



A Curriculum Framework for Preschool Education in Singapore

EDUCATORS' GUIDE FOR HEALTH, SAFETY AND MOTOR SKILLS DEVELOPMENT



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OVERVIEW OF EDUCATORS' GUIDES

Nurturing Early Learners – A Curriculum Framework for Preschool Education in Singapore or NEL Framework was updated by the Ministry of Education (MOE) in 2022. It provides broad principles to guide preschool centres in planning and implementing a quality curriculum for children aged four to six (i.e., Nursery 2, Kindergarten 1 and Kindergarten 2).

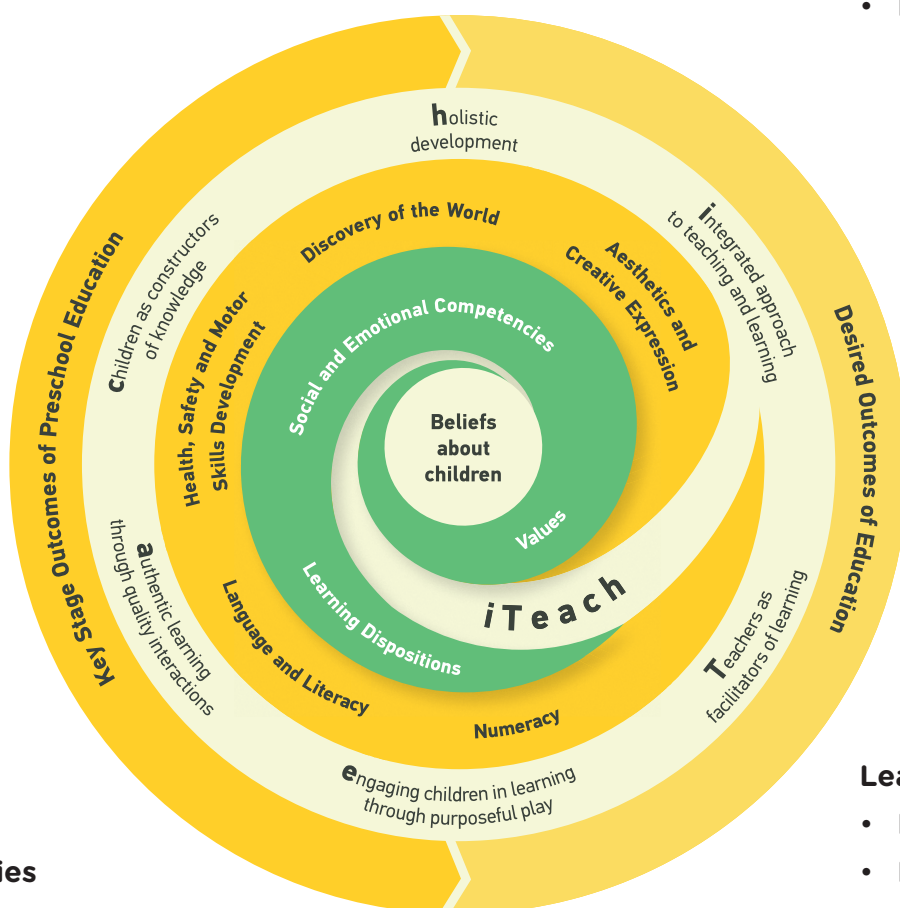
Figure 1: Key Concepts of NEL Framework

Beliefs about Children

- Children are joyful, curious, active and competent learners.
- Children play, learn and grow with others in a diverse and multi-cultural community.

Values

- Respect
- Responsibility
- Care
- Honesty



Social and Emotional Competencies

- Self-awareness
- Self-management
- Social awareness
- Relationship management
- Responsible decision-making

Learning Dispositions

- Perseverance
- Reflectiveness
- Appreciation
- Inventiveness
- Sense of wonder and curiosity
- Engagement

At the centre of the NEL Framework is our beliefs about children. It emphasises the importance of holistic development and nurturing the joy of learning in our children. The NEL Framework places an increased importance on the key aspects of children's learning and development, which include inculcating values, developing social and emotional competencies and fostering learning dispositions. These cut across all learning areas and should be intentionally and consistently incorporated across children's learning experiences as they serve as the foundation for character building, lifelong learning and learning to live harmoniously with others. The NEL Framework also states the key knowledge, skills and dispositions of five learning areas to support children's holistic development.

Teachers play a critical role in stimulating and deepening children's learning based on their understanding of how children develop and learn. The six *iTeach* principles serve to guide preschool teachers in planning, designing and facilitating joyful and meaningful learning experiences which will lay a strong foundation to help children achieve the Key Stage Outcomes of Preschool Education and the Desired Outcomes of Education in Singapore.

PURPOSE OF THE EDUCATORS' GUIDES

The NEL Educators' Guides seek to help teachers translate the NEL Framework into quality teaching and learning experiences for children. The nine volumes of Educators' Guides provide teaching and learning strategies; examples of learning activities; ways of organising the learning environment; and considerations for observation and assessment of children's learning and development. Each Educators' Guide takes close reference to the principles and learning goals of the NEL Framework. The examples in each Educators' Guide illustrate one or several of the following:



Values



Social and Emotional Competencies



Learning Dispositions



Executive Functioning Skills

1. Nurturing values, social and emotional competencies, learning dispositions and executive functioning skills across learning experiences
2. Promoting learning in, about and through the outdoors
3. Using technology meaningfully and appropriately

The Educators' Guide for *Health, Safety and Motor Skills Development* provides ideas for teachers to create and facilitate appropriate and meaningful learning experiences for children through examples and suggestions. Teachers may adapt and modify these examples and suggestions to cater to the interests, needs and abilities of their children.

Chapter 1

HEALTH, SAFETY AND MOTOR SKILLS DEVELOPMENT IN THE EARLY YEARS



The early years is a critical period of children's growth and development, and children's experiences in the preschools will have **a long-term impact on their habits in embracing a healthy lifestyle** as they continue into their adulthood. The focus on children's health, safety awareness and motor skills development in this learning area will help children to be confident and competent to meet the demands placed on them later in life.

Children reap more health benefits when they are introduced to and adopt healthy lifestyle habits, such as maintaining good personal hygiene, exercising regularly, eating healthily, cultivating good sleep habits and regulating screen time during the preschool years. The experiences planned in the preschools, when supported at home, **helps children to begin their journey to becoming healthy youths and adults with active lifestyles.**

Developing safety awareness helps children to practise personal and group safety in the different settings, such as at home, in school and at public places. Through meaningful learning activities and experiences created for them, children develop an understanding of the various aspects of safety, including road, fire, stranger and body safety. They learn to **recognise potential danger in their environment, how to protect themselves and seek help when necessary.**

Children learn through movement. By intentionally planning fun activities, teachers support the development of children's gross motor skills (e.g., walking, bending, throwing and catching a ball) and fine motor skills (e.g., using a pair of scissors, fastening buttons on their clothes). When given opportunities to practise these motor skills, children **gain confidence in controlling and coordinating their body movements with balance and stability, and become more independent in their daily life activities.**



Children experience joy while playing with friends. This positive experience motivates them to continue to enjoy and participate actively in a variety of indoor and outdoor physical activities as adults when they grow up.

HEALTH AND SAFETY AWARENESS

Eye Care

Prolonged exposure to digital devices may pose potential health issues and danger to children's health. This includes myopia, lack of sleep and addiction to the devices. **Spending time outdoors where there is sunlight and fresh air is beneficial as this helps to reduce the risk of developing myopia.** Families play an important role in setting limits on screen time at home and reinforcing good habits (e.g., not using devices before sleep or while having a meal). When families spend time in the outdoors such as going for a nature walk, children are exposed to natural light which also improves the quality of their sleep and reduces stress levels.



Children are exposed to natural light and fresh air during outdoor activities.

Healthy Eating

Good eating habits in the early years forms the foundation for children to adopt a healthy diet. Children learn to understand that **a balanced diet helps them to stay well-nourished and healthy, as well as reducing the risks of becoming overweight or obese which will protect them against health problems later in life.** Teachers may take reference from the Health Promotion Board's guidelines and use preschool resources such as My Healthy Plate¹ to raise children's awareness of healthy eating habits by eating a wide variety of food in the right amounts to meet their daily nutritional needs. This can be reinforced during meal and/or snack time which serves as authentic learning opportunities to talk about choosing healthier food and drinks.



Children learn about making healthy choices while preparing for a class picnic.



Children find out more about healthy food and drinks through an interview with a stallholder.

¹Refer to Healthhub/Health Promotion Board for more details on “My Healthy Plate”.

Keeping Physically Active

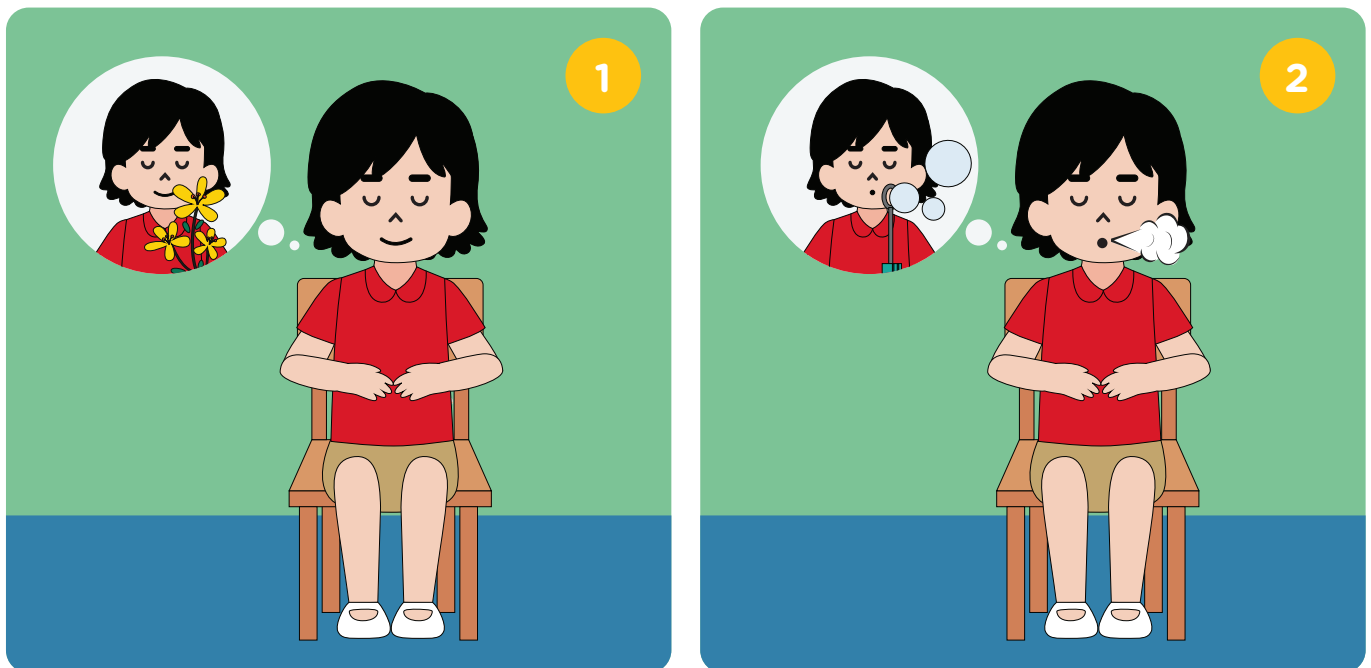
Physically active children are likely to have **healthier weight and better bone density through improved strength and better body coordination**. Through participation in physical activities, children **develop components of fitness, such as agility, coordination and flexibility** which will support them in sports and games when they enter primary school. **Regular exercise promotes physical fitness and a healthy lifestyle** which are especially important for children's physical growth during their formative years. Activities which involve children interacting with their peers create a natural setting for them to learn how to establish positive relationships with others (e.g., when they negotiate for space and/or resources while playing).



Playing together to explore what their body can do helps children develop body awareness and creates a natural setting for children to build positive and meaningful relationships with others.

Mental Health

Mentally healthy children are ready to face challenges in their lives. Teachers can support them in acquiring necessary skills, such as identifying emotions and learning how to cope with negative emotions that affect them. For example, they can practise breathing exercises to stay calm and approach trusted adults to share their troubles. **Having a positive mindset is critical in helping children manage challenges, adapt to changes and explore new areas in their lives.** This is important when they transit to primary school and deal with changes, such as meeting new friends, and managing a different school routine. Teachers can also encourage children to develop good habits, such as starting the day with a positive thought and ending the day with one thing they are grateful for.



Encourage children to practise breathing exercises to stay calm, such as breathing in like smelling flowers and breathing out like blowing bubbles.

Personal Hygiene

Teachers play an important role in **cultivating good personal hygiene habits** in children, such as brushing their teeth twice a day, washing their hands before and after eating, using a handkerchief or a piece of tissue paper to cover their mouth and nose when sneezing, and putting on a mask or staying at home if unwell. Not only do they teach children how to protect themselves, teachers also **teach children to be socially responsible in maintaining a clean and healthy environment for the people around them**. The outbreak of COVID-19 has underscored the importance of children taking personal responsibility for personal hygiene habits to keep themselves and others safe.



Children develop and show social responsibility by keeping the classroom clean, wiping down after consuming their food and putting on a mask when they are unwell.

Safety Awareness

To ensure their own and others' safety, children learn to exercise safe practices at home, in school and at public places. Safety practices that children can adopt at home include:

- Handling sharp tools with care or with adult supervision
- Putting away their toys to prevent others tripping over them
- Avoiding touching electric sockets
- Avoiding playing with fire and hot surfaces

Safety practices in the classroom include proper ways of handling sharp tools, such as scissors, tweezers and pointed sticks. Children also need to be reminded of the rules for appropriate play, especially when they are outdoors. These rules include:

- Carrying out warming up and cooling down exercises before and after a workout
- Following simple rules/instructions during a game
- Taking turns while playing
- Keeping away from the slides and swings when these are being used by their friends

Children will also need to have a good understanding of safety practices at public places and exhibit appropriate behaviours that promote individual and group safety. This includes learning how to respect their bodies, recognising good and bad touches and seeking help when need be.

Examples of appropriate behaviour that children should learn include:

- Crossing a road safely
- Waiting for all passengers to alight from a bus or an MRT train before boarding it
- Holding on to the handrails on an escalator
- Having an adult companion when in a swimming pool
- Staying close to their parents or teachers and not wandering off by themselves
- Asking for help from parents or trusted adults (e.g., teachers, a policeman) when they are approached by strangers

DID YOU KNOW?



It is also very important that children learn body safety skills and know that they can talk about their feelings (e.g., feeling of discomfort when they are touched inappropriately by others) and seek help from trusted adults when they feel hurt or unsafe (SEC 2, KSD 2.1).

MOTOR SKILLS DEVELOPMENT

Children naturally love to move and play. When teachers engage children in activities which are fun and enjoyable, the motivation for continuing to stay active is laid and children are more inclined to incorporate physical activities, including regular exercises in their life.

To develop children's motor skills, teachers should provide a variety of experiences for them to explore the range of skills they are to develop. To meet children's interests, needs and readiness, it is important for teachers to plan activities that explicitly support motor skills development in a progressive manner and use appropriate resources and equipment. Children progress differently and may not necessarily attain all the learning goals by the end of Kindergarten Two. When planning activities, ensure wait time is minimised to allow for more time for children to practise and acquire the skills. By breaking down the skills into small steps and with demonstration by teachers of how these steps are carried out, children have a better understanding of how these skills are executed.

Fine Motor Skills

Fine motor skills involve the **coordination and control of the small muscles of the wrists, fingers and hands to carry out tasks which need precision**. Children should be **given sufficient opportunities to perform a range of tasks to strengthen their hand muscles**, such as tearing paper into smaller pieces, manipulating play dough by squeezing, rolling, and kneading it, and lacing beads. **When they have well-developed hand muscles, they will be able to use their fingers to manipulate objects with dexterity**, such as applying glue on a piece of paper, tearing pieces of masking tape, stacking blocks, building with interlocking bricks, using a pair of scissors and writing with a pencil for their everyday classroom activities.



Children strengthen their hand muscles and improve their fine motor skills, such as eye-hand coordination and dexterity when they use the spray bottles for a seed planting activity.

Fine motor skills are important as they help children to perform tasks in their daily lives, such as putting on their socks and shoes, tying their shoelaces and using a spoon while eating. With exposure and opportunities given to children to practise finger dexterity and eye-hand coordination, they will be more independent in carrying out these daily tasks with confidence.



Strengthening their hand muscles helps children to be more confident in performing more complex fine motor tasks, such as using a pair of scissors and holding a chalk to write/draw with greater precision.



Children develop eye-hand coordination when they water the plants as part of their gardening activities.



Fine motor skills help children to be independent in their daily lives.

Gross Motor Skills

Developing gross motor skills involves children using the large muscles of their body. These skills are the **building blocks that children need to function in daily life** (e.g., walking up and down a flight of stairs, bending down to pick up a toy, standing on one leg to put on their pants) and to **participate in sports when they move on to primary school** (e.g., they learn to bounce a ball with two hands in preschool before learning to dribble a ball with one hand in a basketball game). When given these opportunities, children will learn to **move more effectively and efficiently and to enjoy physical activities as part of their lifestyle**.

There are three main types of gross motor skills:



Children practise and demonstrate locomotor skills when they walk on a balancing beam and hop while playing physical games.

Locomotor skills involve movement of the body in a horizontal or vertical direction from one place to another in a fluid coordinated way.

Examples of locomotor skills include crawling, walking, running, galloping, hopping, leaping, skipping and jumping.



Children can work in pairs to practise balancing on one leg.

Non-locomotor skills involve movement of the body in the same place.

Examples include balancing, bending, twisting, stretching, rocking, swaying, turning, pushing, pulling, rising and sinking.



Children develop and practise manipulative skills through physical activities, such as tossing a beanbag and kicking a ball.

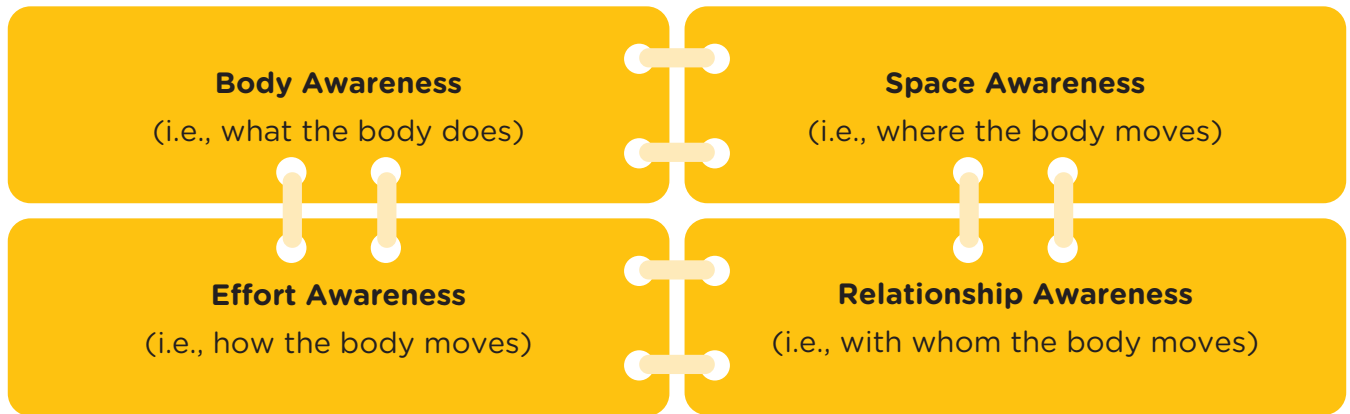
Manipulative skills involve controlling the hands, feet and other parts of the body when managing objects.

Examples include tossing/throwing and catching a balloon, bouncing and kicking a ball and striking with a foam bat.



To plan and organise a variety of activities to promote children's competence in a variety of locomotor, non-locomotor, and manipulative skills, teachers can take reference from the **Movement Framework** by Rudolf Laban on the four broad aspects of movement concepts. These concepts **allow children to explore moving in different ways and describe the movements** (e.g., walking backward, hopping behind a friend, jumping into a hula hoop).

The four movement concepts are:



Body Awareness

When children develop body awareness, they can recognise what the different parts of the body can do and how to make these parts move by performing the three main types of gross motor skills involving the use of the large muscles in the arms, legs and torso.



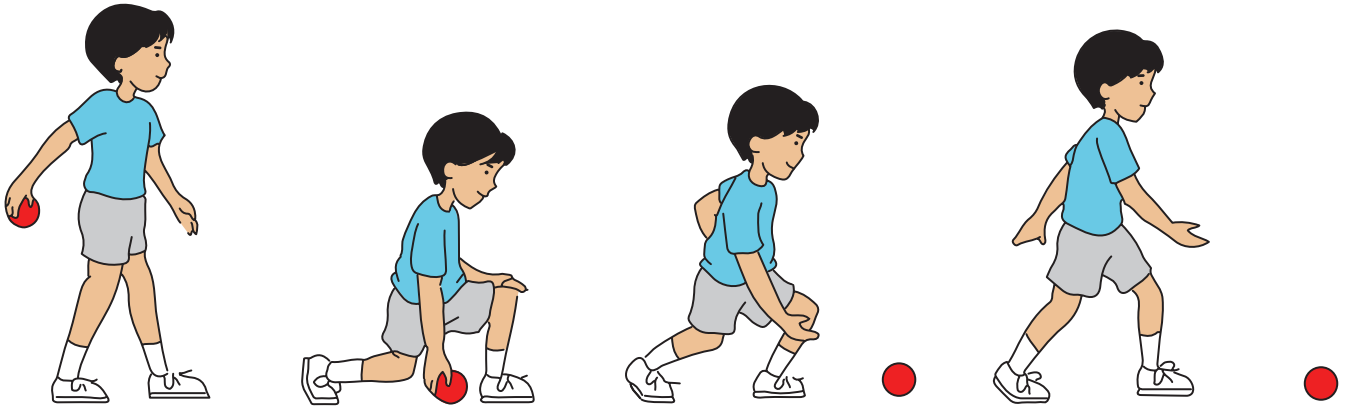
Crawling involves large muscle movements in the arms, legs and torso and helps to build children's core body strength.

Space Awareness

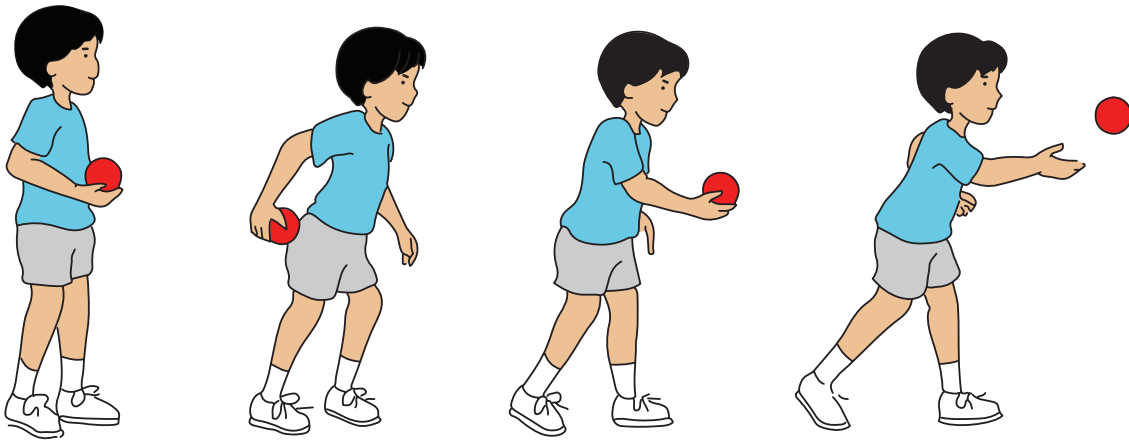
Children develop space awareness as they **observe their body position in relation to the things and people around them while moving within their personal space** (i.e., space within their own reach in a stationary position) **and general space** (i.e., space for everyone). They learn to move in **different directions** (e.g., forward, backward, sideways, up, down, clockwise and anti-clockwise) **and pathways** (e.g., straight, curved and zigzag). They also learn to **move their body at three different levels**, namely the **low** (i.e., movement below the knees), **medium** (i.e., movement between knees and shoulders) and **high** (i.e., movement above the shoulders) levels.



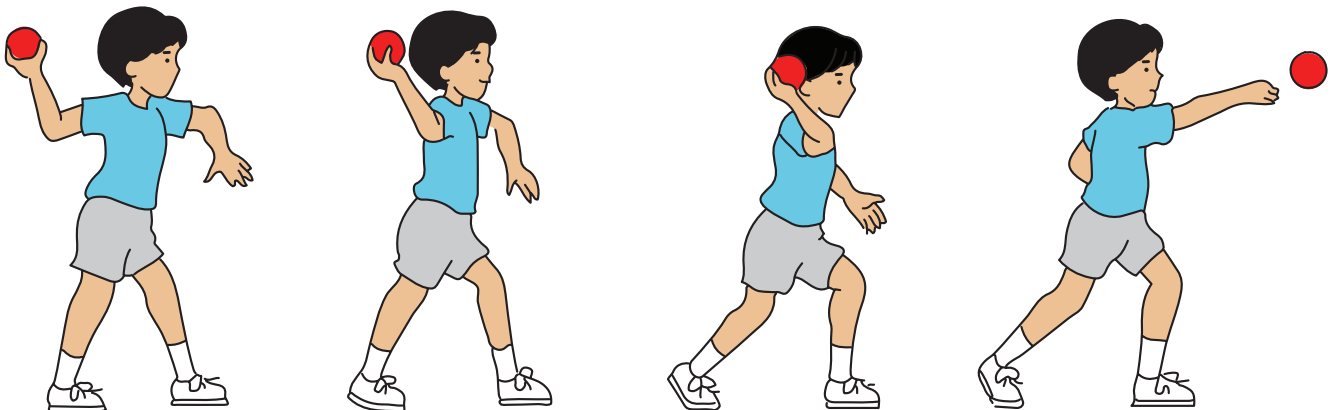
Children develop and demonstrate space awareness in various ways, such as when they bounce a ball within their personal space, run in a straight pathway and around a hula hoop in an anti-clockwise direction.



Rolling a ball at low level



Throwing a ball at medium level



Throwing a ball at high level

Children develop spatial awareness as they manipulate a ball at three different levels of body movement.

Effort Awareness

Children with effort awareness **understand how the use of time** (e.g., fast, slow, sudden, sustained), **force** (e.g., strong, light, firm, relaxed) **and flow** (i.e., bound or free) **affect the way they move**. For example, teachers can get children to explore using strong and forceful actions by stamping their feet as they move within a specified play area before getting them to skip lightly beyond this area.



Opportunities can be provided for children to demonstrate effort awareness by getting them to explore walking slowly and forcefully up the stairs like an elephant.



Children develop effort awareness as they explore and experiment with landing lightly into a hula hoop after making a jump.

Relationship Awareness

Relationship awareness focuses on which part of the body moves in relation to other parts and who the body moves with. It also involves **interacting and moving safely along with people** (e.g., together, alongside, behind, in front of, in pairs, in groups) **and in relation to objects/equipment** (e.g., above, below, over, under, through, on, behind, in front of).

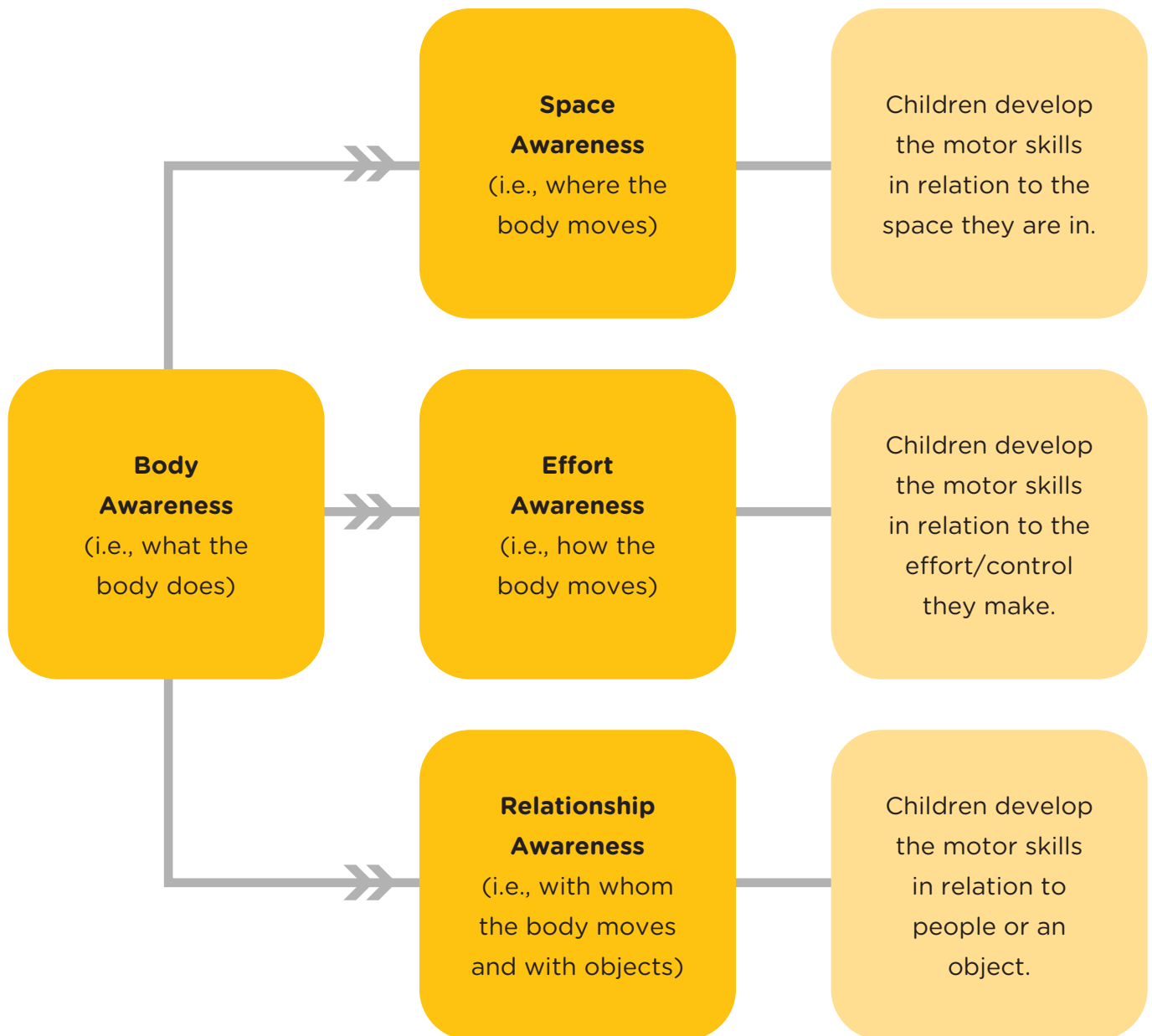


Children develop and demonstrate relationship awareness when they learn to move safely together in a group during a tag game.



Children develop and demonstrate relationship awareness when they balance walking on a platform and skip around a hula hoop.

When designing a gross motor activity, teachers should **focus on a gross motor skill to develop children's body awareness and reinforce their learning by incorporating at least one of the other three movement concepts** (i.e., space, effort or relationship awareness). This allows children to explore and practise the same gross motor skill in many ways. The diagram below shows how the learning of motor skills can be enhanced using the four movement concepts.



The tables below provide some examples of activities in which the gross motor skills may be introduced.

Body Awareness	Space Awareness	Effort Awareness	Relationship Awareness
Locomotor skill Walking	Pathway Activity: Have children explore walking on different types of lines created on the floor (e.g., straight, curved and zigzag lines)	Use of time Activity: Have children walk quickly and slowly towards a chair	Moving in relation to people/objects Activity: Have children walk in pairs or small groups in a row, one behind the other and holding the shoulders of their friend in front of them Activity: Have children walk in and out of a row of cones or around a hula hoop
Body Awareness	Space Awareness	Effort Awareness	Relationship Awareness
Non-locomotor skill Rising and sinking	Use of personal space Activity: Have children explore making large and small body shapes by performing rising and sinking movements within their personal space	Use of time Activity: Have children perform rising and sinking movements in a slow and sustained manner in response to steady counting from 1 to 8 and 8 to 1	Moving in relation to people/objects Activity: Have children perform rising and sinking movements together as a group at the same time

Body Awareness	Space Awareness	Effort Awareness	Relationship Awareness
Manipulative skill Tossing/throwing and catching	Level Activity: Have children explore tossing/throwing and catching a beanbag/rubber ball with both hands at medium level (e.g., eye level) and high level (e.g., above the head)	Use of force Activity: Have children explore tossing/throwing and catching a balloon lightly	Moving in relation to people/objects Activity: Have children work with a partner to toss/throw and catch a beanbag/rubber ball Activity: Have children toss/throw a beanbag/rubber ball into a basket



Children develop and enhance their body and relationship awareness when they play tossing/throwing and catching a ball with a partner.

Teachers should design activities to support the progressive development of gross motor skills from simple to more challenging using a range of resources depending on children's needs and readiness. Below are some examples of such activities:

Simple

More Challenging



Some children may require more time and practice to revisit the simpler skills before moving to the more challenging skills. Teachers should observe the children and plan a variety of learning opportunities to meet children's needs from time to time to support their gross motor skills development.

Chapter 2

LEARNING GOALS FOR HEALTH, SAFETY AND MOTOR SKILLS DEVELOPMENT



The preschool years are important in **nurturing children's positive attitudes toward health, safety and motor skills development as these will influence their habits and practices as adults who lead a healthy and active lifestyle**. Teachers should plan and provide meaningful and authentic learning experiences to support children's learning and development to achieve the learning goals for *Health, Safety and Motor Skills Development*. The examples in this chapter illustrate the opportunities teachers can provide for children to develop knowledge, skills and dispositions of the learning goals.

LEARNING GOAL 1

Develop healthy habits and safety awareness at home, in school and at public places

Knowledge, Skills and Dispositions (KSD):
Provide opportunities for children to...

- 1.1 Develop an awareness of the importance of keeping themselves healthy, clean and safe
- 1.2 Develop an awareness of their role and responsibility in keeping the environment clean and safe
- 1.3 Demonstrate appropriate behaviours that promote individual and group safety

Children's learning and development could be observed, for example, when they...*

- Talk about why they need to have a balanced diet, sufficient rest, sleep and exercise to be healthy
- Show awareness of making healthy food choices
- Understand the need to do warming up and cooling down exercises before and after a workout
- Practise basic personal hygiene (e.g., wash hands before and after eating, wash hands after using the toilet, cover nose and mouth when coughing or sneezing)
- Wash hands using proper handwashing technique
- Wipe down the table before and after snack time
- Throw litter into the dustbin

- Move around a defined space (e.g., a room) without bumping into the furniture and their friends
- Recognise safe (good) and unsafe (bad) touch
- Talk about their feelings and seek help from trusted adults when they feel hurt or unsafe
- Talk about and recognise ways to be safe when at home, in school and at public places (e.g., when boarding the bus, crossing the road, playing at the playground)
- Apply safety practices to keep themselves and others safe while playing indoors and outdoors, and inside and outside of preschool centre
- Follow safety rules and/or instructions during field trips

**The examples are not age-specific or exhaustive. Teachers may provide other appropriate learning experiences/activities based on children's developmental needs and interests.*

Example: Germs are Not Fun

Learning Objective/s

N2 children are given opportunities to:

- Be aware of how germs can pass from person to person by touching or shaking hands with someone.
- Learn and demonstrate the proper steps for handwashing.

Learning Activity

- Put some glitter glue on your hands. Go around shaking the children's hands while playing a Welcome Song.
- Invite the children to look at the glitter on their hands and talk about how germs can spread from one person to another by touching someone with the germs.
- Encourage them to suggest how they can remove the glitter and let them try out their ideas.
- Introduce and have them practise handwashing with soap and water by following the proper steps.
- Reinforce the children's learning of the proper steps for handwashing by teaching them to sing a song during their daily handwashing routine and displaying a handwashing poster in the wash area.

Example: Fire is Dangerous

Learning Objective/s

K1 children are given opportunities to:

- Find out about the work of firemen.
- Be aware of what to do during a fire.

Learning Activity

- Show the children a picture of a fire station in the neighbourhood or a fire engine.
- Tap their prior knowledge and have them talk about what they know about the work of a fireman.
- Invite them to ask questions about the work of a fireman and what they should do when a fire happens.
- Invite a fireman to the classroom physically/virtually or bring the children to visit a fire station.
- Have the fireman talk about his/her work and share the dangers of playing with fire and what to do when a fire happens.
- Have the children role-play how they should behave and respond during a fire (e.g., practise the “Stop, Drop and Crawl” drill).



LEARNING GOAL 2

Enjoy participating in a variety of physical activities

Knowledge, Skills and Dispositions (KSD):
Provide opportunities for children to...

2.1 Develop an interest in doing a variety of indoor and outdoor physical activities

Children's learning and development could be observed, for example, when they...*

- Show interest and participate actively in a variety of indoor and outdoor physical games and activities
- Express great joy when playing indoor and outdoor physical games

**The examples are not age-specific or exhaustive. Teachers may provide other appropriate learning experiences/activities based on children's developmental needs and interests.*



Example: Sock Ball Basketball

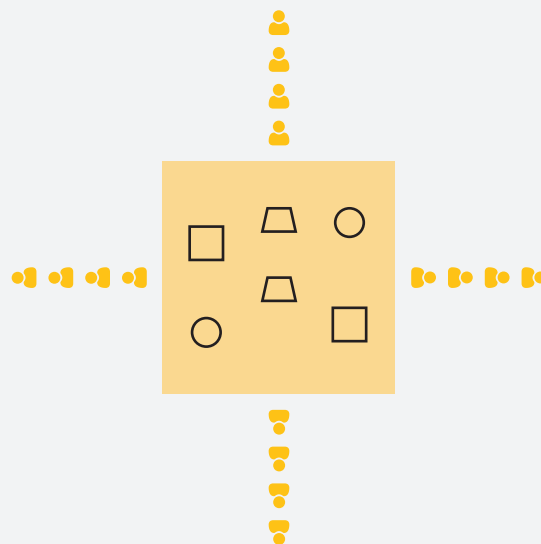
Learning Objective/s

K2 children are given opportunities to:

- Develop body coordination and control as they explore tossing sock balls into different targets.
- Demonstrate hand-eye coordination when tossing the sock balls into the targets.

Learning Activity

- Get the children into four groups. Have them stand at four sides of a play area (see diagram below).



Key:

Child	Hula Hoop
Big Basket	Large Box

- Prepare four sets of sock balls with each set having balls of the same colour/design. Have each group choose one set of the sock balls.
- Place a few hula hoops, boxes and baskets at the centre of the play area.
- Play some music and have the children in each group take turns to toss the sock balls into a hula hoop, box or basket.
- Stop the music and invite each group of children to count aloud the number of their sock balls in the hula hoops, boxes and baskets. The group with the highest number of successfully tossed sock balls wins the game.

**This activity can be modified in the following way:**

Add smaller boxes or baskets into the game. Assign higher points when the sock balls are tossed into these smaller boxes/baskets. This encourages the children to strategise and think of how to aim at those targets to score more points.

DID YOU KNOW?

Not all resources need to be commercially purchased. Unwanted objects or recycled materials could be repurposed for use in activities and games. Children can play a part to reduce, reuse and recycle these items by using them in their games or create new games to play with their friends. This is also a good opportunity to involve the families to contribute these objects or materials to the preschool centre.

Example: Dog and Bone Game**Learning Objective/s**

K1 children are given opportunities to:

- Play cooperatively in games with rules.
- Exercise safety while playing with their friends.

Learning Activity

- Get the children into two groups and have them stand along two parallel lines facing each other.
- Place two rubber quoits/beanbags (e.g., one yellow and one green) in the centre between the two groups and assign a colour to each group.
- Assign a number to each child from 1 to 10 within each group. Have the children wear a number tag for their assigned number.
- Call out a number (e.g., “5”) or show the numeral card or number word. The two children who have been assigned number “5” will run towards the centre and pick up their group’s rubber quoit/beanbag.

- The child who runs back to the group first will earn a point.
- Record each point earned on a score board.
- At the end of the game, invite the children to count aloud the points earned by each group on the score board. The group with more points wins the game.

This activity can be modified in the following way:



Increase the difficulty level of the game by using more rubber quoits/beanbags and calling out two or more numbers at one time.

DID YOU KNOW?



Games with rules support children's executive functioning skills. For example, the Dog and Bone game requires children to pay attention, remember their assigned number and group, and practise inhibition when their number is not called.

DID YOU KNOW?



Playing games provide opportunities for children to compete with each other and experience the feelings of being winners or losers. This allows them to be aware of and manage their emotions when they win or lose a game (SEC 2, KSD 2.1, 2.2). Teachers can take the opportunity to highlight that in a game, there will always be winners and losers. Those who do not win the game should not feel discouraged and should persevere and work harder to improve themselves. The winners should also continue to work hard to improve themselves.

LEARNING GOAL 3

Demonstrate control, coordination and balance in gross motor activities

Knowledge, Skills and Dispositions (KSD):
Provide opportunities for children to...

- 3.1 Develop body awareness (i.e., what the body does)
 - 3.1.1 Demonstrate a range of locomotor skills (e.g., crawling, walking, running, jumping, hopping, sliding, galloping, skipping, leaping)
 - 3.1.2 Demonstrate a range of non-locomotor skills (e.g., balancing, curling, bending, twisting, stretching, turning, rising, sinking)
 - 3.1.3 Demonstrate a range of manipulative skills (e.g., tossing, catching, underarm throwing, overhead throwing, bouncing, kicking)

Children's learning and development could be observed, for example, when they...*

- Walk up and down stairs without support, using alternate feet
- Jump forward and land on both feet
- Hop forward
- Leap forward on one foot and land on both feet
- Skip or gallop in a general space (e.g., half of a basketball court)
- Balance on one foot
- Throw and catch an object with both hands
- Kick or roll a ball with aim and control
- Bounce and catch a ball with both hands

Note: To develop children's awareness of what their body can do (i.e., locomotor, non-locomotor or manipulative skills), every learning experience should incorporate at least one of the three movement concepts (i.e., space, effort or relationship awareness).

3.2 Develop space awareness (i.e., where the body moves)

3.2.1 Move within personal space (i.e., space within one's reach in a stationary position) and general space (i.e., space for everyone) with appropriate control, coordination and balance

3.2.2 Move in different directions (e.g., forward, backward, left, right, clockwise, anti-clockwise, up, down) with appropriate control, coordination and balance

3.2.3 Move on different pathways (e.g., straight, curved, zigzag) with appropriate control, coordination and balance

3.2.4 Move on different levels in relation to the ground (e.g., low, medium, high) with appropriate control, coordination and balance

- Maintain balance while walking along a balance beam without support
- Throw a ball at different levels (e.g., below the knee [low], at waist level [medium], above the head [high])
- Change directions (e.g., forward, backward) while running
- Jump from a low platform and land on both feet
- Jump over an obstacle and land on both feet
- Maintain balance while walking along a line (e.g., straight, curved, zigzag)

Note: To develop children's understanding of space awareness, every learning experience can focus on one of the movement skills (i.e., locomotor, non-locomotor or manipulative skills).

3.3 Develop effort awareness (i.e., how the body moves)

3.3.1 Move safely using different strengths or force (e.g., strong, light, firm, relaxed)

3.3.2 Move safely using different speed or time (e.g., fast, slow, sudden, sustained)

- Move around a space using heavy and strong steps like an elephant
- Skip using light and relaxed steps
- Change speed (e.g., from slow to fast) while walking and/or running
- Move to a song and then "freeze" in different positions when the music stops and continue moving when music starts again

Note: To develop children's effort awareness, every learning experience can focus on one of the movement skills (i.e., locomotor, non-locomotor or manipulative skills).

3.4 Develop relationship awareness (i.e., with whom the body moves)

3.4.1 Move safely along with people (e.g., together, alongside, behind, in front of, in pairs, in groups)

3.4.2 Move safely in relation to objects/equipment (e.g., above, below, over, under, through, on, behind, in front of)

- Walk or run alongside with a friend
- Follow a friend and crawl through a tunnel one after another
- Throw and catch a balloon with a group of friends
- Hop in and out of a hula hoop
- Kick a ball into a target (e.g., space between two cones)
- Climb onto a platform in the playground

Note: To develop children's relationship awareness, every learning experience can focus on one of the movement skills (i.e., locomotor, non-locomotor or manipulative skills).

**The examples are not age-specific or exhaustive. Teachers may provide other appropriate learning experiences/activities based on children's developmental needs and interests.*

DID YOU KNOW?

The *Fun Start Move Smart - Learning to Move, Moving to Learn* (2023) developed by Sport Singapore is a resource guide to help you build a strong foundation in understanding how children move and develop gross motor skills. The guide provides resources to support you in:

- Creating active environments to integrate physical activity throughout the day in both indoor and outdoor settings
- Facilitating meaningful and positive movement experiences for preschoolers
- Designing movement activities to enhance gross motor skills

Visit <https://go.gov.sg/sportsg-fsms-resource-guides> to find out more about the resources and how you may use them in your classroom.



Example: Let's Do the Animal Jump!

Learning Objective/s

N2 children are given opportunities to:

- Explore jumping skills in an open space (i.e., space awareness).
- Demonstrate body coordination and balance while hopping (i.e., body awareness) over a line (i.e., space awareness).

Learning Activity

- Show a picture of a frog and have the children explore jumping like a frog in an open space.
- Demonstrate the jumping skill.
- Invite the children to practise jumping over a line on the floor.
- Take a video recording of the children jumping. Play the video recordings and have the children observe how they and their friends jumped over the line and suggest ways to improve their jumping skill.
- Vary the learning experience by getting the children to jump over lines of different thickness.

DID YOU KNOW?



The guiding principles in the *Teaching and Learning Guidelines on the Use of Information and Communication Technology (ICT) in Preschool Centres* (2017) state that use of ICT should:

- 1) complement children's learning experiences and be developmentally appropriate;
- 2) be facilitated and guided by teachers; and
- 3) be carefully considered to ensure the safety and well-being of children.

ICT tools such as video/digital cameras can be used intentionally and meaningfully to support children's learning. In this example, **video recordings are appropriately used to help the children review and improve their gross motor skill development.** The experience also helps to **foster the learning dispositions, "reflectiveness" and "appreciation"** as the children see and think about what they and others did to consider ways for improvement to learn from one another's ideas.

Possible extension of the learning experience

Have K1 or K2 children play hopscotch to practise and reinforce their hopping/jumping skill.

Example: Parachute Challenge

Learning Objective/s

K2 children are given opportunities to:

- Demonstrate body coordination and control as they explore walking sideways (i.e., body awareness) with a partner to transport a ball placed on a towel (i.e., relationship awareness).
- Demonstrate eye-hand coordination when tossing a ball (i.e., body awareness) into a target using a towel with their partners (i.e., relationship awareness).
- Work collaboratively with their partners to complete a task.

Learning Activity

- Have the children work in pairs and each holding to one end of a towel. Put a ball on the towel and have the children walk sideways to bring the ball on the towel from one point to another before tossing it into a box/basket at the end point.



- The children will have to restart from the beginning if they drop the ball along the way or do not successfully toss the ball into the box/basket.

- Invite them to share how they worked together to ensure the ball remains on the towel as they walk from one point to the other and how they tossed the ball into the box/basket.

DID YOU KNOW?



This activity helps children **develop social and emotional competencies** (SEC 1, KSD 1.2.3 and SEC 4, KSD 4.2) as they learn to work and play cooperatively with others. It also **fosters the learning disposition, “perseverance”** by encouraging children with difficulties in completing the task to try again and not give up easily, as well as getting the other children to cheer on their friends.

Possible extension of the learning experience

- Provide a parachute and have the children work together to explore moving a light beach ball by manipulating the parachute (e.g., making small and big waves with the parachute, raising, lowering and tilting the parachute).
- Challenge the children to toss the beach ball as high as possible into the sky. Encourage the children to discuss and explore different ways to complete the task.

LEARNING GOAL 4

Demonstrate control and coordination in fine motor activities

Knowledge, Skills and Dispositions (KSD):
Provide opportunities for children to...

- 4.1 Manipulate tools and objects with dexterity
- 4.2 Develop eye-hand coordination in performing fine motor tasks
- 4.3 Develop appropriate pencil grip

Children's learning and development could be observed, for example, when they...*

- Tear paper into smaller pieces
- Manipulate play dough by squeezing, rolling and kneading it into different shapes
- Fold paper or cloth from point to point
- Use glue to paste items (e.g., coloured paper, beads, ice-cream sticks) together or on paper
- Hold paper with one hand and cut using a scissors with the other hand
- Use scissors to cut shapes with straight and curved lines
- Stack up blocks to build structures
- Fasten and unfasten things with buttons, zips, hook and loop fasteners or hooks
- Put on their socks and shoes
- Tie strings or shoelaces
- Thread large and small beads
- Scoop with a spoon
- Pour water into a cup or a container
- Use a pair of tongs or tweezers to pick up small items
- Hold a pencil or any other drawing/ writing tool using a tripod grasp

**The examples are not age-specific or exhaustive. Teachers may provide other appropriate learning experiences/ activities based on children's developmental needs and interests.*



Children can improve their dexterity and eye-hand coordination as they use the glue stick to paste paper cut-outs on their artwork.



Children demonstrate eye-hand coordination while creating a figure using pattern blocks.

Well-developed fine motor skills are essential to support children's handwriting which is a complex skill that children need to develop over time. Children must also be supported in the following areas to help them develop their motor skills for handwriting:

1. Good posture: Postural control is the ability to keep the body stable when children are stationary and moving. Before children can hold their pencil effectively, they need to be able to sit up.

2. Shoulder stability: Shoulders support the arms and hands and having shoulder stability is essential to **enable children to move their arms, hands and fingers with good control.**

3. Visual perception and sensory processing: This helps children to **make sense of what they see, know how much pressure to use to grasp the writing tool and track the movement of the hand, writing tool and paper.** In order for children to develop visual perception, they need to attain well-developed **vestibular (i.e., sense of balance) and proprioceptive (i.e., sense of body position and movement in space)** systems.

4. Pre-writing skills: Before children can write, they need to be able to **make marks or colour using a drawing/writing tool** (e.g., chalk, crayon, pencil, marker). These skills lay the foundation for children's directional control and awareness. Children need to be able to recognise the letters of the alphabet and know what they look like before writing them.

5. Executive functioning skills: Besides having well-developed fine and gross motor skills, children need executive functioning skills to **enable them to process and remember information** on what to write and be open to accept and correct mistakes made.

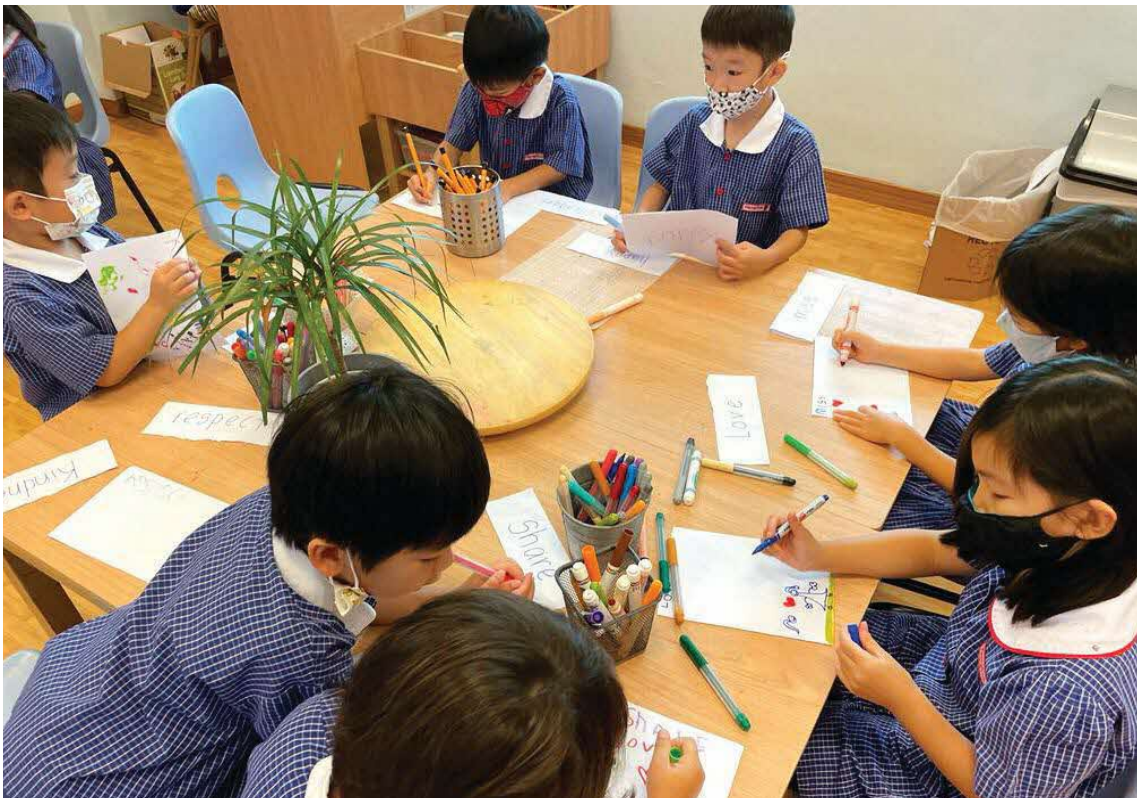
DID YOU KNOW?

Allowing children to play with the different playground equipment to explore climbing, swinging, sliding and crawling helps to develop their core body strength and improve shoulder stability and postural control. Letting children walk and run on uneven surfaces help to enhance their sensory processing.

To develop and strengthen children's posture for handwriting, it is important to have them be seated on a chair with a table at elbow height. Discourage them from writing on the floor in a seated position or lying on their tummy as this may cause poor body posture and result in back problems.



Good posture helps children maintain shoulder stability and body balance. These help them to pay better attention and have more focus in the writing task.



Providing a range of writing/drawing tools for children to use helps them gain better control of their hands, wrists and fingers when they engage in writing/drawing activities.

Example: Fun Leaf Rubbing

Learning Objective/s

N2 children are given opportunities to:

- Observe and talk about the physical characteristics of different types of leaves.
- Strengthen their fine motor skills by making leaf rubbings.

Learning Activity

- Bring the children to a nearby garden/park for a leaf hunt.
- Have them observe the leaves and talk about their features, such as the colour, shape, size, texture and smell using the following suggested questions:
 - *What colours and shapes of the leaves do you see?*
 - *What does the shape of the leaves remind you of?*
 - *How are the leaves the same or different?*
 - *What do the leaves feel like?*
 - *What do the leaves smells like?*
 - *What lines/patterns do you see on the leaves?*
- Get the children to choose and draw their favourite leaves.
- Have each group of children pick up some of the fallen leaves. Remind them to protect the plants/trees and only collect leaves that have fallen to the ground.
- Provide the children with crayons and paper. Have them explore making at least two leaf rubbings from the leaves gathered by their group.

Possible extension of the learning experience

- Have the children explore making rubbings of tree barks and other textures in the outdoor environment.
- Have the children make rubbings of textured objects found in the classroom, such as bubble wrap, paper clips, interlocking bricks, rubber bands and wooden craft sticks to create an artwork.

Example: Fun with Paper Folding

Learning Objective/s

K1 children are given opportunities to:

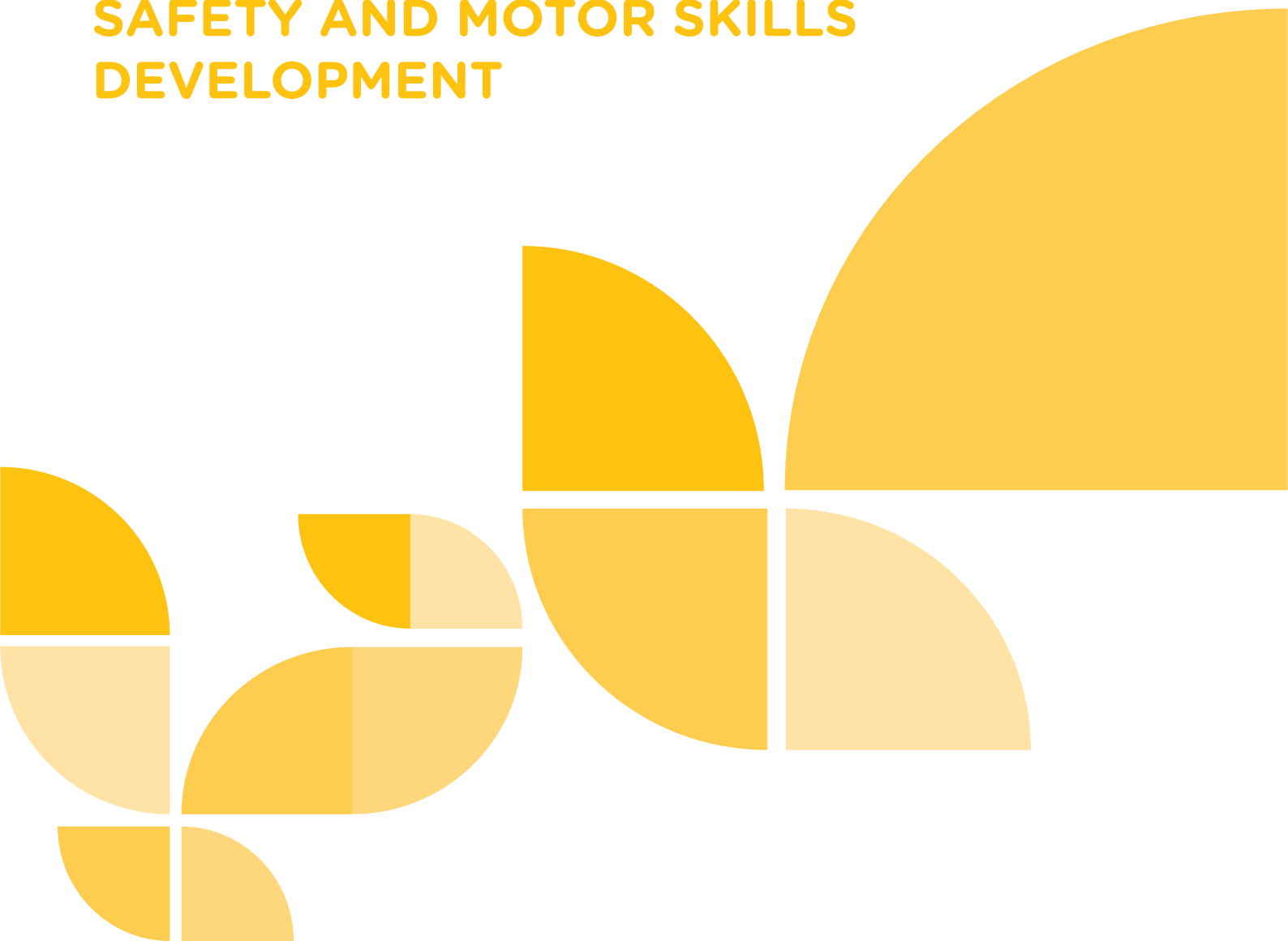
- Strengthen eye-hand coordination as they fold papers into different things.

Learning Activity

- Provide the children with unwanted paper, old newspapers and magazines.
- Guide the children to fold the used papers into aeroplanes.
- Invite them to predict which type of paper aeroplane will fly the furthest.
- Let them play with their paper aeroplanes to find out whose aeroplanes can fly the furthest.
- Guide the children to make paper boats and other things, such as animals and flowers.

Chapter 3

STRATEGIES FOR HEALTH, SAFETY AND MOTOR SKILLS DEVELOPMENT



DEVELOPING HEALTH AND SAFETY AWARENESS

Children need to know the importance of keeping themselves healthy and safe and this is best learnt in the early years. Teachers may instill healthy and safety habits in preschool children through the following ways:

- Using books and stories
- Using role-play
- Using routines and transitions

Using Books and Stories

Books and stories which children enjoy can be effective ways to convey to them the importance of health and safety. Through stories, children can learn about the importance of keeping themselves healthy and how to practise healthy habits. For example, tell a story to help children learn and recognise the importance of brushing their teeth. This can be followed by inviting a classroom visitor, e.g., a dental nurse or a dentist to demonstrate the correct toothbrushing technique before conducting a hands-on activity for children to practise the steps. Sing a song with accompanying actions to motivate children to learn correct toothbrushing and reinforce what they have learnt. It is also important to work with families to reinforce proper toothbrushing by guiding them in establishing and maintaining a routine at home for their children.

DID YOU KNOW?

Children may develop Early Childhood Caries (ECC) due to ineffective toothbrushing which leads to tooth decay. This is a bacterial disease of the teeth which can become a serious issue if not addressed in time.

(Source: Singapore Ministry of Health)



Demonstrating proper toothbrushing helps children to visualise how to hold and manipulate the toothbrush effectively.

Families are critical partners in supporting teachers' efforts to instill healthy habits in children. They play an important role in helping children start early in adopting healthy habits, such as eating balanced meals, taking a daily walk and not using the phone or watching TV during mealtime.

Example: My Healthy Snack

Learning Objective/s

N2 children are given opportunities to:

- Be more aware of how to make healthier choices of food.

Learning Activity

- Read the book, “The Very Hungry Caterpillar” by Eric Carle.
- Provide each pair of children with two picture cards of the food mentioned in the book (e.g., an ice-cream cone, a slice of watermelon).
- Have them share with their partners which type of food they would choose for their snack and why.
- Invite the children to share their choices with the class.
- Show a poster of a healthy plate and talk about what constitutes a balanced meal.
- Invite the children to place their food cards in the appropriate food groups on a healthy plate template.
- Encourage the families to work with their children to create a “My Healthy Plate” collage for display at home.

This activity can be modified in the following way/s:

- *Provide more than two picture cards of the food mentioned in the book to encourage deeper conversations among the children on their food choices.*
- *Add more pictures of food that the children are familiar with (e.g., bread, rice, butter) for them to categorise according to the food types on the healthy plate poster.*



Using Role-Play

Play is the primary mechanism through which children explore, learn and make sense of the world around them. Providing children with **opportunities to role-play a variety of settings and situations not only stimulates their imagination** but also **allows them to learn and develop useful knowledge and skills**.

Scenarios set up for pretend play at learning centres also allow children to take on different roles such as cooks in a restaurant who are tasked to prepare a healthy meal for their customers.



Children strengthen their fine motor skills as they practise the cutting skill at the Dramatic Play Centre.

Using Routines and Transitions

Routines and transitions provide an authentic context for children to learn healthy and safety practices and teachers to observe and enhance children's learning. Examples of such opportunities are:

1. Get children to perform the 8-step proper handwashing procedure after using the toilet, before eating, after playing outdoors or after sneezing.
2. When going outdoors, have children exercise safety precautions as they play with others (e.g., ensure they do not push others and wait for their friends to move away before going down a slide at the playground).

3. Invite children to identify and talk about the food groups of the food served to them to encourage children to make healthy eating choices.
4. During transition between activities, remind children to put all toys and other materials away after play or use to prevent someone from tripping over them and falling, to walk and not play or push their friends as they move from one place to another, and to walk slowly and hold on to the handrail for support when using the staircase.



Ensure that children practise proper handwashing before and after consuming food.



Ensure children take turns to play with the playground equipment to demonstrate safety practices for self and others.



Guide and encourage children to make healthy food choices during mealtime.

In addition to these strategies, **health and safety activities should be integrated into the relevant themes or topics of the curriculum.** For example, activities can be planned to raise children's awareness of safety practices at public places when they learn about their neighbourhood. Teachers can draw children's attention to the traffic lights during a neighbourhood walk and have them talk about how to cross the road safely. Other safety practices should also be introduced, such as not playing with balls near the road, rejecting offers or gifts from strangers, standing behind the yellow line at all times when waiting for a bus or train, and not running around on the bus or train.



Provide opportunities for children to learn how to observe road safety during outdoor play.

DEVELOPING MOTOR SKILLS

When planning for children's motor skills development, teachers should prepare a range of activities to develop the different aspects of children's physical abilities. **Activities should be progressive and built upon the skills that children are able to do, from simple to complex.** Each activity should be designed purposefully with specific learning objectives and provide children with an enjoyable experience.

Strategies to develop children's motor skills include:

- Using explicit teaching
- Using games
- Using music

Using Explicit Teaching

Explicit teaching involves teachers explaining how to perform a skill and demonstrating how the skill is executed.



Demonstrating and using verbal prompts to show how a motor skill (e.g., jumping) is executed help children learn to perform and improve the skill.

Children's gross motor skills can be developed using the four steps shown below:

Step 1: Encourage movement exploration

Teachers should start with providing adequate time, resources and space for children to **explore how to execute a motor skill**. These help them to **develop awareness of how their body is moving to perform the skill effectively and efficiently**. The roles of teachers are to:

- Establish a positive and safe learning environment for children to make and learn from mistakes, as well as continue to persevere in developing the motor skill.
- Observe children performing the skill.
- Provide feedback on how children are performing the skill (e.g., what went well, how it can be improved).

Step 2: Introduce a new skill through a demonstration

After children's exploration, teachers play a critical role in **showing how to perform the skill in a systematic way**. A demonstration involves **showing and explaining how a skill is performed**. Teachers should put on comfortable attire and covered shoes to allow children to see the movements of a skill clearly.

Step 3: Give teaching cues

A gross motor skill is usually made up of a series of body movements. **Teaching cues are helpful in drawing children's attention to the series of body movements during the demonstration.** Teaching cues are words or phrases that relate to the key actions involved in performing a specific motor skill. Such **verbal prompts are useful to help children be more aware of how the skill should be executed.** The teaching cues also **help children to remember the body movements** involved in performing a motor skill as they explore and execute it. For example, in introducing a sliding skill, the following teaching cues can be introduced:

Take a step to the side



Take the first step to the side with the leading leg (e.g., the left leg).



Close the step with the other leg.

Close the step

Step, close, step close



Repeat the movements by stepping to the side with the leading leg and closing the step with the other leg in a smooth and rhythmic manner.

Step 4: Provide opportunities for practice and give feedback

To reinforce children's learning of the gross motor skill, have them recite the teaching cues to help them process and recall the movements required. Teachers should provide opportunities for children to practise the skill to help them be more familiar with the body movements. For example, after introducing the sliding skill, have the children practise the skill. Let them get more practice while having fun by getting them to slide with their partners to a piece of music.



Teachers may also continue to support children's learning by giving encouragement and specific feedback to individual children for improving the skill. When teachers give feedback in an encouraging manner, children are motivated to improve themselves. When the feedback is specific, children know what they have done right or what needs to be modified, e.g., *"Jonathan, I see that you are using your right leg as the leading leg. You need to use your left leg to close the step"* and *"Meena is moving in a smooth and rhythmic manner."* General and non-verbal feedback, such as showing a thumbs-up and nodding your head will also encourage children to persist in their learning of a motor skill and instill in them a sense of achievement when they are able to perform the skill.

DID YOU KNOW?

Good dynamic body coordination, control and balance are needed to perform the sliding skill. Sliding is one of the most common skills used in sports like tennis, badminton, basketball and soccer where players make anticipatory side to side moves to be ready to dodge opponents or to change movement directions.

Using Games

Using games are an engaging way to **help children practise or reinforce a specific motor skill and have an enjoyable time while they are learning and developing the skill.** Group and relay games and obstacle courses involving a variety of motor skills also **require children to interact with their peers and encourage them to cooperate and develop teamwork.** The following are examples of physical games/obstacle courses that children can enjoy playing while developing motor skills.

DID YOU KNOW?



Playing physical games can build children's executive functioning skills and allows them to practise these skills in different ways. Games, such as 'Musical Chairs' and 'Freeze Dance' require constant monitoring and quick responses and thus help children exercise attention and inhibition while games with rules such as obstacle courses draw on children's working memory for the instructions to play the games or to complete the task at each station.

Example: Electric Shock!

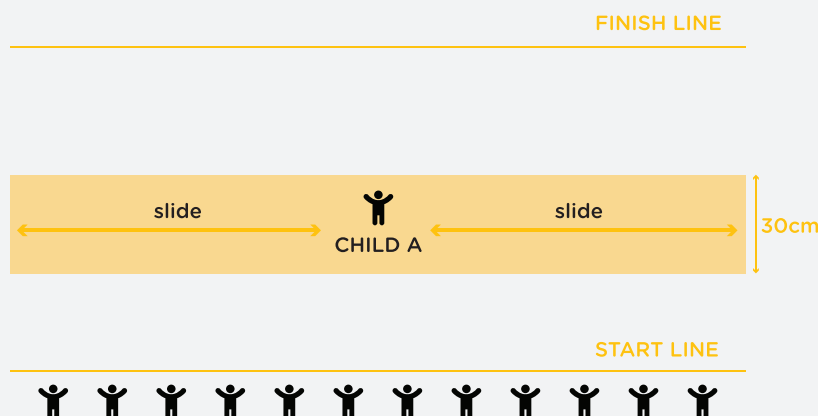
Learning Objective/s

K2 children are given opportunities to:

- Demonstrate sliding, running and skipping skills (i.e., body awareness) in a general space (i.e., space awareness).

Learning Activity

- Mark out a rectangular space at the centre of the play area as the "electric zone". Select one child (e.g., Child A) to act as the "electricity" and have the child stand inside the "electric zone" (see diagram below).



- Tell the rest of the children that Child A will slide across the “electric zone” when a signal is given.
- Have the other children stand in a row behind the start line, facing Child A.
- Tell them when the signal is given, they must attempt to run, skip or leap across the play area to the finish line without being tagged by the “electricity”. Remind them not to run out of the play area.
- Children who are tagged get an “electric shock” and will stop playing by stepping aside.
- Children who are not tagged and who manage to cross the “electric zone” to the finish line will attempt to run/skip back to the start line without being tagged.
- Invite these children to talk about how they avoided being tagged by the “electricity”.

Safety Considerations:



Give clear instructions for the children to run across the play area, e.g., they should run in a straight path and not into their friends' paths or bump into their friends.

This activity can be modified in the following way/s:



- *Call on two groups of children to run across the “electric zone”, e.g., “Children who are wearing white socks and children with long hair”.*
- *Increase the number of children (e.g., 2 or 3) to be the “electricity” by getting those children who are tagged to join Child A.*

Example: Flamingo Game

Learning Objective/s

K1 children are given opportunities to:

- Demonstrate standing and balancing (i.e., body awareness) on one leg on their own and with support from their friends. (i.e., relationship awareness)

Learning Activity

- Get the children to work in pairs and have them each stand on one poly spot marker of the same colour.
- Have them explore standing and balancing on one leg like a flamingo for 3 seconds.
- Ask the children, “Was it easy to stand and balance on one leg? Why not? How did you manage to do it? What else can you do to make it easier?”

Demonstrate how to stand and balance on one leg by first stretching out both arms, then putting both hands on the waist. Let the children try to explore and practise the non-locomotor skill.

- Invite them to talk about how they can support each other while balancing on one leg (e.g., by holding hands or holding on to each other’s shoulders). Let them try supporting each other while standing and balancing on one leg.
- Play a game with the children to find out which pair can maintain their balance while standing on one leg for the longest time.

Safety Considerations:

Use the poly spot markers to define the children’s personal space. It is important to ensure that each child and each pair of children have sufficient space around them so that they carry out the activity comfortably and safely.



This activity can be modified in the following way/s:

- *To challenge the children and encourage inventiveness, have the children work in pairs. Get them to think of poses they can come up with where they must hold each other’s hand/s and one of their feet must be lifted. They must also be able to hold the pose for at least 5 seconds. Take photographs of the different poses.*
- *Have the children look at the photographs and share what they like and find interesting about these. The pair of children can also be invited to share how they decided on the pose and how they worked out to maintain their balance.*



Example: Simon Says

Learning Objective/s

N2 children are given opportunities to:

- Demonstrate locomotor and non-locomotor skills in response to a set of instructions.

Learning Activity

- Introduce the game, “Simon Says” and explain how to play it.
- Give a set of instructions involving a range of locomotor and non-locomotor skills and have the children follow or ignore the instructions depending on whether the instructions include “Simon Says”.

Examples of instructions:

- *Run around the hula hoop like a puppy.*
- *Jump on the spot like a frog.*
- *Stomp around like an elephant.*
- *Crawl around the hula hoop like a tortoise.*
- *Stretch your arms to reach the sky.*
- *Bend down to touch your toes.*
- *Stand and balance on one leg.*
- *Twist your body.*

DID YOU KNOW?



“Simon Says” is a good game to help build executive functioning skills as it requires children to pay attention, exercise inhibition control and develop cognitive flexibility as they need to keep track of the instructions and decide whether to carry out the actions.

Before carrying out a game or any gross motor activity (e.g., mass dance), teachers should start with a warming up activity. **Warming up activities aim to increase children's heart rate so that they are ready for the main activity.** Appropriate warming up activities will also **reduce the risk of injury.**



It is a good practice to get the children to warm up before and after any physical activity.

The warming up activity should be related to the main activity. For example, if the main activity requires the children to run, the warming up activity should include stretching of the thigh and calf muscles. It is also a good practice to carry out **cooling down activities to allow the body to slow down gradually to a comfortable level after carrying out rigorous activities.** Warming up and cooling down activities may include jogging on the spot, performing an action song and playing simple games, such as Police and Thief, Freeze Game and Musical Hoops (adapted from Musical Chairs).

Using Music

Music has been shown to **encourage and enhance movement as it helps the body and the mind to work together, which supports the fine-tuning of brain and body coordination.** **Listening to music can help children feel energised and excited, increasing their desire to be active and to move around.** Music and movement activities help children learn better because they engage more than one of children's senses. When the music and movement activity is captivating and enjoyable, children participate more actively and become more engaged. In addition, **music can promote creativity while children explore various gross motor movements in an enjoyable manner.**

Music promotes the development of both gross and fine motor skills. **Dancing is a great way for children to improve body coordination, control and balance.** Fingerplay rhymes or songs such as “Incy Wincy Spider” help children to improve their eye-hand coordination as they move their fingers by touching the index finger of one hand to the thumb of the other hand while moving their hands upwards to show the spider moving up the waterspout.

Example: Marching Ants

Learning Objective/s

N2 children are given opportunities to:

- Explore marching (i.e., body awareness) using different force and speed (i.e., effort awareness) in response to the tempo and beat of a song.

Learning Activity

- Sing the song, “The Ants Go Marching” and let the children explore moving or marching around the room in response to the music they hear.
- Get them to imagine that they are ants carrying heavy objects on their backs. Ask them, *“Imagine you are carrying something heavy on your back. How would you move to the song?”* Sing the song slower and have the children march to the tempo and beat of the song in a more forceful and slow manner.
- Next, ask the children, *“You are now not carrying something heavy on your back. How would you be moving? Why?”* Get them to sing along and march around the room in a more relaxed and fast manner.

Example: Bouncing Balls

Learning Objective/s

K2 children are given opportunities to:

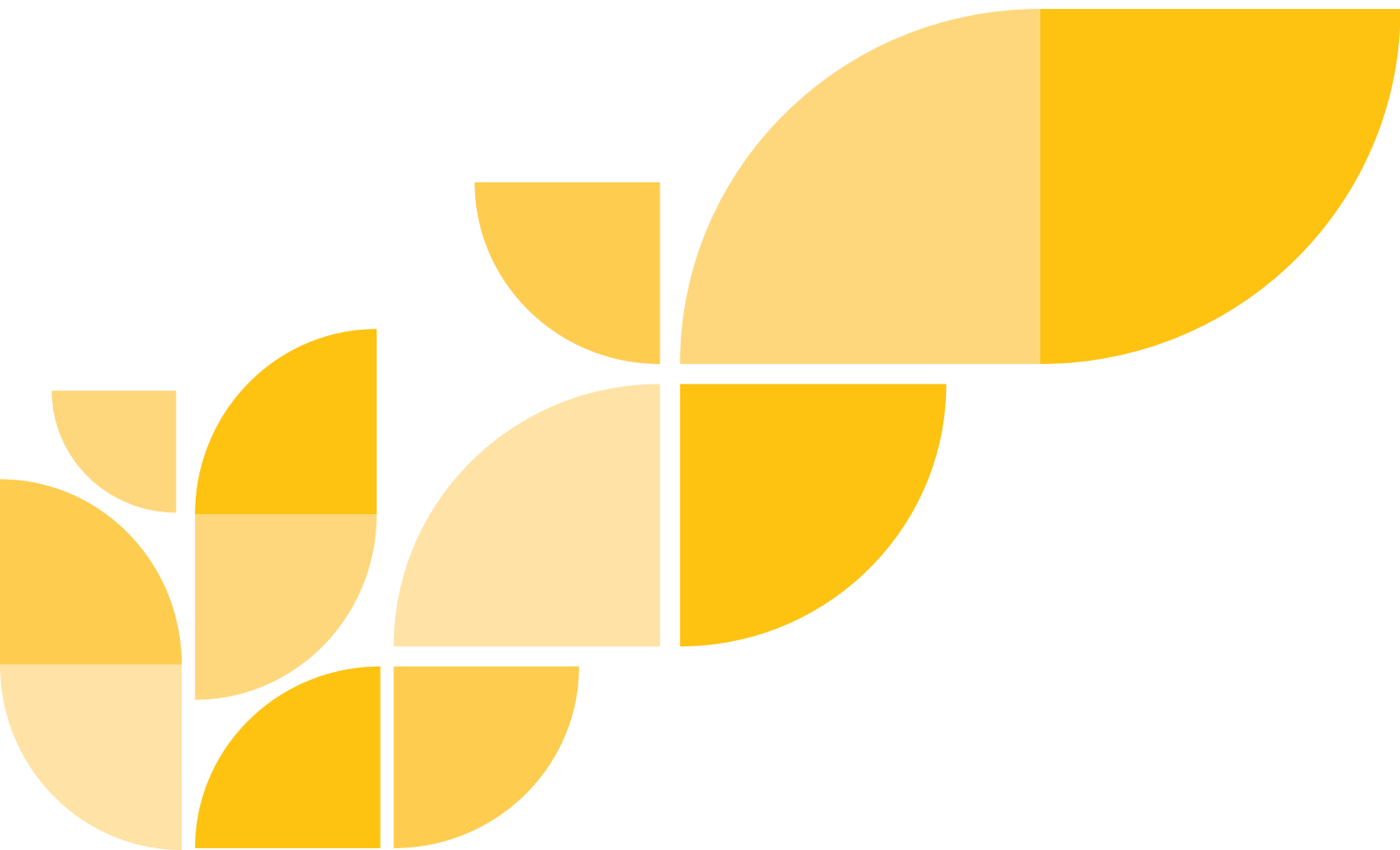
- Demonstrate eye-hand coordination and body coordination and control as they bounce and catch a ball (i.e., body awareness) in response to the beat of a piece of music (i.e., relationship awareness).

Learning Activity

- Play an audio clip of the sounds made by a bouncing ball. Get the children to guess what the sound is.
- Provide a variety of balls (e.g., light bouncy balls, small plastic balls) and get the children to explore bouncing and catching the different types of balls.
- Demonstrate how to bounce the ball onto the poly spot marker by following the following teaching cues:
 - a) **Look** - Look at the target (i.e., the poly spot marker) on the ground.
 - b) **Push** - Push down the ball firmly towards the target.
 - c) **Catch** - Catch the ball at waist level when it bounces up.
- Play a few pieces of slow and fast catchy music and get the children to bounce the balls and keep to a steady beat in response to the music.

Chapter 4

ORGANISING THE LEARNING ENVIRONMENT



A stimulating environment with relevant visuals, adequate space and appropriate equipment and resources helps to encourage the development of healthy habits, good personal hygiene practices, safety awareness and motor skills. Visuals, such as posters and charts can be put up in areas that children use to serve as environmental cues for healthy and safety practices (e.g., the proper handwashing steps, the importance of warming up and cooling down before and after physical activities, reminders to be responsible by keeping the building blocks after play).

Learning spaces in the preschool centre can be arranged so that small and large groups of children can play and interact with each other to promote health, safety and motor skills development. Teachers should also **ensure sufficient equipment and resources are available for children to use with minimal wait time.**

INDOOR SPACE

Children can learn and practise their fine motor skills in a **conductive indoor space**. Indoor spaces can be **flexibly set up to provide an open space for construction play activities** (e.g., building structures using wooden blocks) and **table space for playing with table toys** (e.g., playing with puzzles, interlocking bricks, play dough, peg boards). **Tables and chairs provided must allow children to be comfortably seated to improve their body posture** as they engage in activities.



A good body posture is important as children can better concentrate on the task at hand.

The indoor space can also be optimised to allow children to move around safely individually and together in small or large groups. For example, common indoor spaces can be creatively used to encourage physical play for children to practise gross motor skills during indoor play or transition time.



Children can play hopscotch in the classroom.



Children can practise a variety of locomotor skills (e.g., walking, galloping and sliding) on straight, curved and zigzag lines created on the floor of common indoor spaces.

OUTDOOR SPACE

The **outdoor open space within and beyond the preschool centre** allows children to engage in gross motor activities that might not be possible indoors. These spaces include playgrounds, parks, foyers, multi-purpose halls and community spaces, such as void decks, basketball courts and fields. They **allow children to play movement games with their friends and to move freely as they explore a variety of locomotor skills** (e.g., running, jumping, sliding, throwing, cycling).



Communal or shared spaces are good for activities to develop locomotor skills if spaces within the centre are limited.



Using nearby spaces helps to reduce transition time and create more activity time.



Walls can be tapped to provide spaces for throwing activities. Teaching cue cards can also be put up to remind children on how to perform the skill effectively.

A playground provides many opportunities for children to exercise gross motor skills and engage in active, noisy play with their friends. To support sensory and motor development, teachers should encourage children to **explore the different playground equipment** (e.g., climbers and balancing beams) and scale appropriate heights in a playground structure. These help them **develop their sense of balance** (i.e., vestibular function) **and body position and movement in space** (i.e., proprioceptive function), as well as **learn to stay focused, take risks and persevere**.



Playgrounds provide space for children to enjoy active and noisy play.

RESOURCES AND EQUIPMENT

To provide opportunities for effective motor skills development, a preschool centre needs to be **well-equipped with a wide range of equipment and resources for physical play**. These resources should be **safe, age-appropriate and able to stimulate children's curiosity and invite active participation**.



The use of a parachute in a class game helps to promote teamwork among children.

Mobile play equipment (e.g., wooden blocks/crates, foam pool noodles, tunnels, parachutes, hula hoops, beanbags, balls, skipping ropes, cones, tricycles) can also be used as these are flexible and can create different structures to provide variety in children's play. **Children's ideas can also be incorporated in designing the play area and activities**, such as setting up their own obstacle course using open-ended materials. Such activities can also **promote cooperative play to build teamwork among children**. To promote children's autonomy, teachers should **encourage child-directed play where children have a choice of play activities, resources and even playmates**.



Open-ended resources encourage children to design what and how to play.

Time is required for children to participate in sustained physical activities which help to develop their cardiovascular and muscular strength. Teachers should plan for **every child to be active through the activity and minimise wait time for play**. With proper planning, all children will enjoy moving freely at the same time. It is also useful to **conduct a proper closure at the end of the physical play activities for children to consolidate their learning** (e.g., revisiting the teaching cues for specific gross motor skills) or to **reflect on the learning experience** (e.g., discussing how well they worked with friends in completing a task and ways to improve).

Storage of the play equipment can be a challenge, especially the larger items. Where possible, all equipment should be stored near the play area so that **they are easily accessible for use**. Involving different groups of children in collecting and keeping the equipment and resources helps to **instill responsibility and develop a sense of ownership in children**.



Children learn to develop a sense of responsibility and ownership as they collect and keep the play equipment for motor skills activities.

Examples of resources/equipment for promoting health, safety and motor skills development:

To develop healthy and safety practices

- Songs and videos
- Posters and charts
- Puppets
- Child-sized brooms and dustpans



To develop gross motor skills

- Parachutes and tunnels
- Beanbags, rubber quoits, balloons and scarves
- Hula hoops
- Rubber balls of different sizes and textures
- Scoops and balls
- No-bounce balls
- Mini-basketballs and mini-soccer balls
- Balancing beams
- Recycled boxes, containers or baskets of various sizes
- Tricycles and bicycles

To develop fine motor skills

- Play dough and accessories (e.g., rolling pins and cookie cutters)
- Art and craft materials (e.g., clothes pegs, pipe cleaners, cotton balls, pom-poms)
- Linking cubes, waffle blocks and interlocking bricks
- Laces and beads
- Tongs and tweezers
- Scissors, glue sticks, staplers and hole punchers
- Writing and drawing tools (e.g., pencils, crayons, chalks, markers, paint brushes)
- Clothes or bags with buttons

DID YOU KNOW?

Recycled materials and other loose parts found around us can be used as resources to promote motor skills development. For example, recycled tins and containers can be stacked and used as targets for children to practise their throwing skill, old socks or towels can be rolled into balls to practise tossing and catching skills, recycled drink or milk cartons with to practise caps can be used to practise opening and closing the caps to strengthen eye-hand coordination and dexterity.

Tips for Teachers

1. Establish and maintain rules to help children play safely and maximise activity time

Injuries and conflicts can be avoided when children know the expectations of playing safely (e.g., take turns while playing on a slide, slide down with their feet first and seated upright, make sure no children are in the way before jumping off an equipment).

2. Set routines to prepare children for physical activities

Routines help to organise the class efficiently and get children ready for the various physical activities (e.g., get water bottles ready, drink water after play, do warming up and cooling down exercises before and after the activities). Check for attire that may pose safety threats (e.g., loose or uncovered shoes, clothing with dangling drawstrings).

3. Set up the activity or play area

Ensure that the play area is suitable and safe for the activity. Define the activity/play area clearly using cones or poly spot markers, if necessary. Check for possible sharp objects on the ground and avoid areas near roads, crowded places and stairway landings.

4. Conduct regular checks on the play resources and equipment

Ensure that all indoor and outdoor play equipment, resources and materials are checked and cleaned regularly for children to use safely. Look out for potential dangers, such as rusted or broken equipment, rough splinters, sharp edges, protruding nails and loose nuts or bolts to ensure children's safety. Check to ensure that surfaces of playground equipment are not wet or too hot.

5. Gather up-to-date information about children's health conditions

Ensure that all children are physically fit to participate in the activities and take precautionary measures during activities.

6. Monitor weather conditions closely

Be aware of prevailing weather conditions (e.g., rain, lightning risks, heavy haze) when planning and conducting outdoor activities.

Chapter 5

MONITORING AND ASSESSING LEARNING AND DEVELOPMENT



Teachers play a critical role in monitoring and assessing children's learning and development through ongoing observation and documentation of what children can do and how they are progressing towards achieving the learning goals for health, safety and motor skills development. Opportunities should be intentionally planned and provided for children to develop and apply the necessary knowledge, skills and dispositions through a variety of learning activities and daily routines and transitions across different contexts.

OBSERVING, DOCUMENTING AND ASSESSING CHILDREN'S LEARNING AND DEVELOPMENT

Children develop at different rates and make progress in learning and developing motor skills over time. Therefore, observing and documenting children's learning and development is an ongoing process. As it may be challenging to observe a class of children constantly on the move, teachers can make short notes, take photographs or video recordings to capture children's learning experiences. Information gathered helps teachers keep track of children's progress and improvements made, and assess whether they are ready for the next level of development or to learn a new skill.



Teachers must conduct on-going observation and documentation of children's learning and development.

Examples of questions to keep in mind when monitoring and assessing children's learning and development of health and safety practices:

- *How does the child make healthy food choices (e.g., choosing to eat a healthy snack instead of an unhealthy snack, suggesting to prepare healthy food for a picnic based on his/her understanding of a healthy plate)?*
- *How can I provide further opportunities for the child to continue making healthy food choices in other contexts (e.g., choosing to eat healthy food at home)?*
- *Does the child understand the importance of maintaining personal hygiene practices? How is the child demonstrating this?*
- *How can I encourage the child to practise personal hygiene consistently?*
- *How does the child demonstrate safety practices while playing with his/her friends? What challenges did the child encounter?*
- *How can I develop the child's understanding of rules and encourage him/her to follow rules and safety practices to ensure personal and group safety?*

Examples of questions to keep in mind when monitoring and assessing children's motor skills development:

- *How does the child perform a particular locomotor, non-locomotor and manipulative skill (e.g., hopping, sliding, balancing, bending, tossing, catching)?*
- *What difficulties did the child face and how can I further support the child's motor skill development?*
- *What opportunities can I further provide for the child to practise and enhance the motor skill?*
- *How does the child demonstrate awareness of space, effort and relationship when performing a motor skill?*
- *How well does the child move within personal/general space?*
- *How well does the child move in different directions and on different pathways?*
- *How well does the child transit from a quick to a slow movement?*
- *How well does the child crawl through a tunnel when there is a child in front of him/her?*
- *What challenges does the child face and how can I support him/her for improvement?*
- *How does the child perform in the fine motor task? What challenges does the child encounter? How can I help the child strengthen his/her fine motor skills?*

EXAMPLES OF OBSERVATION, DOCUMENTATION AND ASSESSMENT OF CHILDREN'S LEARNING AND DEVELOPMENT

Example 1

Context and Observation

The N2 children were playing at the playground. Sharidah was seen to be playing on the slide for a long time. She climbed up the steps on her own to reach the top of the slide and slid down without any hesitation to the bottom of the slide in an upright position. When going down the slide, she did not wait for her friend, who had just used the slide, to move away. Her friends told her to stop doing that but she continued to slide down as soon as it was her turn.

Documentation, Interpretation and Assessment

The teacher could document his/her observations to reflect Sharidah's progress in the learning goals for *Health, Safety and Motor Skills Development* in a table like the one shown below. The teacher should make use of this interpretation and assessment to plan subsequent activities to reinforce and extend Sharidah's learning.

Learning Goal/Other Indicators of Learning and Development	Documentation (What aspects of my observation of the child should I pay more attention on?)	Interpretation and Assessment (What do the observations tell me about the child?)
<p>Learning Goal 1: Develop healthy habits and safety awareness at home, in school and at public places</p> <p>Learning Goal 3: Demonstrate control, coordination and balance in gross motor activities</p> <p>Social and Emotional Competency 2: Develop self-management and regulation</p>	<ul style="list-style-type: none"> Sharidah enjoyed playing on the slide during outdoor playground time. In her excitement to play on the slide, she would be the first to line up to climb up the steps and go down the slide on her own. She did not wait and would go down the slide when the child in front of her was on the slide. 	<ul style="list-style-type: none"> Sharidah has strong legs and she could climb the steps with good body coordination and control. She was able to slide down appropriately by maintaining her balance and good body control. This showed that she is progressing well in developing her vestibular and proprioceptive functions.

Social and Emotional Competency 4: Build relationships with family, friends and significant adults

Values: care, respect

Executive functioning skills: inhibitory control

- While she had waited for her turn on the slide, Sharidah did not play safely and had not considered her own safety nor that of her friends when going down the slide.
- Sharidah needs to learn to regulate her excitement in playing on the slide.

Possible Follow-up Activities to Reinforce/Extend Learning

- Use a story to reinforce how children play nicely and safely with their friends. Invite the children to talk about how they would feel when their friends do not play nicely and safely with them.
- Read the book with Sharidah during learning centre time and help her to recognise how the characters in the story show care and respect for others by playing with their friends safely. Explain to her why she needs to wait for her friend who has just used the slide to move away before she starts going down the slide.
- Recap the safety practices for playground time and invite Sharidah to contribute her ideas.
- Introduce other playground equipment to Sharidah and encourage her to explore playing with them to further strengthen her body muscles and sensory and motor development.
- Create opportunities for Sharidah to improve her executive functioning skills by playing games that require her to pay attention and exercise inhibitory control.

Example 2

Context and Observation

The K1 children were divided into two groups and were told that they would complete an obstacle course that required them to complete some tasks. They would have to balance a beanbag on the head and walk like a penguin along a straight line, then crawl through a line of cones like a bear. Next, they would have to jump over a 15cm cross bar like a kangaroo and hop in and out of small hula hoops on one foot like a puppy with an injured paw.

Wee Meng clapped and said that he liked the game. When it was his turn to play, Wee Meng extended his arms slightly as he walked and balanced a beanbag on his head without dropping it. He then crawled slowly through the line of cones without any difficulty. Wee Meng paused for a while before the cross bar and tried to jump over it but ended up stepping on it. He managed to jump over it in an awkward manner after two more attempts. Wee Meng also struggled to maintain his balance and body control while hopping in and out of the hula hoops on one foot. He did not hop in and out of the four hula hoops continuously but would stop at each one before hopping to the next. He completed the obstacle course and gave a big smile before joining his other group members. Wee Meng watched and cheered on his friends who had difficulties completing the obstacle course.

Documentation, Interpretation and Assessment

The teacher could document his/her observations to reflect Wee Meng's progress in the learning goals for demonstrating body control, coordination and balance in performing gross motor skills in the table below. Besides the anecdotal records shown below, photographs of Wee Meng's gross motor skills ability could also inform the teacher's interpretation and assessment of his motor skills development. The teacher should make use of this interpretation and assessment to plan subsequent activities to reinforce and extend Wee Meng's learning and development.

Learning Goal/Other Indicators of Learning and Development

Learning Goal 3:
Demonstrate control, coordination and balance in gross motor activities

Learning dispositions:
perseverance and engagement

Social and Emotional Competency 1: Develop self-awareness

Social and Emotional Competency 4: Build relationships with family, friends and significant adults

Documentation

(What aspects of my observation of the child should I pay more attention on?)

- Wee Meng exclaimed, “Hooray! It’s outdoor time!” when he heard that the class was going for an outdoor activity.
- He participated actively in completing an obstacle course that required him to demonstrate balancing, crawling, jumping and hopping skills.
- He exhibited good body posture, coordination and balance while walking in a straight line with a beanbag on his head.
- He was able to crawl through a line of cones with smooth and well-coordinated body movements.

Interpretation and Assessment

(What do the observations tell me about the child?)

- Wee Meng enjoyed going outdoors for physical activities.
- Although he demonstrated good body coordination in balancing and crawling skills, he needs more practice to build his confidence in jumping over an obstacle and hopping on one leg. He also needs to improve his sense of balance and body position and movement in space to develop his jumping and hopping skills.
- Despite facing some difficulties, Wee Meng did not give up easily and tried to jump over the cross bar again in order to complete the obstacle course. He showed perseverance and responded positively to his group members who had difficulties by cheering them on and encouraging them to complete the obstacle course.

Possible Follow-up Activities to Reinforce/Extend Learning

- Provide opportunities for Wee Meng to practise standing and balancing on one leg with and without support.
- Use specific teaching cues to demonstrate the jumping and hopping skills to guide Wee Meng in practising and developing these two gross motor skills.
- Build Wee Meng's confidence in jumping over obstacles with different heights, beginning with jumping over a piece of rope placed on the ground.
- Have Wee Meng play games such as Hopscotch to practise and improve on his hopping skill.
- Give him positive reinforcement when he is able to jump and hop in smooth and well-coordinated movements to build his self-confidence' after 'movements.
- Acknowledge Wee Meng's perseverance and positive attitude towards his friends to encourage and affirm him.

Example 3

Context and Observation

The K2 children were exploring the theme, “Our Neighbourhood” and working together to build a model of their neighbourhood. They created an MRT station, a Community Club and a playground using a variety of cardboard boxes and other recycled materials. Mei Ting was seen to place two toothpaste boxes together to create a part of the MRT track. To keep the two boxes in place, she tried to use the sticky tape but was not able to pull the tape out and cut it with a pair of scissors at the same time. She asked Mohammed who was also trying to create an MRT track next to her to help her. Mohammed pulled the tape and Mei Ting was still not able to cut the tape using the pair of scissors. Mohammed offered to help her, and he could cut a strip of the sticky tape while Mei Ting pulled the tape out. Mei Ting held the two ends of the sticky tape and pasted it on the two boxes to secure them together. She then pulled out some more tape for Mohammed to cut into more strips for her use.

Documentation, Interpretation and Assessment

The teacher could document his/her observations to reflect Mei Ting’s progress in the learning goals for demonstrating control and coordination in performing fine motor skills in the table below. Besides the anecdotal records shown below, photographs of Mei Ting’s fine motor tasks could also inform the teacher’s interpretation and assessment of her fine motor skills development. The teacher should make use of this interpretation and assessment to plan subsequent activities to reinforce and extend Mei Ting’s learning and development.

Learning Goal/Other Indicators of Learning and Development	Documentation <i>(What aspects of my observation of the child should I pay more attention on?)</i>	Interpretation and Assessment <i>(What do the observations tell me about the child?)</i>
<p>Learning Goal 4: Demonstrate control and coordination in fine motor activities</p> <p>Social and Emotional Competency 4: Build relationships with family, friends and significant adults</p> <p>Values: care, respect</p>	<ul style="list-style-type: none"> Mei Ting was able to choose and decide on which recycled materials to use to build the MRT track on her own. 	<ul style="list-style-type: none"> Mei Ting was able to work cooperatively with her friend in trying to cut the sticky tape for her use.

- She faced challenges in pulling the sticky tape and cutting it with a pair of scissors at the same time.
- She showed confidence and knew how to ask her friend, Mohammed for help but did not thank Mohammed for helping.
- Mei Ting needs to strengthen her hand and finger muscles to manipulate tools and objects with more dexterity and should be taught how to use a pair of scissors appropriately.

Possible Follow-up Activities to Reinforce/Extend Learning

1. Provide more opportunities for Mei Ting to strengthen her hand and finger muscles through activities, such as:
 - Squeezing water out of sponges.
 - Kneading play dough.
 - Opening and closing clothes pegs and bottles/drink cartons with screw covers.
 - Using tongs to transfer objects from one plate to another.
2. Provide opportunities for Mei Ting to learn to use the scissors appropriately, such as:
 - Playing with finger puppets, focusing on the thumb, index and middle fingers.
 - Cutting imaginary pieces of paper by opening and closing the blades of a pair of scissors slowly, gradually increasing the speed of opening and closing the blades.
 - Cutting a variety of sturdy materials, such as straws and corners of thick construction paper or cardboard to create a collage.
 - Cutting papers, strings and ribbons to make cards.
3. Help Mei Ting to further build positive relationships with others by reminding her to say “Please” and “Thank you” when interacting with her friends.

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