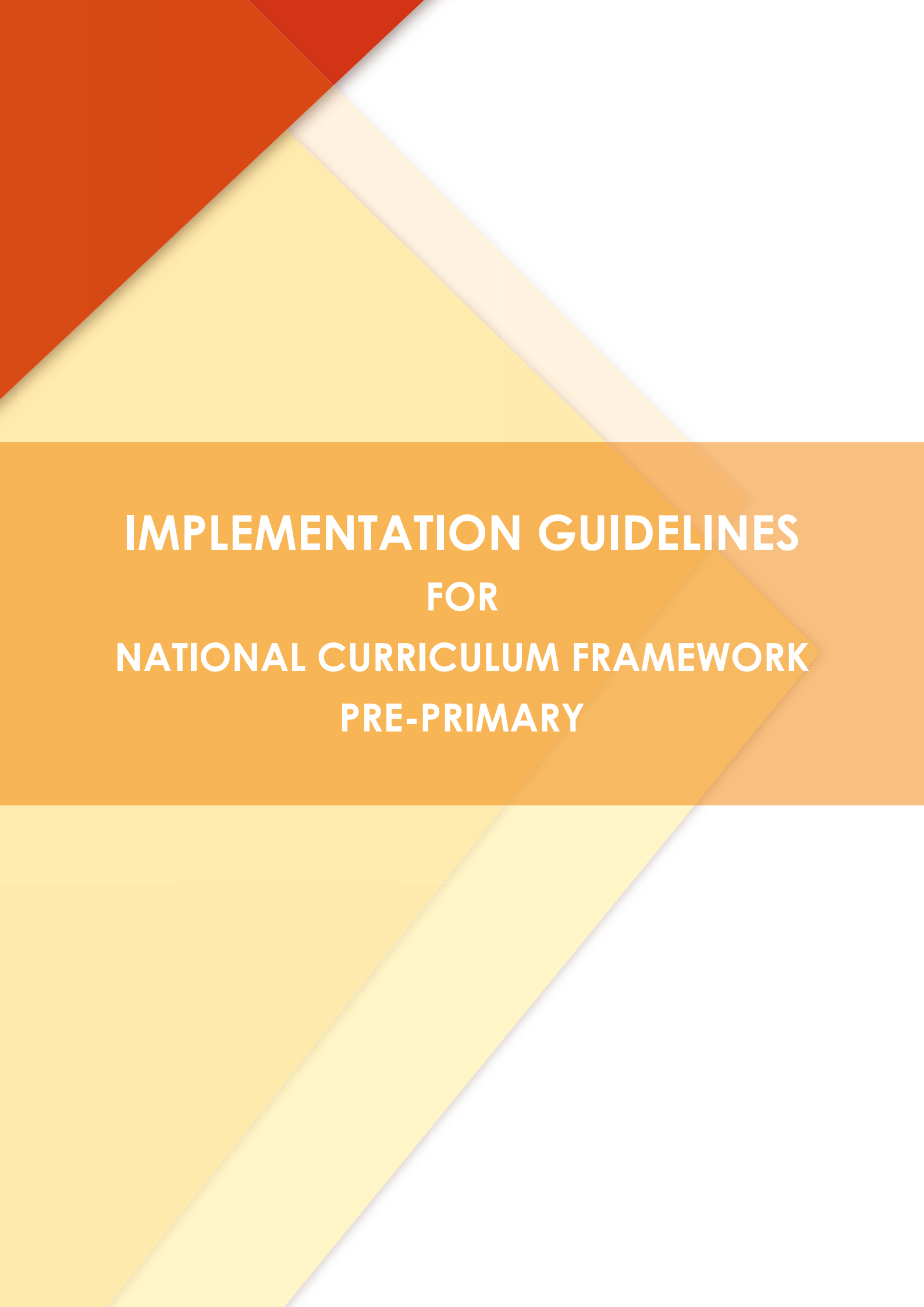


IMPLEMENTATION GUIDELINES FOR NATIONAL CURRICULUM FRAMEWORK PRE-PRIMARY



Mauritius Institute of Education
under the aegis of
Ministry of Education, Tertiary Education, Science and Technology





**IMPLEMENTATION GUIDELINES
FOR
NATIONAL CURRICULUM FRAMEWORK
PRE-PRIMARY**

Contents

Table of Figures	iv
1.0 Introduction	1
1.1 The role of parents	1
2.0 Learning theories in early childhood underpinning the NCF-PP	4
3.0 Pedagogical approaches	7
3.1 Planning activities through an integrated approach	8
3.2 Developmentally appropriate practices	10
3.2.1 Planning for learning	10
4.0 Teaching strategies	11
4.1 List of resources	12
4.2 Learning environment	15
4.2.1 Organization of routine for children	15
4.2.2 Guiding children	15
5.0 Assessment	16
5.1 Assessment tools	17
5.2 Inclusion in the early childhood setting	21
5.2.1 Early identification tools	21
5.2.2 Early intervention	21
6.0 Digital literacy	22
7.0 Areas of learning	23
7.1 Personal, Social and Emotional Development (PSED)	23
7.2 Communication, Language and Literacy	31
7.3 Expressive, Creative and Aesthetic Development (ECAD)	40
7.4 Mathematical and Logical Thinking (MLT)	45
7.5 Scientific Awareness for Early Childhood (SAEC)	53
7.6 Health and Physical Development (HPD)	60
References	69
Acknowledgement of Contributors	70

Table of Figures

Figure 1: Parental Involvement in Early Childhood Education

Figure 2: Examples of parental involvement in pre-primary school

Figure 3: Learning Theories in Early Childhood Education

Figure 4: Pedagogical approaches in Early Childhood Education

Figure 5: Planning through the integrated approach

Figure 6: Assessment tools in Early Childhood Education

1.0 Introduction

The Implementation Guidelines have been developed to support teachers in the effective implementation of the National Curriculum Framework Pre-Primary 2024 (NCF-PP). The document details out the theoretical underpinning, principles, pedagogical approaches as well as different aspects of teaching and learning through examples to help teachers adopt developmentally appropriate practices at pre-primary level.

The Implementation Guidelines also explain how the learning theories and pedagogical approaches are translated into practice. Different aspects of teaching and learning such as planning, teaching strategies and assessment are discussed. Additionally, the ways in which inclusion, values and digital literacy should be addressed are dealt with.

Activities that teachers can design in line with the learning outcomes for the six areas of learning are proposed. These activities serve to establish a solid foundation for a smooth transition to primary education thereby emphasising the importance of continuity in a child's educational journey and providing guidance for teachers to facilitate this transition effectively. For each area of learning, a sample activity sheet shows how to design an activity and evaluate young children. The samples are comprehensive, with each step elaborated upon, to ascertain understanding.

1.1 The role of parents

Parental collaboration is key to effective learning. By perusing the NCF-PP, parents will develop an understanding of:

- the child's developmental stage and educational goals;
- pedagogical approaches and strategies used by pre-primary teachers; and
- the assessment methods used in the early years.

Consequently, parents can use the NCF-PP, more specifically the learning outcomes for each area of learning, to reinforce learning and skill development in tandem with the school. The NCF-PP encourages parental collaboration and facilitates the involvement of parents in the development of their child(ren).

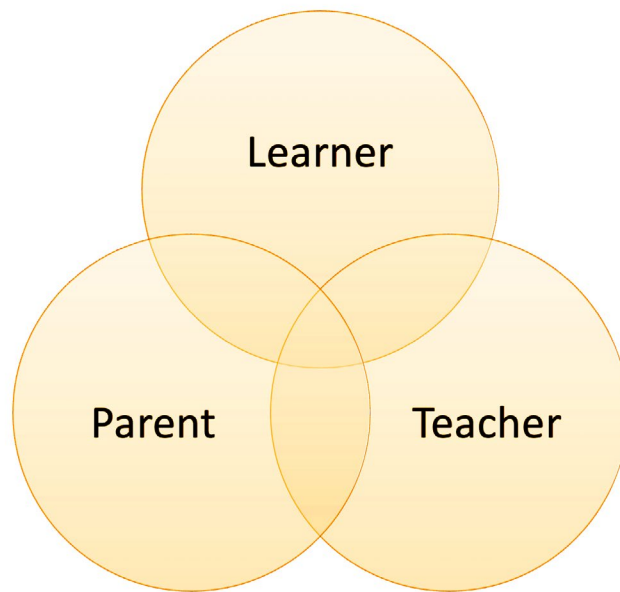


Figure 1: Parental Involvement in Early Childhood Education

Figure 1 above shows that teachers, parent and learners are all involved in the teaching and learning process in Early Childhood Education. Parents and teachers work in collaboration for the welfare and benefit of the child.



Figure 2: Examples of parental involvement in pre-primary school

Figure 2 shows that parental involvement in preschool can be fostered through the following means:

- Parent-Teacher conferences – discuss the progress and development of the child.
- Classroom volunteering – assist in activities, for example providing costume for a show.
- Field trips – accompany children on field trips.
- Parent workshops – attend workshops or information sessions.
- Projects – provide resources for projects.
- Parent-Teacher Association (PTA) – active engagement in PTA meetings.
- Family fun day – attend and contribute to family fun events.
- Community outreach – participate in community service initiatives, for instance, keeping the environment clean.

2.0 Learning theories in early childhood underpinning the NCF-PP

The NCF-PP has been developed keeping in view some of the basic principles of how children learn and the optimum conditions for effective learning.

There is no single way in which children learn. Theories can shape the understanding of learning and help teachers make more informed decisions about how to teach. This section reveals how learning theories underpin practice through examples of activities and explanations.



Figure 3: Learning Theories in Early Childhood Education

Figure 3 above shows the different learning theories that will determine the teaching approach in the pre-primary classroom.

Learning Theories	What they look like in practice:
Behaviourism	<p>Teacher offers stimuli to children and reinforces their behaviours.</p> <p>Positive reinforcement: the teacher's smile, or verbal praise, a star gained for a star chart to encourage or increase desired behaviours.</p> <p>Negative reinforcement: time out, the 'naughty corner' to discourage and end undesirable behaviours.</p>
Constructivism	<p>Teacher engages children in tasks that are stimulating and developmentally appropriate since children's thinking develops at different rates and some may be capable of engaging in more sophisticated and intellectually challenging learning.</p> <p>Teacher understands why children have misconceptions and repeat errors; children should be at a stage of readiness before approaching tasks that are more intellectually demanding.</p>
Social Constructivism	<p>Through play, children gain an understanding of relationships. Children also develop the ability to become autonomous and take risks. Cooperative or collaborative learning involves children sharing background knowledge and active participation to reach a shared constructed meaning.</p> <p>Children build confidence and hence take more control over their play, internalise self-made rules and learn to accept rules made by others. Children's play is spontaneous, self-initiated and part of their self-regulation process.</p> <p>Through play and other social activities, children create their own Zone of Proximal Development (ZPD) by setting personal levels of challenge. The play and activities they choose to engage in become appropriate to their actual stage of development.</p>
Social Learning Theory	<p>Motivation is central to children's learning and that level of motivation can influence the way in which they observe the behaviours of others, thus contributing to their learning. Visual behaviour or actions from adults, models thinking in young children.</p> <p>Imitation and Identification: Children imitate the actions of others and assimilate new learning into already existing concepts. Self-efficacy: Children's belief in their own ability to do well and succeed and their ability to exercise control over their own actions.</p> <p>It is possible to observe the principles of the theory in everyday practice where children are learning. Imitating the actions of others is common, and children frequently identify with older children, adults, and characters from TV, the internet or story books.</p>

<p>Bio-Ecological Model</p>	<p>Teachers view children as developing individuals with their uniqueness, from birth to adulthood. Culture of the individual is important. The relationships that children have with adults in their environment (parents, teachers, caregivers), impact their development. Teachers need to build a trusting relationship with children to help them feel safe and welcome.</p> <p>Many behaviours at school can be explained through this theory. Children are directly and indirectly influenced by external factors in their family, community, and the society.</p> <p>The school may influence children’s learning and development based on various external factors, such as resources, funding, and the curriculum or lack of curriculum</p>
<p>Multiple Intelligence</p>	<p>Teachers understand the fact that children progress and learn in different ways and with appropriate support. They can develop their potential and the dispositions they have been born with.</p> <p>Teachers also notice children who have natural abilities but experience significant challenges with other aspects of learning.</p> <p>Teachers can identify potential in children with whom they work and hence provide adequate and appropriate support where required.</p>
<p>Brain-Based Learning</p>	<p>Since the development of the brain is at its peak between ages 2 and 5, the child’s brain is flexible and responds spontaneously to emotional interactions, learning experiences and environmental influences.</p> <p>Brain-based learning fosters cognitive and socio-emotional development of children as it builds a foundation for productive learning. Through BBL strategies, teachers provide intentional instruction.</p> <p>Teachers create a conducive learning environment; children engage in regular physical activity; instruction time is monitored; calm and soothing music is played for children to relax; “show and tell” is used so children can discuss with their peers and learn through sharing of information and experiences.</p>

3.0 Pedagogical approaches

The pedagogical approaches in the NCF-PP are child-centered, integrated, multicultural, project-based and play-based. The successful implementation of all these approaches requires a strong school- family and community partnership.



Figure 4: Pedagogical approaches in Early Childhood Education

Figure 4 above shows the pedagogical approaches that are used in Early Childhood Education. Each approach has its own teaching and learning processes. However, we are focusing on the integrated approach to cater for the holistic development of children in the pre-primary school setting.

3.1 Planning activities through an integrated approach

At pre-primary level, planning activities through an integrated approach is recommended as it reflects real-world educational experiences and matches what children and adults do outside the classroom. Integrated learning makes instructions more relevant as it allows in-depth study of a chosen theme, project or story. The educator chooses the appropriate theme /project related to the needs and interest of the children. One theme/project can be studied for 3 to 4 weeks. The steps for thematic planning, as identified by Dodge, Colker and Heroman (2002), are as follows:

Learn about the topic selected	Plan activities related to them
Find and organize materials related to the theme	Invite parent participation
Reflect on what you want the children to learn	Determine a closing event or activity
Identify open- ended questions to encourage inquiry	Evaluate the theme and what children have learnt

Planning activities through the integrated approach starts with a process called webbing. The web is then translated into the planning of day-to-day activities for all the areas of learning. The activities are planned for the whole class, small groups and adapted for children with special needs. There are many ways to integrate the learning experiences of children. These include using themes/ topics, stories, or projects as shown in figure 5.

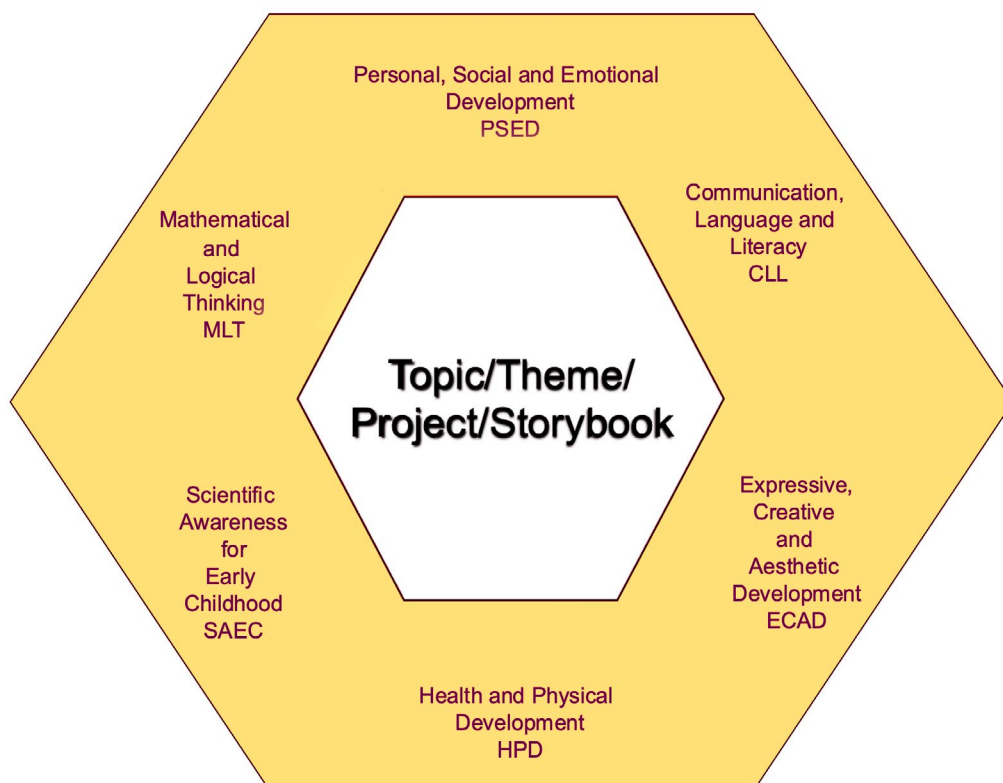


Figure 5: Planning through the integrated approach

Below is an example of how teachers can plan a project for children to learn informally.

Example of Project planning

Project Theme: "Under the Sea"

Duration: 4-6 weeks

Week 1: Introduction to the theme

Project Launch: Introduce the "Under the Sea" theme with a story or video about ocean life.

CLL: Discuss what the children know about the ocean and what they want to learn.

ECAD: Create ocean-themed art, such as paper plate fish or sea creature collages.

Week 2: Exploring ocean animals

SAEC: Focus on different sea animals (fish, turtles, dolphins) and their characteristics. Show pictures and videos.

SAEC: Virtual aquarium tour or visit to a local aquarium if possible.

ECAD: Create paper plate turtles or fish prints using potatoes.

Week 3: Ocean habitats and ecosystems

SAEC: Explore ocean habitats like coral reefs and kelp forests. Discuss the importance of protecting them.

ECAD: Create a collaborative underwater mural or diorama.

CLL: Read books about ocean life and discuss the main ideas.

Week 4: Underwater adventures

PSED: Transform a corner of the classroom into a submarine or beach for imaginative play.

HPD: Conduct a "beach day" with sand, shells, and water play.

MLT: Count seashells or pretend to go on a treasure hunt with numbers and shapes.

Week 5: Ocean conservation

CLL: Talk about the importance of taking care of the ocean and the creatures that live in it.

ECAD: Create posters or collages with messages about ocean conservation.

Guest Speaker: Invite a marine biologist or environmentalist to talk about ocean conservation.

Week 6: Project celebration

Project Showcase: Arrange an "Under the Sea" exhibition to display the children's art, projects, and learning materials.

HPD: Prepare a simple ocean-themed snack or cake.

ECAD: Sing songs related to the ocean and have a little dance party.

3.2 Developmentally appropriate practices

Developmentally appropriate practices is characterised by methods that foster the optimal development and learning of each child through strength-based, play-based approach to joyful and engaged learning (NAEYC, 2020). Teachers must recognise the uniqueness of each child, taking into consideration the background and multiple assets as he/she joins the preschool. Consequently, developmentally appropriate practice involves age-appropriateness, individual-appropriateness, and cultural-appropriateness. Teachers need to plan activities, the routine and the setting based on what is appropriate for the development of children in preschools. Key considerations are as follows:

- The age of the child
- The ability or potential of the child – This is the reason for which in the activity sheet it is clearly mentioned in the activity sheets how to adapt activity for a child having difficulties. Additionally, teachers need to prepare extra activities for the children who show greater potential.
- The environment and culture that each child comes from is unique to the child. Thus, teachers should consider the background of each child when working in a preschool setting.

3.2.1 Planning for learning

The planning process should ensure that all areas of learning are given equal emphasis. The learning outcomes identified in each area of learning needs to be achieved by the end of the two years of pre-primary education. For each area of learning the learning outcomes are identified for each school term. Note that children learn by repetition so the learning outcomes may be repeated for second term.

Planning in Early Childhood setting requires establishing appropriate aims and objectives. This entails a priori decision-making, such as, what to teach, how to teach, when to teach, whom to teach, where to teach, and how to evaluate the young learners. Therefore, teachers need to:

- plan the learning environment, indoors or outdoors
- consider the age group
- select appropriate resources and materials to be used
- spell out the steps to be taken to achieve the aim and objectives of the activity
- select an appropriate means of evaluation
- choose an appropriate follow-up activity

Proper planning enables teachers to:

- achieve targeted objectives
- arouse the interest and curiosity of learners
- establish the procedures so as not to divert and delay the activity as this may trigger boredom or lack of attention of young learners

Furthermore, planning allows teachers to choose the appropriate teaching strategies for the designated activity.

4.0 Teaching strategies

Preschool children 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 encourages teachers to use a variety of strategies related to the many ways in which children learn.

Across all areas of the curriculum, teachers should be aware of the importance of modelling positive behaviours. All the areas of learning provide opportunities for the use of dramatisation and role play, relevant stories, rhymes, songs, and puppetry. Teachers should also encourage:

- Active participation - The teachers arrange materials in different areas of the classroom and allow freedom for varied interactions. The children thus 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, which in turn 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 born in the age of the Internet and, to connect with them, teachers must learn to speak their jargon and become conversant with the technology that comes so naturally to the young. Technology offers many innovative tools that can enhance children's learning and boost their interest. The teachers should be aware of how to integrate technology to enhance learning.



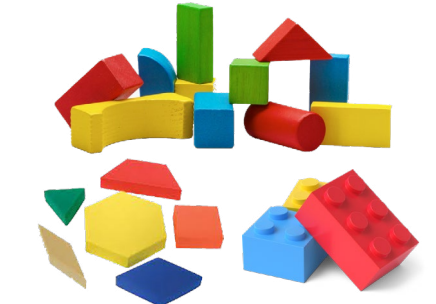

Most importantly, teachers must always seize teachable moments throughout the day and collaborate with parents to identify those areas of experience and special interest that the children form outside but bring with them into school. Each activity requires its own teaching strategies and resources. Hence, for each activity, depending on the specific area of learning will require teachers to use appropriate materials for its implementation. Teachers know best which materials they need to conduct an activity. Therefore, other resources and materials can be added to the given list.

4.1 List of resources

The table below provides a list of resources which are used in preschool classrooms. It is to be noted that the list is non-exhaustive. Other resources may be added depending on availability and need. There are unlimited resources that can be used for different activities. Resources can be teacher-made and stories can be modified by teachers to design an activity with particular aim and objectives.

Materials/Resources	Details	Examples
Dolls	Baby, coloured, girl doll, boy doll, all representing a child, felt figurines for story telling activities	
Puppets	Finger puppets are commonly used, hand puppets	
Dress up materials	Clothes that children can use for dress-up or during pretend play	
Soft toys	Teddy bears, bunnies, mickey mouse, pandas, any stuffed animals	

<p>Shop corner</p>	<p>A pretend shop, a pretend supermarket, pretend cash counter, pretend shopping cart, pretend money and everyday items such as different sizes of containers, cups, boxes, jars, supermarket pamphlets, cereal boxes and biscuit boxes of different sizes</p>	
<p>Sand corner</p>	<p>Sandbox materials</p>	
<p>Water Corner</p>	<p>A place where children have access to taps and water for activities related to water or washing</p>	
<p>Kitchen corner</p>	<p>Plastic utensils used for pretend play in the kitchen, wooden spoons</p>	
<p>Books</p>	<p>Story books, books with pictures, sensory books, interactive books, nursery rhymes (cd/other audio devices)</p>	

<p>Charts</p>	<p>Simple charts that can be prepared by educators such as height chart, birthday chart, measuring chart, posters, map of Mauritius, calendar, emotion faces, photos and/or pictures and/or magazines</p>	
<p>Indoor games</p>	<p>Board games, puzzles, domino, threading, lacing, dice, play dough, abacus, flash cards, unifix cubes, tangrams, bean bags, beads/buttons</p>	
<p>Outdoor games</p>	<p>Outdoor play equipment such as seesaw, slide, swing, potted plants (non-toxic) and gardening tools, hoops</p>	
<p>Blocks</p>	<p>Building blocks, lego blocks, pattern blocks (coloured tiles), attribute blocks (coloured tiles of different sizes, shapes, and colours)</p>	
<p>Games</p>	<p>Intruder game, sequential game, identification game, position game, lacing game, lotto game, counting game, matching game, shapes games, seriation game, labyrinth</p>	
<p>Scrap materials</p>	<p>Empty boxes, empty toilet rolls, lollipop sticks, paper cups, sandpaper</p>	

4.2 Learning environment

The learning environment of a pre-primary school should be created in such a way that it welcomes children and their families the moment they walk through the doors. The learning environment of pre-primary schools consists of the indoor and outdoor settings. Quality environment for young children requires careful planning and considerable work. Different factors are taken into consideration when planning the physical environment. The space available is key. The classroom is well ventilated and with the appropriate placement of windows and doors. The fixtures and fittings of the classroom along with the specific activity play corners are main features of the indoor learning environment.

One of the most effective developmentally appropriate ways for children to learn is through hands-on-interactions with engaging materials and the support of a caring adult. This can happen by setting up activity play corners with an array of resources.

The following are suggested play corners: Reading/library corner, construction corner, fantasy corner, shop corner, maths corner, creativity corner, drama/puppet corner, sand corner, water corner, music corner, science corner, ICT corner, pet corner.

Other areas can be added depending on children's interest and materials available. Activity play corners can become the hub of engaging learning in pre-primary classrooms as they allow children to be actively involved in exploring and provide a place where they can practice the skills they have learnt.

The outdoor environment calls for other considerations as it is more likely an extension of the indoor classroom. There needs to be a balance of sunny and shady areas along with fixed and movable equipment for the welfare of children. In both indoor and outdoor areas, health and safety should be ensured. This is a priority in the school setting.

4.2.1 Organization of routine for children

The pre-primary school schedule includes a morning routine, a break, lunch time, free play time, and an end of the day routine. It is essential for children to stick to a routine during the period spent in the pre-primary settings. Through daily routines, teachers help children acquire the skills necessary to settle in primary schools. Evidence from research shows that adapting to routine practices has a positive impact on children as it supports their learning and development (Cartmell, 2018). It is also beneficial for children ready to move to primary schools to manage a different routine by the third trimester. This process of routine organisation in the third trimester enables pre-primary school teachers to prepare children for the transition to the formal school setting. This can be considered as a means of facilitating the transition from one setting to another.

4.2.2 Guiding children

Children require appropriate guidance throughout the time in pre-primary school. Teachers need to guide children to follow instructions, respect each other and abide by the classroom and school rules. They should also encourage them to communicate with adults and peers, among others. Guiding children helps them develop required skills and competencies to adapt to their environments and adopt good habits and values. It is of prime importance to guide children towards learning values to become good citizens. To foster their psycho-social development, including their moral and spiritual development, children need to be taught right and wrong, acceptable and unacceptable behaviour, and how to appreciate their peers, adults, culture and the country.

5.0 Assessment

There is no formal way of assessing young learners in the pre-primary classrooms. However, teachers should observe children, record their observations in order to monitor their progress. There are different ways of recording observation. This section presents the different assessment tools that can be used in the preschool setting to evaluate and monitor the progress of children. Self-assessment is equally important for teachers to modify teaching in Early Years. Figure 6 shows the different assessment tools that can be used in Early Years

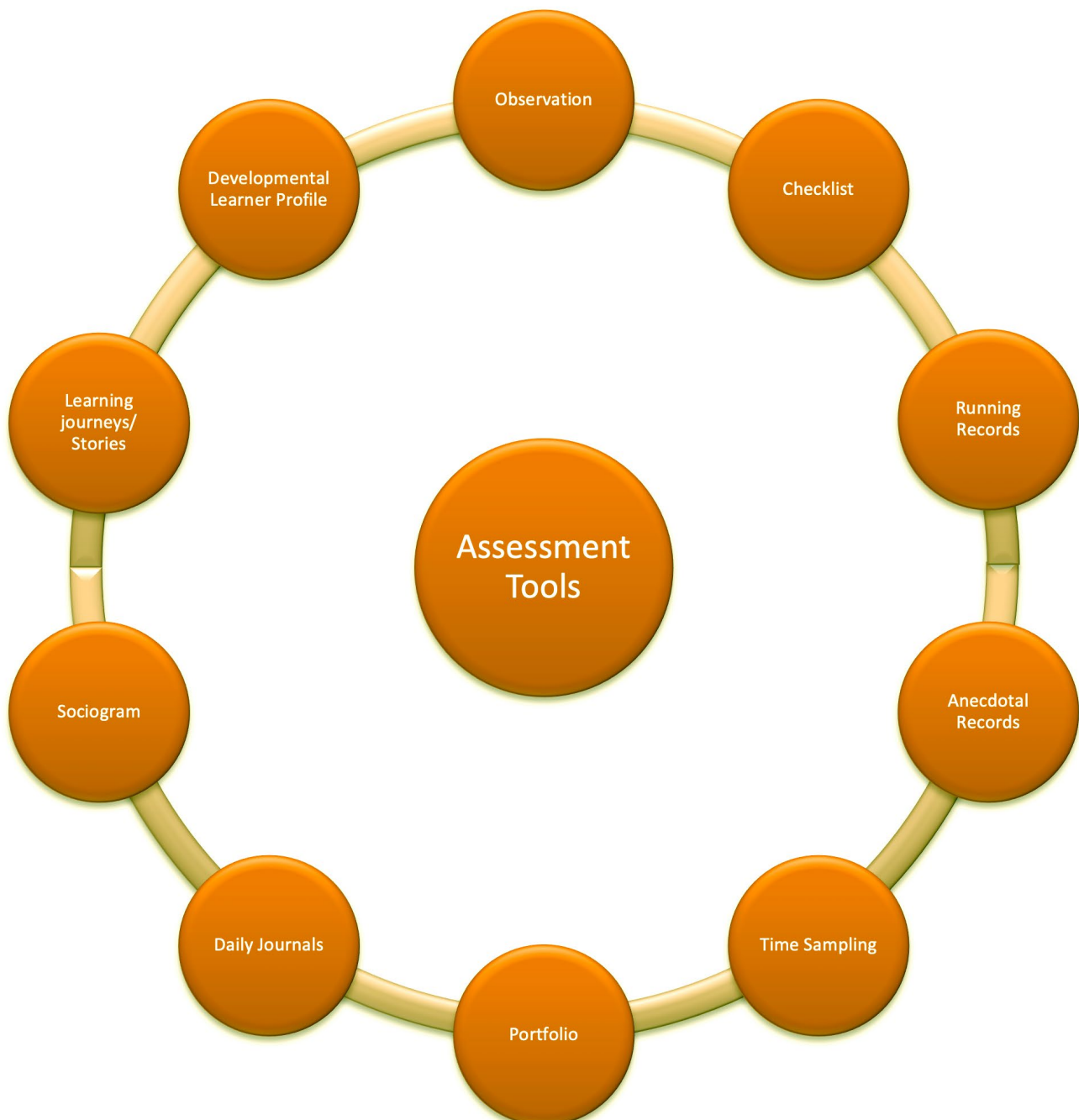


Figure 6: Assessment tools

5.1 Assessment tools

This subsection describes a variety of assessment tools that are used at pre-primary level.

I. Observation

Observation as a means of assessment is crucial in early years education since it gives teachers an indication of how the child is performing and developing simultaneously. It is only when they observe what the child knows and can do, that they can provide learning experiences and use appropriate strategies to extend that learning. At the age of four, some children in every cohort will have 25% more life experiences and learning than others. Teaching thus requires an individual child-centred approach. Observation should be clear, precise and meaningful to help educators develop an insight into the learning of the child. Observation is effective because educators are able to differentiate and identify the needs and interest of the child as well as his/her progress without tampering with what he/she is doing.

It is important to recognise that observation is not only a means of summative assessment. Recording observations can help teachers attend to the specific needs of children in their classroom. Therefore, teachers must:

- record observations that are significant and that give new insights into the children as learners
- use observation regularly in order to remain updated and plan accordingly
- discuss observations with another adult who knows the children (parents, assistant teacher)
- not assume that what the children are doing is what they are learning
- not assume that they should give the children more of the same tasks the following day
- look for emerging themes in the children's activities if the play is going strong
- become skilled at what resources to add in order to prompt fresh thinking.

The identification of each child's favoured schemes strongly supports this process.

II. Learning journeys/stories

'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 observations associated with a focus activity which may occur on one day or over several days. They can be created to follow the child over a number of weeks or months so that they gradually develop into a 'learning journey', i.e., a portfolio of evidence containing single items of evidence or a group of learning journeys. It is important to recognise that the adults' response to their observations should be included in each of these learning journeys. This serves to document the adults' contribution thereby boosting their professional self-esteem and sense of accomplishment. When shared with parents they also serve to strengthen the professional status of and respect for early childhood educators. Children enjoy looking back over these with adults as they are reminded of what they have done and also see for themselves how far they have come. It is

an opportunity for the child and adults to engage in rich and relevant conversations. Learning journeys/stories revolve around three key aspects:

- Describe the learning
- Review the learning
- Determine what's next

Another technique that is used in learning journey/stories is the recording of 'voices' of stakeholders, namely:

- The child's voice
- The teacher's voice
- The family's voice

III. Checklist

The checklist is a record of different aspects of the child's development and learning arranged in a sequence and in categories according to the different areas of learning. The checklist helps educators to record whether children are achieving specific learning outcomes. It is mostly used to detect whether there is room for improvement in terms of behavior and development. Teachers can design their own checklists for specific themes or activities they are implementing. The items on the checklist should be positive in nature and are based on the learning outcomes of each area of learning.

IV. Portfolio

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

V. Running record

Running records are objective and detailed notes that teachers compile on a regular or daily basis. They stand as a record of children's behavior, performance, thinking processes and developmental level during a specific activity or task done for assessment. Running records are also an effective means of providing feedback to parents. The patterns observed during running records are the basis for teachers to also reflect on strategies being used in the class.

A running record is a sequential recording while the event is happening through direct observation. It is generally very short, lasting not more than 10 minutes. Everything that the child does or says during the specified period of time for a designated activity must be written down by the teacher. The time of the event is noted in the left margin and, during the day, the interpretation can be conducted based on developmental information and contextual observations. The interpretation in the right-end column includes all domains of development.

Name of the child: _____ Age: _____ Setting: _____		
Date: _____ Time: _____ to _____		
Time	What is actually seen (Observation)	Meaning of observed behaviors (Interpretation)

VI. Anecdotal record

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

The purpose of a classroom anecdotal record is to learn something specific about a child. This is a very relaxed method of recording observations. The observer/teacher does not need any special forms to fill out, no particular setting, and no time limitations. Anecdotal records are simply brief stories about something that happened. Like an investigator, the teacher can collect ongoing evidence of a child's development in a particular area. For instance, the teacher may jot down anecdotes about how a child explores through her senses, creates with materials, displays leadership, and so on. Anecdotal records focus on one child at a time and since they are written down later, the observer can be a participant in the children's activity.

Name of child: _____ Age: _____ Setting: _____	
Time: _____	
Observation	Interpretation

VII. Time sampling

Time samplings are records of information about children over an interval of time to assess whether there has been any progress and if any step should be taken for follow up. 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. It provides an estimate of behaviour in class.

Name of the child: _____ Age: _____ Date: _____						
Setting: _____ Times observed: _____ to _____						
Activity/Play center	9.30	9.35	9.40	9.45	9.50	9.55

VIII. The Developmental Learner Profile

The Developmental Learner Profile (DLP) consists of a theme-based booklet and the transit document. The DLP is a very useful tool to record observations and monitor the progress of children. It is a helpful tool that 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 narrative examples or brief descriptions of a child's actions or reactions based on their observations for relevant areas of learning. The assessment is not a test but 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 child'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 transit document which must be completed during the term before the child joins primary school.

IX. Daily journal

A daily journal is a record of the progress of children as well as the classroom practices of the teacher. This allows teachers to record important events and activities which they can later analyse and reflect on. It not only helps teachers to learn more about the children and detect what they need but also allows them to reflect on their own practice and find ways of improving and becoming more effective. The daily journal helps teachers become reflective practitioners (Insuasty & Castillo, 2010; Jones 2014).

X. Sociogram

It is a graphic representation of social links that a child has. It is used to analyse the choices or preferences each child makes within a group. The sociogram is a teacher-made tool which determines how a child is viewed by his/her peers as he/she interacts with them in the classroom. It is constructed after each child responds to a questions that tries to probe the social affiliation with other children. The result of the sociometric test are tabulated to determine how many times each child is selected and by whom.

5.2 Inclusion in early childhood setting

Since pre-primary schools are the first school that children attend, it is vital to understand the uniqueness of each child. The early childhood setting is a place to empower children and to help them grow, learn, and develop. Through programmes for professional development, teachers have learnt how to observe children, identify the needs of each child in the classroom, adopt various strategies for different needs, develop Individualised Education Plans for specific children, and monitor progress. However, the significance of early identification and early intervention must be reiterated.

5.2.1 Early identification tools

The tools that are used to identify needs of children are similar to the tools used to record observations. The records of observation can be used to identify children having specific needs. If, for instance, a checklist is used, unachieved items will show what the child specifically needs. The teacher then designs and implements activities related to the unachieved items on the checklist. A record of observation should be carried out to monitor the progress of the child. Another checklist is thus produced to record development in the area concerned.

5.2.2 Early intervention

Pre-primary school teachers are best suited to monitor the progress of children and help them develop. When the needs of children have been identified, teachers develop Individualised Education Plans (IEP), and design and implement appropriate activities to achieve set out goals. Through a record of observations following the IEPs, changes, if any, are noted down. In case no progress has been recorded, it is recommended to design further activities and proceed in the same way for another fixed period of time, say a week. If a child shows no sign of progress within this particular period, it is advisable to move towards referral. It is essential to observe children at an early stage and bring necessary changes as early as possible to enable appropriate development.

6.0 Digital literacy

Digital literacy refers to the knowledge, skills and attitudes that allow children to be both safe and empowered in an increasingly digital world (UNICEF, 2019). The NAEYC (2023) focuses on the use of technology to support the teaching and learning of Early Science, developmentally appropriate technology for preschools, and how to optimise the use of media and technology with young children. In the same vein, teachers are expected to open the world and all its possibilities to young children, while promoting their learning and development embedded in strong relationships, joyful and engaging experiences, but simultaneously, remembering the screen time debates.

7.0 Areas of learning

This section provides details on the components for each area of learning, the types of activities that may be designed for implementation and an example of an activity sheet.

7.1 Personal, Social and Emotional Development (PSED)

Components	Descriptors	Learning Outcomes	What you can do
Self-confidence	Develop self-confidence through care and respect	Dress, undress independently	During preparation for a fashion show or to show dressing culture, children are encouraged to change on their own. They can ask for help when required.
		Manage own personal hygiene	See to it that children wash hands before and after eating, after toilet; conduct talk about dental hygiene; Engage children into conversation on taking shower or bath, wearing clean clothes and nail cutting before coming to school.
		Eat skilfully	Teachers can set the table together before eating; supervise children on holding spoon, fork, or food properly; show how to use towel/tissue paper, avoid spilling or clean spilt food after eating.
		Use toilet with adult help/independently	Supervise toilet use during breaks; Observe children who need help and encourage them to come forward.
		State ways in which children are similar/different	Show gender difference – boy or girl; body parts – similarities (eyes, nose, mouth, ears, cheeks, hands, feet, arms); size – Tall/short, big/small; hair (short/long, colour of hair). Charts can be used.
		Interact with peers regardless of gender, ethnic group, or ability.	Implement activities where children are given the opportunity to interact freely with each other.

Components	Descriptors	Learning Outcomes	What you can do
Self-awareness	Develop self-awareness spiritually	Refer to own self by first and last name	Ask each child to introduce oneself through dramatization so that they learn to talk about themselves to new people and interact with others.
		Respond when called by name	Teachers can casually call children by their name to see if they respond
		Identify own self by family, gender, and age	Use pictures/images or simply drawing of family. Conversation can also be done.
		Develop an awareness of the self, the social self (friends, classmates, family members)	Ask a question to children. Develop a sociogram to identify where each child stand. Encourage more group activities.
		Develop an awareness of and recognize the emotional self	Through role-play children can express the different emotions they know. In doll corner for instance, children can express their feelings towards the 'baby'. Use emotion charts to teach children about different feelings and describe their own feelings.
		Describe/name own feelings	
		Develop an awareness of the moral self	Show pictures of right and wrong allowing children the freedom to decide which is good or bad.
		Be aware of own beliefs, culture, and traditions and that of others	Show all the cultures and traditions in the country to children on special occasions: Chinese Spring Festival, Diwali, Christmas etc.
		Develop patriotism	By inculcating love of the country in children, they can become patriotic. Stories, national anthem,

Components	Descriptors	Learning Outcomes	What you can do
Managing feelings and behaviour	To develop self-control and independence	Use words to express needs/feelings/emotions	Children are able to tell the teacher and others about their feelings.
		Be aware of and follow classroom routine	Teachers must ensure that children know about the routine of the classroom.
		Select and use activities and resources independently	They behave independently and show interest in learning.
		Show sustained interest/attention/concentration, self-motivation and the excitement to learn	Teachers must allow children the freedom to choose activities of their choice and to explore on their own.
		Try new activities, initiate ideas, and speak in familiar group with confidence	Teachers can use praise to show children they are doing great. This can boost up the self-esteem and self-confidence of the children and they learn to appreciate themselves and what they do.
		Show delight or satisfaction when completing a task or solving a problem	

Components	Descriptors	Learning Outcomes	What you can do
Building relationships	To share and relate with others	Interact with one or more children and adults	Different learning corners will help children to achieve these performance indicators. Teachers can use activities that encourage interaction with peers to help children learn to interact with each other. Also, adults, like other teachers or carers in the school can join in activities and interact with children to encourage interaction. The activities can also teach children to wait for their turn, take turns and share.
		Play alongside others	Implement activities where children play along with other children. Note: Do not encourage any solitary play to achieve this objective.
		Join or initiate a play situation	Allow children to manipulate materials and engage in play situation on their own. (Child-centred approach)
		Build relationship through gestures and talk	Use simple gestures to bring children together or to participate. For example, a child who is shy and stay aloof can be brought closer to the group through a simple touch on the shoulder to nudge him/her.

Components	Descriptors	Learning Outcomes	What you can do
		Take turns and share with adult support	Teachers must allow children to manage on their own and take certain decisions so that they become independent. Teachers can act as an observer and give assistance when children need to learn.
		Share toys, books, and games	Encourage children to share toys, books and games during play time. Implement activities that allow children to share with others. Make sharing fun.
		Form good relationship with adults and peers	Promote building relationship through interaction and communication.
		Begin to play or work cooperatively	Activities that encourage children to play alongside other children, in groups or pairs should be implemented for children to learn to socialise and build relationship with others.
		Seek help from peers and adults	Encourage children to seek help from adults they know.
		Communicate freely about home and community and experiences	Encourage children to talk about their weekends, their holidays, their experiences (for e.g., at a wedding, at the post office, in the train)

Components	Descriptors	Learning Outcomes	What you can do
		Use words to describe relationships, feelings	Puppets, dolls, shop corner can be used to achieve this learning outcome.
		Participate in small-group and large- group activities	Design activities that allow children to work in small groups and large groups. Collage can be done in small groups and conversation or a ball game in large groups.
		Recognise and respond to the feelings of others.	Using puppets or dolls, children can learn to recognise and respond to feelings of others.
		Use words to identify a conflict.	Activities that encourage children to play alongside other children, in groups or pairs should be implemented for children to learn to socialise and build relationship with others.
		Engage in developing solutions and work to resolve conflict	Activities for these learning outcomes foster critical thinking in children. Puzzles, labyrinth, or block games can be used to foster thinking.
		Seek adult help when involved in a conflict	Always supervise children. Observe their behaviour and attend to those who shy away from requesting help. Talk to children about asking for help from adults they know.
		Refrain from relating to strangers	Through clip-viewing or stories children can learn of the dangers of talking to strangers.

Activity Sheet

Name of Activity: My friends and I	
Main Area of Learning: PSED	
Aim: The aim of this activity is to develop self-confidence through care and respect	
Learning outcomes: At the end of this activity the child should be able to	
State ways in which I am similar and different to my friends	Links with other areas of learning: MLT: Count the different body parts ECAD: Work collaboratively with peers to explore ideas creatively SAEY: Name the different parts of the body CLL: Use simple language to communicate HPD: Recognise the different body parts
Age: 3+	Grouping: 8 – 10
Time frame: 20 mins	Venue of activity: Indoor
Resources and Materials: Pictures of body parts, flash cards	
Procedures:	
Step 1	Children manipulate freely the flash cards and pictures of body parts laid out on the table. Teacher introduces the activity.
Step 2	Teacher asks children questions about their gender and age.
Step 3	Teacher questions children about how they are similar and ask them to choose a picture and/or a flash card related to what they mention.
Step 4	Teacher asks children to point out the differences between them by using pictures/flash cards.
Step 5	Teacher asks children to say something they like about each other and themselves.
Step 6	Teacher asks children to draw themselves on an A4 sheet of paper.
Key vocabulary: Boy/girl; three/four/five; hair; eyes; nose; long/short; tall/short; big/small;	Adapting activity for individual children: Child having difficulty to communicate are given the opportunity and prompted to talk. Teacher allows more time to the particular child.
Evaluation: Questions and answers, checklist	
Follow-up Activity: I draw myself and my friends	

Once you have conducted the activity, you can use a checklist to ensure that children have understood the similarities and differences between themselves, and their friends are normal, and they must accept each other as they are. Hence, a checklist can be created to ensure same. The checklist can be as follows:

Checklist for 'My friends and I' activity			
Name of child: _____ Age: _____			
Items	Yes	No	Not sure
Recognises different parts of the body			
Recognises different parts of the head			
Recognises similarities between himself/herself and friends			
Recognises differences between himself/herself and friends			
Talks about similarities between himself/herself and friends			
Talks about differences between himself/herself and friends			
Mentions what he/she likes about friends			
Talks positively about friends and oneself			

Another task you can do as a teacher is to keep a journal for all activities carried out during the day. For instance, in order to note down about how your day went by, for this particular activity it can be written as follows:

The children were excited about the activity. They manipulated flash cards and pictures and talked freely among themselves. Child A however was a bit quiet. May be because she is shy. The rest of the children participated actively. I will need to help Child A to overcome the shyness.

As you can see, the above extract which goes into your daily journal involves what you have observed, what do you think about it? and What will you do now/next?

7.2 Communication, Language and Literacy

Components	Descriptors	Learning Outcomes	What you can do
Listening Skills	Use appropriate listening skills	Perceive, identify, and discern different sounds and voice sources	During storytelling, the teacher can simulate different voices (intonation and volume) to help learners to distinguish between the characters and their emotions.
		Follow verbal instructions correctly	Children can be asked to perform various steps in preparing a fruit salad. They are then allowed to make their own salad using their choice of fruits.
		Sustain listening attention to speech, songs, and audio materials	Children can be asked to listen to songs and sing along.
		Respond to what has been heard through questioning, by commenting, asking for clarification or by expressing own thoughts, ideas, and feelings	After listening to either a story, song, or a rhyme, children can be guided to formulate their thoughts, ideas and feelings about the characters, events, and themes.
		Imitate, and rehearse what has been heard	Listen and repeat the lyrics from an audio or as sung by the teacher. Imitate the actions of the teacher to act out the song.
		Show interest in, enjoy listening to and participate/join in conversations/songs/nursery rhymes and stories	Sing songs and rhymes and participate in storytelling sessions.
		Identify words with the same beginning sound and words with the same ending sound	Draw attention to rhymes, and alliteration when listening to rhyming poems. Use phonemic awareness worksheets, such as draw a circle around the picture that rhymes in each row.
		Create word families by rhyming sounds	Create word wheels with rhyming sounds, using Consonant Vowel Consonant (CVC) words such as cat, bat, mat, sat

Components	Descriptors	Learning Outcomes	What you can do
Speaking Skills	Engage in speech audibly, with clarity and confidence	Articulate clearly and pronounce intelligibly	Children listen and repeat; pronounce and show.
		Use tone, pitch, volume, rhythm/pace, pauses and voice modulation with effect	Role playing using storybooks such as A Squash and a Squeeze by Julia Donaldson and Axel Scheffler.
		Express needs, thoughts, experiences, and feelings using target language progressively and with increasing confidence	Use emotion ruler (Creole, French, English) to identify and share needs, thoughts, experiences, and feelings. Manipulate and play to express how they feel.
		Describe a situation/ an event	Talk about week-end plan and birthday parties, using objects, songs, and pictures.
		Narrate a simple story, recite a poem/nursery rhyme, and sing a song	Listen and sing along.
		Talk about personal experiences with peers and adults	Share thoughts and experiences with parents, siblings, and friends.
		Respond appropriately when asked questions	Children share their opinions and ideas about Little Red Riding Hood.
		Talk about favourite characters in a story, song, or film	Children talk about the character in The Gruffalo by Julia Donaldson and Axel Scheffler.
		Describe pictures/ illustrations in books	Point at and name characters, places, objects on pictures/illustrations in story books. Then, describe the height of the characters, the size of the place and the colour of the object.
		Retell a story in own words	After reading Little Red Riding Hood, children express their thoughts about what happened in a story and retell the story in their own words by removing the wolf or changing the story's ending.
		Add a part to a song	Replace names in the song, Rain rain go away with familiar names to add a part to the song. Use pictures to sing about different characters and animals.
		Engage in dramatic oral productions	Participate in school end of year shows, musical shows, and talent shows.
Enact a story/an event	Role play and imitation of characters.		

Components	Descriptors	Learning Outcomes	What you can do
Building Vocabulary	Use new words and extend vocabulary	Name and describe objects and concepts.	Use alphabet sound chart without words. Match pictures to words, concepts, and objects.
		Express feelings, thoughts and needs in the target language.	Describe and use facial expressions to share the characters' feelings and guess their thoughts and needs.
		Express and exchange ideas and opinions	Take turns to share ideas and opinions on themes/topics. Share their views on the field trips, using pictures and what they heard or smelled.
		Describe space (on, under...) and direction (left, right, back, in front of)	Locate objects and people in the classroom, and on a picture.
		Describe time (past, present, and future) and chronology (before, after...)	Make a daily routine poster with visual representations of time and activity. For example, 8 am = Outdoor play or 9 am = Circle Time

Components	Descriptors	Learning Outcomes	What you can do
Communicating with others	Use verbal and non-verbal communication skills	Respond appropriately to 'who', 'what' and 'where' questions	During storytelling sessions, ask 'who', 'what' and 'where' questions and scaffold with Creole or French.
		Express thoughts and feelings and respond through gestures, facial expressions, and body language (eye contact)	Roleplay characters' feelings and reactions during storytelling sessions, using gestures, facial expressions, and body language.
		Express personal needs and ideas	Children stand in front of a mirror and say their need(s) for the day. Guide students to share their ideas when doing individual and group projects. During storytelling, guide students to guess or rethink the ending to the story.
		Express experiences and feelings in the target languages	Have conversations using open-ended questions: <ul style="list-style-type: none"> • How do you feel when ...? • Tell me about a time when you felt really happy/sad/scared.
		Scribble and draw to convey messages/meanings	Ask children to draw a picture to show how they feel and then they talk about their drawing.
		Communicate orally for a range of purposes	Guide students to speak about a range of topics relevant to them, and about their thoughts and feelings. Watch animated cartoons, such as A Joy Story: Joy and Heron on YouTube and guide students to do the storytelling.
		Communicate more precisely and extensively with new words learned	After storytelling, children listen and complete a few sentences using the new words from the story.

Components	Descriptors	Learning Outcomes	What you can do
Reading skills	Use emergent reading skills	Show curiosity and interest while interacting with printed materials – ask questions, identify familiar letters and words, enquire about new words	Look at a book cover and identify the starting letter(s) in the title and read familiar words.
		Handle books in the correct way – hold the book upright and turn pages from right to left	Showcase the most interesting, attractive and most colourful items to the young learners.
		Read and interpret pictures/drawings/digital materials	Ask simple questions to guide the picture reading, using Tizan and the Wolf by Amarnath Hosany, Véronique Massenet and Solen Coeffic.
		Make out and follow story line expressed through pictures	Decode a few pictures together with the children and allow them to order the pictures in a sequence to tell their own story.
		Identify and read letters of the alphabets	Use blending and segmenting of sounds, consonant and vowel digraphs to start reading words.
		Recognise a range of familiar sights /high frequency words – own name, days of the week, name of fruits...	Use whole-word approach for children to learn words of the same family. For example, Colours: red, yellow, blue, white, brown, black, green
		Read syllables, words and simple sentences in the target language by decoding and with guidance	Listen and use fingers to squish the sounds in the word together. For example, /squ/ /a/ /sh/ = squash
		Show awareness that print carries meaning and information	Look and identify people, places, and objects, as illustrated in the storybooks and in alphabet books.
		Recognise conventional graphic displays	Identify the purpose of the graphic displays in the classroom and in the school. For example, Reading Corner graphic symbol, washroom graphic display, etc.
		Stress beginning or ending sounds.	Expose children to beginning and ending sounds in common words when reading Consonant – Vowel – Consonant (CVC) words.
Respond to questions related to stories, rhymes, poems, characters, and events	Develop simple skills in identifying unclear or hidden messages.		

Components	Descriptors	Learning Outcomes	What you can do
Writing Skills	Use early writing skills	Develop pre-writing skills	Use mark making activities; threading and lacing; cotton swabs; finger painting and play dough to form letters of the alphabet.
		Show beginning control and manipulation when holding pencil/crayon/scissors	Use ladle, tongs, and teabag squeezers to pick up objects. Use craft activities and scissor projects.
		Adopt correct writing posture	Display poster of correct writing posture in class as a visual reminder for children. Sing posture songs: 1 2 3 4 are my feet flat on the floor, 5 6 7 8 is my back up nice and straight, 9 10 11 12 is my pencil correctly held, 13 14 15 16 now I am ready to start writing.
		Scribble and form letters with pencils/crayons to develop laterality	Use sandpaper letters and numbers with directionality; alphabet and number stencils; a sand tray to form letters with their finger, a stick, pencil, or crayon.
		Hold pencil properly	Model functional pencil grasp by including the thumb, the first and third fingers or the thumb, the first, second, third, and fourth fingers.
		Give meaning to graphical symbols	Draw and talk about the school signs and common road signs. Make and use sensory ABC bags or use candles to shape letters and students paint the sheet to reveal and name the letter.

Components	Descriptors	Learning Outcomes	What you can do
		Engage in writing activities during play	Model the use of writing tools and engage children in a range of writing activities such as creating a birthday card. Children tell their short story using an object or a picture and teacher writes the sentences on the board or kitchen paper. Whenever children use a familiar word, allow them to either write part of the whole word on the board or kitchen paper.
		Form letters of the alphabet with increasing precision and using directionality	Trace the shapes of letters and words on dotted lines and read them aloud; use letter shaping worksheets with directionality.
		Draw and colour with interest	Watch The Day the Crayons Quited on YouTube to draw and colour with interest. Draw and colour living and non-living things with interest.
		Copy own name and familiar sight words	Use whole-word approach to introduce, pronounce and write these sight words: a, the, he, she, they, be, but, have, was, what, with Use class display and play memory games with these sight words: a, the, he she, they, be, but, have, was, what, with Draw children's attention to these words during storytelling sessions.
		Write letters of the alphabet in upper- and lower-case	Find and circle the uppercase/ lowercase of a chosen letter on the board or on a worksheet.

Activity Sheet

Name of Activity: Storytelling	
Main Area of Learning: Communication, Language and Literacy	
Aim: The aim of this activity is to: <ul style="list-style-type: none"> Name and describe objects and concepts Respond appropriately to 'who', 'what' and, 'where' questions 	
Learning outcomes: At the end of this activity the child should be able to: <ul style="list-style-type: none"> to pronounce and identify a few pieces of furniture in the house to respond to questions starting with 'Where...' to locate the monkey puppet in the class 	
The performance indicators are: <ul style="list-style-type: none"> Name and describe objects and concepts Respond appropriately to 'who', 'what' and 'where' questions 	Links with other areas of learning: <p>MLT:</p> <p>ECAD: children will engage with the grandchild's feelings as she looks for her grandmother's glasses.</p> <p>SAEY:</p> <p>CLL: Enrich children's vocabulary</p> <p>HPD:</p>
Age: 3-4 Years	Grouping: 10 students which can be divided in two groups of five, when needed
Time frame: 30 minutes	Venue of activity: This activity can be carried out indoor or outdoor
Resources and Materials: story book of Grandma's Glasses by Rohini Nilekani, audio player, flashcards for vocabulary, monkey sock puppet	
Procedures: In the different steps below, propose how to begin the activity, the different steps of carrying out the activity and the last step is how to end the activity	
Step 1	Gather all the children and <u>allow</u> them to sit in semi-circle.
Step 2	Show the book cover and teach the words: grandma, granddaughter, glasses. Show the pictures and get children to pronounce chair , sofa , cupboard , table . Emphasis is laid on the beginning consonant sounds to develop phonemic awareness.
Step 3	Ask the children if they want to listen to a story about grandma's glasses and then starts telling the story. Guide students to do picture reading, before reading the text to them. Each time the taught words come up, the flashcards are used to practise the pronunciation and link to the picture.

<p>Step 4</p>	<p><u>Dramatize/exaggerate</u> the repeated question from the story: Where are the glasses? Translate the word, 'where' in Creole or French. Then ask students to play a game.</p> <p>Suggested instructions: I will <u>ask you</u> a question and you will <u>point to show</u> me. Where is the board? Where is the door? Where is your school bag? Where is your water bottle? Educator praises the students and can repeat the questions in Creole or French.</p>
<p>Step 5</p>	<p>After the story, the educator <u>shuffles</u> the vocabulary flashcards. Taking turns, students will pick the card and say what it is to identify the furniture.</p>
<p>Step 6</p>	<p>The educator <u>wraps up</u> the lesson by singing the song, Where's the Monkey? The educator uses the monkey sock puppet and places it in a different place in the class. E.g. under the table, behind the door, in a school bag</p>
<p>Song for this week: Where's the Monkey? https://www.youtube.com/watch?v=idJYhjGyWTU</p>	
<p>Key vocabulary:</p> <p>The key words or vocabulary that children will hear, come across and learn during the activity.</p> <p>Grandma, granddaughter, glasses, chair, sofa, cupboard, table</p> <p>Key questions:</p> <p>Who is this? Grandma, granddaughter</p> <p>What is this? A book</p> <p>What can you see? A bedroom</p> <p>Where is the board? Where is the door? Where is your school bag? Where is your water bottle?</p> <p>Where's the monkey?</p>	<p>Adapting activity for individual children:</p> <p>How the activity can be adapted for those children having difficulty</p> <ul style="list-style-type: none"> • Use visual support when teaching the words • Translate the question for starting with 'Where' in Creole and French
<p>Evaluation: How the activity will be evaluated – questions and answers, checklists</p> <p>Question and answer; vocabulary game by shuffling the picture flashcards in Step 5</p>	
<p>Follow-up Activity: The next activities that will follow this activity are:</p> <ol style="list-style-type: none"> 1. Listen to the phonic song for letter g and shape the letter in the air 2. Worksheet with dotted lines and directionality to shape the letter g 3. Colour the letter g in the following cvc words (bag, rag, wag, tag) and pronounce the word, using blending 	

7.3 Expressive, Creative and Aesthetic Development (ECAD)

Components	Descriptors	Learning Outcomes	What you can do
Aesthetic experiences, Expressive experiences & Creative Experiences	Engage in discovery and demonstrate appreciation	Use different media, techniques, and processes in art making.	Allow children to interact with natural objects such as shells, flowers, leaves, pinecones and feathers and man-made objects such as toys and fabric swatches. Allow children to discuss what they see and appreciate about their shape, form, texture, and colour.
		Respond to a variety of Stimuli	Get children to explore patterns and colours by using leaves, flowers, and other natural objects to make prints on paper.
		Carry out individual and group activities which foster discovery and appreciation of different forms of art	Select and use artworks and performances that are visually engaging, culturally relevant, and age-appropriate to encourage children to discuss what they like or not like about them.
		Appreciate own artwork, and that of peers	Examples: <ul style="list-style-type: none"> • sega performances, videos of African drumming, dance performances and puppetry shows • paintings from local artists such as Vaco Baissac, Malcolm de Chazal and Pascal Lagesse and paintings from Impressionist artists such as Claude Monet and Vincent Van Gogh
		Appreciate various forms of art through diverse creative activities	
		Develop aesthetic awareness	Allow children to display their own works (individual or group work) and encourage them discuss and appreciate their works and that of their peers. Organise visits and tours (including virtual tours) to exhibitions/galleries/museums/historical places and allow children to respond to what they see and how they feel.

Components	Descriptors	Learning Outcomes	What you can do
	Express ideas, feelings and emotions	Use a variety of media, techniques, and processes to communicate ideas and opinions	Employ various artistic techniques such as drawing, painting, printing, collage, modelling, and assemblage, along with performance art, to produce visual and performing arts pieces that reflect children's individual feelings and response as well as that of groups.
		Communicate feelings and emotions through visual and performing arts activities	Examples of activities: <ul style="list-style-type: none"> • Free Painting where children can paint whatever they like. • Sgraffito where children explore lineal designs to communicate ideas, feelings and emotions.
		Use own experiences to express thoughts and ideas confidently through individual or group works	<ul style="list-style-type: none"> • Imaginary World Creation where children can use their imagination to create a model of an imaginary world using playdough, clay, or construction materials like cardboard boxes, paper tubes, and fabric scraps. • Storytelling with Puppets where children create their own puppets using socks, paper bags, and craft supplies and perform their own stories using the puppets. • Set up a music corner with a variety of simple instruments, like drums, and shakers and allow the children to explore freely the sounds and rhythms, encouraging them to create their own music. • Play different types of music and allow the children to express themselves through dance and movement. • Provide materials with different textures (e.g., cotton balls, foil, sandpaper) as well as magazine cutouts, fabric scraps, and other materials to create a collage to express a mood or tell a story. • Children draw or paint a portrait of themselves expressing different emotions like happiness, sadness, or anger. • Children can use clay or playdough to sculpt figures or objects that represent something important to them. • Children can express emotions or tell stories through dance and movement, either individually or in groups. • Engage children in role-playing activities, allowing them to act out stories or scenarios.

Components	Descriptors	Learning Outcomes	What you can do
	Exploration and imagination	Express ideas freely through the Arts	Simple Themed Drawing where themes like animals, space, or fairy tales allow children to draw their interpretation of the theme.
		Use their imagination and creativity to produce art works and engage in drama-based performance	Basic Role-Playing where different play areas such as a kitchen, a doctor's office, or a store are set up and where children can engage in role-playing, which helps them understand different roles and use their imagination.
		Use their imagination to develop an understanding of self and others through the Arts	A story is read to the class and the children are asked to act out parts of it enabling them to combine drama and imagination with understanding narratives. Set up a large sheet of paper for a group finger painting activity based on a theme, like 'The Seasons' or 'Underwater World'
		Work collaboratively with peers to explore ideas creatively and imaginatively	Play music and encourage the children to dance and when the music stops, they freeze. This activity helps children express themselves through movement.

Activity Sheet

Name of Activity: Description of artwork	
Main Area of Learning: ECAD	
Aim: The aim of this activity is to engage learners in discovery and demonstrate appreciation	
<p>Learning outcomes:</p> <p>At the end of this activity the child should be able to develop aesthetic awareness of their environment, culture and art appreciation through observation, artmaking and performing arts.</p> <ul style="list-style-type: none"> • The interactive nature of the proposed activities will allow young learners to experience different artistic forms and be initiated to the appreciation of art. • The exposure to historical places, museums, artworks, nature their environment from a young age will contribute to the holistic development of children. • The art activities will enable learners to explore their Cognitive, Affective, Psycho motor domains. 	
Ability to make an artwork and express oneself through Performing arts.	<p>Links with other areas of learning:</p> <p>CLL: communication about culture, arts and artists, music, songs, etc.</p> <p>MLT: Name shapes and colours</p> <p>HPD: Follow simple instructions</p>
Age: (4-5 years)	Grouping: 5-10
Time frame: 20 – 30 minutes	Venue of activity: Indoor and Outdoor (field trips, visits, educational tours)
<p>Resources and Materials:</p> <p>A plan for visit(s) and tour(s) to museums/historical places/exhibitions.</p> <p>Printed or drawn outlined images of selected artworks of local and/or international artists.</p> <p>Drawing, painting, and colouring materials.</p> <p>A checklist for assessing learning.</p>	
Procedures: In the different steps below, propose how to begin the activity, the different steps of carrying out the activity and the last step is how to end the activity	
Step 1	Identify museums/historical places exhibitions to be visited
Step 2	Brainstorm about the experiences and observations
Step 3	Identify artworks of local and/or international artists Sketch/Trace/Draw outlines of selected artworks
Step 4	Carry out the colouring/painting activity and assist them in the activity
Step 5	Enable children to exhibit their creations and allow them to talk about their creations and performance
Step 6	Assess their learning experiences

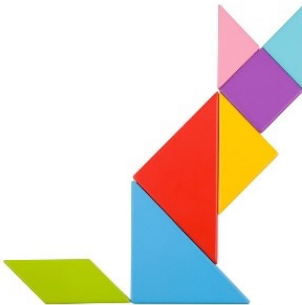
<p>Key vocabulary:</p> <p>Aesthetic awareness</p> <p>Art appreciation</p>	<p>Adapting activity for individual children:</p> <p>Provide simpler activities for those children having difficulty and assist them in the colouring/painting process</p>
<p>Evaluation:</p> <p>At the end of the activity use the checklist to assess the learning.</p> <p>What have you learnt about culture, history and art?</p> <p>What have you learnt about art appreciation?</p> <p>What have you learnt about the artist?</p>	
<p>Follow-up Activity:</p> <p>The next activity that will follow can be a group work or an individual drawing/painting/colouring activity work.</p>	

7.4 Mathematical and Logical Thinking (MLT)

Components	Descriptors	Learning Outcomes	What you can do
Number sense	Recognise and use numbers and their relationships in daily experiences	Say number names in order	Activities for counting with one-to-one correspondence may include using egg-trays and placing one object in one space while counting. This can be done in the context of role play e.g. in the kitchen corner, shop corner.
		Count to 10	
		Count using one-to-one correspondence	
		Use language, such as 'more than', 'less than' and 'same' to compare groups of objects	Singing songs related to numbers: e.g. 1,2,3,4,5 once I caught a fish alive. Children can be encouraged to use their fingers and link them to the song as they count. Using songs and acting them out can also help children with counting back and identifying numerals e.g. 'Ten green bottles', 'Five little ducks went swimming one day'.
		Identify written numerals up to 5 or 10 as developmentally appropriate	Creating Number books Children are asked to collect several items indoors or outdoors, such as leaves and scrap materials. Children will then create their number book for a specific number by sticking the items or pictures of the items. Encourage children to stick the items in their books using different arrangements.
		Represent number quantities using different materials	
Identify numbers as represented in different arrangements	Snack time and tidying up: Raise children's awareness of numbers during their daily experiences, for e.g. during snack time - talk about numbers of biscuits and model appropriate language such as more, less and same. Involve children in creating labels with numbers on them for tidying up toys.		

Components	Descriptors	Learning Outcomes	What you can do
		Identify and name without counting, the number of objects in small groups	Dice and domino games. Roll the dice and choose several items (can be used in a role play context) e.g. the number of toppings to place on the ice cream, the number of items to buy in the shop.
		Reproduce numerals up to 5 or 10 using different materials	Domino games: Share dominoes, flip and compare who has more dots, less dots on their dominoes.
		Recognise that a number is one-more or one-less than another number	Go on a number hunt: Ask children to go on a number hunt in the school compound. Use supermarket pamphlets and encourage children to find specific numerals.
		Identify repeated patterns in songs and rhymes	
		Identify, describe and extend simple increasing patterns using manipulatives	Block play and Lego block play: Create simple increasing patterns during block play and Lego block play by creating towers with increasing number of blocks.
		Count back from number 5 or 10, as developmentally appropriate	Hidden objects games: Place small numbers of objects or counters (1, 2 and 3 objects) under three different bowls. Shuffle them, lift one bowl very quickly and place it back. Ask children to say how many objects there are underneath the bowl.

Components	Descriptors	Learning Outcomes	What you can do
Spatial sense	Recognise and use basic shapes in their environment	Identify and name basic shapes (circle, triangle, rectangle, square) in their environment	Go on a shape hunt: Ask children to go on a shape hunt in their classroom, school compound, during school trips or in their daily experiences at home. Give children hints such as 'look in front of the tree' to find a specific shape hidden in their environment. This will also help children to develop their vocabulary to describe positions.
		Match objects based on attributes (e.g. shape, size, colour, number)	
		Identify repeated patterns in their environment	
	Investigate positions and locations during daily experiences	Classify objects according to one attribute (e.g. colour, size, shape, or other categories)	Shapes in mystery bag: Place different shapes of different sizes in a bag. Ask children to place their hands in the bag, choose a shape, explore them inside the bag and try to guess which shape it is. They then remove the shape from the bag to reveal it. Obstacle course: Set up a simple obstacle course in the indoor or outdoor environment where children must go over and under, jump in and out of hoops and use spatial language and vocabulary such as over, under, in front. Encourage children to use positional language to describe their positions during transition activities such as when queuing up to go outside.

Components	Descriptors	Learning Outcomes	What you can do
Spatial sense	Recognise and use patterns and relationships in their environment and during routines, transitions, and daily experiences	<p>Sort objects according to whether they are 'same' or 'different'</p> <p>Describe repeated patterns</p> <p>Extend simple repeated patterns (up to two attributes)</p> <p>Use manipulatives to create own repeating patterns and use everyday language to describe the pattern</p>	<p>Making shapes and making pictures with shapes: Use different materials such as play dough, long pieces of elastic, long ribbons to form shapes with different numbers of children holding the ribbons or elastic to create the specific shape.</p> <p>Use tangrams and pattern blocks to create shapes and pictures (e.g. making a cat with the tangram shapes)</p>  <p>Use stories as starting points for activities such as using blocks and shapes for making a house for the 3 bears in the story 'Goldilocks and the three bears'</p> <p>Go for a walk in the garden and outdoors to identify patterns such as patterns on trees, leaves. Ask children to collect objects in their environment and copy the patterns using different materials such as Lego blocks, beads of different colours, paint, play dough and other materials. Children can also create their own repeating patterns with shapes, colours, and sizes.</p> <p>Storytelling and singing: Encourage children to notice and describe patterns on animals such as zebras, patterns on clothes and patterns in songs and rhymes.</p>

Components	Descriptors	Learning Outcomes	What you can do
Measurement sense	Explore attributes of everyday objects and use mathematical language to describe them	Compare objects by size and use vocabulary such as 'bigger/smaller', 'taller', 'longer', 'shorter'	Leaves and twigs: Go for a nature walk and ask children to collect different leaves and twigs they find in the garden. Once inside, ask children to classify the leaves and twigs according to their sizes.
		Begin to use everyday language related to money such as rupees	Cooking activities: Use simple recipes such as those for playdough, bread and cookies. Provide children with the recipes with pictures and numbers as well as spoons and cups for measurement purposes. Provide children with a mixing bowl and spoon for mixing their ingredients. Encourage use of mathematical language throughout the activity.
	Make comparisons and measure	Demonstrate an understanding of attributes of objects	Water and sand play: Provide children with different sized bottles and containers in the water and sand play area as well as spoons and cups. Ask children to find out which bottles and containers can contain more water or sand.
		Estimate capacity of containers and volume of liquids in containers	Making a timetable: Provide children with different pictures of their routine activities during the weekdays and weekends. Ask them to order the pictures and create their own timetables for the day. Encourage them to use everyday language related to time such as 'morning/afternoon'.
		Measure and compare capacity using everyday objects	Making a timetable: Provide children with different pictures of their routine activities during the weekdays and weekends. Ask them to order the pictures and create their own timetables for the day. Encourage them to use everyday language related to time such as 'morning/afternoon'
		Storytime: Provide children with picture cards for the story and ask them to sequence the events to recreate the story. Model use of language and question them using words such as 'before', 'after'.	

Components	Descriptors	Learning Outcomes	What you can do
		Use language such as 'light/ heavy' to compare mass of objects	<p>Making caterpillars: Provide children with play dough and ask them to roll the play dough to make caterpillars. This may be done in the context of a story such as 'The very hungry caterpillar'. Children can then compare the lengths of their caterpillars using vocabulary such as 'longer', 'shorter'. You may also provide children with materials such as Lego blocks or unifix cubes to measure the lengths of their caterpillars.</p> <p>Role-play in a shop corner: This shop corner can be changed to a bakery shop, supermarket, farmer shop or whichever role play area the children may be interested in. Set up the role play area with price tags showing the pictures of coins. Provide children with play coins which they can then count and match when paying for items. Encourage them to ask questions such as 'How much does this item cost?'. Ask children to place their items in shopping bags and see which items are heavier and which ones are lighter.</p> <p>Block play and Lego play: Provide children with opportunities to estimate and measure in meaningful contexts such as finding out whether a space is big enough or too small to have a bed for the giant or a dwarf in a story. Ask children to use their Lego blocks and building blocks to create a space of appropriate size for a giant or a dwarf in the story.</p> <p>Doctor role play area: Set up a doctor role play area with a height chart and scale as well as dolls and different sizes of bandage rolls. Provide children with the opportunity to play freely in the area and set up guided activities to encourage children to explore heights, heights of the different dolls and lengths of bandage rolls.</p>
Classify objects according to size			
Use everyday language related to time, such as 'day/ night', 'morning/ afternoon', 'yesterday/ today/tomorrow', 'before/now/after'			
Measure and compare capacity using everyday objects			
Order and sequence familiar events			

Activity Sheet

Name of Activity: Doctor role play: Comparing and measuring	
Main Area of Learning: Mathematical and Logical Thinking	
Aim: The aim of this activity is to make comparisons and measure	
Learning outcomes: At the end of this activity the child should be able to:	
Write down the learning outcome for the particular activity based on the descriptor given above (the aim)	Links with other areas of learning:
Compare objects by size and use vocabulary such as 'bigger/smaller', 'taller', 'longer', 'shorter'	Write down the learning outcome for each area of learning to show how the activity also includes the links with the other areas of learning
	ECAD: Communicate feelings and emotions through performing arts activities
	SAEC: Identify through observation their external body parts and name them
	CLL: Express needs, thoughts, experiences, and feelings using target language progressively and with increasing confidence
	Copy own name and familiar sight words
	PSED: Use words to express needs/feelings/emotions
	Interact with one or more children and adults
Age: 4-5 year olds	Grouping: 5- 6
Time frame: up to 20 minutes (or as appropriate for the play session)	Venue of activity: Indoors in the doctor role play area set up
Resources and Materials: play stethoscope (can be a DIY one), different sizes of dolls, different lengths of bandage rolls, different sizes of play plasters (DIY such as using felt) which can also be in different shapes, number cards, appointment cards	
Procedures: In the different steps below, propose how to begin the activity, the different steps of carrying out the activity and the last step is how to end the activity	
Step 1	Set up the role play area and allow children to explore the resources within the role play area and play freely for some time.
Step 2	Each child will have a turn to role play being the doctor(s) while the other children will be called upon to act as patients with their dolls or themselves. You may also engage in the play and act out being a patient with a doll.
Step 3	During the role play, the doctor provides each patient with an appointment card and a number card to know when their turn will be. The patients are asked to write/copy their name on the appointment cards. Model this through being the patient while starting the role play with the children.
Step 4	Encourage children to ask questions about their feelings and interact while asking on which parts of their body they or their dolls have got hurt.
Step 5	The doctor is then required to consult the patients and select the appropriate length of bandage rolls or size of plaster based on the size of the injury and place them on the dolls or children. Guide children, where necessary, to compare the lengths and sizes

Step 6	During the activity, encourage children to talk about lengths and sizes through questioning and using appropriate language of comparison such as 'longer', 'shorter', 'bigger'.
Step 7	Once the doctor visit is over for each patient, the patient is encouraged to talk about their experiences. Question children about what they have learnt during the activity, how they compared the lengths, why it was important to select the appropriate lengths of bandage rolls and plasters.
Step 8	End the activity by providing children with some more time for creative free play in the area.
<p>Key vocabulary:</p> <p>The key words or vocabulary that children will hear, come across and learn during the activity</p> <p>Vocabulary related to measurement sense: Longer, shorter, bigger, smaller</p> <p>Vocabulary related to number sense: Numbers</p> <p>Vocabulary related to spatial sense: Names of shapes</p>	<p>Adapting activity for individual children:</p> <p>How the activity can be adapted for those children having difficulty</p> <p>Provide children with only 2 sizes of bandage rolls or plasters and ask them to select the appropriate one by comparing. Get them to role play in pairs being a doctor and a nurse and work together to select the appropriate lengths.</p> <p>Adapt resources such as number cards for those children having difficulty to identify the written numerals by providing them with dot cards representing the numbers or cards with tactile written numerals with materials such as beads stuck on the cards.</p>
<p>Evaluation: Questioning and running records (observation)</p> <p>Examples of questions:</p> <p>Would this bandage be long enough for this doll?</p> <p>Which bandage is shorter?</p> <p>Which plaster will you need to use for this doll's wound/injury? Why do you need to use this plaster?</p> <p>Examples of what to observe and record:</p> <p>How the child selects the bandage rolls or plasters for each doll (e.g. the child observes two plasters, selects a small one and then places it back to choose a bigger one)</p> <p>How the child places the bandage rolls and plasters to compare lengths and size (e.g. if the child places the two bandage rolls side by side)</p> <p>The mathematical language used by the child during the activity- what the child says during the activity (e.g. 'This plaster is too small; I need a bigger one for this injury')</p>	
<p>Follow-up Activity: The next activity that will follow this activity: Measuring heights of dolls and bandage rolls using resources such as unifix cubes or Lego blocks. Children will then be asked to compare which doll is taller and to write down the number of Lego blocks used for each doll. The activity can also be used with flash cards with pictures of dolls.</p>	

7.5 Scientific Awareness for Early Childhood (SAEC)

Components	Descriptors	Learning Outcomes	What you can do
Parts of the body	Recognise the body parts and their function/s	Identify through observation their external body parts and name the	Drawing the outline of the human body and placing flash cards of body parts at the appropriate parts of the outline.
		Investigate some body parts such as eyes, ears, nose, mouth, hands, fingers, legs, and toes	Identifying and naming of parts of the body and explaining their functions during a 3-D mind mapping activity of the human body.
		State the functions of the different parts of the body	Role-playing activity such as a visit to a doctor, dentist; dialogue related to functions of the body parts. Performing activities related to parts of the body and body hygiene to maintain good health.

Components	Descriptors	Learning Outcomes	What you can do
The five senses	Explore the five senses	Name the five senses	Visiting school yard as outdoor activities or field trip to a farm, market, garden with focus on exploring the environment using the different senses; stating which senses are in use.
		Relate the senses to the respective sense organs	Designing of charts that map each sense to its corresponding body part or sense organ. Bowling activity using plastic bottle partially filled with water; identifying which senses are in use. Try same with other similar activities.
		Recognise and state the functions of the sense organs	Performing simple drawing activities on sand tray.
		Use the five senses to observe, identify, classify and describe objects and events	Identifying and relating different items like comb, toothbrush, tongue cleaner, watch, sock, shoe, glove, face mask, body powder, goggle, earring etc to the appropriate part of the body during 3-D mapping activity.

Components	Descriptors	Learning Outcomes	What you can do
The natural environment	Explore the natural	Ask questions and seek answers about the natural environment and phenomena (cyclone, flood, drought, soil erosion, tsunami, climate change)	Identifying objects of a particular colour, shape, smell, found in the classroom.
		Use the five senses to investigate about the environment through outdoor activities	Classifying fruits, vegetables, materials according to shape, size, colour, smell, texture. Investigating the different kinds of sound when plastic bottles are filled with different amounts of materials such as sand, pebble, water.
		Identify the living and non-living components of the natural environment such as water, soil, sun, stars, clouds, animals, and plants	Drawing and colouring of the life cycle of a butterfly. Drawing and identifying stages of the Water cycle. Investigating the process of germination of seeds.
		Show awareness of the occurrence of day and night	Using flash cards and puzzle parts to construct a poster to compare different types of environments (clean and dirty). Building and operating a model of a volcano.
		Recognise the presence of air through simple activities	Using pictures, videos, and real-life experiences to describe changes in weather before, during and after cyclones; describing the consequences of cyclones.
		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	

Components	Descriptors	Learning Outcomes	What you can do
Living and non-livings	Explore and classify living and non-living things	Observe and identify things in their environment	Conducting simple experiment to determine which materials dissolve in water.
		Investigate and ask questions about things in their environment	Identifying living and non-living things during outdoor activity.
		Categorise things as living and non-living	Classifying living things as animals and plants based on common traits.
		Use their senses to investigate, identify, compare and classify living things according to observable features	Designing and using the Weather wheel.
		Classify living things, such as animals and plants	Making of a Sundial and observing the shadows formed during the day.
		Compare and contrast the characteristics of some common animals and plants	Using pictures and videos to discuss the importance of animals and plants.
		Recognise the importance of animals and plants	Identifying the sounds during outdoor activities and identifying the sources of these sounds.
		Recognise the sounds made by different living and non-living things	Role playing on care and respect for living things.
		Show care and respect for all living things	Observing floating and sinking of objects through outdoor activities.
		Use the senses to investigate the properties (such as colour, texture, softness, hardness, smoothness, roughness, floating, sinking) of some common objects and materials	Performing classroom activities related to the 3 states of water and the changes that occur.
Investigate some changes such as melting, evaporation, dissolving, seed germination, growth of seedlings and lifecycle of insects like butterflies. (Inquiry-based activities are meant for observation and discussion, hence children are NOT required to learn the terms related to concepts)	Making observations, classifications, comparisons, and sorting, of items during activities that are carried out indoors and outdoors, and effectively communicating them to peers and teacher.		

Components	Descriptors	Learning Outcomes	What you can do
Technology in everyday life	Demonstrate awareness of the importance of technology in their everyday life	Recognise some common technological appliances in their everyday life (television, radio, refrigerator, mobile phones, tablets, computers, cameras)	Identifying and naming technological appliances used at home and at school through real life materials and pictures/videos; stating how these devices can be used safely. Listing the importance of the use of certain technological devices and how they contribute to better our daily activities (torch, mobile phone, ...)
		Identify uses of these technological appliances and the safety measures during use	Playing with battery operated devices and investigate what happens when the batteries are removed; explain the importance of the batteries. (Teacher to ensure safety in all related activities and inculcate these safety aspects among learners).
		Demonstrate understanding of the contribution of technology in their daily life	Designing and using water filtration model to transform dirty water into clear water.
		Perform simple investigations with safe battery- operated toys and gadgets such as torches	Producing boats origami and making them float.
		Engage in simple problem-solving STEM/STEAM activities	Identifying, naming, and interacting safely with ICT devices such as smartphones, laptops, tablets, projectors and explaining their usefulness in the learning of certain concepts
		Show awareness of the importance of ICT	
		Use ICT tools to support their learning	

Components	Descriptors	Learning Outcomes	What you can do
Skills and attitudes pertaining to Science	Demonstrate the necessary inquiry skills & processes and scientific values & attitudes	Show curiosity and interest to learn about themselves, the components, and phenomena of the environment	Using Lego games to make shapes and to look for patterns.
		Observe and ask questions to develop understanding of the environment	Making patterns using vegetables and fruits.
		Explore objects and living things to identify similarities and differences between them	Using playdough to make sculptures of different types of animals.
		Classify things based on similarities and differences	Classifying vegetables and fruits based on similarities like texture, smell, colour, shapes.
		Show curiosity and ask questions to find about the working of objects and occurrence of phenomena	Classifying different kinds of animals (animals living on the land, in water, that can fly, swim, etc).
		Handle and manipulate objects properly and safely	Doing simple experiments to investigate the importance of water on plant growth.
		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	

Activity Sheet

Main Area of learning: Scientific Awareness for Early Childhood	
Aim: To enable the child to acquire basic scientific skills	
Learning Outcomes/ Objectives: At the end of the activity, the child should be able to:	
Main area of learning: Describe the different stages of water cycle	Links with other areas of learning: CLL-interpret pictures. PSED- engage in groups discussion. HPD-develop fine motor when drawing
Age: 4 years and above	Grouping of children: 3-4
Time frame: 25 minutes	Venue of activity: Indoor& outdoor
Resources and materials: Pictures/flash cards showing water in river, lake, reservoir, clouds, cloudy weather, rain, zipper bag, marker.	
Procedures	
Step 1:	The educator shows the children a picture of water in river, reservoir and lake.
Step 2:	The educator asks the children to describe what they can see.
Step 3	The educator asks the children to explain how we get water in the reservoir and lake.
Step 4:	The educator shows the children a picture of rain and explains how rain is formed.
Step 5:	The educator shows the children a picture of clouds.
Step 6:	The educator explains about the water cycle.
Step 7:	The educator provides the children with all the pictures and guide them to assemble the pictures to show the correct stages of water cycle.
Step 8:	The educator asks each child to draw the water cycle on a zipper bag.
Step 9:	After the children have completed their drawing, the educator partially fills each zipper bag with water.
Step 10:	The educator takes the children outside the classroom and the children are asked to place the zipper bag in a sunny place.
Step 11:	The children are asked to predict what they would observe in the zipper bag after 15 minutes.
Step 12:	The children are asked to come back in 15 minutes and to describe what they can observe in the zipper bag.

<p>Key vocabulary</p> <p>Sun, water, river, reservoir, lake, cloud, mountain, sea</p> <p>Key questions</p> <p>How is the weather when it is going to rain?</p> <p>What is the colour of water?</p>	<p>Adapting activity for individual children</p> <p>Opportunity should be given to each child to describe the pictures of the lake, river and reservoir.</p> <p>Giving sufficient time to each child to do complete his/her drawing on the zipper bag</p>
<p>Evaluation: Observation, Questions and Answers</p>	
<p>Follow up activity: Identify the different stages of water cycle in a weather wheel.</p>	

7.6 Health and Physical Development (HPD)

Components	Descriptors	Learning Outcomes	What you can do
Motor Skill Development: <ul style="list-style-type: none"> Gross motor skills Fine motor Skills 	Display control, balance, and confidence in fundamental movement skills, and combine them in their movement	Balance their body on different body parts in static and dynamic activities and games	Individual balancing activities – static and with simple movements
		Control the speed and direction of their movement	Obstacle Games/activities; Individual activities and games involving movements such as fast walking, jogging, stopping, and changing directions on teacher's signal. Examples: Traffic signal game Duck, Goose game
		Demonstrate ability and confidence in fundamental movement skills (walking, running, jumping, skipping, and hopping)	Individual movement activities. Example: "The Movement Maze" where children have different movements at stages of the 'maze'. Organised games such as "What is the time Mr Wolf?" Obstacle races and relays. Examples: Cone Flipping Race, Sharks, and Minnows game
		Combine two fundamental movement skills (FMS) in games and organised activities	Organised team games/ Modified team games, e.g. Ten Passes Game
		Demonstrate ability and confidence in fine motor skills (tying laces, threading, using scissors)	Threading and knotting activities Shoe relay

Components	Descriptors	Learning Outcomes	What you can do
Movement Concepts <ul style="list-style-type: none"> • Body Awareness • Space Awareness • Effort Awareness (Qualities of Movement) • Relationships 	Show awareness of the capabilities and limitations of one's body	Demonstrate hand-eye and feet-eye coordination in simple throwing, kicking, catching and passing activities	Experimenting movements and body postures – imitating animals and nature with the body. Example: walking like the giraffe, elephant, imitating the bird flying. Making shapes with the body. Examples: a ball, a tree Shooting in the Bucket game, using different size balls, bean bags, rag balls, paper balls Throwing and catching games and relays
	Move in space with and in opposition to other peers/ team mates	Demonstrate coordination and balance to avoid obstacles	Obstacle race; Hopscotch game (La Marelle)
	Show the ability and skill to catch, throw and manipulate a variety of objects	Identify the different parts of the body	Simon Says game; The Body Song
		Demonstrate an understanding of personal and general space	River and Bank game/In-Out game; The Space Bubble Game; Crossing the River game
		Follow simple instructions during movement, games, and organised activities	

Components	Descriptors	Learning Outcomes	What you can do
Values through participation in games and activities <ul style="list-style-type: none"> • Cooperation • Respect • Honesty • Teamwork • Good communication • Care for animals and plants, and concern for environmental protection 	Demonstrate social skills such as cooperation, communication, respect, honesty through games and activities	Demonstrate team spirit and cooperation	These concepts are taken during the implementation of activities: Queuing up for hand washing; Waiting for turns; Helping in the clearing away after mealtimes; Have a group leader when conducting activities. Classroom rules and good manners Clean up play area and put toys and crayons back in their storage area. Listening to peers Sharing and helping DENTAL HYGIENE Circle time – Discussion using pictures (story) – smile showing healthy teeth and smile showing teeth with dental carries and missing tooth. Using pictures (sunrise / night) to show when the teeth should be brushed – in the morning and before going to bed. Joining the dot – Toothbrush with the correct amount of toothpaste. Milk teeth and permanent teeth – show pictures of a child and an adolescent (Story -the Tooth Fairy) Demonstration activity – How to brush the teeth and how to rinse the mouth well – demonstration of ‘gargling’. Make use of Picture showing teeth arrangement. Ask the pupil to count the number of teeth they have. Practical activity – Children brushing their teeth after lunch. Song – This is the way I brush my teeth. Children listen and mime. Foods which are good for teeth and foods which are bad for the teeth – Pictures of foods where the child put a cross and a tick or draw a happy and sad tooth smiley.
		Abide by simple rules during games and activities	
	Develop knowledge of healthy routine	Work collaboratively in groups	
	Demonstrate a caring attitude towards plants and animals	Communicate clearly and effectively with others	
	Be aware of safety issues when dealing with animals and plants	Demonstrate respectful behaviour towards others	
		Maintain dental hygiene	
		Adopt healthy routine regarding bedtime, waking up and rest	

Components	Descriptors	Learning Outcomes	What you can do
			<p>HEALTHY ROUTINE REGARDING BEDTIME, WAKING UP AND REST</p> <p>Use of poster to show Night /Day / and Afternoon. Use the poster for discussion on a typical day and nighttime routine (wake time, rest time, play time, bedtime) during circle time.</p> <p>Time to Zzz Sleeping yoga: Simple yoga pose; the sleeping butterfly pose/lying -down twist at the same time practice deep breathing. Use of relaxing music</p> <p>Role-play: Putting puppet/soft toy to sleep.</p> <p>Bedtime routine, miming – have a shower, wear PJ, brush teeth, switch off light and sleep.</p> <p>Waking time miming: stretching to get up, brush teeth, wash face, have breakfast, getting ready for school.</p> <p>NB: Rest time should be embedded in daily routine of the Centre.</p>
		<p>Demonstrate a caring attitude towards plants and animals</p>	<p>ANIMALS</p> <p>Identification of animals – use of flash cards with the pictures of animals; Use flash cards to differentiate animals for pets and wild animals; Song on animal sound and movement + miming; Matching activity – Animal and their homes; Pretend play – How to look after your pet (animal) Ask children to identify an animal which they would like to have as pet. Children may be asked to bring a toy or small stuffed animal; Emphasis should be on – Bathing the animal, feeding the animal, and caring or looking after the animal; ‘Bird feeder’ activity can be conducted wherever possible.</p> <p>Use of paper plate / toilet rolls to make your favourite pet (use of scrap material, paper folding, paper weaving); Song - Old Macdonald had a farm ...</p>

Components	Descriptors	Learning Outcomes	What you can do
			<p>SAFETY ISSUES – ANIMAL Poster to show dos and don'ts with animals. Examples – be careful of stray dogs, don't pull their tail of, don't step on animals, don't shout at animal, don't hold them too tight or for too long, keep them clean, give them food and water, play with them.</p> <p>CONCERN FOR ENVIRONMENT</p> <p>Pictures of a clean environment and a polluted one. Conversation about the importance of clean environment. Identification of waste.</p> <p>Environment protection – Plogging activity in the school yard; Use of bins – demonstration and enactment; Recycling – cereals boxes/ jars / plastic bottles; Making postcards/thank you cards/birthday cards / from scrap material; Plant a tree activity.</p> <p>Safety issues – make link to weather conditions (Sun, rain, flood, windy, thunder, cyclone); use of weather chart; colouring activity – waste and 'mosquitoes' proliferation</p> <p>CONCERN FOR PLANTS</p> <p>Pictures to identify plants (leaves can be used as well); Have a potted plant to show different part of the plant; Shading different part of the plant; Have cuttings of different parts of the plants and ask children to select and stick pieces to form a plant; Leaf printing activity. Have a class discussion on the importance of plants. Provide pictures (food, oxygen, shade, health benefits; thyme, mint, parsley, curry leaves, lemongrass); Planting herb gardens (make use of plastic cups and bottles)</p> <p>SAFETY ISSUES PLANTS Poster to show plants or parts of the plants which are harmful or toxic – mango leaves, dilait cailler plant, cobra plant.</p> <p>https://dengarden.com/gardening/Poisonous-House-Plants-and-Their-Toxic-Effects</p>

Components	Descriptors	Learning Outcomes	What you can do
Healthy Living <ul style="list-style-type: none"> • Healthy eating • Nutrition 	Develop knowledge and understanding of good eating	Name different foods	Use lunch time to explain good grooming and etiquette when eating. Teacher to be the role model and demonstrate the good behaviour.
		Explain the importance of having the three meals of the day	
	Develop healthy eating habits and their effect on health	Recognise the importance of eating a variety of foods to be in good health	Use the term microbes instead to teach germs. Simulation with Talcum powder or flour on child's palm and let them interact with peers and surfaces, the prints and particles left to show how germs spread.
		Make healthy choices when selecting foods to eat	Personal hygiene – Song, This is the way I brush my teeth, wear clean socks, clean shirt, comb my hair
	Develop emerging self-help skills when eating and handling utensils	Follow consistent routines regarding washing hands	To show how to get ready for school. Hand washing – High five activity how to wash the hands – steps in hand washing.
		Identify healthy snacks	
	Taking care of their body to avoid sickness and accidents	List the consequences of eating unhealthy snacks	Demonstrate how to wash hands.
		State the importance of drinking water	Demonstrate how to use sanitizer. Hand washing slots in the school routine; sneezing and coughing protocol – demonstration and miming.
	Use safe practices indoors and outdoors, and during travel	Display good posture	Have a poster on how germs spread: coughing, sneezing, greeting by hugging, kissing and handshake.
		Demonstrate table manners	
	Develop awareness of the limits of their physical capability and need for self-protection	Handle simple cutlery	
		Help to clear away and keep surfaces clean	
		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 accident			

Components	Descriptors	Learning Outcomes	What you can do
Personal Safety <ul style="list-style-type: none"> Indoor and outdoor safety 	Build self-confidence and a sense of responsibility Know how to protect themselves by understanding the different body parts	Identify the different body parts in relation to private body parts.	Poster to show the private parts are covered with a bathing suit. To do colouring activity of same. Use of puppets for teaching of unsafe touches. Flash cards to identify safe and unsafe touches – thumb up and thumb down.
		Identify safe and unsafe touches	Colouring activity: Say NO. Class discussion / story telling on bullying and teasing.
		Demonstrate assertive behaviour in case of unsafe touches	Drama /roleplay scenario: stranger offering sweets, asking the child to come with him/her. List of safe adults' poster. Have posters on classroom walls: 'say no, run away and tell a safe adult.'
		Describe improper behaviour such as bullying and teasing	Make use of videos. Indoor safety Conversation on accidents (burns, falls, cuts, bumps, finger jam); Pictorial Worksheets – identify danger spots (kitchen, bathroom, classroom; flooring, wires, electric equipment, medicine cabinet, detergents, fire, messy room / classroom)
		Identify the people who can be contacted when faced with unpleasant situations	Outdoor safety Poster on safety rules to follow when going outside – children need to be reminded. (insect bites, sun, bumps)
		Explain how to respond to an unsafe situation	Road Safety Traffic lights – Colouring activity Colouring activity: the 'walking man' and 'standing man' in Pelican Crossing. Colouring activity: wearing the seat belt when travelling in cars. Storytelling: behaving properly when in school van and the rules. <ul style="list-style-type: none"> Waving with the right and left hand. Identifying left and right-hand side – Practical activity. Walking on the pavements – colour the pavement. Story and demonstration: walking with an adult on the inside of the pavement.

Activity Sheet

Name of Activity: Mystery Vegetable	
Colouring Activity – Identify the vegetable rich in Water (Source of water)	
Main Area of Learning: HPD	
Aim: The aim of this activity is to identify the vegetable which is a rich source of water	
Learning outcomes: At the end of this activity the child should be able to:	
Join the dot and name the vegetable	Links with other areas of learning: MLT: Name at least 3 vegetables rich in water ECAD: Appreciate own work and that of peers SAEY: to develop oral skills CLL: colour with interest and curiosity
Age: (4 – 5 years)	Grouping: 8 – 10
Time frame: 30 minutes	Venue of activity: Indoor
Resources and Materials: Template of 3 vegetables (outlines), drawing of the fruit on paper, wax crayon , vegetable mobile.	
Procedures:	
Step 1	<p>Have a conversation on the importance of water.</p> <p>Ask students about source of water. Focus on solid food sources of water namely vegetables.</p> <p>Gear discussion on: Which vegetables they like? Why? What colour are the vegetables? When do they eat vegetables?</p> <p>Do they have a vegetable garden at home?</p> <p>Refer to the vegetable mobile. Ask children to identify the vegetables.</p>
Step 2	Mystery vegetable activity. Explain that during this activity they are going to discovery a vegetable which is a rich source of water.
Step 3	<p>Distribute the sheets with the dotted outline of the vegetables.</p> <p>Instructions: to write their names, to join the dots for the outline, to identify the vegetable.</p>
Key vocabulary: Tomato, Peppers, Lettuce, Patisson, and Cucumber.	Adapting activity for individual children: <p>Use a template for students having difficulty to colour inside the shape of the outline.</p> <p>Instead of colouring – dabbing or finger printing to colour.</p>
Evaluation: Have a class exhibit, and praise students work. Use checklist to correct the work.	
Follow-up Activity: Colouring of vegetable	

Name of Activity: <u>The National Flag</u>	
Main Area of Learning: HPD	
Aim: The aim of this activity is to develop and strengthen fine motor skills of students.	
Learning outcomes: At the end of this activity, the child should be able to	
<p>Use fingers to tear coloured scrap paper into small pieces.</p> <p>Place and paste paper according to colours.</p> <p>Distinguish the colours of the Mauritian flag.</p> <p>Show respect and pride towards the Mauritian flag.</p>	<p>Links with other areas of learning:</p> <p>MLT: Classify objects according to one attribute (e.g. colour, size, shape, or other categories)</p> <p>ECAD: Work collaboratively with peers to explore ideas creatively and imaginatively</p> <p>Express ideas freely through the Arts</p> <p>Use different media, techniques, and processes in artmaking</p> <p>CLL: Children interact meaningfully and constructively using language creatively</p>
Age: 3-4 years	Grouping: Children can be put in groups of 2-4
Time frame: 25 minutes	Venue of activity: Indoor
Resources and Materials: colored scrap paper, glue, drawings of the Mauritian flag (from a previous activity), a Mauritian Flag, plastic saucers – red, blue, green and yellow	
Procedures:	
Step 1	Students are seated in groups and are given sheets of scrap paper of different colours. They are asked to tear small pieces of paper from the scrap paper and place them in the saucer of the same color.
Step 2	Each student will be given his/her drawing of the Mauritian flag from the previous class. They cover the spaces with the appropriate pieces of paper after having well observed the flag displayed in the classroom. They can further tear the pieces or rearrange the pieces to fit the space available on their drawing. The pieces of paper should not overlap, nor go beyond the lines.
Step 3	After successfully covering the spaces with the appropriate colours, they apply the glue on the paper and paste the pieces of paper to make the Mauritian flag.
Step 4	Once they complete their flag, students tidy up their table, return the unused materials, and leave their activity sheet on their table to dry.
Key vocabulary: Red, Blue, Yellow, Green, Mauritian flag, bigger, smaller	Adapting activity for individual children: Students are allowed to try as many times as they wish and may also seek the help of their peers.
Evaluation: During the session the teacher will check if children are being able to correctly separate and identify the colours, tear the paper with precision and paste the pieces within the different lines. At the end, the flag from each group is displayed in the class and the group with the best flag is congratulated.	
Follow-up Activity: As a follow-up activity, students could also be asked to draw a Mauritian flag, by cutting and pasting single pieces of coloured paper on their flag.	

References

Cartmell, K. M. (2018). An Ethnographic Exploration of the Starting School Transition within an English school. Ph. D. thesis, Liverpool John Moores University.

National Association for the Education of Young Children (2020). Developmentally Appropriate Practice: A Position Statement of the National Association for the Education of Young Children.

National Association for the Education of Young Children (2023). Position Statement: Technology and Interactive Media.

UNICEF (2019). Digital literacy for children: 10 things you need to know.

Writers

Mrs. Jyotsanah Thanoos, Associate Professor, Project Coordinator

Dr. Saraswatee Rajiah, Lecturer, Assistant Project Coordinator,
Personal, Social & Emotional Development panel

Dr. Wesley Marie, Lecturer, Coordinator, Communication, Language and Literacy

Mrs. Majhegy Murden-Louise, Coordinator, Lecturer, Communication, Language and Literacy

Dr. Beatrice Antonio-Françoise (Mrs), Lecturer, Coordinator, Communication, Language and Literacy

Dr. Sookhenlall Padaruth, Senior Lecturer, Coordinator, Health and Physical Development

Mrs. Swalehah Beebeejaun-Roojee, Senior Lecturer, Coordinator, Health and Physical Development

Dr. Khemanand Moheput, Lecturer, Coordinator, Scientific Awareness for Early Childhood

Ms. Asifa Salehmohamed, Lecturer, Coordinator, Mathematical and Logical Thinking

Dr. Vick Kumar Shibdoyal, Senior Lecturer, Coordinator, Leader, Expressive, Creative, and Aesthetic Development

Mrs. Joann Permall, Lecturer, Coordinator, Expressive, Creative, and Aesthetic Development

Acknowledgement

The Mauritius Institute of Education acknowledges the contribution and collaboration of the following persons.

Mauritius Institute of Education

Dr. Hemant Beesoondyal, Director

Dr. Aruna Ankiah-Gangadeen, Deputy Director,
Head for Curriculum Development, Implementation and Evaluation

Early Childhood Care and Education Authority (ECCEA)

Mr. Caroline Arekion, Director, ECCEA

Supervisors, ECCEA

Proofreading

Mrs. Majhegy Murden-Louise, Lecturer

Mrs Deepa Ramchurn, Lecturer

Technical Support

Ms. Sanjini Kardaree, Clerical/Higher Clerical Officer, Early Childhood Unit

Graphic Design

Mr. Kunal Sumbhoo, Graphic Designer (OIC)

