EARLY YEARS PHYSICAL LITERACY

# PLANNING MANUAL

## For Child Care Centres

Early Years Physical Literacy Research Team

www.earlyyearsphysicalliteracy.com

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INTRODUCTION

An overview of the manual, it's purpose and goal, and our hope for it's use in your centre


PHYSICAL ACTIVITY FOR CHILDREN - WHY ?

Current Canadian guidelines of how active children should be


PHYSICAL LITERACY - WHAT IS IT ?

The definition of physical literacy, the APPLE model, and active play


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What are they?


STIMULATING INDOOR AND OUTDOOR SPACES

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Active role modeling during play with children

# SECTION ONE:

# PHYSICAL LITERACY AND THE EARLY YEARS

# Introduction

This Physical Literacy Planning Manual is designed to support Early Childhood Educators (ECEs) working in a group child care setting. Our goal is to support your motivation, confidence, and competence to aid in enabling the young children in your care to become physically literate!

The Planning Manual will introduce you to physical literacy in the early years and will also provide suggestions about how to plan and provide appropriate physical literacy activities. Combined with the *APPLE Model**, the *Physical Literacy Observation Tool* (PLOT)**, and the resource manual *A Hop, Skip, and a Jump****, you will be able to provide children with thoughtful program planning, stimulating environments, and age-appropriate activities.

**OUR GOAL IS TO SUPPORT YOUR MOTIVATION, CONFIDENCE, AND COMPETENCE**

**APPLE Model* can be found on page 11 of this manual and on our website, at earlyyearsphysicalliteracy.com/apple-model
*** PLOT* can be found on our website, at earlyyearsphysicalliteracy.com/plot
**** A Hop, Skip and a Jump* can be found on our website, at earlyyearsphysicalliteracy.com/a-hop-skip-and-a-jump-enhancing-phy

# Physical Activity for Children:

# WHY?

For many years people simply assumed that young children were active. After all, young children are always running and jumping and climbing, aren't they?

EXPLORING

FALLING AND SCRAPING YOUR KNEES

LEARNING TO GET ALONG WITH OTHERS

Remember your own childhood?

Endless hours of playing!

CLIMBING TREES

TESTING YOUR LIMITS

GROWING, DEVELOPING, AND LEARNING

Recent studies have shown, however, that about one-third of all Canadian children under the age of five are either overweight or obese (Healthy Kids Report Card, 2016). That is a frightening statistic! Being overweight can lead to many challenging results:

* Increased risk of developing Type 2 Diabetes
* Unwillingness (or inability) to live an active lifestyle
* Unwillingness (or inability) to participate in sports or other activities in school and beyond
* Potential target for bullying and risk for poor self esteem

In fact, it is now predicted that this current generation of children will be the first, ever, to have shorter lives than their parents! (Gray, 2014).

Why might this be? Perhaps it has to do with child care environments that don't encourage active play because their play spaces are small or because there is a concern that children will get hurt. Some parents are so concerned about ensuring their children are "ready for school", that they focus only their children's ability to read and write. Some parents aren't interested in having their children be physically literate, or they don't realize the importance of physical literacy to healthy development. It may also be that the time children spend in front of screens, watching TV or videos, playing games on a tablet or cell phone, contributes to inactivity.

**THIS CURRENT GENERATION OF CHILDREN WILL BE THE FIRST, EVER, TO HAVE SHORTER LIVES THAN THEIR PARENTS** (Gray, 2014).

So, how much should young children be moving? The Canadian Society for Exercise Physiology (CSEP) provides guidelines for both physical activity and sedentary behaviour levels for children from birth to age 12.

## ENCOURAGE OUTDOOR PLAY EVERY DAY

## How Active Should our Children Be ?

http://www.csep.ca/CMFiles/Guidelines/CSEP-infoSheets-child-ENG.pdf

| Age | Physical Activity | Sedentary Behaviour |
|---|---|---|
| Infants (under 12 months) | * Active several times each day<br>* Tummy time and interactive floor play | * Limit sitting (high chair, strollers, car seat) to no more than 1 hour at a time<br>* Screen time is not recommended |
| Toddlers (1-2 years) and Preschoolers (3-4 years) | * At least 180 minutes each day spaced throughout the day - structured and unstructured play | * Screen time limited to no more than 1 hour each day |
| School age (5-11 years) | At least 60 minutes each day – structured and unstructured play | * Screen time limited to no more than 2 hours each day<br>* Encourage outdoor play every day |

## Physical Literacy:

# WHAT IS IT ?

We hear and use two terms: physical activity and physical literacy, but how are they different?

Physical activity is movement using the body, that:

* requires energy
* increases heart rate
* speeds breathing

Physical literacy is:
* the motivation
* the confidence
* the competence

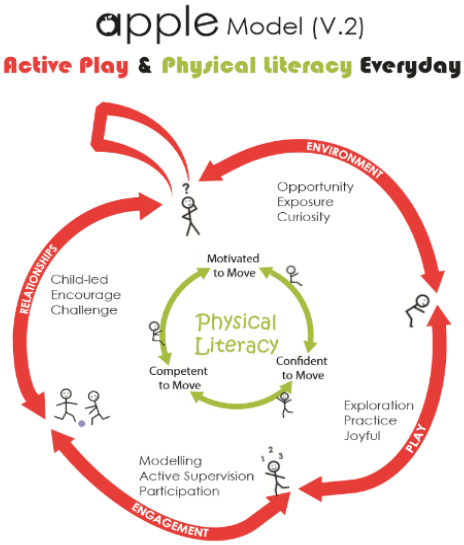
to move for a lifetime! (Whitehead, 2010).

Why do we talk about physical literacy? We understand the concepts of literacy, in terms of learning to read and write words to communicate, and numeracy referring to learning and using numbers and math. Just like the basics of letters and reading or numbers and math, physical literacy has a structure of what are known as fundamental movement skills that support our bodies.

## JUST AS IN LITERACY AND NUMERACY, PHYSICAL LITERACY ALLOWS CHILDREN TO BUILD MORE COMPLEX SKILLS ON TOP OF SIMPLER ONES

How does physical literacy relate to what you know about how young children learn through active play? The *APPLE Model* was born from a desire to show how young children can develop physical literacy through the process of active play.

*APPLE* stands for **Active Play and Physical Literacy Everyday**!
The core of the apple in the Model lists the three requirements for physical literacy: motivation, confidence, and competence.




**1.** Create a rich environment that promotes active play to spark a child's curiosity and exploration, and motivates a child to move
**2.** The child will repetitively engage in active play, building mastery, confidence to move in different ways
**3.** Active play facilitates fundamental movement skill development promoting physical literacy everyday

These requirements are reflected in four aspects of active play (shown as the skin of the apple): environment, play, engagement, and relationships. What do these four aspects of active play look like when thinking about physical literacy?

Let us illustrate using an example from our own experience:

One day, we put out a wobble board for the four year olds to explore. We didn't introduce it, didn't show the children how it is supposed to be used. We just put it out in the playroom and watched. Two children immediately approached the wobble board and the girl in the photo below stepped on it (curiosity). It tipped! So, she bent over, carefully picked up one side of it, and peered underneath. Her playmate stood a bit further away but was equally curious. Why had it tipped? The girl stepped on the wobble board again to explore its movement.



**ALL WE DID WAS... ALLOW THE CHILDREN TO TAKE THE LEAD!**

**WE WATCHED IN WONDER AS THIS MORPHED INTO A SOCIAL ACTIVITY**



Another child came over to explore and learned how to walk around the edge of the wobble board, stepping carefully all the way around. A third child came over and said, "I know what this is! My mom has one!" And she demonstrated how to stand carefully balanced in the centre of the board. Because she already knew how to do this, she added complexity to the movement and while standing on the wobble board, threw the felt cube at a net. In no time at all, she had several friends come to join her, learning how to balance and then how to balance while throwing a cube.

We watched in wonder as this morphed into a social activity, with the children becoming spotters or supports, holding each other up (it's tough to throw while balancing!) and retrieving the cubes so they could be thrown again (repetition to confidence).

All of this was a child-led activity! All we did was introduce a new and intriguing toy into the environment and allowed the children to take the lead!

## Fundamental Movement Skills:

# WHAT ARE THEY ?

Fundamental movement skills are those movements that young children need to develop so that they can be physically active for a lifetime.

Young children need stimulating environments and opportunities to develop these skills through active play with toys, equipment, and in natural environments. Later, the motivation, confidence, and competence to move will allow children to participate in broader activities and sports.

As a guide to when young children typically being to develop certain movement skills, please see the FMS chart, as illustrated in *Figure 1* on the following page

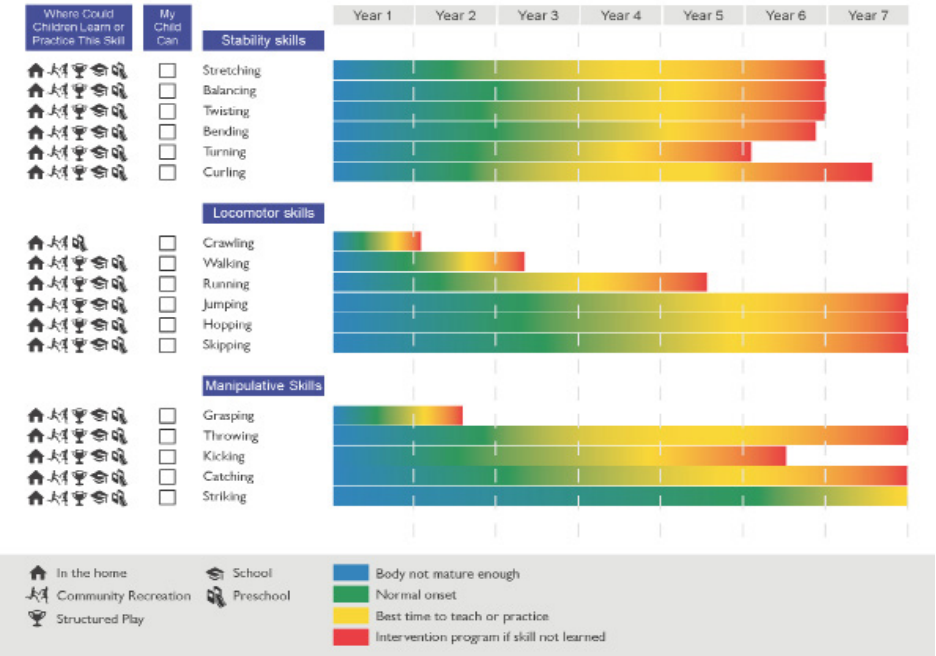



*FIGURE 1.* Fundamental Movement Skills (FMS) Chart*

When children develop fundamental movement skills, they learn to move confidently and competently with control, in a wide range of situations. For children in the early years, this means practicing and building movement skills in three areas: stability (or balance), locomotion, and manipulation of objects.

Stability skills involve small or large body movements and motions that support balance. For infants, this begins with stretching their toes up to their mouths, holding their chest up off the floor, sitting without tipping over, balancing on their hands and knees, and standing with stability.

For toddlers, stability skills involve balancing on one foot, walking on a straight line as best they can without stepping off, and being able to touch their knees or toes by bending at the waist.

For preschoolers, stability skills include movements such as balancing for longer periods of time on one foot, walking on a circular line without stepping off, or walking forwards and backwards on a straight line.

* The FMS Chart can be found on our website at, earlyyearsphysicalliteracy.com/plot

Locomotor skills mean moving from one place to another and can take many forms. For infants, locomotor skills begin with rolling over, pushing their chests off the ground, crawling, standing, and eventually walking.

For toddlers, these skills are being built when they are walking, running, climbing on playground equipment, and trying to jump (two feet) or hop (one foot).

For preschoolers, locomotor skills are developed through running, jumping, hopping, skipping, climbing, swimming, sliding, gliding, and being able to move their bodies smoothly around other moving people or objects.

Manipulative skills allow children to control an object using their hands and feet. For infants, this begins with grasping and learning how to hold an object, letting it go, transferring it from one hand to the other, and maybe even rolling, throwing, or kicking it.

STABILITY SKILLS

LOCOMOTOR SKILLS

MANIPULATIVE SKILLS

For toddlers, manipulative skills involve throwing, catching or kicking large and small objects such as balls, bean bags, or balloons.

For preschoolers, manipulative skills continue to grow and develop as they learn how to kick a moving ball while they are also in motion, control the direction of the ball when throwing and kicking, and catching with either both hands together or one hand.

**SKILLS CONTINUE TO GROW AND DEVELOP**

# SECTION TWO:

# ACTIVE PLAY - HOW YOUNG CHILDREN LEARN

ST. PATRICK'S ISLAND PARK, CALGARY, AB

SHERWOOD COMMUNITY PLAYGROUND, CALGARY, AB

Curious by nature and full of playful energy, young children thrive in environments that allow them the time, space, and opportunity to explore their surroundings.

Children should be encouraged to run, jump, catch, throw, and balance. Encourage children to try activities on land, water, ice, and snow, and to learn to ride a tricycle or bicycle. Creating rich environments that promote age appropriate active play, allows children to repetitively engage in active play; building confidence and competence to move in different ways.

Successful planning of indoor and outdoor active play opportunities includes a host of creative, child-initiated, and naturalistic play experiences. Here are some tips on how to design indoor and outdoor play environments that encourage play and movement.

## Stimulating Indoor and Outdoor

# SPACES FOR ACTIVE PLAY

**ARRANGE SPACE TO SUPPORT THE EXPERIENCES THAT CHILDREN MAY ENGAGE IN**

The ages, developmental stages, and interests of the children will influence their choice of activity, as will the quality of the play space and the available equipment and materials. The following considerations may support your planning:

**1.** Establish and mark space boundaries, especially in open outdoor spaces. Teach children where they can and cannot go when playing and help them understand why (a busy road, a marshy area, the big kids' play space).

**2.** Arrange space to support the experiences that children may engage in. For example, free up inside space by moving furniture to the walls; cluster spaces by bringing two or more interest centres together, leaving smaller spaces in various parts of the room; or place interest centres in the centre of the room.

**3.** Select a flat portion of ground to allow children to explore fixed and portable active play structures. For example, a climber set, wall attachments, or other types of gross motor structures sturdy enough to withstand

the changing seasons. Be sure to include a balance of materials that are familiar to the children as well as novel items.

**4.** Scan the area around your centre to assess what opportunities the outdoor environment currently offers for active play. For example, natural elements such as hedges and small trees, large rocks or tree stumps, piles of leaves or hills of snow can offer wonderful experiences!

**5.** Develop activities that follow a developmental sequence; start with skills that the children have already acquired and then gradually increase the complexity. Include the children in the planning and implementation of the activities and follow their lead.

**6.** Observe children to determine their present level of development and design follow-up experiences that will challenge and intrigue them.

**7.** Modify the types of materials and equipment to provide variety, spark curiosity, and maintain safety.

**SMALL TREES, LARGE ROCKS, TREE STUMPS, PILES OF LEAVES OR HILLS OF SNOW CAN OFFER WONDERFUL EXPERIENCES!**

SHERWOOD COMMUNITY PLAYGROUND, CALGARY, AB

# Inviting Curiosity with MATERIALS AND EQUIPMENT

Stimulating environments encourage curiosity. When children move into a space and gaze around with wonder and excitement, they are hooked! Now follow their lead as they explore!

It is a reality that many centres are restricted in terms of space, equipment, and materials. However, children are happy finding ways to play with the most simple equipment. The following list (next page) of simple, at-hand equipment and materials may start you thinking about what you may already have available for play.

CHILD DEVELOPMENT LAB, MOUNT ROYAL UNIVERSITY

**Skipping, Jumping, Hopping, Crawling, and Running**

**1.** Jump ropes to set up low obstacles for children to jump over

**2.** Sidewalk chalk or tape to mark out games such as hop scotch or to create shapes on the floor that the children can practice jumping into, around, or over

**3.** Foam mats, portable tunnels, cardboard boxes, wooden boards, small ladders or step stools, child sized chairs to create obstacle courses

**Twisting, Turning, Curling, and Bending**

**1.** Ribbons and scarves

**2.** Hula hoops, parachute, music

**3.** Bending, twisting and turning as the children learn to dress themselves to go outside

**Throwing, Catching, Striking Toys**

**1.** Large and small soft balls, pompoms, bean bags, pool noodles, racquet's, rings, hoops, paddles, large hollow bats, foam cubes, paper balls, yarn balls, mini hockey sticks, shredded paper (to throw, move through, and catch)

**2.** Snow balls, leaves, sticks, branches, pine cones

**Balance Activities**

**1.** Wooden planks for a balance beam, tape, sidewalk chalk (for marking out lines), foot sliders, cedar blocks of various lengths, wobble board

**2.** The children themselves making shapes with their bodies on the floor, sitting, kneeling or standing

**3.** Tree stumps, snow banks, rocks, stepping stones, cracks in the pavement, small branches on the ground, trails through the snow

Creating

# PHYSICALLY LITERATE ENVIRONMENTS

Consider how to add to your existing environments both indoors and out objects that promote curiosity, exploration, and motivates the child to move:


BRIAR HILL ELEMENTARY SCHOOL, CALGARY, AB

**Indoors:**

**1.** Add a wobble board to the water table or an exercise ball to the art centre

**2.** Bring in a small net and soft balls, bean bags, or felt cubes for children to practice throwing and catching

**3.** Create a small balance centre using planks or masking tape on the floor

**4.** Draw out a hopscotch on the floor using tape or chalk

**5.** Create "stepping stones" for children to use as they head to the washroom or to lunch

**Outdoors:**

**1.** Add portable equipment and toys such as hoops, balls, balance beams, tunnels, parachutes, bubbles, cones, riding toys

**2.** Bring in loose parts such as logs, crates, rocks, sand, mounds of snow

**3.** Teach the children in small groups or one on one how to safely use tools such as hammers and saws and then supervise appropriately

**4.** Add water ponds or streams; use frozen puddles, natural hills, or piles of snow

**5.** Access parks and natural areas

ST. PATRICK'S ISLAND PARK, CALGARY, AB

2000 DAYS PRE-KINDERGARTEN, CALGARY, AB

2000 DAYS PRE-KINDERGARTEN, CALGARY, AB

# SECTION THREE:

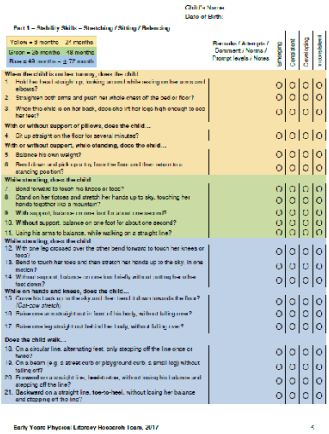
# KEYS TO SUCCESS

# OBSERVATION

**1.** Observe the children while they play, noting each child's skill development and areas of growth.

**2.** Since the goal is to help children progress from simple to more complex movements, use active play to introduce, practice, and adapt specific skills as each child's movement skills become more developed and mature. Anticipate that young children will present with varying skill levels and individual differences. Provide choices and encourage the children to offer their ideas or suggestions for activities. Begin each activity by doing something all the children can do well and then add complexity to increase interest and challenge.

**3.** Use an observation tool such as the **Physical Literacy Observation Tool* (PLOT) to help you become more aware of where the children need more exposure to activities and materials.


Child's Name:
Date of birth:

Part 1 – Mobility Skills – Stretching / Sitting / Rebounding

Toddler = 9 months – 24 months
Junior = 25 months – 48 months
Pre = 49 months – ≥ 72 months

| Remarks / Strengths / Comments / Notes / Prompt levels / Notes | Emerging | Developing | Developing | Accomplished |
|---|---|---|---|---|
| **When the child is on her tummy, does the child:** | | | | |
| 1. Hold her head straight up, looking around while resting on her arms and elbows? | O | O | O | O |
| 2. Straighten both arms and push her whole chest off the bed or floor? | O | O | O | O |
| 3. When the child is on her back, does she lift her legs high enough to see her feet? | O | O | O | O |
| **With or without support of pillows, does the child ...** | | | | |
| 4. Sit up straight on the floor for several minutes? | O | O | O | O |
| **With or without support, while standing, does the child ...** | | | | |
| 5. Balance his own weight? | O | O | O | O |
| 6. Bend down and pick up a toy, from the floor and then return to a standing position? | O | O | O | O |
| **While standing, does the child** | | | | |
| 7. Bend forward to touch his knees or toes? | O | O | O | O |
| 8. Stand on her toes and stretch her hands up to sky, touching her hands together into a "mountain"? | O | O | O | O |
| 9. With support, balance on one foot for at least one second? | O | O | O | O |
| 10. Without support, balance on one foot for about one second? | O | O | O | O |
| 11. Using his arms to balance, while walking on a straight line? | O | O | O | O |
| **While standing, does the child** | | | | |
| 12. With one leg crossed over the other bend forward to touch her knees or toes? | O | O | O | O |
| 13. Bend to touch her toes and then stretch her hands up to the sky, in one motion? | O | O | O | O |
| 14. Without support, balance on one foot briefly, without rolling the other foot down? | O | O | O | O |
| **While on hands and knees, does the child ...** | | | | |
| 15. Curve his back up in the sky and then bend it down towards the floor? (Cat-cow stretch) | O | O | O | O |
| 16. Raise one arm straight out in front of his body, without falling over? | O | O | O | O |
| 17. Raise one leg straight out behind him briefly, without falling over? | O | O | O | O |
| **Does the child walk ...** | | | | |
| 18. On a circular line, alternating feet, only stepping off the line once or twice? | O | O | O | O |
| 19. On a beam (e.g. a street curb or playground curb, a small log) without falling off? | O | O | O | O |
| 20. Forward on a straight line, heel-to-toe, without losing his balance and stepping off the line? | O | O | O | O |
| 21. Backward on a straight line, toe-to-heel, without losing her balance and stepping off the line? | O | O | O | O |

Early Years Physical Literacy Research Team, 2017 5

**USE ACTIVE PLAY TO INTRODUCE, PRACTICE, AND ADAPT SPECIFIC SKILLS**

* *PLOT* can be found on our website, at earlyyearsphysicalliteracy.com/plot

# PREPARATION

CHILD DEVELOPMENT LAB, MOUNT ROYAL UNIVERSITY

We know how incredibly important the early years are as the foundation for the rest of children's lives. Helping children develop physical literacy also supports their cognitive, social, and emotional development. In fact, engaging children in daily active play indoors and out helps to develop all areas of development. It's just like building four strong walls of a house - you can't do one without the other!

**HELPING CHILDREN DEVELOP PHYSICAL LITERACY ALSO SUPPORTS THEIR COGNITIVE, SOCIAL, AND EMOTIONAL DEVELOPMENT**

As with all good planning for young children, it is important to be prepared and have all supplies and materials ready.

**1.** Resources such as *A Hop Skip and a Jump* and *APPLE Seeds* provide many ideas for activities that are quick and simple to use.

**2.** Be resourceful and adapt activities based on materials available and children's interests and abilities.

**3.** Always follow the lead of the children. Let the children adapt and move activities to where they want to go.

**4.** Build in other activities such as books, art, music, and drama. For example, read Billy Goats Gruff and then play it out.

# ACTIVE EFFECTIVE SUPERVISION

**1.** Pay close attention, be aware and fully present, and anticipate risks.
**2.** Demonstrate one on one or with small groups when introducing new tools or equipment.
**3.** Teach children how to test their own boundaries and ask for help when necessary.
**4.** Encourage, participate, and challenge.
**5.** Children are more excited to move and develop physical literacy skills when you are also excited about participating with them. Physical literacy is good for everyone!

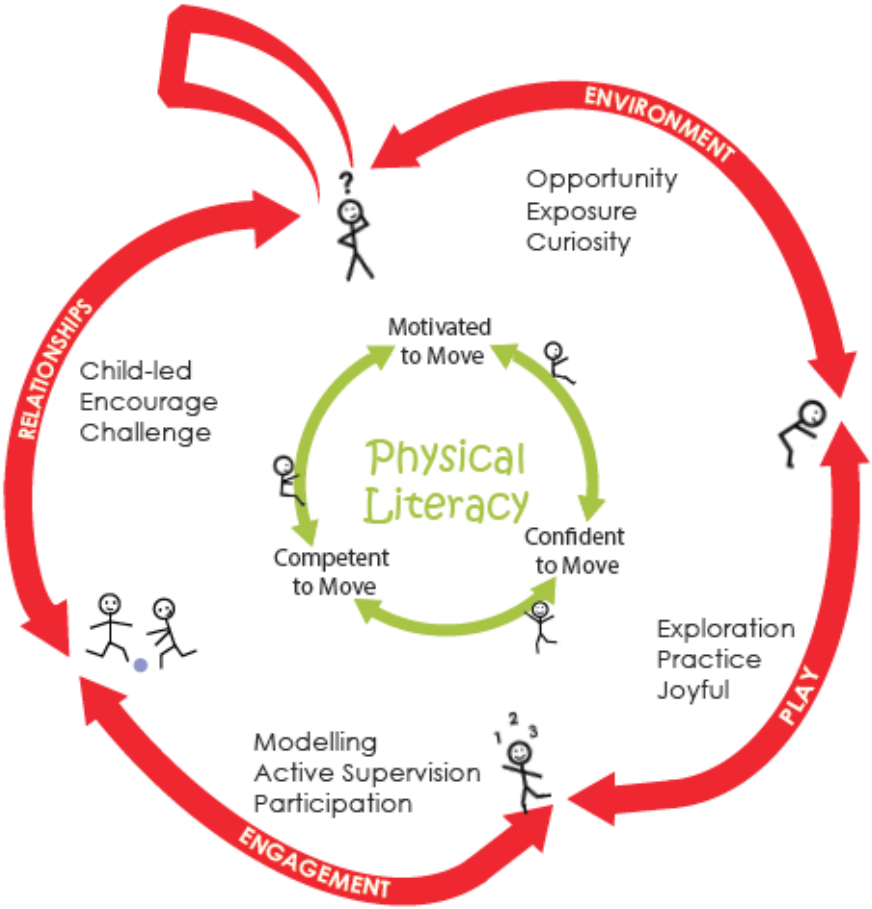
**HELPING CHILDREN DEVELOP PHYSICAL LITERACY ALSO SUPPORTS THEIR COGNITIVE, SOCIAL, AND EMOTIONAL DEVELOPMENT**

# ROLE MODELING

**PLAY ALONGSIDE CHILDREN, BE EXCITED AND POSITIVE!**

Be active role models for the children; that is, play alongside children, be excited and positive!

When you take part in play and have fun, children watch, learn, and explore new play opportunities, becoming more physically active.



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