



REPUBLIC OF MAURITIUS

MINISTRY OF EDUCATION, TERTIARY EDUCATION, SCIENCE AND TECHNOLOGY
EARLY CHILDHOOD CARE & EDUCATION AUTHORITY



National Curriculum Framework

PRE-PRIMARY
3-5 YEARS

NATIONAL CURRICULUM FRAMEWORK

PRE-PRIMARY 3-5 YEARS



**Mauritius Institute of Education
&
Early Childhood Care and Education Authority**



A Caring Institution



REPUBLIC OF MAURITIUS

Ministry of Education, Tertiary Education, Science and Technology

Foreword



The world of Education in the Republic of Mauritius has witnessed a major transformation through the implementation of a systemic reform agenda across its sub-sectors. One cornerstone of that agenda, namely, the Nine Year Continuous Basic Education (NYCBE), was initiated in 2015 to both respond to the SDG 4 and our country's need for an educated youth able to meet its current and emerging challenges.

This National Curriculum Framework Pre-Primary thus aligns with the reforms initiated with the NYCBE as well as the SDG Target 4.2 which makes a strong plea for all girls and boys to have access to quality early childhood development, care and pre-primary education so that they are ready for primary education.

There is a global recognition that Early Childhood Education establishes the very foundation for learning. It builds on the natural inclination of children to learn, their inquisitive nature and their enthusiasm to discover new things right from the early years. These qualities need to be reinforced so that they become the foundational skills and attitudes for education later in life.

While Mauritius has successfully given access to pre-primary school to all, this Framework focuses on further creating the environment for an improved quality of education in pre-primary schools. It draws lessons from the previous NCF and from experiences and good practices worldwide. It also takes into consideration recent findings from research in the field and the theoretical foundations of teaching and learning.

The NCF Pre-Primary will thus empower teachers with the tools for engaging children in learning, harnessing their penchant for discovery and extending their thinking processes so that their enthusiasm for learning is maintained.

This Curriculum Framework, equally the outcome of a wide consultation with practitioners in the field, should serve as a guideline for all private and public pre-primary schools. It advocates the provision of quality education through developmentally appropriate practices within an inclusive environment. I recommend that it be used as a driving document with requisite adaptations and contextualisation with due regard to the needs of learners.

Our children are our future, and this NCF is inherent to the pledge to leave no stone unturned to ensure that they benefit from an education that will allow them all to flourish.

Hon. Mrs. Leela Devi DOOKUN LUCHOOMUN, GCSK

Vice Prime Minister

Minister of Education, Tertiary Education, Science & Technology



Mauritius Institute of Education

Foreword



The early years are crucial for the development of an individual. These formative years set the stage for personality and cognitive development. It is thus of utmost significance that schools provide optimal experiences to allow young minds to thrive and eventually achieve full potential.

The National Curriculum Framework Pre-Primary (NCF-PP) 2023 is a revised version of the NCF-PP (2010). It is an important guide for teachers and stakeholders involved with children in the 3-5 years age group. This document has been reviewed in the light of the philosophy underpinning the Nine Year Continuous Basic Education (NYCBE) reform. Both the entry point into and exit point from pre-primary schooling constitute important stages for educational transition. Teachers, parents and stakeholders thus need to be aware of the level of readiness of the children to ensure that teaching is geared towards their needs.

The reviewed curriculum framework aims to foster the holistic development of children by developing positive dispositions that pave the way for primary schooling. It caters for the development of basic literacy and numeracy skills, growing independence and an eagerness to engage in a variety of activities in different areas of learning. Key teaching and learning theories have guided the pedagogical approaches. The place of play as a powerful strategy for cognitive development and mental health is emphasised through the adoption of the schema play model. The implementation of the play-based approach will allow children to learn by playing so that learning becomes an enjoyable process.

It is important to bear in mind that various factors impact learning. The Bronfenbrenner model highlights the influence of the family, community, society and culture on children's development. The NCF-PP (2023) places learners at the center and recommends that teachers and stakeholders remain sensitive to all influences so as to aptly meet the needs of their learners.

I wish to thank all those who have been involved in the production of this document and place on record my appreciation for the work accomplished. I also acknowledge the contribution of the different stakeholders who have provided valuable insights.

Dr. Hemant BESSOONDYAL

Director

Mauritius Institute of Education

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List of Abbreviations

CHAT	Cultural and Historical Activity Theory
CPD	Continuous Professional Development
ECD	Early Childhood Development
ECCE	Early Childhood Care and Education
ECCEA	Early Childhood Care and Education Authority
ECE	Early Childhood Education
DAP	Developmentally Appropriate Practice
DLP	Developmental Learner Profile
LO	Learning Outcome
NCF	National Curriculum Framework
NCF PP	National Curriculum Framework Pre-Primary
NYCBE	Nine-Year Continuous Basic Education
PP	Pre-Primary
SDG	Sustainable Development Goals
SEL	Social and Emotional Learning
UNESCO	United Nations Educational Scientific and Cultural Organisation
ZPD	Zone of Proximal Development
SAEC	Scientific Awareness for Early Childhood
CLL	Communication, Language and Literacy
ECAD	Expressive, Creative and Aesthetic Development
HPD	Health and Physical Development
MLT	Mathematical and Logical Thinking
PSED	Personal, Social and Emotional Development



1.0 Introduction

The National Curriculum Framework Pre-Primary 2023 (NCF-PP, 2023) follows a review of the NCF-PP (2010) in the context of the Nine Year Continuous Basic Education (NYCBE) reform. It lays down the philosophy, orientation and theoretical underpinnings for pre-primary education in the Republic of Mauritius. As such, the document provides the goals, pedagogical approaches, learning areas, learning outcomes, teaching strategies and assessment for the pre-primary school setting. It is premised on the Convention on the Rights of the Child (1989), World Declaration on Education for All (Jomtien, 1990), as well as Salamanca Statement and Framework for Action on Special Needs Education (Salamanca, 1994). At the heart of the NCF-PP (2023) is the 2030 Agenda for Sustainable Development, more specifically SDG 4, Target 4.2 which reads:

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.

and Target 4.7 which reads:

By 2030 ensure all learners acquire 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.

The NCF-PP aims at awakening the consciousness of young learners to the significance of their actions in relation to themselves and others. Children understand the need to protect and preserve the environment. They learn to think critically and act responsibly thereby contributing to sustainable development.

The writing of the NCF-PP (2023) also entailed consultations with key stakeholders in the pre-primary sector, namely the Early Childhood Care Education Authority (ECCEA), pre-primary school supervisors, school managers and teachers. A study of various ECE curriculum frameworks across continents and global trends in the area also informed the exercise.

To ensure the smooth implementation of the NCF-PP, provision is made for accompanying documents, namely an implementation guideline with a repertoire of activities for all areas of learning.

1.1 Overview of the National Curriculum Framework Pre-Primary

The NCF-PP (2023) is organised into four main parts:

The first part of the document provides an overview of the Early Childhood Education sector in Mauritius and lays down the importance of Early Childhood Education.

The second part focuses on the vision and aims of the curriculum framework. The goals of the National Curriculum Framework Pre-Primary have been reworked in line with the NYCBE reform. This part ends with the main theoretical drivers of the reviewed NCF-PP.

The third part focuses on curriculum implementation. It lays emphasis on the role of the pre-primary teacher and the learning theories that can guide teaching in the pre-primary classrooms. The NCF-PP (2023) has been developed keeping in view the basic principles of how children learn and optimum conditions for learning. Curriculum perspectives guide the pedagogical approaches to be used in pre-primary school settings. This part ends with the different assessment strategies and tools to monitor the children's progress.

The fourth part details the six areas of learning in pre-primary education. For each Area of Learning, an introduction is given and a description of its components. It also provides the outcomes that need to be achieved for each area in addition to teaching and assessment strategies.

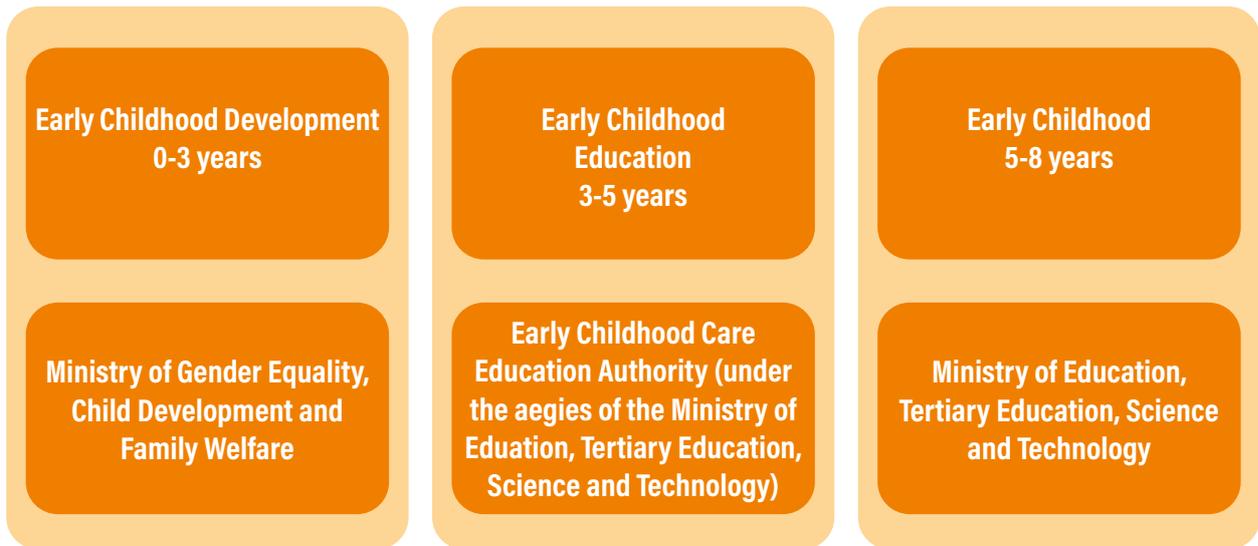
1.2 Importance of Early Childhood Education

Early years, which constitute the 0-8 years age range, are the foundation for the future development of children. This stage of development provides a strong base for lifelong learning, which includes cognitive, socio-emotional and physical development. It is during this period that children go through experiences that shape their personality and disposition. Growing evidence in research shows that the brain develops rapidly during this stage of life, hence the significance of quality stimulation, support and nurturing to promote the holistic development of children. Children who attend pre-primary schools have more chances to succeed in life since they acquire the necessary skills for continuous learning. Further, early intervention at this stage allows learning delays or other problems to be addressed promptly.

1.3 Early Childhood Education Sector in Mauritius

The Early Childhood Education Sector in Mauritius is under the purview of the Ministry of Gender Equality, Child Development & Family Welfare and the Ministry of Education, Tertiary Education, Science & Technology, as shown below.

Table 1: Early Childhood Care and Education in Mauritius



1.4 The NYCBE and Pre-Primary Education

The Nine-Year Continuous Basic Education (NYCBE) reform was introduced by the Government of Mauritius in 2015. The new education system aims to nurture the talents and aptitudes of the children such that they are able to choose their learning path (NYCBE, 2015). The review of the National Curriculum Framework for Pre-Primary (2010) is in line with the NYCBE which proposes a seamless and continuous curriculum for nine years of schooling. It has been aligned with the new philosophy for education emphasising on competencies for the 21st Century to aptly empower learners in a context which is becoming more uncertain.

Context is usually complex, multidimensional, and diverse. Each context gives rise to varied needs that may be of an individual or collective nature. The 21st century imposes challenges and opportunities for which children must be prepared. The children should thus be prepared for the NYCBE by promoting the spirit to develop the competencies for their educational success. The review has allowed the contextualisation of the curriculum to ensure its relevance and currency.

1.5 Inclusive Education in ECE

In line with the philosophy of inclusive education, Early Childhood Education caters for the diversity of learners and makes provision for developmentally appropriate activities and services. The NCF-PP aligns itself with the Conventions on the Rights of the Child (CRC) and upholds the notion that children are entitled to an appropriate educational programme designed to meet their unique needs such that they acquire requisite knowledge and skills, improve social relationships and become autonomous.

PART 2

2.0 Vision of the National Curriculum Framework Pre-Primary

Access to quality pre-primary education is an essential pre-requisite for lifelong learning. The informal learning experiences of children are enhanced by developmentally appropriate curricula, educational resources, trained teachers, and a stimulating environment, which are all hallmarks of quality. Sound Early Childhood Education helps reduce inequalities and paves the way towards prosperous societies. Since pre-primary education provides the basis for primary, secondary and tertiary education, it is a priority area for investment.

The vision of the National Curriculum Framework Pre-Primary (2023) is as follows:

An education that caters for the holistic development of young learners such that they grow into healthy, confident, creative, and happy individuals who are ready for primary schooling.

2.1 Guiding principles of the National Curriculum Framework Pre-Primary

The guiding principles of the National Curriculum Framework Pre-Primary are:

1. Adopting a holistic approach that takes into consideration all aspects of child development
2. Providing an education that prepares children for a global world and initiating the process of developing 21st Century skills
3. Offering educational experiences that are responsive to the mental health and well-being of children
4. Establishing effective parent-school partnership for a smooth interface between formal and informal experiences
5. Implementing technology-enhanced teaching and learning processes
6. Adopting a child-centered approach with the child at the center of all decisions
7. Ensuring inclusive and equitable quality education

2.2 Overarching Goals of the National Curriculum Framework Pre-Primary

The National Curriculum Framework Pre-Primary is grounded in a holistic philosophy that highlights equal learning opportunities for all children to unlock their potential and flourish, regardless of their demographic or socio-economic background. The overarching goals of the NCF-PP (2023) are to:

- Create versatile learning environments to facilitate the development of appropriate knowledge, skills, and competencies for children with diverse learning needs
- Provide opportunities for holistic growth and development with flexibility for contextualisation
- Inculcate values for peaceful living and sustainable citizenship
- Set children on a path of lifelong learning and nurture competencies that will allow them to thrive in the present and future world
- Ensure school readiness for a smooth transition from home to pre- primary school and from pre-primary school to primary through a focus on emergent literacy, numeracy and socio-emotional literacy

2.3 Aims of the National Curriculum Framework Pre-Primary

The aims of the NCF-PP (2023) cut across the six areas of learning allowing for consistency and coherence in the teaching and educational endeavours at this level. They are to:

1. Enable children to adapt to new environments, develop a positive relationship with people, and to recognise and respect diversity
2. Promote physical, social and emotional well-being through healthy life-style habits
3. Enable children to express their ideas, feelings and experiences in creative ways
4. Enable children to use language creatively and constructively for effective communication
5. Foster an appreciation of and respect for the natural environment
6. Enable children to explore the world using their body and senses
7. Ensure the development of emergent literacy, numeracy, technological and scientific skills
8. Assist children in the development of basic skills for primary school readiness

2.4 Key Drivers of the National Curriculum Framework Pre-Primary

The NCF-PP (2023) has been developed bearing in mind the basic principles of how children learn and the optimum conditions for effective learning. It is driven by the Bio-Ecological model of Urie Bronfenbrenner (2006) and the Schematic Learning and Teaching Model (2016).

2.4.1 Bronfenbrenner’s Bioecological model

Bronfenbrenner’s (2006) Bioecological model is widely used in Early Childhood Education as a framework which places the child at the centre of all learning and development. Development is the result of the interaction between the individual and his/her context and the model foregrounds how changes that take place in the lives of individuals are due to events or experiences.

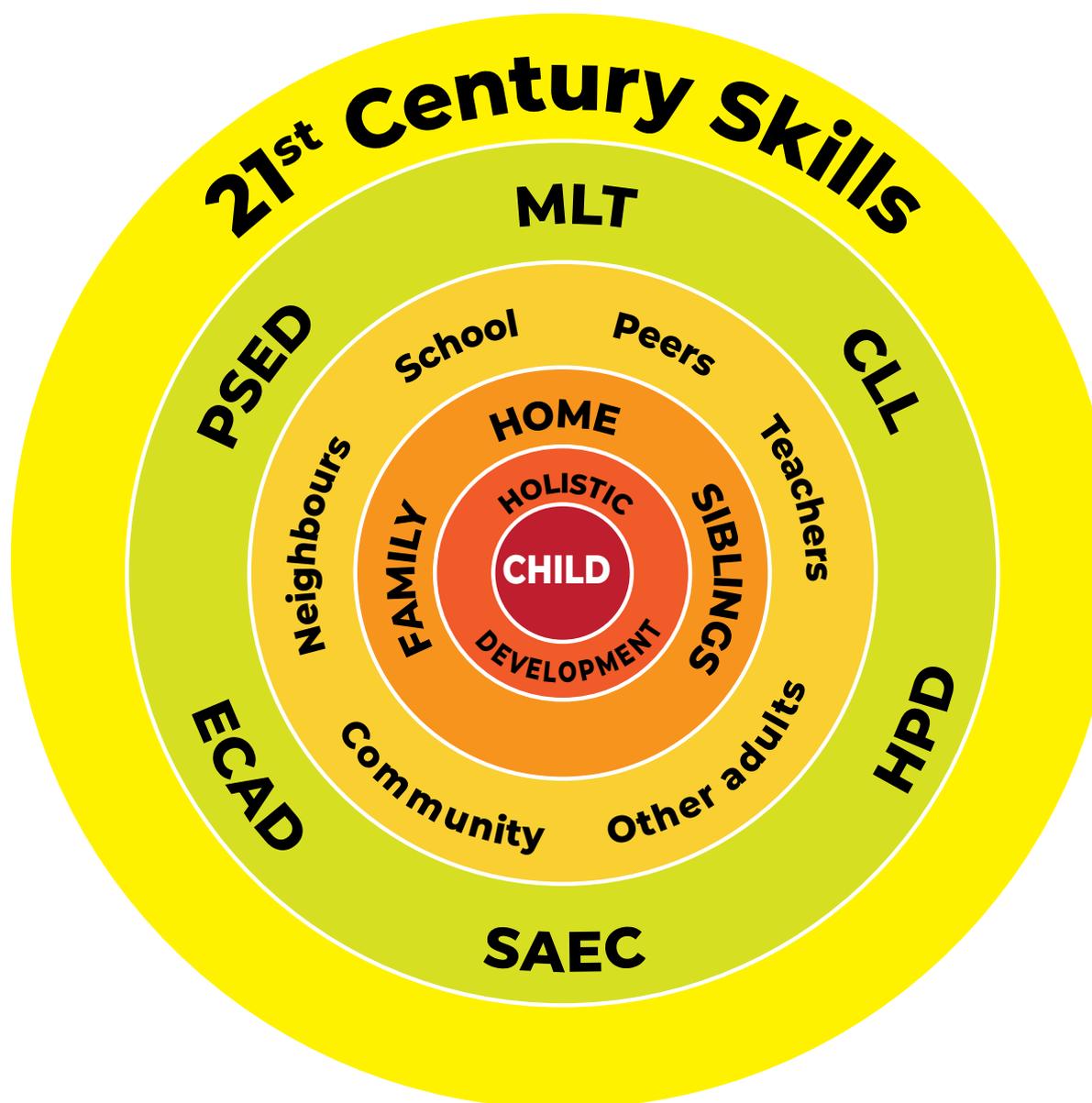


Figure 1. National Curriculum Framework Pre-Primary

Figure 1 shows the adaptation of Bronfenbrenner's model in the conceptualisation of the NCF-PP, with the child at the centre. The framework recognises the family as the first teacher of the child. It underscores the centrality of parental collaboration through a close connection between home and school for effective learning. The holistic development of the child results from the inter-connectedness between the aspects of development and the six areas of learning. The framework thus shows that opportunities must be provided for children to develop key knowledge, skills and dispositions across the six areas of learning. An indication of how the 21st century skills are integrated in the framework and developed in the six areas of learning follows.

- i. **Communication** – It consists of verbal and non-verbal communication while interacting with peers and adults. Teachers foster communication skills by giving opportunities to children to express their ideas and feelings, ask questions and voice out their opinions freely.
- ii. **Collaboration** – It refers to the ability of children to work together with others to complete tasks. Children listen and voice out ideas and opinions. They are taught to respect the views and ideas of others. Teachers promote collaboration through group activities and give children the opportunity to share their work with peers.
- iii. **Creativity** – It refers to the ability to use the imagination, think outside the box, and come up with new and exciting ideas. Teachers foster creativity by conducting activities that allow children to inquire, reflect and wonder. They also arouse the children's curiosity in different areas through storytelling, roleplay, and artistic activities.
- iv. **Critical thinking** – It requires children to inquire and challenge ideas and form their own opinion. Teachers foster critical thinking by providing children with opportunities to solve problems, compare and contrast, and explain why things happen based on prior knowledge and experience.

2.4.2 The Schematic Learning and Teaching Model

The implementation of the NCF-PP (2023) is guided by the Schematic Learning and Teaching Model developed by Siraj-Blatchford (2016). This model extends the practice of emergent literacy, numeracy and socio-emotional literacy to all other areas of learning to ensure school readiness across the curriculum.

New evidence is now providing an even stronger understanding of the theory and practice of schematic play. This emanates from three separate disciplines and areas of enquiry, namely neo-Vygotskian Cultural and Historical Activity Theory (CHAT), neuroscience and cognitive linguistics (Siraj-Blatchford and Brock, 2016, Siraj-Blatchford, 2003).

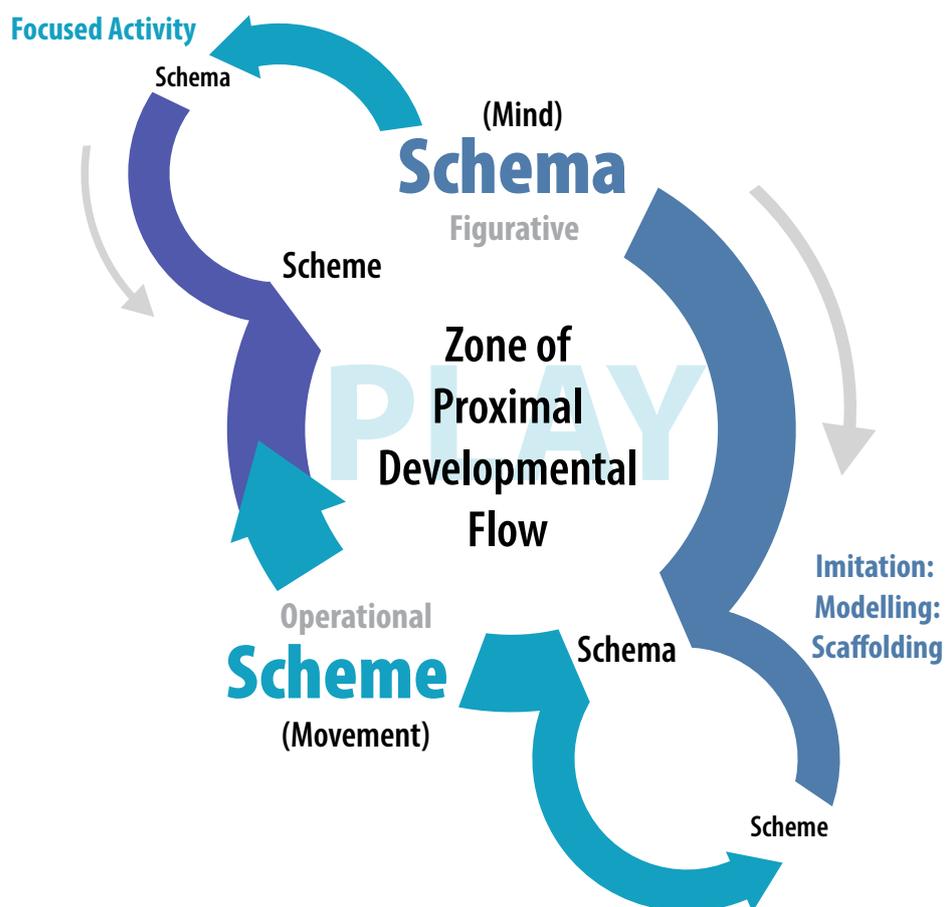


Figure 2: Schematic Learning and Teaching Model

Source: *Schema Play* (Siraj-Blatchford, 2016)

Figure 2 represents the Schema Play model. It indicates that play is central to the learning process, but that other learning systems – those of the teachers and informal influences of peers, carers, and the wider social environment – are also influential. Children should be spending most of their time in uninterrupted free-flow play. Play is an arena for children’s development and learning. Child-initiated and teacher supported free-play promote social and linguistic development, confidence and independence, and creativity and imagination, among others. In free-play, children take initiatives and self-scaffold by drawing upon what they can do, and what they know or recognise. The central role of the pre-primary teacher is to provide appropriate guidance and resources that the child needs in order to play within their Zone of Proximal Development (ZPD).

3.1 Role of the Pre-Primary Teacher

Teachers hold a central position as facilitators of learning in the pre-primary setting. They cater for the all-round development of the children and foster their thinking skills. Teachers create a conducive environment through the careful selection of strategies and tools for teaching and assessment. They ensure that children are provided with optimal learning experiences through activities that sustain their interest. Teachers also scaffold learning and cater for the diversity of needs in their classroom. For effective teaching, they deploy their knowledge of how young learners learn. Additionally, they keep abreast with new trends in ECE and are reflective practitioners.



Figure 3: Features of Effective Teaching at Pre-Primary Level

3.2 Learning Theories

Children in pre-primary school experience the world and build knowledge in an integrated manner during simple moments of play and interaction with objects and other people. They constantly gather information and strive to make sense of it. The NCF-PP (2023) encourages teachers to use a variety of strategies related to the theories of learning mentioned in Figure 4 below.



Figure 4: Learning Theories for Pre-Primary Education

The above-mentioned theories are significant in ECE and guide teaching and learning at this level.

Constructivism

Constructivism posits that learners actively construct their knowledge during interaction with the environment and through the re-organization of their mental structures. Learners are therefore viewed as sense-makers, not simply recording given information but also interpreting it.

Socio-constructivism

Social constructivism emphasises learning as a collaborative enterprise. Learning results from interactions between the individual and situations. Communication and social skills are salient features of this learning theory.

Social Learning Theory

Social learning theory suggests that people learn within a social context, and that learning is facilitated through concepts such as modeling, observation and imitation. The fact that children learn from observing others highlights the importance of positive role modeling.

Behaviourism – Operant Conditioning

Operant Conditioning makes a close connection between learning and positive (rewards) or negative (punishments) reinforcers. It indicates that positive reinforcement is more likely to promote desirable behaviours. This has clear implications for the way adults respond to young learners.

Psychosocial Development

Development occurs throughout the life span and comprises various stages. At each stage, a social conflict or crisis occurs, and this must be resolved before children can move to the next stage. Maturity and social forces help in the resolution of the crisis or conflict. By providing social opportunity and support, teachers and parents can help children overcome each crisis.

Multiple Intelligence

The Multiple Intelligences theory broadens the notion of intelligence, indicating the different ways learners learn and acquire information. It lays the way for a differentiated approach to teaching by tapping into the potential of each child.

Brain-Based Learning

This learning theory is based on the structure and function of the brain. As long as the brain is not prohibited from fulfilling its normal processes, learning will occur. Brain-Based Learning brings out the centrality of learners' interest, contextualization, problem solving and learning styles, among others.

Bioecological Model

Learning results from the interactions between people and the influences from wider systems. The teaching strategy that stems out from this model is the incorporation of interpersonal relationships, that is, teacher-child and child-child, within the pre-primary school setting to create rich learning opportunities.

3.3 Pedagogical Approaches

The pedagogical approaches proposed in the NCF- PP (2023) are child-centred, integrated, multicultural, project and play-based. In addition to sound planning and implementation, the success of these approaches requires a strong school-family and school-community partnership.

3.3.1 Child-centered Approach

The child-centered approach is based on the in-depth understanding of child development and learning which is referred to as Developmentally Appropriate Practice (DAP). Three dimensions of DAP are age appropriateness, individual appropriateness and cultural appropriateness.

3.3.2 Integrated Approach

The integrated approach is related to educationally lived experiences and is in line with what happens outside the classroom. This teaching approach takes into consideration the holistic development of children and is based on the different aspects of development through the six areas of learning.

3.3.3 Multicultural Approach

The multicultural approach is of utmost importance in a multicultural society as it promotes unity through an appreciation of and respect for other cultures. This attitude is fostered through an understanding of the different faiths, traditions, and festivals.

3.3.4 Project Approach

The project approach involves an in-depth investigation of a topic selected by the children or the teacher. It takes place either individually or collaboratively. This approach fosters decision-making skills in the children.

3.3.5 Play-based Approach

The play-based approach stresses the importance of play for the healthy and overall development of children. Through play, children use their imagination and become more creative. They also gain confidence when allowed to play freely and thereby develop a positive attitude towards learning.

3.3.6 Partnership with Parents and the Community

Affective support is crucial for the proper development of children and parents, as the first teachers, play an important role in the lives of children. Parents need to continuously support and encourage their children so that they grow into healthy, happy and confident individuals. The teacher-parent link promotes the well-being of the children through information exchange that allows each to cater to the needs of the children.

Likewise, to respond to the exigencies of a fast-changing society, the pre-primary school-community partnership supports the school's endeavour to equip children with desirable qualities that make them functional in society.

3.4 The Learning Environment

The learning environment of pre-primary schools encompasses the indoor and outdoor settings. A quality environment for young children requires careful planning and special equipment. Well ventilated classrooms with specific learning centres and appropriate resources are main features of the indoor learning environment. The outdoor space, which is more likely an extension of the classroom, calls for attention to such factors as a balance of sunny and shady areas with fixed and movable equipment for the children. In both indoor and outdoor areas, health and safety matters are primordial.

School readiness is enabled by a learning environment that is properly planned and managed. A conducive learning environment therefore:

- gives children opportunities to engage in purposeful play, explore, and use their imagination to develop their creative skills;
- provides opportunities for children to interact with objects, peers and adults through conversations.
- develops the children's self-confidence and social skills through planned schedules of activities, and transitions between activities and routines.

3.5 Teaching Strategies

Popular and effective teaching strategies in ECE contexts include dramatisation and role play, story time, rhyming, singing, and puppetry. Positive modelling is also a vital aspect of teaching. The following should be encouraged across all learning areas:

- Active participation - The teacher arranges materials in different areas of the classroom and allows freedom for varied interactions. This enables the child to feel free to move around and initiate activities, such as free expression through visual arts, spontaneous imitation, and role-playing.
- Exploration and discovery - Through the 'Learning by doing' learning strategy, children explore materials, techniques, and processes on their own and at their own pace. They discover and appreciate their talents. This promotes self-discovery and self-confidence.
- Cooperative learning - Cooperative learning promotes engagement in classrooms as children are encouraged to interact with each other during activities. Children are allowed to discuss the materials and processes within a group, thus maximising sharing and participation.
- Integration of technology - Today's children are technology-savvy and connecting with them requires speaking their language and becoming conversant with technology. Further, technological advancement now allows for the use of innovative tools to enhance teaching and learning. All aspects of child development – cognitive, physical, social and emotional – can be catered for through engagement in technology-enabled learning.

3.6 Assessment

Assessment is an integral part of the teaching and learning process in the early years. The use of a variety of tools helps to assess and monitor the progress of children. This gives way to planning appropriate follow-up learning experiences for the children. The following assessment strategies and tools are appropriate for the pre-primary setting:

Observation

Observation is important in early years education as it simultaneously provides an insight into the children's performance and development. Observing what children know and can do allows teachers to identify specific needs and thereby extend learning. Observation should thus be clear, precise and meaningful.

Learning Journeys

'Learning Journeys' or 'Learning Stories' are created from observational evidence that builds up a visual, annotated picture of the child's development over time. These can be used to report on observations associated with a focus activity taking place on one or over several days or can be created to follow the child over several weeks or months. The teacher's responses to these observations are included in each of these learning journeys.

Checklists

Checklists are a record of different aspects of the children's development and learning arranged in a sequence and in categories, according to the different areas of learning. Checklists help teachers record achievement based on learning outcomes.

Additional Assessment and Recording Techniques

A plethora of assessments and recording techniques may be employed and have been found to be valuable when needs are identified. The main ones are:

The Developmental Learner Profile

The Developmental Learner Profile (DLP) is a useful tool to record observations and monitor the progress of children. It enables teachers to assess and plan for children's learning as it provides examples of what to observe and how to make effective use of the observations to meet the needs of individual learners. Teachers write narratives or brief descriptions of a child's actions or reactions based on their observations for relevant areas of learning. The assessment constitutes reflections and comments on what the child is able to do well or has difficulty doing.

This DLP has been designed to provide a summary of the children's progress and development across Pre-Primary Year 1 and 2. It offers a general and holistic overview based initially on systematic theme-based assessment followed by a review across all areas of learning. Observational notes help teachers complete the document during the term before the child joins primary school.

Daily Journal

A daily journal is a record of the progress of children as well as the classroom practices of the teacher. It allows the teacher to record important events and activities which can later be analysed and reflected on. Daily journals not only help teachers learn more about the children and detect their needs, but also allow teachers to reflect on their own practice and find ways of improving and becoming more effective.

Portfolio

The portfolio is a collection of observations and children's work throughout the year. It contributes to information gathering on the children's progress in specific aspects of learning. It can be used by the children to reflect on what they have achieved leading to a boost in their confidence. The portfolio is also an asset for transition from pre-primary school to Grade 1.

Running Records

Running records are objective and detailed notes that teachers compile on a regular or daily basis that records children's behavior, performance, thinking processes and developmental level during a specific activity or task. It not only serves as a record of information for the assessment but is also a means to provide feedback to parents. The patterns observed during running records are ways for teachers to also reflect on strategies being used in the class.

Anecdotal Records

A direct observation of the children's behavior is briefly described in writing. Anecdotal records are based on facts and retelling of an event or situation and the context in which it occurred. Direct quotes or behaviors and facial expressions may be included in the anecdotal record. However, no analysis of the behavior or activity is included. These are written separately.

Time Sampling

Time samplings are a record of information about children over an interval of time to assess whether there has been any progress. The interval can be chosen randomly or systematically. Time sampling can be used to record the frequency of rapidly occurring behavioural tics, such as jerks, or stereotypical behaviour, such as hand flapping.

PART 4 THE SIX AREAS OF LEARNING

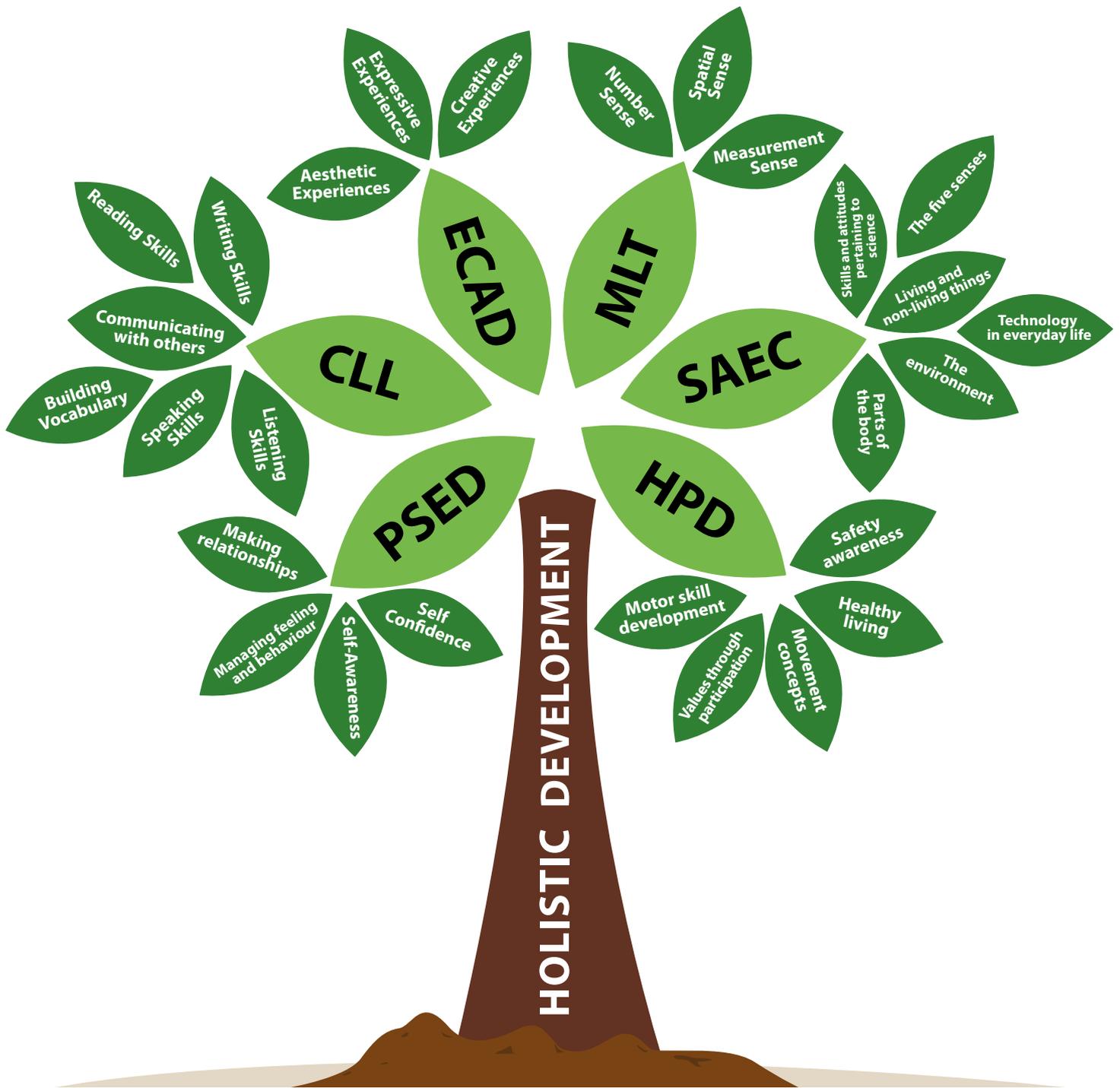
The NCF-PP (2023) proposes six Areas of Learning (AOL) as follows:

1. Personal, Social and Emotional Development
2. Communication, Language and Literacy
3. Expressive, Creative and Aesthetic Development
4. Mathematical and Logical Thinking
5. Scientific Awareness for Early Childhood
6. Health and Physical Development

Organisation of each area of learning

Each AOL is dealt with in a separate section to facilitate the planning of activities. An introduction to the learning area is given with a description of its components. The descriptors and learning outcomes show what the children need to achieve in relation to their developmental stage.

It is highly recommended that an integrated approach to planning and implementation be adopted as the six areas are interrelated. Carefully planned learning experiences allow links to be established between learning outcomes to be achieved in one area of learning to learning outcomes in other areas of learning.



4.1 PERSONAL, SOCIAL AND EMOTIONAL DEVELOPMENT

4.1.1 Introduction

Personal, Social and Emotional Development (PSED) is recognised as one of the building blocks of success in life. To be prepared for school, children must develop excitement and curiosity about learning and the confidence that they can succeed. They must understand the feelings of others, control their own emotions and behaviours, and get along with their peers and teachers. It is important that teachers provide a supportive environment in which children feel secure about discovering who they are and expressing their emotions. PSED supports children's development by helping them to interact effectively and develop positive attitudes towards themselves and others.

Personal development is related to how children come to understand who they are and what they can do.

Social development refers to how children come to understand themselves in relation to others; how they make friends, understand the rules of society and behave towards others.

Emotional development concerns how children understand their own and others' feelings and develop their ability to be empathetic, that is to see things from another person's point of view.

This AOL is based on the Social Emotional Learning (SEL) Framework which provides the highest standards of quality and contributes substantially to the holistic development of children. It constitutes the following three core components:

- (1) Self-confidence and self-awareness
- (2) Managing feelings and behaviour
- (3) Building relationships

The Collaborative for Academic, Social and Emotional learning (CASEL) SEL framework (CASEL, 2020) underpins the PSED area of learning. SEL can help all young people and adults thrive personally and academically, develop, and maintain positive relationships, become lifelong learners, and contribute to a more caring and fairer world. SEL is viewed as an integral part of education and human development. It denotes the process through which all young people and adults acquire and apply the knowledge, skills, and attitudes to develop healthy identities, manage emotions and achieve personal and collective goals, feel, and show empathy for others, establish and maintain supportive relationships, and make responsible and caring decisions. SEL advances educational equity and excellence through authentic school-family-community partnerships to establish learning environments and experiences that feature trusting and collaborative relationships, rigorous and meaningful curriculum and instruction, and ongoing evaluation. SEL helps address various forms of inequity and empowers young people and adults to co-create thriving schools and contribute to safe, healthy, and just communities.

Research reveals that SEL:

- leads to improved academic outcomes and behaviours
- has long-term and global benefits
- is a wise financial investment
- improves lifetime outcomes

CASEL 5 addresses five broad and interrelated areas of competence and highlights examples for each: self-awareness, self-management, social awareness, relationship skills, and responsible decision-making. It can be taught and applied at various developmental stages from childhood to adulthood and across diverse cultural contexts. CASEL 5 is used to establish preschool to high school learning standards and competencies that articulate what students should know and be able to do for academic success, school and civic engagement, health, and wellness, and fulfilling careers.

A developmental perspective to SEL considers how the social and emotional competencies can be expressed and enhanced at different ages, from preschool to adulthood. Children's social, emotional, and cognitive developmental levels and age-appropriate tasks and challenges inform the design of SEL standards, instruction, and assessment. Teachers therefore decide how best to prioritise, teach, and assess the growth and development of CASEL 5 in their classrooms.

Evidence from research shows that socio-emotional competence can be fostered through the following approaches in the classrooms:

- explicit instruction through which social and emotional skills and attitudes are taught and practised in developmentally, contextually, and culturally responsive ways; and
- teaching practices, such as cooperative learning and project-based learning.

SEL instruction takes place most effectively in nurturing, safe environments characterised by positive, caring relationships among children and teachers. To ease age-appropriate and culturally responsive instruction, teachers must understand and appreciate the unique strengths and needs of each child and support their identities. When the personal experiences of children are incorporated in the classroom, teachers create an inclusive classroom environment, making the children partners in the educational process. Thus, the strong relationship between the teachers and children facilitates co-learning, fosters growth and generates collaborative solutions to shared concerns.

4.1.2 PSED and AIMS of the NCF-PP

Table 2: Aims of the NCF-PP and PSED Area of learning

Aims of NCF PP	PSED-Area of Learning
Enable children to adapt to new environments, develop a positive relationship with people, and to recognise and respect diversity.	Children develop social skills to adapt to new and diverse environments.
Promote physical, social and emotional well-being through healthy lifestyle habits.	Children develop appropriate attitudes towards the self and the community.
Enable children to express ideas, feelings and experiences in creative ways.	Children show appreciation of diverse cultures and traditions of the Mauritian society through creative and artistic expressions.
Enable children to use language creatively and constructively for effective communication.	Children interact with peers and adults and show consideration for others.
Foster an appreciation of and respect for the natural environment.	Children show care for the natural environment.
Enable the children to explore the world using their body and senses.	Children develop confidence by engaging in new ventures.
Ensure the development of emergent literacy, numeracy, technological and scientific skills.	Children develop a positive attitude towards learning.
Assist children in the development of basic skills for primary school readiness.	Children develop autonomy, independence, self-regulation and follow rules and instructions.

4.1.3 Components of PSED



Figure 5: Components of PSED

4.1.4 Description of PSED Components



Figure 6: Description of PSED components

4.1.5 Learning Outcomes of PSED

Table 3: Learning Outcomes for PSED Area of Learning

Components	Descriptors	Learning Outcomes
Self-confidence	Demonstrate self-confidence through care and respect	<ul style="list-style-type: none"> • Dress and undress independently • Manage own personal hygiene • Eat independently • Use the toilet with adult help and independently • State ways in which children are similar/different • Interact with peers without discrimination
Self-awareness	Demonstrate self-awareness	<ul style="list-style-type: none"> • Refer to own self by first and last name • Respond when called by name • Identify own self by family, gender and age • Recognise the social self (friends, classmates, family members) • Recognise the emotional self • Describe/name own feelings • Recognise the moral self • Show awareness of own beliefs, culture and traditions and that of others • Show sense of belonging to the nation
Managing feelings and behaviour	Demonstrate self-control and independence	<ul style="list-style-type: none"> • Use words to express needs/feelings/emotions • Participate in the making, following, and reworking of classroom rules • Select and use activities and resources independently • Show sustained interest/attention/concentration, self-motivation and excitement to learn • Try new activities, initiate ideas and speak in a familiar group with confidence • Show delight or satisfaction when completing a task or solving a problem

Components	Descriptors	Learning Outcomes
Building relationships	Share and relate with others	<ul style="list-style-type: none"> • Interact with one or more children and adults • Play alongside others • Enter into or initiate a play situation • Build a relationship through gestures and talk • Take turns and share with adult support • Share toys, books and games • Form good relationships with adults and peers • Begin to play or work cooperatively • Seek help from peers and adults • Communicate freely about home and community and experiences • Use words to describe relationships and feelings • Participate in small-group and large-group activities • Recognise and respond to the feelings of others • Use words to identify a conflict • Engage in developing solutions and work to resolve conflict. • Seek the help of adults when involved in a conflict • Refrain from relating to strangers

4.2 COMMUNICATION LANGUAGE AND LITERACY

4.2.1 Introduction

Language and early literacy skills are crucial for the development of young children. Language is essential for learning, communicating, building relationships with others, and enabling them to make sense of the world. In Mauritius, children learn many languages through which they can communicate their thoughts, ideas, feelings, emotions, and provide information. It is, therefore, essential to provide meaningful and interactive language learning experiences for children to communicate and build relationships with teachers, peers, parents, and families.

The Communication, Language and Literacy (CLL) area of learning promotes children's readiness for and the progressive development of early language and literacy acquisition. The CLL programme aims to develop the emergent skills in communicating, listening, speaking, reading, and writing in English and French (target languages), scaffolded on their first language (L1). Discovering and exploring sounds, letters, words, conversations, and exposure to print also enable children to acquire early literacy skills. Teachers should, therefore, ensure that their practices are designed with the learners in mind for all children to benefit from the learning experiences they engage in. It is also essential for teachers to assess the communication, language, and literacy development of young children. Observation and documentation will enable teachers to monitor the progress of children and take the necessary pedagogical decisions to cater to their learning needs.

4.2.2 CLL and Aims of the NCF-PP

Table 4: Aims of the NCF-PP and CLL Area of learning

Aims of NCF PP	CLL-Area of Learning
Enable children to adapt to new environments, develop positive relationships with people, and to recognise and respect diversity.	Children communicate confidently with people in new contexts and situations and share personal experiences. They develop a bond with their peers and teachers through language games, and socialise through language activities.
Promote physical, social and emotional well-being through healthy lifestyle habits.	Children talk about aspects of a healthy lifestyle.

Enable children to express ideas, feelings and experiences in creative ways.	Children share ideas, feelings and experiences creatively and imaginatively through language.
Enable children to use language creatively and constructively for effective communication.	Children interact meaningfully and constructively using language creatively.
Foster an appreciation of and respect for the natural environment.	Children express their respect for and appreciation of the environment.
Enable children to explore the world using their body and senses.	Children explore their environment and describe what they see, smell, hear, feel and taste.
Ensure the development of emergent literacy, numeracy, technological and scientific skills.	Children develop phonological awareness, letter knowledge, and use language skills to communicate.
Assist children in the development of basic skills for primary school readiness.	Children develop emergent language skills.

4.2.3 Components of CLL



Figure 7: Components of CLL

4.2.4 Description of CLL Components

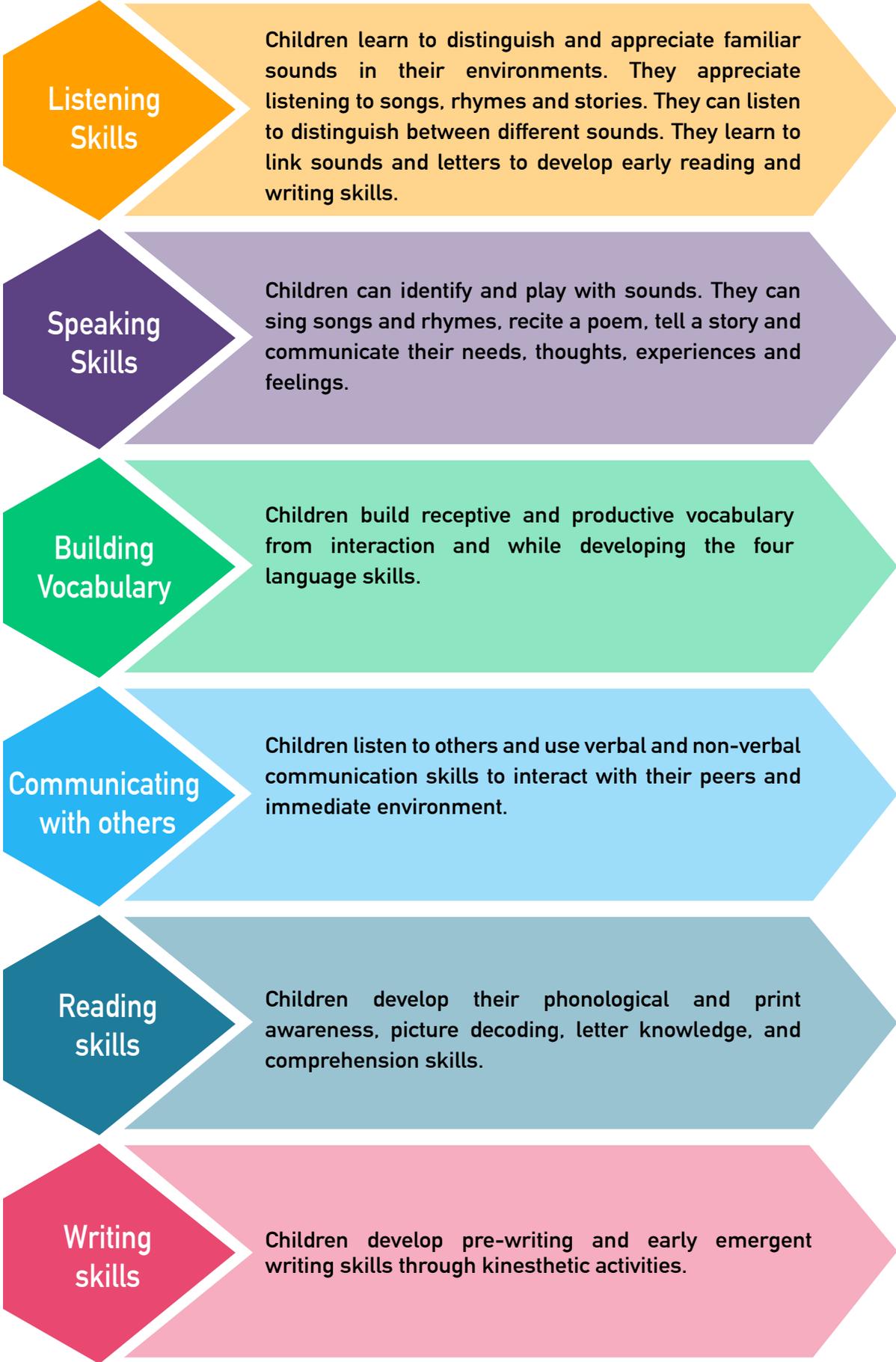


Figure 8: Description of CLL components

4.2.5 Learning Outcomes of CLL

Table 5: Learning Outcomes for CLL Area of Learning

Components	Descriptors	Learning Outcomes
Listening Skills	Use appropriate listening skills	<ul style="list-style-type: none"> Perceive, identify, and discern different sounds and voice sources Follow verbal instructions correctly Sustain listening attention to speech, songs, and audiomaterials Respond to what has been heard through questioning, by commenting, asking for clarification or by expressing own thoughts, ideas, and feelings Imitate, and rehearse what has been heard Show interest in, enjoy listening to and participate/join in conversations/songs/nursery rhymes and stories Identify words with the same beginning sound and words with the same ending sound Create word families by rhyming sounds
Speaking Skills	Engage in speech audibly, with clarity and confidence	<ul style="list-style-type: none"> Articulate clearly and pronounce intelligently Use tone, pitch, volume, rhythm/pace, pauses and voice modulation with effect Express needs, thoughts, experiences, and feelings using target language progressively and with increasing confidence Describe a situation/an event Narrate a simple story, recite a poem/nursery rhyme, and sing a song Talk about personal experiences with peers and adults Respond appropriately when asked questions Talk about favourite characters in a story, song, or film Describe pictures/illustrations in books Retell a story in own words Add a part to a song Engage dramatic oral productions Enact a story/an event

Building Vocabulary	Use new words and extend vocabulary	<ul style="list-style-type: none"> • Name and describe objects and concepts • Express feelings, thoughts and needs in the target language • Express and exchange ideas and opinions • Describe space (on, under...) and direction (left, right, back, in front of) • Describe time (past, present, and future) and chronology (before, after...)
Communicating with others	Use verbal and non-verbal communication skills	<ul style="list-style-type: none"> • Respond appropriately to 'who', 'what' and 'where' questions • Express thoughts and feelings and respond through gestures, facial expressions, and body language (eye contact) • Express personal needs and ideas • Express experiences and feelings in the target language • Scribble and draw to convey messages/meanings • Communicate orally for a range of purposes in • Communicate more precisely and extensively with new words learned
Reading skills	Use emergent reading skills	<ul style="list-style-type: none"> • Show curiosity and interest while interacting with printed materials – ask questions, identify familiar letters and words, enquire about new words • Handle books in the correct way – hold the book upright and turn pages from right to left • Read and interpret pictures/drawings/digital materials • Make out and follow story line expressed through pictures • Identify and read letters of the alphabets • Recognise a range of familiar sight/high frequency words – own name, days of the week, name of fruits... • Read syllables, words and simple sentences in the target language by decoding and with guidance • Show awareness that print carries meaning and information • Recognise conventional graphic displays • Elongate beginning or ending sounds • Respond to questions related to stories, rhymes, poems, characters and events

Writing Skills	Use early writing skills	<ul style="list-style-type: none">• Develop pre-writing skills (finger painting)• Show beginning control and manipulation when holding pencil/crayon/scissors• Adopt correct writing posture• Scribble and form letters with pencils/crayons to develop laterality• Hold pencil properly• Give meaning to graphical symbols• Engage in writing activities during play (create a greeting card)• Form letters of the alphabet with increasing precision and using directionality• Draw and colour with interest• Copy own name and familiar sight words• Write letters of the alphabet in upper- and lower-case
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4.3 EXPRESSIVE, CREATIVE AND AESTHETIC DEVELOPMENT

4.3.1 Introduction

The development of expressive, creative, and aesthetic senses is among the core competencies to be developed at an early age. In the early stages of their development, children explore objects and their surroundings with curiosity. As they explore the world around them, children better learn about themselves and their surroundings. They also respond to their environment with a sense of wonder. Visual and Performing Arts activities enable young learners to explore and express their ideas, feelings, emotions, and experiences. Children naturally engage in artistic activities with much enjoyment and pleasure, and they display wonderful imagination when provided with the opportunities to express their creative abilities and sensitivities. As they engage in various artistic activities in Visual and Performing Arts, children develop their social, emotional, intellectual, physical and communication skills.

The Arts, in all its forms, such as drawing, painting, printing, assembling, collage, craft, singing, dancing, miming, and role-playing, offer opportunities for children to observe, appreciate, create, and respond to natural and man-made objects in their immediate environment. Expressive Creative and Aesthetic Development (ECAD) englobes various art forms and artistic expressions for the children's overall development. It facilitates creative expression and imaginative skills, and enhances children's aesthetic sensibilities, building their values through visual art activities, drama, music, rhythm, and movement. The exploration of lines, shapes, forms, colours, textures, the manipulation of media and materials, as well as music, dance and performance enhance cognitive, affective, and psychomotor skills, fine and gross motor skills. Teachers play a fundamental role in supporting young learners towards the achievement of these competencies.

Expressing ideas and feelings by using one's imagination and creativity, and being exposed to a variety of sounds, images, shapes, and textures are vital parts of young children's development. Children at this stage should be given adequate opportunities to express themselves through lines, shapes, forms, colours, texture to develop their manipulative skills; and to engage in performance to effectively express their feelings and emotions. At this stage, children also gain practice in fine motor coordination, which is an essential skill that allows them to shape the materials into specific forms. Proper guidance and support help develop children's expressive, creative, and aesthetic qualities, and hence the development of all the necessary skills that will prepare them for the next stages of personal development.

4.3.2 ECAD and Aims of the NCF-PP

Table 6: Aims of the NCF-PP and ECAD Area of Learning

Aims of NCF PP	ECAD-Area of Learning
Enable children to adapt to new environments, develop a positive relationship with people and to recognise and respect diversity.	Explore self, others, and the environment in creative and artistic ways.
Promote physical, social, and emotional well-being through healthy lifestyle habits.	Explore relevant themes in creative activities to foster holistic development and well-being.
Enable children to express ideas, feelings, and experiences in creative ways.	Use imagination and creativity freely to express ideas, feelings, and experiences.
Enable children to use language creatively and constructively for effective communication.	Use creative and performing arts to develop confidence in self-expression and communication.
Foster an appreciation of and respect for the natural environment.	Explore the natural environment through activities in visual and performing arts.
Enable children to explore the world using their body and senses.	Interact with the environment through senses and body movement.
Ensure the development of emergent literacy, numeracy, technological and scientific skills.	Use technology and other resources in creative activities to enhance literacy, numeracy and scientific skills in innovative and fun ways.
Assist children in the development of basic skills for primary school readiness.	Develop life skills through art activities for a smooth transition to primary schools.

4.3.3 Components of ECAD

The different components of ECAD are interrelated and interconnected. Such 'connections' enable the artistic development of the child as he/she engages in creative and artistic activities.

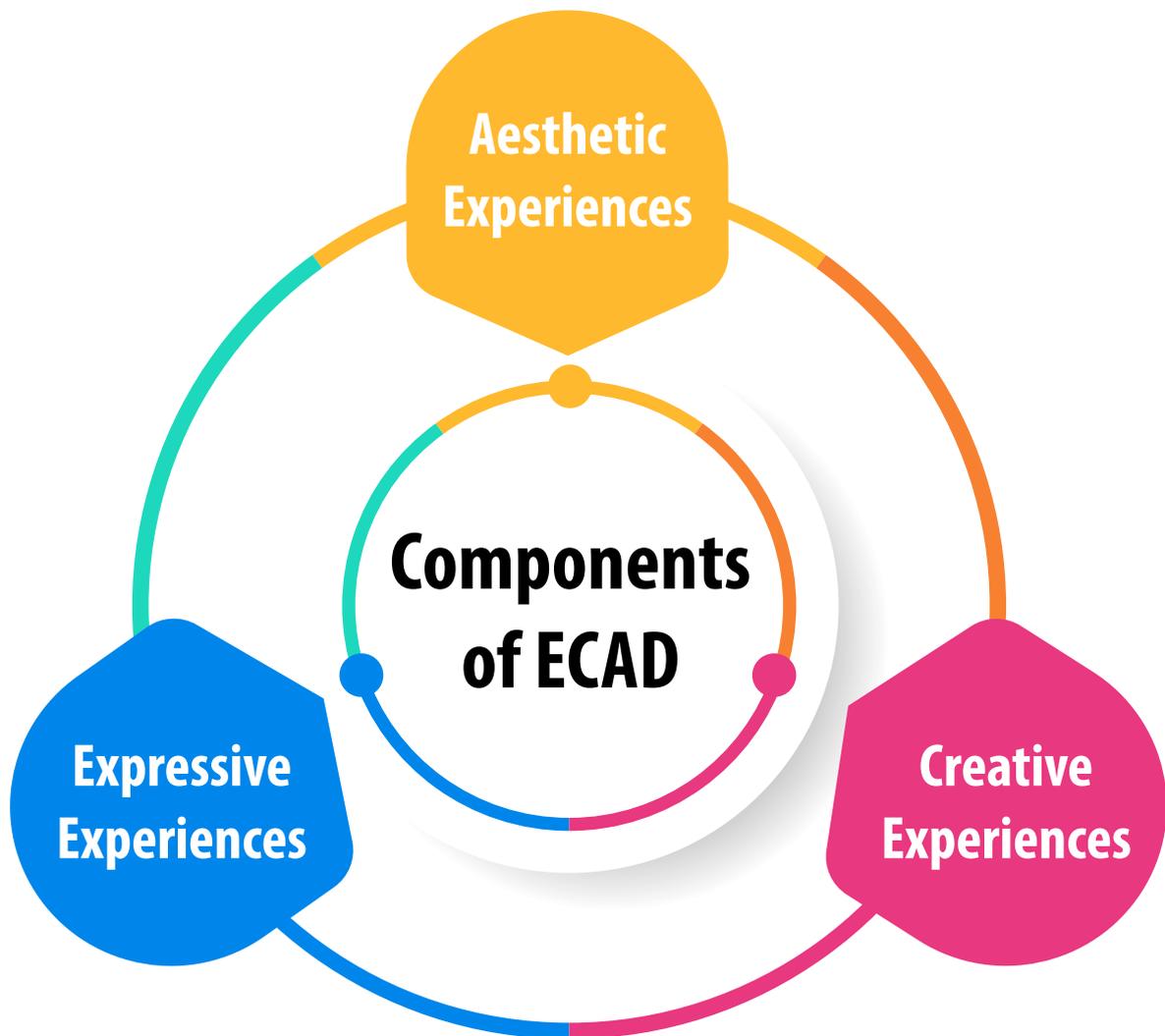


Figure 9: Components of ECAD

4.3.4 Description of ECAD Components

Aesthetic Experiences

Aesthetics is a discipline concerned with the perception, appreciation, and production of art. Creative activities enable the children to explore, appreciate and respond to a range of artworks. As the children are engaged with aesthetic experiences such as observing and talking about their works, work of peers and that of artists, they learn to identify and appreciate the qualities of these works. While they engage in stimulating art activities, they develop appreciation of their surroundings and aesthetic awareness. During art activities, educators encourage the development of their imagination, creativity, and originality to enrich their aesthetic experiences.

Expressive Experiences

Encouraging creative expression and expressive performance is important in childhood as children begin to explore their imagination. Children communicate and express their ideas, feelings, and experiences freely. Learning opportunities through a range of creative and expressive activities enable them to unleash their imagination. This contributes to their multi-dimensional artistic development, as it will tap into the cognitive, affective and psychomotor domains. Through creative activities, children explore their day-to-day interactions with life experiences and use them as an inspiration to express themselves with confidence and freedom. Teachers provide opportunities for children to feel secure and become confident in developing their preferred mode of expression.

Creative Experiences

Creative experiences enable children to think of and develop original ideas. They learn to put objects together in new ways, and make connections through play. This promotes creative development. It is fundamental that children have opportunities to develop their imagination through creative arts, story-telling, poetry and drama-based activities. The creative experiences acquired through play with different types of games, media, materials and processes, enable young children to explore a broad spectrum of abilities. Teachers create a safe environment where children learn to adapt to new situations and develop the necessary skills through Visual and Performing Arts.

Figure 10: Description of ECAD component

4.3.5 Learning Outcomes of ECAD

Table 7: Learning Outcomes for ECAD Area of Learning

Components	Descriptors	Learning Outcomes
Aesthetic experiences, Expressive experiences & Creative experiences	Engage in discovery and demonstrate appreciation	<ul style="list-style-type: none"> • Use different media, techniques, and processes in art making • Respond to a variety of stimuli • Carry out individual and group activities which foster discovery and appreciation of different forms of art • Appreciate own artwork and that of peers • Appreciate various forms of art through diverse creative activities • Develop aesthetic awareness
	Express ideas, feelings and emotions	<ul style="list-style-type: none"> • Use a variety of media, techniques, and processes to communicate ideas and opinions • Communicate feelings and emotions through visual and performing arts activities • Use own experiences to express thoughts and ideas confidently through individual or group works
	Exploration and imagination	<ul style="list-style-type: none"> • Express ideas freely through the Arts • Use their imagination and creativity to produce art works and engage in drama-based performance • Use their imagination to develop an understanding of self and others through the Arts • Work collaboratively with peers to explore ideas creatively and imaginatively

4.4 MATHEMATICAL AND LOGICAL THINKING

4.4.1 Introduction

Young children are engaged in mathematical experiences and see the world mathematically long before they start school. Children's informal mathematical thinking is evident when they are engaged in play, such as when they compare quantities, use shapes, share, and create patterns. The development of early mathematical skills is essential in contributing to later success in Mathematics and in education (Clements & Sarama, 2013). Logical thinking is an integral part of mathematical learning. It refers to the ability to draw conclusions and make decisions based on given information. Logical thinking is therefore key to the development of problem-solving skills.

Children, in their early years, are all capable of developing significant mathematical ideas that are relevant to their lives and form the foundation for their future learning. Thus, opportunities to explore objects and their environment need to be provided for young children to make use of their understanding of Mathematics, listen to and use mathematical language, engage in reasoning and problem solving and see connections within Mathematics and other learning areas. The development of mathematical thinking occurs throughout the day, through routines, during indoor and outdoor play, including during dramatic play and through guided activities. It is the role of the early childhood teachers to provide young children with quality experiences that will enable them to have deep and sustained interaction with mathematical ideas and developmentally- appropriate activities for children to develop the skills and attitudes, such as persistence and curiosity, essential for their future success.

The area of learning Mathematical and Logical Thinking (MLT) provides rich early experiences in Mathematics which are crucial for children to develop an interest, confidence, curiosity in learning Mathematics, and use it in their daily lives. The central focus of the framework for the area of learning MLT is *Exploration*, through play-based and hands-on activities. The MLT framework is premised on visualisation, patterning, communication, reasoning and problem-solving, as well as on connections with young learners' experiences and other areas of learning, all of which occur through exploration.

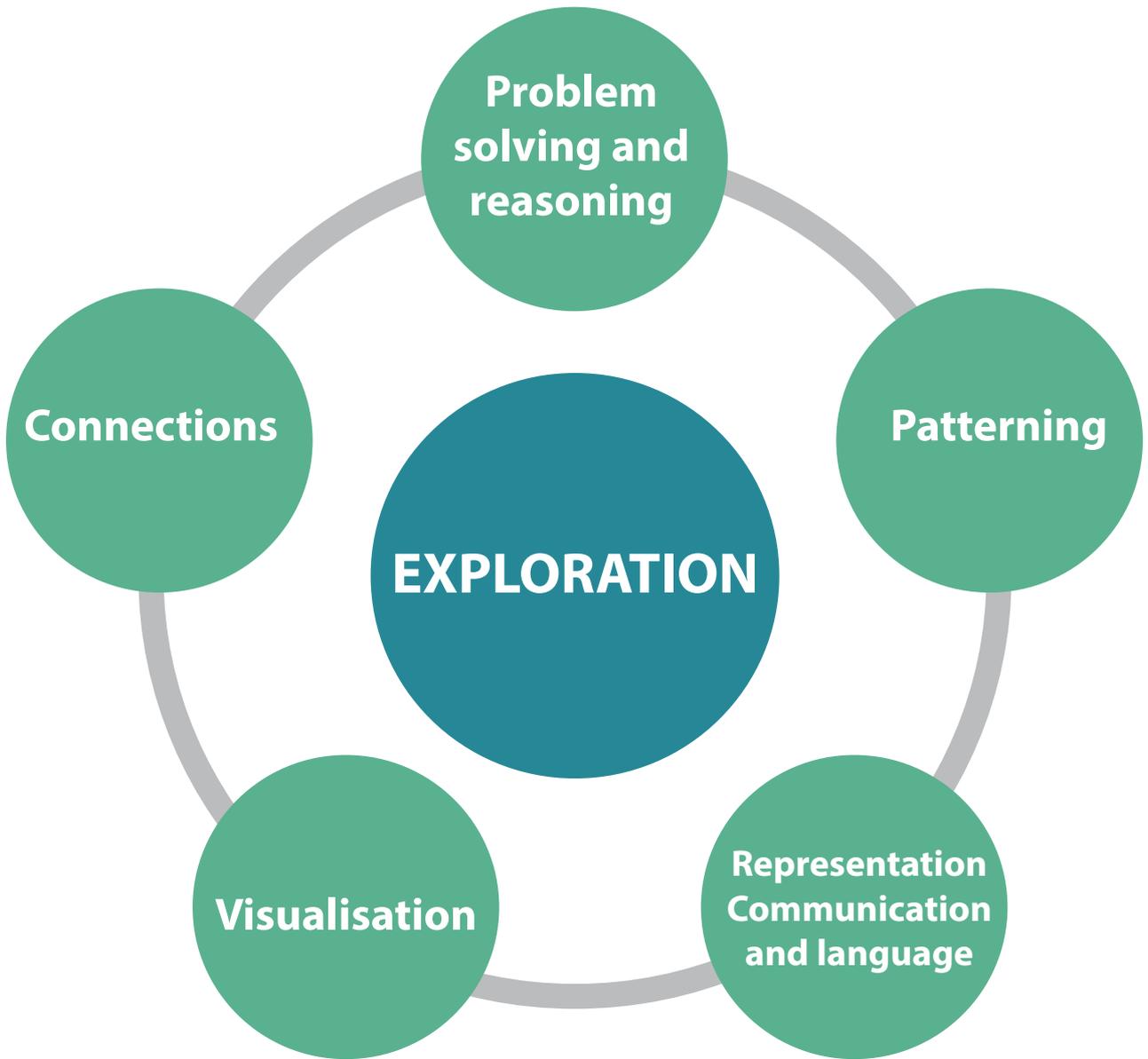


Figure 11. Framework for MLT

Table 8: Description of components of framework for MLT

Focus	Description
Exploration	<ul style="list-style-type: none"> • Exploration involves providing varied opportunities for children to learn through first-hand experience, to test their ideas and select activities. • Development of mathematical thinking occurs throughout the day with opportunities provided to young children to explore objects and their environment. • Exploration enables learners to have sustained interaction with mathematical ideas for meaningful learning to take place. • Inspired by the CPA (concrete-pictorial-abstract) approach, exploration and manipulation of concrete materials during play and guided activities allow children to gain an understanding of mathematical concepts and develop their logical thinking.
Visualisation	<ul style="list-style-type: none"> • Visualisation involves the use of pictures, images, and diagrams to conceptualise abstract concepts or mathematical situations.
Patterning	<ul style="list-style-type: none"> • Patterning involves noticing different attributes of objects and commonalities among objects. • Patterning is also about focusing on relationships and the development of skills of matching, sorting and classifying. • Patterning is key to early mathematical learning (Mulligan & Mitchelmore, 2009) and is therefore embedded across all components. • Patterns and relationships are embedded across the different mathematical strands (number sense, measurement sense and spatial sense).
Representation, communication and language	<ul style="list-style-type: none"> • Representations involve the use of modelling and mark making to make sense of the mathematics that children are exploring. • Learning Mathematics involves developing the appropriate language and using it while exploring Mathematics. • Communication involves making use of different representations, such as making use of manipulatives to illustrate different shapes.
Problem solving and reasoning	<ul style="list-style-type: none"> • Problem solving and reasoning are about the processes of applying different strategies in solving Mathematics (e.g. finding out how to fit a shape in a puzzle). • Problem solving provides children with opportunities to be creative.
Connections	<ul style="list-style-type: none"> • Connections are about the different links between concepts and components of the learning area (e.g. measurement sense and number sense- counting to compare the capacity of containers). • Connections also involve the integration of Mathematics across the different learning areas and in young children's real life.

The aims of MLT are to:

- Promote young children’s curiosity and enjoyment for learning Mathematics
- Support children in their development of number, spatial and measurement sense
- Enable children to develop logical thinking skills as a predisposition to solve problems
- Empower children to communicate mathematically
- Foster children’s understanding of the relevance of Mathematics in their everyday life
- Develop young learners’ confidence in using Mathematics

4.4.2 MLT and Aims of NCF-PP

Table 9: Aims of the NCF-PP and MLT Area of Learning

Aims of NCF-PP	MLT-Area of Learning
Enable children to adapt to new environments, develop a positive relationship with people and to recognise and respect diversity.	Enable children to interact with their peers and with adults in their environment during indoor and outdoor numeracy activities.
Promote physical, social and emotional wellbeing through healthy life-style habits.	Promote the social and emotional well-being of children as they interact with members of the community during numeracy activities and games; encourage children to develop a healthy lifestyle as they start to make sense of numbers and measures through numeracy activities and games.
Enable children to express ideas, feelings and experiences in creative ways.	Promote experimentation with varied ways of expression, including songs, music, art, drama and written representations as the children explore patterns and use mathematical representations.
Enable children to use language creatively and constructively for effective communication.	Enable children to use simple mathematical terms and express themselves in varied ways, such as through oral and verbal communication as well as non-verbal communication, such as drawings, patterns and gestures.
Foster an appreciation of and respect for the natural environment.	Enable children to explore patterns in the natural environment and demonstrate care, respect and appreciation towards it while engaged in numeracy activities.

Enable children to explore the world using their body and senses.	Enable children to use their senses to experiment with objects in their environment, identifying and exploring attributes of objects and processes such as sorting, classifying, and measuring.
Ensure the development of emergent literacy, numeracy, technological and scientific skills.	Support children in their development of number, spatial and measurement sense; promote the development of mathematical ideas, such as during story-telling activities and through songs and rhymes; promote the use of ICT-based resources to explore mathematical concepts/terms.
Assist children in the development of basic skills for primary school readiness.	Help children to develop readiness in numeracy to ease transition to primary schools.

4.4.3 Components of MLT

The area of learning Mathematical and Logical Thinking consists of three main components: Number sense, Spatial sense, and Measurement sense (Fig.12 and Fig.13). For children to develop each of these components, it is essential that they are provided with rich learning experiences that are relevant, meaningful, and connected to their real-life experiences.

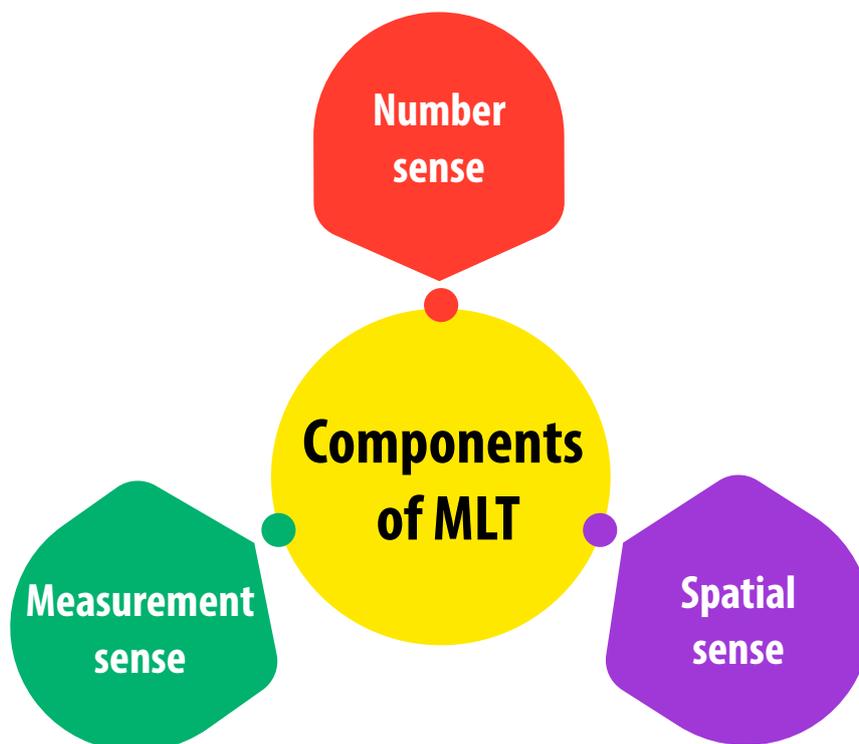


Figure 12: Components of MLT

4.4.4 Description of MLT Components

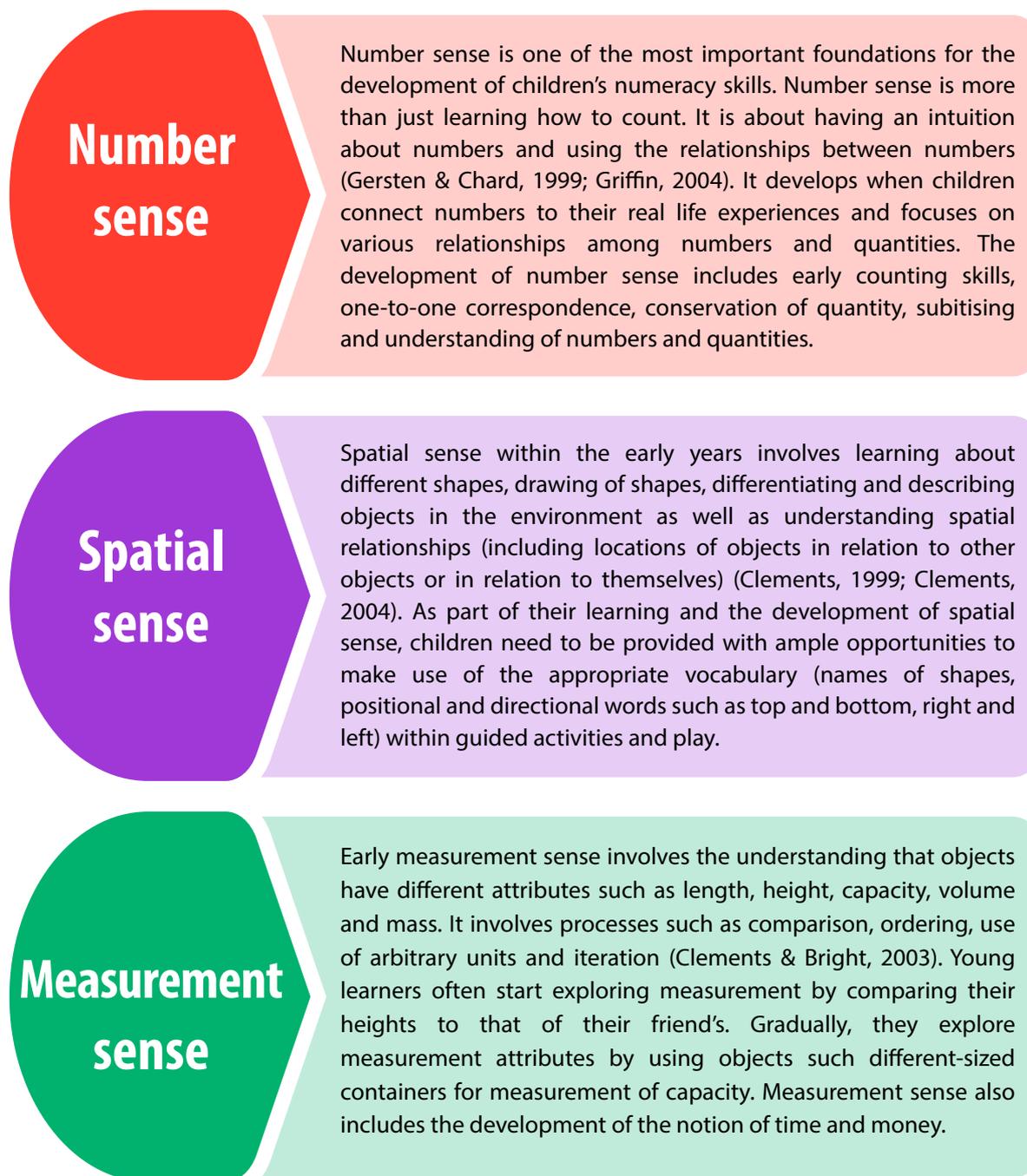


Figure 13: Description of MLT components

4.4.5 Learning Outcomes of MLT

Table 10: Learning Outcomes for MLT Area of Learning

Components	Descriptors	Learning Outcomes
Number sense	Recognise and use numbers and their relationships in daily experiences	<ul style="list-style-type: none"> • Say number names in order • Count to 10 • Count using one-to-one correspondence • Use language, such as 'more than', 'less than' and 'same' to compare groups of objects • Identify written numerals up to 5 or 10 as developmentally appropriate • Represent number quantities using different materials • Identify numbers as represented in different arrangements • Identify and name without counting, the number of objects in small groups • Reproduce numerals up to 5 or 10 using different materials • Recognise that a number is one-more or one-less than another number • Identify repeated patterns in songs and rhymes • Identify, describe and extend simple increasing patterns using manipulatives • Count back from number 5 or 10, as developmentally appropriate
Spatial sense	<p>Recognise and use basic shapes in their environment</p> <p>Investigate positions and locations during daily experiences</p> <p>Recognise and use patterns and relationships in their environment and during routines, transitions, and daily experiences</p>	<ul style="list-style-type: none"> • Identify and name basic shapes (circle, triangle, rectangle, square) in their environment • Match objects based on attributes (e.g. shape, size, colour, number) • Identify repeated patterns in their environment • Classify objects according to one attribute (e.g. colour, size, shape, or other categories) • Sort objects according to whether they are 'same' or 'different' • Describe repeated patterns • Extend simple repeated patterns (up to two attributes) • Use manipulatives to create own repeating patterns and use everyday language to describe the pattern • Use basic shapes when drawing pictures or to form other figures • Identify basic 2-D shapes in different orientations and sizes • Reproduce/draw lines and curves • Reproduce or draw basic shapes using different materials (e.g. sand tray, paint, play dough, wax crayons) • Demonstrate understanding of and use vocabulary such as 'top/bottom', 'up/down', 'front/back', 'under/over', 'inside/outside' to describe positions and relative position of objects • Use vocabulary such as 'far/near', 'right/left' to describe distance and directions

<p>Measurement sense</p>	<p>Explore attributes of everyday objects and use mathematical language to describe them</p> <p>Make comparisons and measure</p>	<ul style="list-style-type: none"> • Compare objects by size and use vocabulary such as 'bigger/smaller', 'taller', 'longer', 'shorter' • Begin to use everyday language related to money such as rupees • Demonstrate an understanding of attributes of objects • Estimate capacity of containers and volume of liquids in containers • Measure and compare capacity using everyday objects • Use language such as 'light/heavy', to compare mass of objects • Classify objects according to size • Use everyday language related to time, such as 'day/night', 'morning/afternoon', 'yesterday/today/tomorrow', 'before/now/after' • Order and sequence familiar events
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4.5 SCIENTIFIC AWARENESS FOR EARLY CHILDHOOD

4.5.1 Introduction

The aim of the area of learning Scientific Awareness for Early Childhood (SAEC) is to develop scientific awareness and thinking amongst children. It is expected that this area of learning arouses a sense of wonder and joy of discovery during the pre-primary years and, at the same time, lays the foundation for learning Science at the primary level.

Children are naturally curious and are always asking questions about things, events, and phenomena around them. In their everyday life, they are exposed to a large number of living and non-living things, like humans, animals, plants, water and soil, as well as objects made of different materials. Whenever they observe new or unfamiliar objects, animals, plants and phenomena, their curiosity is aroused, and they are interested in learning about these. This sense of curiosity leads them to use their senses to observe, explore, compare and contrast living and non-living things as well as phenomena around them, and to ask questions.

By tapping into children's natural curiosity, this area of learning provides them with opportunities to enhance their knowledge. Children are actively engaged in activities that involve exploring the environment, investigating, and classifying information to obtain answers to their questions. They are expected to use their five senses to gather information about things and events in their environment. In addition, it is important to provide children with appropriate, hygienic and safe materials and resources during simple inquiry-based activities so that they can question, hypothesise, investigate, and make relevant observations from which they can draw conclusions. Exploration and investigation promote the development of scientific awareness, as well as scientific skills and relevant attitudes and values pertaining to Science among children. Developing Scientific Awareness for Early Childhood requires a conducive learning environment that arouses the learners' interest and curiosity. The learning environment must allow children to observe, ask questions, manipulate resources, and be actively and safely involved in teaching/learning activities.

Through this area of learning, children learn about their body parts, their immediate environment as well as the importance of technology in their everyday life. It also helps them to develop respect and show care for the environment. Since teaching and learning in early childhood settings lays emphasis on integration, this area of learning also provides opportunities for children to engage in simple STEM (Science, Technology, Engineering and Mathematics)/STEAM (Science, Technology, Engineering, Arts and Mathematics) activities. STEM/STEAM activities at the early childhood level involve hands-on experiment, investigation and simple problem-solving tasks

that lay the foundation for 21st century citizenship and for future learning of Science and STEM/STEAM related subjects. Thus, this area of learning enhances children’s interest and motivation to engage in further learning of Science and STEM/STEAM related subjects.

The aim of this area of learning is to develop children’s scientific awareness and understanding of scientific concepts through inquiry and to engage them in simple STEM/STEAM activities. Activities in this area of learning will also enable learners to develop inquiry skills and processes and computational thinking techniques as well as the scientific attitudes and values shown below.

Table 11: Inquiry Skills, Processes, Attitudes and Values

Inquiry Skills and Processes	Attitudes and Values
Questioning	Cooperation
Observing	Persistence
Classifying	Respect for evidence
Comparing	Curiosity
Problem solving	Respect for living things and the environment
Predicting	Considerations for own safety & others
Investigating and experimenting	Respect for evidence
Measuring	
Drawing conclusions	
Providing possible explanation(s) for observations	
Simple decision-making	

4.5.2 SAEC and Aims of the NCF-PP

Table 12: Aims of the NCF-PP and SAEC Area of Learning

Aims of NCF-PP	SAEC-Area of Learning
Enable children to adapt to new environments, develop positive relationship with people, recognise and respect diversity.	To enable children to work cooperatively with peers and teacher and respect others' opinions.
Promote physical, social and emotional well-being through healthy life-style habits.	To enable children to engage in inquiry-based indoor and outdoor activities actively and safely.
Enable children to express ideas, feelings, and experiences in creative ways.	To give the children opportunities to share their views, ideas, answers, and predictions during individual and group activities.
Enable children to use language creatively and constructively for effective communication.	To allow the children to use simple language, sentences, and scientific terms to communicate their findings with peers and teachers.
Foster an appreciation of and respect for the natural environment.	<p>To develop understanding of the different components of the environment and their importance.</p> <p>To develop care, respect and appreciation for all living things.</p> <p>To develop children's awareness of their roles in keeping the environment clean.</p>
Enable children to explore the world using his body and senses.	To enable children to identify their body parts and five senses and recognise their importance in exploring the surroundings.
Ensure the development of emergent literacy, numeracy, technological and scientific skills.	<p>To allow children to develop inquiry skills through Science and STEM/STEAM activities.</p> <p>To help children communicate with peers and teachers.</p> <p>To develop oral and written (lettering) skills.</p> <p>To enable children to safely manipulate simple battery-operated gadgets and toys and use ICT tools to support learning.</p>
Assist children in the development of basic skills for primary school readiness	To enable children to engage in group tasks, outdoor activities and field trips.

4.5.3 Components of SAEC

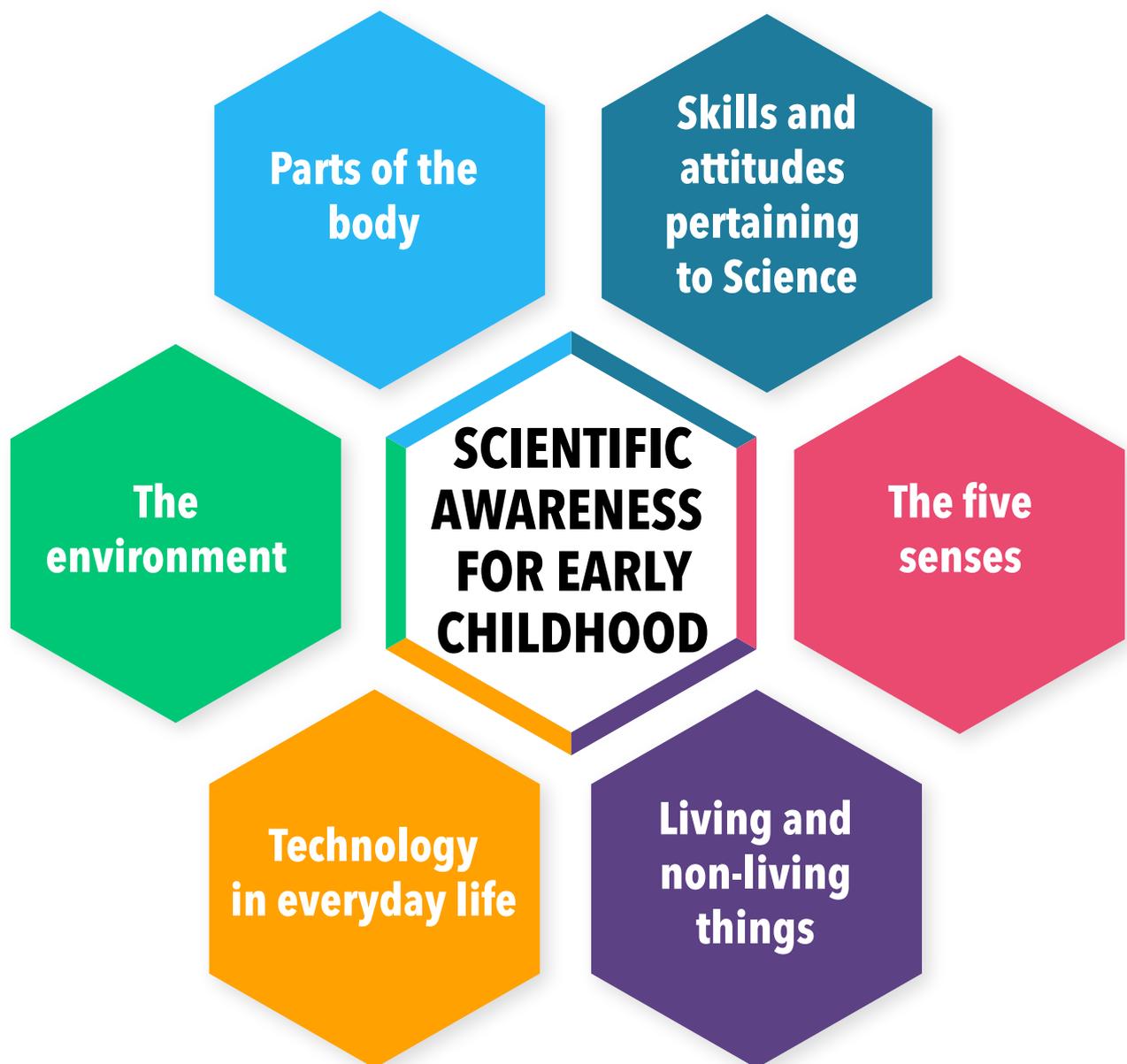


Figure 14: Components of SAEC

4.5.4 Description of the Components

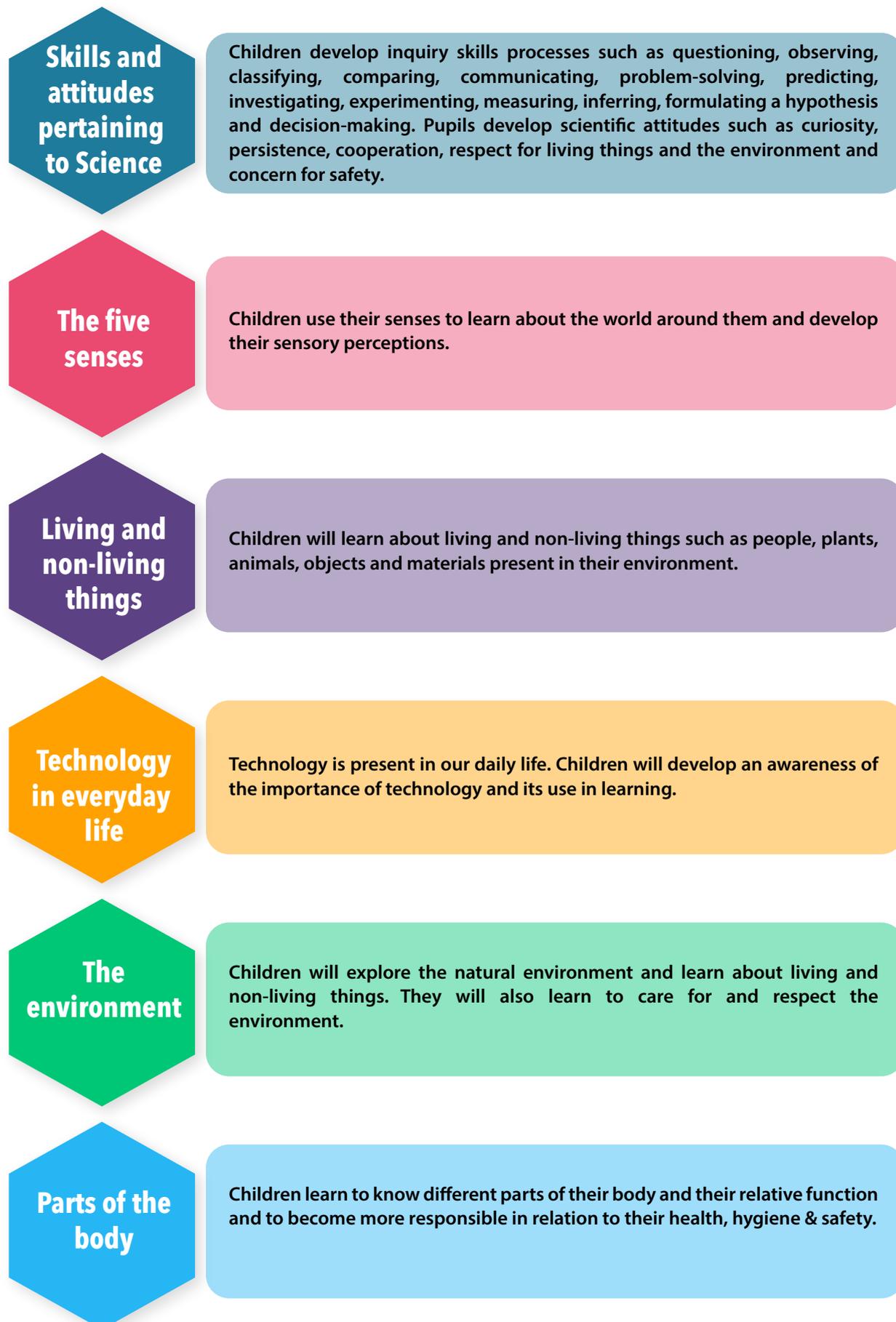


Figure 15: Description of SAEC components

4.5.5 Learning Outcomes for SAEC

Table 13: Learning Outcomes for SAEC Area of Learning

Components	Descriptors	Learning Outcomes
Parts of the body	Recognise the body parts and their function/s	<ul style="list-style-type: none"> • Identify through observation their external body parts and name them • Investigate some body parts such as eyes, ears, nose, mouth, hands, fingers, legs and toes • State the functions of the different parts of the body
The five senses	Explore the five senses	<ul style="list-style-type: none"> • Name the five senses • Relate the senses to the respective sense organs • Recognise and state the functions of the sense organs • Use the five senses to observe, identify, classify and describe objects and events
The natural environment	Explore the natural environment	<ul style="list-style-type: none"> • Ask questions and seek answers about the natural environment and phenomena (cyclone, flood, drought, soil erosion, tsunami, climate change) • Use the five senses to investigate about the environment through outdoor activities • Identify the living and non-living components of the natural environment such as water, soil, sun, stars, clouds, animals and plants • Show awareness of the occurrence of day and night • Recognise the presence of air through simple activities • Demonstrate awareness that some of our activities can make the environment dirty • Appreciate their roles and responsibilities in protecting the environment and keeping it clean • Take simple measures to keep the environment clean and safe • Show care and respect for the natural environment.

Living and non-livings	Explore and classify living and non-living things	<ul style="list-style-type: none"> • Observe and identify things in their environment • Investigate and ask questions about things in their environment • Categorise things as living and non-living • Use their senses to investigate, identify, compare and classify living things according to observable features • Classify living things, such as animals and plants • Compare and contrast the characteristics of some common animals and plants • Recognise the importance of animals and plants • Recognise the sounds made by different living and non-living things • Show care and respect for all living things • Use the senses to investigate the properties (such as colour, texture, softness, hardness, smoothness, roughness, floating, sinking) of some common objects and materials • Investigate some changes such as melting, evaporation, dissolving, seed germination, growth of seedlings and life cycle of insects like butterflies. <i>(Inquiry-based activities are meant for observation and discussion, hence children are NOT required to learn the terms related to concepts)</i>
Technology in everyday life	Demonstrate awareness of the importance of technology in their everyday life	<ul style="list-style-type: none"> • Recognise some common technological appliances in their everyday life (television, radio, refrigerator, mobile phones, tablets, computers, cameras) • Identify uses of these technological appliances and the safety measures during use • Demonstrate understanding of the contribution of technology in their daily life • Perform simple investigations with safe battery-operated toys and gadgets such as torches • Engage in simple problem-solving STEM/STEAM activities • Show awareness of the importance of ICT • Use ICT tools to support their learning

<p>Skills and attitudes pertaining to Science</p>	<p>Demonstrate the necessary inquiry skills & processes and scientific values & attitudes</p>	<ul style="list-style-type: none"> • Show curiosity and interest to learn about themselves, the components, and phenomena of the environment • Observe and ask questions to develop understanding of the environment • Explore objects and living things to identify similarities and differences between them • Classify things based on similarities and differences • Show curiosity and ask questions to find about the working of objects and occurrence of phenomena • Handle and manipulate objects properly and safely • Carry out simple investigations safely with the teacher • Infer through investigations and observations • Predict what will happen during investigations • Show ability to solve simple problems • Show objectivity when carrying out investigations and solving simple STEM/ STEAM problems
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4.6 HEALTH AND PHYSICAL DEVELOPMENT

4.6.1 Introduction

The Health and Physical Development (HPD) area of learning makes provision for children to acquire knowledge about health, hygiene, nutrition, safety and how to be physically active, in an enjoyable and fun manner. The experiences gained in HPD during the early years will guide the children's overall development as a productive, healthy, caring, responsible, respectful and well-balanced citizen of the world. HPD will initiate the children into a culture of lifelong healthy lifestyle habits. When children develop healthy habits from a very young age, there are higher chances that they maintain them during their youth and adulthood, and even educate elders about adopting healthy lifestyles.

The HPD area of learning promotes children's physical, psychological and social health. It provides opportunities for children to participate in physical activities and games that help them develop fundamental movement, manipulative, and gross motor skills. Children are also taught about the importance of healthy foods and safety concepts. Further, this area of learning develops social skills and values such as cooperation, communication, teamwork, and respect for others, as well as awareness of space, direction and relationships.

Play is natural to children and should be encouraged. Thus, in HPD teachers use free and structured play as a medium to develop movement skills and healthy lifestyle behaviours. Teaching of concepts in HPD should be closely related to the children's daily lives and based on their interest and health needs regarding adequate nutrition, safe environment and physical activities.

The development and sustainability of a culture of physical activity and healthy lifestyles is most effective when teachers and parents set good examples and model the behaviour that children imitate and adopt. Thus, the continuity of learning from school and home and vice versa is very important and should be encouraged through constant communication and collaboration between the teachers and parents.

4.6.2 HPD and Aims of NCF-PP

Table 14: HPD Area of learning and Aims of the NCF-PP

Aims of NCF-PP	HPD – Area of Learning
Enable children to adapt to new environments, develop a positive relationship with people and recognise and respect diversity .	Children learn to cooperate and respect one another by participating in organised games and activities.
Promote physical, social and emotional well-being through healthy life-style habit.	<p>Children develop and demonstrate healthy life-style habits before, during and after physical activities and games.</p> <p>Children demonstrate healthy eating habits and understand that good nutrition is important for health.</p> <p>Children experience joy while participating in group activities and games; they follow safety and security measures.</p> <p>Children develop good lifelong hygiene habits for better health.</p>
Enable children to express ideas, feelings and experiences in creative ways.	Children are engaged in movement dance, drama, role-play, and other physical activities to express different emotions, ideas and concepts.
Enable children to use language creatively and constructively for effective communication.	Children acquire new vocabulary and are exposed to new expressions/words while doing movement education, dancing, etc.
Foster an appreciation of and respect for the natural environment.	Children understand and interact with confidence in their environment through the use of their body.
Enable children to explore the world using their body and senses.	Children are actively involved in outdoor and indoor activities using their senses to explore and understand their environment.
Ensure the development of emergent literacy, numeracy, technological and scientific skills.	Children demonstrate an awareness of counting, reading through the use of their body.
Assist children in the development of basic skills for primary school readiness.	Children acquire skills to adapt to primary schooling through the development of their gross and fine motor skills.

4.6.3 Components of HPD



Figure 16: Components of HPD

4.6.4 Description of HPD Components



Figure 17: Description of HPD components

4.6.5 Learning Outcomes of HPD

Table 14: Learning Outcomes for HPD Area of Learning

Components	Descriptors	Outcomes
<p>Motor Skill Development:</p> <ul style="list-style-type: none"> • Gross motor Skills • Fine motor Skills 	<p>Display control, balance, and confidence in fundamental movement skills, and combine them in their movement</p>	<ul style="list-style-type: none"> • Balance their body on different body parts in static and dynamic activities and games • Control the speed and direction of their movement • Demonstrate ability and confidence in fundamental movement skills (walking, running, jumping, skipping and hopping) • Combine two fundamental movement skills (FMS) in games and organised activities • Demonstrate ability and confidence in fine motor skills (tying laces, threading, using scissors)
<p>Movement Concepts</p> <ul style="list-style-type: none"> • Body Awareness • Space Awareness • Effort Awareness (Qualities of Movement) • Relationships 	<p>Show awareness of the capabilities and limitations of one's body</p> <p>Move in space with and in opposition to other peers/teammates</p> <p>Show the ability and skill to catch, throw and manipulate a variety of objects</p>	<ul style="list-style-type: none"> • Demonstrate hand-eye and feet-eye coordination in simple throwing, kicking, catching and passing activities • Demonstrate coordination and balance to avoid obstacles • Identify the different parts of the body • Demonstrate an understanding of personal and general space • Follow simple instructions during movement, games, and organised activities

<p>Values through participation in games and activities</p> <ul style="list-style-type: none"> • Cooperation • Respect • Honesty • Teamwork • Good communication • Good (healthy) habits • Care for animals and plants, and concern for environmental protection 	<p>Demonstrate social skills such as cooperation, communication, respect, honesty through games and activities</p> <p>Develop knowledge of healthy routine</p> <p>Demonstrate a caring attitude towards plants and animals</p> <p>Be aware of safety issues when dealing with animals and plants</p>	<ul style="list-style-type: none"> • Demonstrate team spirit and cooperation • Abide by simple rules during games and activities • Work collaboratively in groups • Communicate clearly and effectively with others • Demonstrate respectful behaviour towards others • Maintain dental hygiene • Adopt healthy routine regarding bedtime, waking up and rest • Demonstrate a caring attitude towards plants and animals
<p>Healthy Living</p> <ul style="list-style-type: none"> • Healthy eating • Nutrition 	<p>Develop knowledge and understanding of good eating</p> <p>Develop healthy eating habits and their effect on health</p> <p>Develop emerging self-help skills when eating and handling utensils</p>	<ul style="list-style-type: none"> • Name different foods • Explain the importance of having the three meals of the day • Recognise the importance of eating a variety of foods to be in good health • Make healthy choices when selecting foods to eat • Follow consistent routines regarding washing hands • Identify healthy snacks • List the consequences of eating unhealthy snacks • State the importance of drinking water • Display good posture • Demonstrate table manners • Handle simple cutlery • Help to clear away and keep surfaces clean

	<p>Take care of their body to avoid sickness and accidents</p> <p>Use safe practices indoors and outdoors, and during travel</p> <p>Develop awareness of the limits of their physical capability and need for self-protection</p>	<ul style="list-style-type: none"> • Explain how germs are spread • Practice personal hygiene and healthy habits • Identify dangerous/harmful substances • Identify sources of danger at home and school. • List safety measures to prevent accidents
<p>Personal safety</p> <ul style="list-style-type: none"> • Indoor and outdoor safety 	<p>Build self-confidence and a sense of responsibility</p> <p>Know how to protect themselves by understanding the different body parts</p>	<ul style="list-style-type: none"> • Identify the different body parts in relation to private body parts • Identify safe and unsafe touches • Demonstrate assertive behaviour in case of unsafe touches • Describe improper behaviour such as bullying and teasing • Identify the people who can be contacted when faced with unpleasant situations • Explain how to respond to an unsafe situation

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