools/reels

- o Cardboard tubes, paper bags

- o Cloth, felt, vinyl scraps, feathers/fallen leaves

- o Recycle/indigenous materials

Materials for holding things together and for taking them apart

- o White glue,

- o Masking tape,

- o Yarn

- o staplers

- o String

- o paper clips

- o Rubber bands

- o scissors

- o Cellophane tape

- o paper knives

For Music and Movement

- At tape recorder/CD players and tapes/CDs of a variety of music,

- A radio

- Musical instruments (homemade or purchased)

- Bottles of different sizes and textures, metal spoons, wooden sticks

For Pretend Play/Role Play

- Old telephones, old clocks, tool box, soft chair, broom and dustpan

- Luggage, small tables and chairs

- Props for pretending – clothes, hats, shoes, mirror

- Dolls, stuffed animals, doll bed, baby rattles, bibs, bottles

- Cushions, small blankets

- Child-sized stove/*choolha*, fridge, sink

- Adult-sized pots and pans, cooking utensils

- Teapots, kettles

- Cutlery, *doi*, (ladle)

- Mixing bowls, measuring spoons/cups, sifter

- Potholders, aprons, towels, dishcloths, sponges, napkins, place mats

- Adult-sized plates, cups, bowls

- Empty food boxes, cartons, jars, bags

- Doctor set

- Gardening tools

- Construction tools

- Carpenter tools

For Building and Pretend Play

- A variety of blocks: hollow, unit small stacking, cardboard

- Blocks made from shoe boxes

- Milk cartons, carpet pieces

- Large and small boxes, small pieces of wood with round edges

- Small cars and trucks, small animals, insects, birds

For Experimentation and Discovery

- Seeds, fallen leaves and twigs

- Magnifying glass

- Puzzles, boxes and bottle with lids in different sizes

- Washers, large nuts and bolts

- Pegs, pegboards

- Stacking rings

- Magnets, scales and balances

- Beads, stringing materials

- Buttons, stones, shells

- Sets of matching picture cards

- Sand and water, pumps, sifters and strainers

- Materials that will float/sink

- Measuring cups, funnels

- Material for bubbles making

- Balloons

For Reading and Writing

- Pencils, crayons, markers

- Computer keyboards, typewriters

- Rubber stamps, paper clips, tape, rulers

- Different types of paper: with and without lines

- Envelopes

- Assorted books (big books, small books, picture books with and without text)

- Child-made books

- Photograph books from field trips

- Cozy chair or pillows

- Puppets

- Slate & chalks

- *Takhti, qalam & dawat*

- Rubbers

- Foot rulers

- Sharpeners

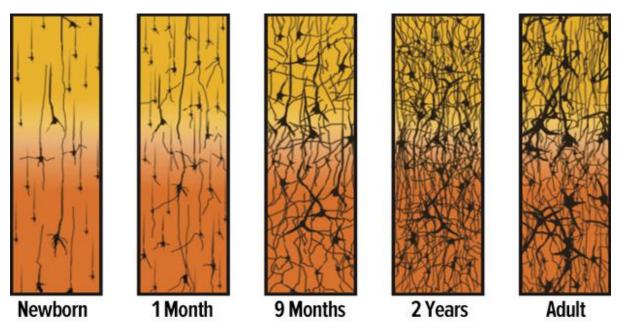# CHAPTER 04: THEORETICAL PERSPECTIVES OF EARLY CHILDHOOD CARE AND EDUCATION (ECCE)

4.1. DEVELOPMENTAL THEORIES:

4.1.1-BRAIN DEVELOPMENT IN THE EARLY YEARS

At birth, the brain of a baby is only 25 percent of the weight of an adult's brain, which is 1.5 kg. By the age of 3, it is 90 per cent of the adult weight and by the age of six, it is almost as large as it will ever be. However, some parts of the brain continue to grow even in adulthood. The fast growth of the brain in the first few years of a child's life is a critical indicator of how important the early years are.

The brain is made of tiny building blocks known as cells which are also present in rest of the body. These cells are so tiny that they cannot be seen without the help of a strong microscope. When a baby is born, it has all the brain cells it will ever need. There are a hundred billion brain cells present at birth. Brain cells are also called neurons. Neurons are able to send and receive messages from other neurons. In fact, they are only useful when they connect with each other.

To better understand this, think of your brain as an office where the neurons are the office workers. Now imagine that none of the workers are allowed to talk or work with one another. How do you think that office will functions? Obviously, an office can only operate when the workers are allowed to talk and work with each other. Similarly, our bran can only work usefully when the neurons connect with each other.

Newborn | 1 Month | 9 Months | 2 Years | Adult

When one neuron connects with another it forms a connection called a synapse. When we talk about brain development we are actually talking about the creation of synapses in a brain. One neuron can form synapses with many other neurons and so the number of synapses grows very rapidly. There are trillions of such connections in our brain making a kind of complicated web.

As shown in the figure, a young child of 02 years has twice as many synapses as that of an adult brain. As the neuron web grows, child's abilities such as, memory, language skills, problem solving and intellectual capacity also grow. However, the neurons and synapses which are not being used eventually stop working and die. For example, vision (or eye sight) develops slowly during the first six months of life. If the 'web' of synapses that is responsible for vision is not stimulated correctly during these months, eye sight may not develop properly. As a result, if the baby's eyes never see any light in the first six months, no synaptic connections would form and the baby would not have any vision.

The ability and rate, at which synaptic connections are formed, reduce significantly by the time adulthood reached and only those connections stay put that have been strengthened during the early years. The simple mechanics of brain functioning portrayed in the figure, not only highlight the criticality of the early years, but also the significance of an enabling and nurturing environment for the holistic development of children. Although learning is a continuous, life long process, the extent to which we can realize our potential and what we become as adults, is largely determined by what we experience in our childhood. Scientific findings about brain development confirm what most of us already know....warm and loving attachments between infants and mothers/caregivers, and positive stimulation right from birth make a significant difference in children's development. In the early years' classroom, a warm, trusting, comfortable relationship is crucial for positive, holistic development.

So now the question therefore is "how do we best help children achieve the full potential of development of the brain?" There are several ways to achieve as theorise by ECCE philosophies and practices. Most of them define an enriched environment as one that includes a steady source of environmental support, nutritious diet, stimulates all senses, atmosphere free from stress, enjoyable, challenging, allows social interaction, promotes development, and gives the child a chance to assess the results of their actions, all in all allows the child to be an active participant rather than a passive observer (Diamond and Hopson, 1998).

This idea is reflected in what an ECCE classroom is perceived to be a prepared environment. The prepared environment allows the link for a child to reach into his world. ECCE related educational philosophies define a prepared environment to consider the specific needs of the child with concerns to their age of development, it is provides the child what they need in order to live such as, physical and emotional security, it should be aesthetically pleasing and inviting this includes hygiene and appropriate furniture, and it has to have order and should reflect the interest adult has with the child. These are few of the main ideas but it is vital to mentions that the environment has to allow freedom of choice, allows the child to act independently, and allows the child to learn to take responsibility for his actions.

It is good to know about 5 Stages of Human Brain Development

Throughout the lifetime of the human brain it continues to undergo changes.

Stage 1: 0 to 10 months

- Neurons and connections growing.

- Pregnant woman should stay as stress-free as possible, take folic acid, B6 &B12, stimulate this young developing brain with sounds and sensations. Mother should avoid toxins, cigarettes, heavy metals, alcohol, drugs.

Stage 2: birth to 6 years

- Development of voluntary movement, reasoning, perception, frontal lobes active in development of emotions, attachments, planning, working memory, and perception. A sense of self is developing and life experiences shape the emotional well-being.

- By age six, the brain is 95% its adult weight and peak of energy consumption.

- Caregivers need to provide nurturing environment and daily individualized communication. Negative or harsh treatment may come with emotional consequences in the future.

Stage 3: 7 to 22 years

- The neural connections or 'grey' matter is still pruning, wiring of brain still in progress, the fatty tissues surrounding neurons or 'white' matter increase and assist with speeding up electrical impulses and stabilize connections. The prefrontal cortex is the last to mature and it involves the control of impulses and decision-making.

- Therefore, teenagers need to learn to control reckless, irrational and irritable behavior. Avoiding drugs, alcohol, smoking, unprotected sex and substance abuse.

Stage 4: 23 to 65 years

- Finally, the brain reaches its peak power around age 22 and lasts for 5 more years. Afterwards, it's a downhill pattern. Last to mature and the first to go are the brain functionality of executive control occurring in the prefrontal and temporal cortices. Memory for recalling episodes start to decline, processing speed slows and working memory is storing less information.

- Best approach is to stay mentally active, learn new things, stay physically active and eat a very healthy diet. Avoid toxins, cigarettes, alcohol and mind-altering drugs.

Stage 5: older than 65 years

- Brain cells are lost in the critical areas such as the hippocampus responsible for processing memories.

- Learn new skills, practice mediation to promote neutral emotions, exercise to improve abstract reasoning and concentration.

- Avoid stress or incorporate stress reducing medication and exercises.

- Eat a healthy diet with foods to nourish one's level of dopamine.

Source: http://nancyguberti.com/5-stages-of-human-brain-development/

4.1.2- PIAGET'S THEORY OF COGNITIVE DEVELOPMENT:

Jean Piaget (1896-1980) a Swiss psychologist, who studied the intellectual and logical abilities of children, theorized that cognitive development proceeds in four stages that follow the same sequential order. His Cognitive Development Theory is hugely influential in the fields of education and psychology. He proposed that the thinking process develops through each of the stages, until a child can think logically. Understanding cognitive development helps us organize appropriate learning environments and plan developmentally appropriate learning activities. The following are Piaget's four developmental stages:

Jean Piaget's Stages of Cognitive Development

Typical Age Range	Description of Stage	Developmental Phenomena
Birth to nearly 2 years	*Sensorimotor* Experiencing the world through senses and actions (looking, hearing, touching, mouthing, and grasping)	• Object permanence • Stranger anxiety
About 2 to about 6 or 7 years	*Preoperational* Representing things with words and images; using intuitive rather than logical reasoning	• Pretend play • Egocentrism
About 7 to 11 years	*Concrete operational* Thinking logically about concrete events; grasping concrete analogies and performing arithmetical operations	• Conservation • Mathematical transformations
About 12 through adulthood	*Formal operational* Abstract reasoning	• Abstract logic • Potential for mature moral reasoning

A) THE SENSORIMOTOR STAGE (BIRTH – MONTHS/2 YEARS)

Even though Piaget was opposed to applying age norms to the stages, most researchers consider approximately the first two years of life to be the Sensorimotor Stage. Infants mainly make use of senses and motor capabilities to experience the environment. For instance, if infants cannot see or touch an object, they stop trying to find it. Once infants develop the capability to recognise that a hidden object still continues to exist, they start searching for it. The characteristic limitation of this stage is 'thinking only by doing'. The

sensorimotor infant's main concern is developing motor control, and coordination with information from the senses.

B) PREOPERATIONAL STAGE (2 – 7 YEARS)
The second stage in Piaget's theory of development coincides with the preschool years. At this stage, children develop the ability to think symbolically and use language to express their thoughts, needs, feelings and observations. However, the preoperational child still learns from **concrete** material, while adults can learn in an abstract way. The preoperational child is also unaware of another person's perspective. They exhibit egocentric thought and language.

Here are some limitations of preoperational thought. To begin with, the preoperational child lacks the concept of conservation. For example, a child is presented with two rows of apples that contain the same number of apples. When one row is lengthened without any change in the number of apples, the preoperational child states that the rows are not equal. The appearance of the objects gives the wrong impression about them. Children's decisions are dominated by their perceptions.

Conservation does not happen simultaneously in all subject areas. Children can understand conservation of numbers around 5-6, and understand conservation of substance, or mass around age 7-8. Additionally, the preoperational child is likely to center on only one dimension of an even and ignore other important details. Also, children concentrate more on the static features of an event, than on the transformations from one state to another. Children in the preoperational period, at times will see some relationships between particular cases while in actuality there is none. For instance, a child might say, "If an apple is red, then a green fruit is not an apple."

C) CONCRETE OPERATIONAL STAGE (7 – 11 YEARS)
The next stage generally represents the elementary grade years. The concrete operational child begins to think logically. Operations are associated with personal experience. Concrete operations allow children to classify several classes into a bigger group or to combine a number of classes in any order. Although objects are moved or reorder, no change takes place in their perception of the objects; they are able to conserve. Concrete operations also allow children to order objects in terms of more than one dimension and they can solve conservation tasks. The operational thought is reversible; the concrete operation child can operate an action, and then go back to the original condition. For instance, 3+2=5 and 5-2=3.

D) FORMAL OPERATIONAL STAGE (11 YEARS AND BEYOND)
After roughly 11 years, students have the ability to consider many possibilities for a given condition. They are able to deal with propositions that explain concrete facts. They have the ability to use planning to think ahead. Most importantly, students at Piaget's final stage of cognitive development increase their ability to think abstractly. They can solve complex and hypothetical problems involving abstract operations.
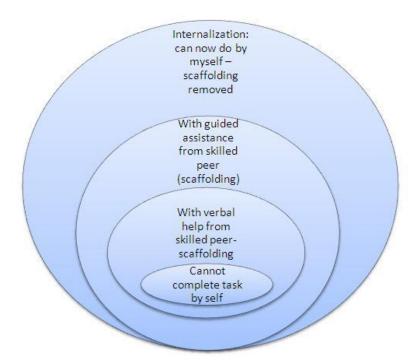
Formal operational thinkers can recognise and identify a problem. They can state several alternative hypotheses, execute procedure to collect information about the problems to be studied, and test the hypotheses.

4.1.3- Vygotsky's Theory of Sociocultural Development:

Lev Semyonovich Vygotsky, a Russian psychologist who lived during the Russian Revolution, developed a theory of development known as the Sociocultural Theory of Development during the first quarter of the twentieth century.

As a proponent of the sociocultural perspective to development, Vygotsky's outlook gained worldwide recognition and began to exert influence when his work was finally translated into English in 1962 and the importance of both sociocultural contexts of development and cross-cultural research was recognised.

Vygotsky's main assertion was that children are entrenched in different sociocultural contexts through which their cognitive development is advanced through social interaction with more skilled individuals. His theory is mainly concerned with the more complex cognitive activities of children which are governed and influenced by several principles. Believing that children construct knowledge actively, Vygotsky's theory is also one of those responsible for laying the groundwork for constructivism.

A) ZONE OF PROXIMAL DEVELOPMENT

Vygotsky is most recognised for his concept of Zone of Proximal Development or ZPD pertaining to the learning of children. Children who are in the zone of proximal development for a specific task are almost able to perform the task independently, but not quite. With an appropriate amount and level of assistance, however, children are able to successfully accomplish the task.

The lower limit of a child's zone of proximal development is the level of analysis and problem-solving reached by a child without any help. The upper limit, on the other hand, is the level of additional responsibility that a child can receive with the support of a skilled instructor.

As children are verbally given instructions or shown how to perform certain tasks, they organize the new information received in their existing mental schemas in order to assist them in the ultimate goal of performing the task independently. This emphasis on the concept of Zone of Proximal Development made by Vygotsky underscores his conviction that social influences, particularly instruction, are of immense importance on the cognitive development of children.

B) MORE KNOWLEDGEABLE OTHER

The child is entrenched in a sociocultural backdrop, usually the home, in which social interaction with significant adults, i.e. the parents, is the crucial factor that affects the child's learning. Adults need to direct and organize the learning experiences of a child to ensure that a child can master and internalize the learning.

Any person who possesses a higher skill level than the learner with regard to a particular task or concept is called a More Knowledgeable Other or MKO. This person may be a teacher, parent, an older adult, a coach or even a peer.

C) SCAFFOLDING

The concept of scaffolding is closely related to the concept of the zone of proximal development. Scaffolding refers to the temporary support given to the child by More Knowledgeable Others, usually parents or teachers that enable the child to perform the task until such time that the child can already perform the task independently.

Scaffolding entails changing the quality and quantity of support provided to a child in the course of a teaching session. The more-skilled instructor adjusts the level of guidance needed in order to fit the student's current level of performance. For novel tasks, the instructor may utilize direct instruction. As the child gains more familiarity with the task and becomes more skilled at it, the instructor may then provide less guidance.

Children who experience more difficulty in task performance are in need of greater assistance and guidance from an adult. When the child has learned to complete the task independently, the scaffolds are removed by the adult, as they are no longer needed.

A major contribution of Vygotsky's theory is the acknowledgement of the social component in both cognitive and psychosocial development. Due to his proffered ideas, research attention has been shifted from the individual onto larger interactional units such as parent and child, teacher and child, or brother and sister.

Vygotsky likewise called attention to the variability of cultural realities, stating that the development of children who are in one culture or subculture, such as middle class Asian Americans, may be totally different from children who hail from other societies or subcultures. It would not be fitting, therefore, to utilize the developmental experiences of children from one culture as a norm for children from other cultures.
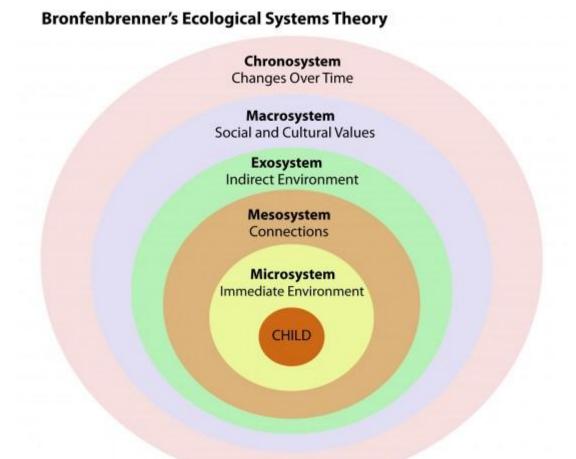
The theory has significant ramifications in education and cognitive testing. Vygotsky was a strong advocate of non-standard assessment procedures for the assessment of what and how much a child has learned and in the formulation of approaches that could enhance the child's learning. His ideas have effected changes in educational systems through the increased importance given to the active role of students in their own learning process and the encouragement of teacher-student collaboration in a reciprocal learning experience.

4.1.4- BRONFENBRENNER'S ECOLOGICAL SYSTEMS THEORY OF CHILD DEVELOPMENT:

American psychologist, Urie Bronfenbrenner, formulated the Ecological Systems Theory to explain how the inherent qualities of a child and the characteristics of the external environment which the child finds himself in interact to influence how the child will grow and develop. Through his theory, Bronfenbrenner stressed the importance of studying a child in the context of his multiple environments, also known as ecological systems in the attempt to understand his individual development.

A child finds himself simultaneously enmeshed in different ecosystems, from the most intimate home ecological system moving outward to the larger school system and the most expansive system which is society and culture. Each of these systems inevitably interacts with and influences each other and every aspect of the child's life.

The Ecological Systems Approach organizes contexts of development into five levels of external influence which interlock. The levels are categorized from the most intimate level to the broadest, with the most intimate being the micro system.

Bronfenbrenner's Ecological Systems Theory

Chronosystem
Changes Over Time

Macrosystem
Social and Cultural Values

Exosystem
Indirect Environment

Mesosystem
Connections

Microsystem
Immediate Environment

CHILD

A) MICROSYSTEM:

The **microsystem** is the smallest and most immediate environment in which the child lives. As such, the micro system comprises the daily home, school or day-care, peer group or community environment of the child. Interactions within the micros system typically involve personal relationships with family members, classmates, teachers and caregivers, in which influences go back and forth. How these groups or individuals interact with the child will affect how the child grows. Similarly, how the child reacts to people in his micro system will also influence how they treat the child in return. More nurturing and more supportive interactions and relationships will understandably foster the child's improved development.

Given two siblings experiencing the same micro system, however, it is not impossible for the development of the two siblings to progress in different manners. Each child's particular personality traits, such as temperament, which is influenced by unique genetic and biological factors, ultimately have a hand in how he is treated by others. One of the most significant findings that Bronfenbrenner unearthed in his study of ecological systems is that it is possible for siblings who find themselves within the same ecological system to still experience very different environments.

B) MESOSYSTEM:

The **mesosystem** encompasses the interaction of the different **microsystems** which the developing child finds himself in. It is, in essence, a system of microsystems and as such, involves linkages between home and school, between peer group and family, or between family and church. If a child's parents are actively involved in the friendships of their child, invite friends over to their house and spend time with them, then the child's development is affected positively through harmony and like-mindedness. However, if the child's parents dislike their child's peers and openly criticize them, then the child experiences disequilibrium and conflicting emotions, probably affecting his development negatively.

C) EXOSYSTEM:

The **exosystem**, on the other hand, pertains to the linkages that may exist between two or more settings, one of which may not contain the developing child but affects him indirectly nonetheless. Other people and places which the child may not directly interact with but may still have an effect on the child, comprise the exosystem. Such places and people may include the parents' workplaces, the larger neighbourhood, and extended family members. For example, a father who is continually passed up for promotion by an indifferent boss at the workplace may take it out on his children and mistreat them at home.

D) MACROSYSTEM:

The **macrosystem** is the largest and most distant collection of people and places to the child that still exercises significant influence on the child. It is composed of the child's cultural patterns and values, specifically the child's dominant beliefs and ideas, as well as political and economic systems. Children in war-torn areas, for example, will experience a different kind of development than children in communities where peace reigns.

E) CHRONOSYSTEM:

The **chronosystem** adds the useful dimension of time, which demonstrates the influence of both change and constancy in the child's environment. The chronosystem may thus include a change in family structure, address, parent's employment status, in addition to immense society changes such as economic cycles and wars.

By studying the different systems that simultaneously influence a child, the ecological systems theory is able to demonstrate the diversity of interrelated influences on the child's development. Awareness of contexts can sensitize us to variations in the way a child may act in different settings. For example, a child who frequently bullies smaller children at school may portray the role of a terrified victim at home. Due to these variations, adults concerned with the care of a particular child should pay close attention to behaviour in different settings or contexts and to the quality and type of connections that exist between these contexts.

4.1.5- ERIK ERIKSON'S THEORY OF SOCIAL EMOTIONAL DEVELOPMENT:

Every person has his or her own unique identity. This identity is composed of the different personality traits that can be considered positive or negative. These personality traits can

also be innate or acquired, and they vary from one person to another based on the degree of influence that the environment has on the individual.

The bottom line is that as human beings, we possess many characteristics that are honed in many different aspects that eventually define who we are.

Erik Erikson's Theory of Psychosocial Development emphasizes the sociocultural determinants of development and presents them as eight stages of psychosocial conflicts (often known as Erikson's psychosocial stages) that all individuals must overcome or resolve successfully in order to adjust well to the environment.

Erikson's Stages of Psychosocial Development

Approximate Age	Psycho Social Crisis
Infant - 18 months	Trust vs. Mistrust
18 months - 3 years	Autonomy vs. Shame & Doubt
3 - 5 years	Initiative vs. Guilt
5 -13 years	Industry vs. Inferiority
13 -21 years	Identity vs. Role Confusion
21- 39 years	Intimacy vs. Isolation
40 - 65 years	Generativity vs. Stagnation
65 and older	Ego Integrity vs. Despair

(C) The Psychology Notes Headquarter - http://www.PsychologyNotesHQ.com

KEY CONCEPTS:

Erikson's psychosocial theory of development considers the impact of external factors, parents and society on personality development from childhood to adulthood. According to Erikson's theory, every person must pass through a series of eight interrelated stages over the entire life cycle.

1. INFANCY: BIRTH-18 MONTHS OLD
Basic Trust vs. Mistrust – Hope

During the first or second year of life, the major emphasis is on the mother and father's nurturing ability and care for a child, especially in terms of visual contact and touch. The child will develop optimism, trust, confidence, and security if properly cared for and handled. If a child does not experience trust, he or she may develop insecurity, worthlessness, and general mistrust to the world.

2. TODDLER / EARLY CHILDHOOD YEARS: 18 MONTHS TO 3 YEARS
Autonomy vs. Shame – Will

The second stage occurs between 18 months and 3 years. At this point, the child has an opportunity to build self-esteem and autonomy as he or she learns new skills and right from wrong. The well-cared for child is sure of himself, carrying himself or herself with pride rather than shame. During this time of the "terrible twos", defiance, temper tantrums, and stubbornness can also appear. Children tend to be vulnerable during this stage, sometimes feeling ashamed and low self-esteem during an inability to learn certain skills.

3. PRESCHOOLER: 3 TO 5 YEARS
Initiative vs. Guilt – Purpose

During this period we experience a desire to copy the adults around us and take initiative in creating play situations. We make up stories with Barbie's and Ken's, toy phones and miniature cars, playing out roles in a trial universe, experimenting with the blueprint for what we believe it means to be an adult. We also begin to use that wonderful word for exploring the world—"WHY?"

While Erikson was influenced by Freud, he downplays biological sexuality in favor of the psychosocial features of conflict between child and parents. Nevertheless, he said that at this stage we usually become involved in the classic "Oedipal struggle" and resolve this struggle through "social role identification." If we're frustrated over natural desires and goals, we may easily experience guilt. The most significant relationship is with the basic family.

4. SCHOOL AGE CHILD: 6 TO 12 YEARS
Industry vs. Inferiority – Competence

During this stage, often called the Latency, we are capable of learning, creating and accomplishing numerous new skills and knowledge, thus developing a sense of industry. This is also a very social stage of development and if we experience unresolved feelings of inadequacy and inferiority among our peers, we can have serious problems in terms of competence and self-esteem.

As the world expands a bit, our most significant relationship is with the school and neighbourhood. Parents are no longer the complete authorities they once were, although they are still important.

5. ADOLESCENT: 12 TO 18 YEARS
Identity vs. Role Confusion – Fidelity

Up until this fifth stage, development depends on what is done to a person. At this point, development now depends primarily upon what a person does. An adolescent must struggle to discover and find his or her own identity, while negotiating and struggling with social interactions and "fitting in", and developing a sense of morality and right from wrong.

Some attempt to delay entrance to adulthood and withdraw from responsibilities (moratorium). Those unsuccessful with this stage tend to experience role confusion and upheaval. Adolescents begin to develop a strong affiliation and devotion to ideals, causes, and friends.

6. YOUNG ADULT: 18 TO 35 YEARS
Intimacy and Solidarity vs. Isolation – Love

At the young adult stage, people tend to seek companionship and love. Some also begin to "settle down" and start families, although seems to have been pushed back farther in recent years.

Young adults seek deep intimacy and satisfying relationships, but if unsuccessful, isolation may occur. Significant relationships at this stage are with marital partners and friends.

7. MIDDLE-AGED ADULT: 35 TO 55 OR 65 YEARS
Generativity vs. Self-Absorption or Stagnation – Care

Career and work are the most important things at this stage, along with family. Middle adulthood is also the time when people can take on greater responsibilities and control.

For this stage, working to establish stability and Erikson's idea of generativity – attempting to produce something that makes a difference to society. Inactivity and meaninglessness are common fears during this stage.

Major life shifts can occur during this stage. For example, children leave the household; careers can change, and so on. Some may struggle with finding purpose. Significant relationships are those within the family, workplace, local church and other communities.

8. LATE ADULT: 55 OR 65 TO DEATH
Integrity vs. Despair – Wisdom

Erikson believed that much of life is preparing for the middle adulthood stage and the last stage involves much reflection. As older adults, some can look back with a feeling of integrity — that is, contentment and fulfilment, having led a meaningful life and valuable contribution to society. Others may have a sense of despair during this stage, reflecting upon their experiences and failures. They may fear death as they struggle to find a purpose to their lives, wondering "What was the point of life? Was it worth it?"

4.2- LEARNING THEORIES:

Learning theories are theoretical framework in which knowledge is absorbed, processed, and retained during learning. Cognitive, emotional, and environmental influences, as well as prior experience, all play a part in how understanding, or a world view, is acquired or changed and knowledge and skills retained. For ECCE teachers/stakeholders significant knowledge of established learning theories is vital to help children develop in positive and healthy environment. For reference purposes following two learning theories are included here to provide baseline for teachers to probe further.
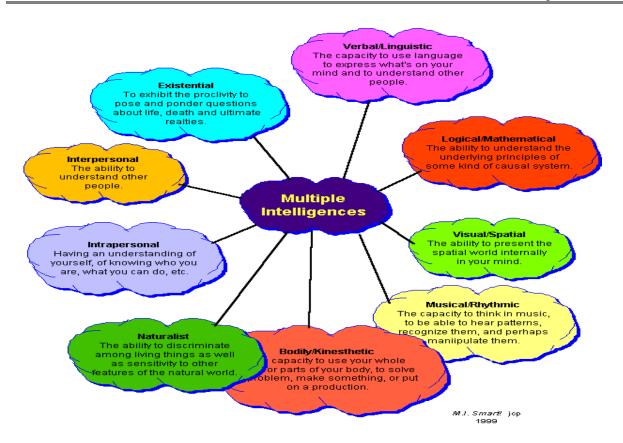
4.2.1- HOWARD GARDNER'S THEORY OF MULTIPLE INTELLIGENCES-AN INNOVATIVE APPROACH TOWARDS UNDERSTANDING CHILD'S POTENTIAL

Many educators have had the experience of not being able to reach some students until presenting the information in a completely different way or providing new options for student expression. Perhaps it was a student who struggled with writing until the teacher provided the option to create a graphic story, which blossomed into a beautiful and complex narrative. Or maybe it was a student who just couldn't seem to grasp fractions, until he created them by separating oranges into slices.

Because of these kinds of experiences, the theory of multiple intelligences resonates with many educators. It supports what we all know to be true: A one-size-fits-all approach to education will invariably leave some students behind. However, the theory is also often misunderstood, which can lead to it being used interchangeably with *learning styles* or applying it in ways that can limit student potential. While the theory of multiple intelligences is a powerful way to think about learning, it's also important to understand the research that supports it.

Howard Gardner's Nine Intelligences

The theory of *multiple intelligences* challenges the idea of a single IQ, where human beings have one central "computer" where intelligence is housed. Howard Gardner, the Harvard professor who originally proposed the theory, says that there are multiple types of human intelligence, each representing different ways of processing information:

Multiple Intelligences

Verbal/Linguistic — The capacity to use language to express what's on your mind and to understand other people.

Existential — To exhibit the proclivity to pose and ponder questions about life, death and ultimate realties.

Logical/Mathematical — The ability to understand the underlying principles of some kind of causal system.

Interpersonal — The ability to understand other people.

Visual/Spatial — The ability to present the spatial world internally in your mind.

Intrapersonal — Having an understanding of yourself, of knowing who you are, what you can do, etc.

Musical/Rhythmic — The capacity to think in music, to be able to hear patterns, recognize them, and perhaps maniipulate them.

Naturalist — The ability to discriminate among living things as well as sensitivity to other features of the natural world.

Bodily/Kinesthetic — capacity to use your whole or parts of your body, to solve problem, make something, or put on a production.

M.I. Smart! jcp 1999

1. NATURALIST INTELLIGENCE ("NATURE SMART")

This intelligence designates the human ability to discriminate among living things (plants, animals) as well as sensitivity to other features of the natural world (clouds, rock configurations). This ability was clearly of value in our evolutionary past as hunters, gatherers, and farmers; it continues to be central in such roles as botanist or chef. It is also speculated that much of our consumer society exploits the naturalist intelligences, which can be mobilized in the discrimination among cars, sneakers, kinds of makeup, and the like.

2. MUSICAL INTELLIGENCE ("MUSICAL SMART")

Musical intelligence is the capacity to discern pitch, rhythm, timbre, and tone. This intelligence enables us to recognise, create, reproduce, and reflect on music, as demonstrated by composers, conductors, musicians, vocalist, and sensitive listeners. Interestingly, there is often an affective connection between music and the emotions; and mathematical and musical intelligences may share common thinking processes. Young adults with this kind of intelligence are usually singing or drumming to themselves. They are usually quite aware of sounds others may miss.

3. LOGICAL-MATHEMATICAL INTELLIGENCE (NUMBER/REASONING SMART)

Logical-mathematical intelligence is the ability to calculate, quantify, consider propositions and hypotheses, and carry out complete mathematical operations. It enables us to perceive relationships and connections and to use abstract, symbolic thought; sequential reasoning skills; and inductive and deductive thinking patterns. Logical intelligence is usually well developed in mathematicians, scientists, and detectives. Young adults with lots of logical intelligence are interested in patterns, categories, and relationships. They are drawn to arithmetic problems, strategy games and experiments.

4. EXISTENTIAL INTELLIGENCE

Sensitivity and capacity to tackle deep questions about human existence, such as the meaning of life, why do we die, and how did we get here.

5. INTERPERSONAL INTELLIGENCE (PEOPLE SMART")

Interpersonal intelligence is the ability to understand and interact effectively with others. It involves effective verbal and nonverbal communication, the ability to note distinctions among others, sensitivity to the moods and temperaments of others, and the ability to entertain multiple perspectives. Teachers, social workers, actors/public figures and politicians exhibit interpersonal intelligence. Young adults with this kind of intelligence are leaders amongst their peers, are good at communicating, and seem to understand others' feelings and motives.

6. BODILY-KINAESTHETIC INTELLIGENCE ("BODY SMART")

Bodily kinaesthetic intelligence is the capacity to manipulate objects and use a variety of physical skills. This intelligence also involves a sense of timing and the perfection of skills through mind–body union. Athletes, dancers, surgeons, and craftspeople exhibit well-developed bodily kinaesthetic intelligence.

7. LINGUISTIC INTELLIGENCE (WORD SMART)

Linguistic intelligence is the ability to think in words and to use language to express and appreciate complex meanings. Linguistic intelligence allows us to understand the order and meaning of words and to apply meta-linguistic skills to reflect on our use of language. Linguistic intelligence is the most widely shared human competence and is evident in poets, novelists, journalists, and effective public speakers. Young adults with this kind of intelligence enjoy writing, reading, telling stories or doing crossword puzzles.

8. INTRA-PERSONAL INTELLIGENCE (SELF SMART")

Intra-personal intelligence is the capacity to understand oneself and one's thoughts and feelings, and to use such knowledge in planning and directioning one's life. Intra-personal intelligence involves not only an appreciation of the self, but also of the human condition. It is evident in psychologist, spiritual leaders, and philosophers. These young adults may be shy. They are very aware of their own feelings and are self-motivated.

9. SPATIAL INTELLIGENCE ("PICTURE SMART")

Spatial intelligence is the ability to think in three dimensions. Core capacities include mental imagery, spatial reasoning, image manipulation, graphic and artistic skills, and an active imagination. Sailors, pilots, sculptors, painters, and architects all exhibit spatial intelligence. Young adults with this kind of intelligence may be fascinated with mazes or jigsaw puzzles, or spend free time drawing or daydreaming.

 HOW MULTIPLE INTELLIGENCES THEORY CAN GUIDE ECCE TEACHERS:

While additional research is still needed to determine the best measures for assessing and supporting a range of intelligences in schools, the theory has provided opportunities to broaden definitions of intelligence. As an ECCE educator, it is useful to think about the different ways that information can be presented. However, it is critical to not classify

students as being specific types of learners nor as having an innate or fixed type of intelligence.

For example, teacher can develop small quiz with the help of some online Multiple Intelligences Quiz maps to Howard Gardner's multiple intelligences and is a fun way to learn about how some of our tastes and interests can influence how we take in information. However, its results are not intended as a way to label people as naturalistic learners, musical learners, etc. Labelling creates limits, and when it comes to learning, we want to avoid restricting how we define student potential. People have much different intelligence, and strength in one area does not predict weakness in another.

4.2.2- LEARNING STYLES:

Among the recently renowned learning theories and themes one of the most talked about and relevant is "learning styles". The term "learning styles" speaks to the understanding that every student learns differently. Technically, an individual's learning style refers to the preferential way in which the student absorbs processes, comprehends and retains information. For example, when learning how to build a clock, some students understand the process by following verbal instructions, while others have to physically manipulate the clock themselves. This notion of individualized learning styles has gained widespread recognition in education theory and classroom management strategy. Individual learning styles depend on cognitive, emotional and environmental factors, as well as one's prior experience. In other words: everyone's different. It is important for educators and vital for ECCE teachers to understand the differences in their students' learning styles, so that they can implement best practice strategies into their daily activities, curriculum and assessments.

NEIL FLEMING'S VARK MODEL:

The most relevant and appropriate learning style's model is by Neil Fleming who has proposed VARK model expanded upon notions of sensory modalities of Visual, Auditory, Reading/Writing and Kinaesthetic.

The VARK model acknowledges that students have different approaches to how they process information, referred to as "preferred learning modes."

- Students' preferred learning modes have significant influence on their behaviour and learning
- Students' preferred learning modes should be matched with appropriate learning strategies.
- Information that is accessed through students' use of their modality preferences shows an increase in their levels of comprehension, motivation, and metacognition.

Identifying students as visual, auditory, reading/writing or kinaesthetic learners, and aligning the overall curriculum with these learning styles, will prove to be beneficial for entire classroom management, allowing students to access information in terms they are comfortable with will increase their academic confidence.

Visual

- Visual learners prefer the use of images, maps, and graphic organizers to access and understand new information.

Auditory

- Auditory learners best understand new content through listening and speaking in situations such as lectures and group discussions. Aural learners use repetition as a study technique and benefit from the use of mnemonic devices.

Read & Write

- Students with a strong reading/writing preference learn best through words. These students may present themselves as copious note takers or avid readers, and are able to translate abstract concepts into words and essays.

Kinesthetic

- Students who are kinesthetic learners best understand information through tactile representations of information. These students are hands-on learners and learn best through figureing things out by hand (i.e. understanding how a clock works by putting one together.)

GLOSSARY:

1. **Andragogy:** Theory of adult learning.

2. **Assessment:** The term "assessment" refers to any process of obtaining information that is used to make educational decisions about students, to give feedback to the student about his or her progress, strengths and weakness, to judge teaching effectiveness and curriculum adequacy and to inform policy.

3. **Colas:** A brown carbonated drink that is flavoured with an extract of cola nuts, or with a similar flavouring.

4. **Curriculum:** A plan of instruction that details what students are to know, how they are to learn it, what the teacher's role is, and the context in which learning and teaching will take place.

5. **Diversity:** The state of being diverse, having variety. Individual are differences of people, including, but not limited to differences in: intelligence, learning styles, academic and/or social ability, culture, ethnicity, socio-economic status, gender, religion, sexual orientation, value systems.

6. **Facilitator:** A role for classroom teachers that allows students to take a more active role in learning. Teachers assist students in making connections between classroom instruction and students' own knowledge and experiences by encouraging students to create new solutions, by challenging their assumptions, and by asking probing questions.

7. **Fine Motor:** Fine motor skills can be defined as small muscle movements, those that occur in the finger, in coordination with the eyes. Teaching fine motor skills is similar is similar to teaching other skills because the instructor must always try to be patient and understanding. Fine motor skills do not develop over night, but with time and practice.

8. **Formative Assessment:** The term "formative assessment" refers to frequent or on-going evaluation during courses, programmes, or learning experiences that gives an early indication of what students are learning, as well as their strengths and weaknesses. Formative assessment is often used as a diagnostic tool for students and faculty, providing information with which to make real-time improvements in instructional methods, materials, activities, techniques, and approaches. Approaches to formative assessment might include daily, weekly, or midterm projects; portfolios; journals; observations of the learning process and learning outcomes; discussion groups; performances; self-assessments; or examinations that occur during courses, when students and faculty can benefit from the information and improve.

9. **Gross Motor:** Gross Motor skills involve the larger muscles in the arms, legs and torso. Gross motor activities include walking, running, throwing, lifting, kicking, etc. These skills also relate to body awareness, reaction speed, balance and strength.

Group's motor development gives a child the ability to move in a variety of ways, the ability to control his/her body and helps promote self-esteem.

10. **Imaginings:** Thoughts or fantasies.

11. **Kindergarten:** Friedrich Froebel (1782-1852) known as the 'father of the Kindergarten," –coined the term, which literarily means a "garden of children," He believed that children learn about themselves and their environment primarily through play. Now commonly used to mean a school or class that prepares children for first grade.

12. **Learning Styles:** Learning styles are students' approaches to learning, problem solving, and processing information.

13. **Lifestyle:** A way of living, conduct, behaviour, customs, culture, habits.

14. **Manipulative Material:** Any physical object (for example, clay, blocks, string, coins) that can be handled and used to represent or model a problem situation or develop a logical concept.

15. **Metacognition:** Awareness and understanding of one's own thought processes. A child's ability to consciously and intentionally control own behaviour.

16. **Multiple Intelligences:** Traditional measurements of 'intelligence' were limited to a single quotient on the basis of performance in a broad range of test elements. On the basis of developments in cognitive psychology and neurological science, Howard Gardner (1983) re-defined intelligence as the ability to create something which is valued by any culture, in nine intellectual areas which are independent and interdependent. For examples, a person can be good with language use and thinking through this mode; similarly, another person can be musically more intelligent. The implication for learning and teaching is that learning activities should cater for the whole range of intelligences or be tailored to the intelligences of specific learners.

17. **Mystery Bag:** A bag full of many small objects with different textures for students to feel the objects without looking at them, identify and name them. It acts as a great resource for sensory development and memory build up.

18. **Open-ended, questions:** Questions that have more than one right answer, or ones that can be answered in more than one way. This way of asking questions stimulates more language use, acknowledges that there can be many solutions to one problem, affirms children's ideas and encourages creative thinking.

19. **Paper Mache:** A malleable mixture of paper and glue, or paper, flour, and water that becomes hard when dry.

20. **Pedagogy:** The art or science of being a teacher of children. Generally refers to strategies or style of instruction.

21. **Portfolio:** A collection of various samples of a student's work throughout the school year that can include writing samples, examples of math problems, and results of science experiments.

22. **Portfolio Assessment:** An assessment process that is based on the collection of student's work, such as written assignments, drafts, artwork, and presentations, that represent competencies, exemplary work, or the student's developmental progress.

23. **Pro-action:** Creating or controlling a situation by causing something to happen rather than responding to it after it has happened.

24. **Special Education:** Special instruction provided for students with educational or physical disabilities, tailored to each student's needs and learning style.

25. **Syllabus:** A document with an outline and summary of topics to be covered in a class/grade. It is often either set out by school management or an exam board. Content covered in textbook is often taken as syllabus.

26. **Synapses:** When one neuron connects with another, it forms a connection called a synapse. When we talk about brain development we are actually talking about the creation of synapses in a brain.

27. **Summative Assessment:** The term "summative" refers to longitudinal analysis of the learning and performance of students. Summative assessments tend to be formal and comprehensive. Such assessments may be conducted at the end of the academic year and could be compared to the results of pre-testing to determine gains and to clarify the causal connections between educational practices and student learning. They may be used for purposes of determining final grades, placement, and promotion.

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