

# Movement Concepts & Skills

## The Movement Education Framework

Provide children with ways to discover movement

Ask movement questions

Provide movement problems

Provide a variety of choices

Rudolf Laban (1879-1958)



## Body Awareness

**body parts:** arms, legs, elbows, knees, head,...

**body shape:** stretched, curled, wide, narrow, twisted, symmetrical, asymmetrical

**body actions:** twisting, turning, curling, stretching, lunging and many more – we will focus on the 16 FMS Skills below:

## FMS Skills

**Locomotor:** running, skipping, leaping, sliding, galloping, jumping, hopping

**Manipulative:** catch, overhand throw, underhand throw, striking with two hands, kicking, dribbling, rolling

**Stability:** dynamic balance, static balance



## Qualities of Effort

**time** (fast, slow)

**force** (strong, light)

**flow** (free, bound)



## Space Awareness

**Location:** personal, general space,

**Directions:** forward, backward, sideways, up, down, left, right, clockwise, counterclockwise

**Levels:** high, middle, low

**Pathways:** curved, straight, zigzag

**Extensions:** Large, small, far, near



## Relationships

**Person:** alone, with partner, with group, meet, part, match, mirror, follow, lead, unison, contrast, between groups)

**Apparatus:** near, far, in, out, over, under, around, through, on, off, above, below, in front, behind, along, surrounding, alongside

**Other:** moving in relation to music, to the environment



# Body & Space Activities

## Body Awareness

**Body Shape Exploration:** Ask children to make different shapes with their bodies, like stretching tall like a tree, curling into a ball, or reaching out like a starfish.

**Body Part Simon Says:** Call out body parts (e.g., touch your toes, clap your hands) in a game of Simon Says to help children become aware of and control their body movements.

**Yoga Poses:** Introduce simple yoga poses such as the "cat-cow," "child's pose," and "butterfly pose" to help children become aware of their body positions.

**Sensory Walk:** Lay out different textures on the floor (e.g., soft fabric, bubble wrap) and have kids walk barefoot to explore sensations and develop body awareness.

**Body Part Identification:** Play a game where children touch or point to different body parts (e.g., toes, nose, ears) as you call them out, enhancing body awareness.

**Body Part Memory:** Create a memory game with cards featuring pictures of body parts. Children must match the body part cards and then touch or point to that part on their own bodies.

**Body Balance Games:** Create games like "balance on one foot" or "balance on three body parts" to improve children's balance and body control.

**Body Tracing:** Provide large sheets of paper and have children lie down while a partner traces their body outline. This activity helps them understand their body's shape and size.

**Animal Imitation:** Pretend to be animals and imitate their movements. For example, pretend to be a snake by slithering on the floor or a bird by flapping your arms.

## Space Awareness

**Follow the Leader:** Encourage children to take turns being the leader and explore different ways to move around the room, such as walking, skipping, hopping, and crawling.

**Obstacle Course:** Create a simple obstacle course with cones, tunnels, and mats, where kids need to navigate through the obstacles while paying attention to the space around them.

**Sensory Pathways:** Follow a path using variety of concepts and skills, different pathways, levels, and directions. Incorporate locomotor and balance skills. Have students make their own with chalk on sidewalks.

**Hula Hoop Ring Toss:** Place hula hoops at various distances and have children toss bean bags or soft balls into them, helping them gauge distance and spatial relationships.

**Simon Says with Spatial Directions:** Play "Simon Says" using spatial directions like "Simon says take one step forward" or "Simon says reach up high," enhancing spatial awareness.

# Relationship & Effort Activities

## Relationships

**Mirror Movements with Partners:** Pair children up and have them mirror each other's movements, fostering awareness of their partner's actions.

**Partner Obstacle Course:** Pair children up and have them take turns being the leader and follower.

**Group Freeze Dance:** Play freeze dance with a twist - when the music stops, children must freeze and form a group shape, promoting awareness of others in the group.

**Team Ball Pass:** Create teams and have kids pass a ball down a line, emphasizing cooperation and relationship awareness.

**Partner Mirroring with Shapes:** Pair up children and have them take turns mirroring each other's movements while creating different shapes with their bodies. For example, one child might make a "T" shape with their arms, and the partner must replicate it. This activity promotes spatial awareness and cooperation.

**Dance Partners:** Play soft music and have children dance with a partner. Encourage them to hold hands, twirl together, or move around each other, fostering an understanding of personal space and relationship dynamics.

**Hula Hoop Pass:** Form a circle with children, and provide a hula hoop. Have them pass the hula hoop around the circle without letting go of their neighbors' hands. This activity reinforces the concept of maintaining connections in a group.

**Group Shapes and Letters:** Form a group with several children and challenge them to create specific shapes or letters with ropes or with their bodies. You can call out a shape or letter (e.g., "Make a star," "Form the letter 'A'"), and they must work together to achieve it.

**The Tunnel Game:** Children stand in a line, and the child at the front leans forward while the child behind them leans backward, creating a tunnel. The last child in line crawls through the tunnel, and then they all rotate positions. This activity reinforces spatial relationships and cooperation.

## Qualities of Effort

**Slow Motion and Fast Forward:** Ask children to move in slow motion like they are underwater and then switch to fast-forward movements like they are racing.

**Feather Balancing:** Give each child a feather and challenge them to keep it in the air by blowing gently, exploring the concept of gentle effort.

**Feather vs. Brick:** Have children pretend they are holding a feather and then a brick. Ask them to move their arms, legs, and bodies accordingly, emphasizing light and heavy efforts.

**Heavy and Light Objects:** Provide objects of varying weights (e.g., stuffed animals, lightweight balls, heavy books) and have kids lift and move them, experiencing different effort levels.

**Dance Scarves:** Provide scarves or ribbons for children to dance with. They can experiment with different ways to move them, such as swirling gently or shaking vigorously.

**Dancing with Different Energies:** Play music and encourage children to dance with different levels of energy - slow and graceful, or fast and energetic.

**Dance Exploration:** Play different types of music and encourage kids to dance with soft, flowing movements for slow music and sharp, energetic movements for fast music.

# Stages of Motor Development LOCOMOTOR

## RUNNING

Stage 1	Stage 2	Stage 3	Stage 4
<b>Initial Stage</b>	<b>Elementary Stages</b>		<b>Mature Stage</b>
<i>Run High Guard</i> Arms – high guard Flat Footed contact Short, wide stride Wide shoulder width Legs & arms swing out No flight	<i>Run Middle Guard</i> Arms- middle guard Vertical component still great Increase stride Increase arm swing	<i>Heel-Toe Arms Extended</i> Arms- low guard Arms opposition – elbows nearly extended Heel-toe contact	<i>Pumping Arms</i> Heel-toe contact (toe-heel when sprinting) Arm-leg opposition High heel recovery Elbow Flexion

## LEAPING

Stage 1	Stage 2	Stage 3	Stage 4
<b>Initial Stage</b>	<b>Elementary Stages</b>		<b>Mature Stage</b>
<i>Inconsistent Running</i> Child appears confused in attempts Inability to push off and gain distance and elevation / Each attempt looks like another running step Inconsistent use of take-off leg Arms ineffective	<i>Elongated Run</i> Appears to be thinking through the action / Attempt looks like elongated run / Little elevation above supporting surface Little forward trunk lean	<i>Stiff</i> Stiff appearance in trunk Incomplete extension of legs during flight Arms used for balance, not as aid in force production	<i>Full Extension</i> Relaxed rhythmical action Forceful extension of takeoff leg Good summation of horizontal and vertical forces / Definite forward trunk lean /Definite arm opposition Full extension of legs during flight

## SKIPPING

Stage 1	Stage 2	Stage 3
<b>Initial Stage</b>	<b>Elementary Stage</b>	<b>Mature Stage</b>
<i>Broken Skip</i> Broken skip pattern or irregular rhythm Slow, deliberate movement Ineffective arm action	<i>High Arms &amp; Legs</i> Rhythmical skip pattern Arms provide body lift Excessive vertical component	<i>Rhythmical Skip</i> Arm action reduced/hands below shoulders Easy, rhythmical movement Support foot near surface on hop

## GALLOPING

Stage 1	Stage 2	Stage 3
<b>Initial Stage</b>	<b>Elementary Stage</b>	<b>Mature Stage</b>
<i>Choppy Run</i> Resembles rhythmically uneven run Trail leg crosses in front of lead leg during airborne phase, remains in front at contact Arms of little use	<i>Stiff Back Leg</i> Slow-moderate tempo, choppy rhythm Trail leg stiff Hips often oriented sideways Vertical component exaggerated	<i>Smooth Rhythmical</i> Smooth, rhythmical pattern, moderate tempo Feet remain close to ground Hips oriented forward

## SLIDING

Stage 1	Stage 2	Stage 3
<b>Initial Stage</b>	<b>Elementary Stage</b>	<b>Mature Stage</b>
<i>Choppy Run</i> Resembles rhythmically uneven run Trail leg crosses in front of lead leg during airborne phase, remains in front at contact Little arm action	<i>Stiff Back Leg</i> Slow-moderate tempo, choppy rhythm Trail leg stiff, Hips often oriented sideways Vertical component exaggerated	<i>Smooth Rhythmical</i> Smooth, rhythmical pattern, moderate tempo Feet remain close to ground, hips oriented forward Moving sideways while facing in direction of movement

## HOPPING

Stage 1	Stage 2	Stage 3	Stage 4
<b>Initial Stage</b>	<b>Elementary Stages</b>		<b>Mature Stage</b>
<i>Foot in Front</i> Nonsupport foot in front with thigh parallel to floor Body erect Hands shoulder height	<i>Foot by Support Leg</i> Nonsupport knee flexed with knee in front and foot behind support leg Slight body lean forward Bilateral arm action	<i>Foot Behind Support Leg</i> Nonsupport thigh vertical with foot behind support leg, knee flexed More body lean forward Bilateral arm action	<i>Perpendicular Free Leg</i> Nonsupport leg is bent, knee pumps forward and back in perpendicular action, forward body lean Arm opposition with swing leg

## HORIZONTAL JUMPING

Stage 1	Stage 2	Stage 3	Stage 4
<b>Initial Stage</b>	<b>Elementary Stages</b>		<b>Mature Stage</b>
<i>Braking arms</i> Arms act as “brakes” Large vertical component Legs not extended	<i>Winging Arms</i> Arms act as “wings” Vertical component still great Legs near full extension	<i>Arms swing to head</i> Arms move forward, elbows in front of trunk at takeoff Hands to head height Take-off angle still above 45% Legs often fully extended	<i>Full Body Extension</i> Complete arm and leg extension at takeoff, takeoff near 45 degree angle Thighs parallel to surface when feet contact for landing

# Stages of Motor Development: MANIPULATIVE

UH ROLLING		
Stage 1	Stage 2	Stage 3
Initial Stage	Elementary Stage	Mature Stage
<p><i>Straddle Stance</i></p> <p>Ball is held with hands on side, palms facing each other, acute bend at sides, backwards pendulum motion, eyes monitor the ball, forward swing and trunk lift to release ball</p>	<p><i>Stride stance</i></p> <p>Ball held with one hand on bottom and the other on top, backward arm swing without weight transfer, limited knee bend, forward swing with limited follow-through, ball released between knee and waist level, eyes alternate monitoring target and ball</p>	<p><i>Contralateral Step</i></p> <p>Ball held in hand corresponding to trailing leg Slight hip rotation and trunk lean forward Pronounced knee bend, forward swing with weight transfer from back to front foot, release at knee level or below, eyes on target throughout</p>

UH THROWING		
Stage 1	Stage 2	Stage 3
Initial Stage	Elementary Stage	Mature Stage
<p><i>Stationary</i></p> <p>Ball is held with hands on side, palms facing each other, limited swing backward, eyes monitor the ball, forward swing and trunk lift to release ball</p>	<p><i>Ipsilateral Step or Stride stance</i></p> <p>Ball held with one hand, backward arm swing without weight transfer to the rear, forward swing with limited follow-through, ball released between knee and waist level or above chest level, eyes alternate monitoring target and ball</p>	<p><i>Contralateral Step</i></p> <p>Ball held in hand corresponding to trailing leg, step forward with opposite foot, forward swing with weight transfer from back to front foot, release at waist level, follow through, eyes on target</p>

OH THROWING				
Stage 1	Stage 2	Stage 3	Stage 4	Stage 5
Initial Stage	Elementary Stages			Mature Stage
<p><i>Chop</i></p> <p>Vertical windup "Chop" throw Feet stationary No spinal rotation</p>	<p><i>Sling shot</i></p> <p>Horizontal wind-up "sling shot throw" Block rotation Follow-through across body</p>	<p><i>Ipsilateral step</i></p> <p>High windup Feet cross over Little spinal rotation Follow-through across body</p>	<p><i>Contralateral step</i></p> <p>High windup Contralateral step Little spinal rotation Follow-through across body</p>	<p><i>Windup</i></p> <p>Downward arc windup Contralateral step Segmented body rotation Arm-leg follow-through</p>

CATCHING				
Stage 1	Stage 2	Stage 3	Stage 4	Stage 5
Initial Stage	Elementary Stages			Mature Stage
<p><i>Delayed Reaction</i></p> <p>Delayed arm action Arms straight in front until ball contact, then scooping action to chest Feet stationary</p>	<p><i>Hugging</i></p> <p>Arms encircle ball as it approaches Ball is "hugged" to chest Feet are stationary or may take one step</p>	<p><i>Scooping</i></p> <p>"to chest" catch Arms "scoop" under ball to trap it to chest. Single step may be used to approach the ball</p>	<p><i>Hand catch</i></p> <p>Catch with hands only Feet stationary or limited to one step</p>	<p><i>Move to ball</i></p> <p>Catch with hands only Whole body moves through the space</p>

KICKING			
Stage 1	Stage 2	Stage 3	Stage 4
Initial Stage	Elementary Stages		Mature Stage
<p><i>Stationary Push</i></p> <p>Little/no leg windup Stationary position Foot "pushes" ball Step backward after kick</p>	<p><i>Stationary Leg swing</i></p> <p>Leg windup to the rear Stationary position Opposition of arms and legs</p>	<p><i>Moving approach</i></p> <p>Foot travels in a low arc Arm/leg opposition Forward or sideward step on follow-through</p>	<p><i>Leap-kick-hop</i></p> <p>Rapid approach Backward trunk lean during windup Leap before kick Hop after kick</p>

STRIKING with LONG IMPLEMENT			
Stage 1	Stage 2	Stage 3	Stage 4
Initial Stage	Elementary Stages		Mature Stage
<p><i>Chop Strike</i></p> <p>"Chop" Strike-bat / Feet Stationary Trunk faces tossed ball / No trunk rotation / Elbows fully flexed Force comes from extension of flexed joints in a downward plane</p>	<p><i>Pushing</i></p> <p>Horizontal push/swing Feet stationary/stepping Weight shift to front foot before striking / Combined trunk and hip rotation (block rotation)</p>	<p><i>Ipsilateral Step</i></p> <p>Back foot steps across Diagonal downward swing Strike in oblique plane</p>	<p><i>Contralateral Step</i></p> <p>Contralateral step / Segmented body rotation / Wrist rollover on follow-through / Weight shifts to back foot / Weight shift occurs while object is still moving backwards / Striking in a long, full arc in horizontal plane / Weight shifts to front foot on contact</p>

DRIBBLING			
Stage 1	Stage 2	Stage 3	Stage 4
Initial Stage	Elementary Stages		Mature Stage
<p><i>Palms facing</i></p> <p>Ball held with both hands / Hands placed on side of ball, palms facing each other Downward trust with both arms Ball contacts surface close to body, may contact foot / Great variation in height of bounce / Repeated ball catch pattern</p>	<p><i>Flat bounce</i></p> <p>Ball held with both hands, one on top, one near bottom / Slight forward lean Downward trust, force inconsistent Watches ball / Palm hits ball Limited control of ball</p>	<p><i>Flex wrist</i></p> <p>Wrist flexes and extends Ready position, more steady More consistent dribbles</p>	<p><i>Controlled dribble</i></p> <p>Feet in narrow stance, opposite foot forward / Slight forward trunk lean Ball waist high / Ball pushed, fingers used / Visual monitoring unnecessary Controlled dribbling</p>

# Stages of Motor Development: STABILITY

DYNAMIC BALANCE		
Stage 1	Stage 2	Stage 3
<b>Initial Stage</b>	<b>Elementary Stage</b>	<b>Mature Stage</b>
<i>With support or side step</i> Balances with support, eyes on feet, uses follow step with dominant foot lead	<i>Focused, Eyes on beam</i> Eyes focused on beam, loses balance easily, uses alternate stepping action	<i>Relaxed, Eyes forward</i> Eyes focused beyond beam, movements are fluid, relaxed, and in control, may lose balance rarely

STATIC BALANCE		
Stage 1	Stage 2	Stage 3
<b>Initial Stage</b>	<b>Elementary Stage</b>	<b>Mature Stage</b>
<i>High knee</i> Raises non supporting leg several inches so that thigh is nearly parallel with surface Very unstable, overcompensates balances with outside support	<i>Tied-in Leg</i> May lift non supporting leg to a tied-in position on support leg, performs better on dominant leg Uses arms for balance but may keep on at side Cannot balance with eyes closed	<i>Relaxed</i> Can balance with eyes closed Uses arms and trunk as needed Changes to non dominant leg

## Performance Indicators/Critical Elements

<b>Dynamic Balance</b>	<b>Static Balance</b>
<ul style="list-style-type: none"> <li>Maintains balance while using alternate stepping action – “<b>alternate</b>”</li> <li>Maintains and upright posture – “<b>tall</b>”</li> <li>Maintains balance by using arms as needed – “<b>Airplane arms</b>”</li> <li>Focuses eyes forward – “<b>looking forward</b>”</li> </ul>	<ul style="list-style-type: none"> <li>Maintains a steady balance – “<b>still</b>”</li> <li>Adjusts body to maintain balance – “<b>airplane arms</b>”</li> <li>Focuses eyes forward – “<b>looking forward</b>”</li> </ul>
<b>Running</b>	<b>Leaping</b>
<ul style="list-style-type: none"> <li>Eyes focused forward throughout the run – “<b>look ahead</b>”</li> <li>Knees bend at right angles during the recovery phase – “<b>high knees</b>”</li> <li>Arms bend at elbows and move in opposition of legs – “<b>pump arms</b>”</li> <li>Front part of foot contacts ground – “<b>light feet</b>”</li> <li>Body leans slightly forward – “<b>lean forward</b>”</li> </ul>	<ul style="list-style-type: none"> <li>Forward movement sustained throughout the leap – “<b>move forward</b>”</li> <li>Eyes focused forward – “<b>looking ahead</b>”</li> <li>Take off from one foot, land on opposite foot – “<b>opposite feet</b>”</li> <li>Straighten legs in flight, arms in opposition – “<b>stretch</b>”</li> <li>Controlled landing without losing balance – “<b>control</b>”</li> </ul>
<b>Galloping</b>	<b>Sliding</b>
<ul style="list-style-type: none"> <li>Keeps trail leg behind lead leg – “<b>trail leg</b>”</li> <li>Gallops using either leg as lead – “<b>lead leg</b>”</li> <li>Displays rhythmical arm movement – “<b>arms move with beat</b>”</li> <li>Turns hips, shoulders, and eyes to direction of movement – “<b>twist</b>”</li> </ul>	<ul style="list-style-type: none"> <li>Keeps trail leg behind lead leg – “<b>trail leg</b>”</li> <li>Legs open and close in sliding – “<b>open and close</b>”</li> <li>Displays rhythmical arm movement – “<b>arms move with beat</b>”</li> <li>Sideways movement while facing in the direction you are going “<b>sideways</b>”</li> </ul>
<b>Jumping</b>	<b>Hopping</b>
<ul style="list-style-type: none"> <li>Eyes focused forward – “<b>look ahead</b>”</li> <li>Bends knees and body at waist for jump - “<b>bend/explode</b>”</li> <li>Swings arms fully in a backward-forward direction – “<b>swing</b>”</li> <li>Extends body in flight and lands with bent knees – “<b>spring</b>”</li> <li>Takes off and lands on two feet – “<b>soft feet- ssss</b>”</li> </ul>	<ul style="list-style-type: none"> <li>Takes off on one foot and lands on the same foot - “<b>one foot</b>”</li> <li>Holds knee behind body at 90 degree angle – “<b>make an L shape</b>”</li> <li>Uses arms for lift – “<b>arms</b>”</li> <li>Displays rhythmical hopping – “<b>hop to a beat</b>”</li> <li>Maintains balance – “<b>controlled</b>”</li> </ul>
<b>Skipping</b>	<b>Catching</b>
<ul style="list-style-type: none"> <li>Displays a step-hop pattern – “<b>step-hop</b>”</li> <li>Uses both sides of body alternately – “<b>left then right</b>”</li> <li>Displays a rhythmical pattern - “<b>keep a beat</b>”</li> <li>Swings arms in opposition to feet – “<b>arm swing</b>”</li> <li>Focuses eye forward - “<b>look ahead</b>”</li> </ul>	<ul style="list-style-type: none"> <li>Focus eyes on object throughout catch – “<b>Look</b>”</li> <li>Positions body in the path of the object (midline catch) – “<b>get behind</b>”</li> <li>Positions one foot slightly ahead of other in balanced position – “<b>ready</b>”</li> <li>Catching object with hands – “<b>pinkies together – thumbs together</b>”</li> <li>Relaxes and absorbs the force of the object – “<b>soft hands</b>”</li> </ul>
<b>Underhand Rolling</b>	<b>Underhand Throwing</b>
<ul style="list-style-type: none"> <li>Focus eyes on target- “<b>eyes on target</b>”</li> <li>Roll ball with backward and forward arm swing – “<b>swing</b>”</li> <li>Step forward with leg opposite to the hand holding the ball- “<b>opposite</b>”</li> <li>Bends knees and releases the ball along floor – “<b>bend &amp; release low</b>”</li> <li>Follows through with hand pointing at target – “<b>follow through</b>”</li> </ul>	<ul style="list-style-type: none"> <li>Focuses eyes on target – “<b>eyes on target</b>”</li> <li>Steps forward with foot opposite to throwing arm – “<b>step forward</b>”</li> <li>Throwing arm swing down and then forward – “<b>swing – tick/tock</b>”</li> <li>Shifts weight from back to front foot – “<b>back to front</b>”</li> <li>Hand follows through after ball release at waist level – “<b>point at target</b>”</li> <li>Open hand to release ball at waist – “<b>Open up</b>”</li> </ul>
<b>Overhand Throwing</b>	<b>2-Handed Striking</b>
<ul style="list-style-type: none"> <li>Focuses eyes on target – “<b>eyes on target</b>”</li> <li>Bends and hold elbow back at shoulder height behind ear – “<b>L</b>”</li> <li>Rotates hips so that opposite shoulder is in line with the target – “<b>side</b>”</li> <li>Steps forward with foot opposite to throwing arm – “<b>step forward</b>”</li> <li>Shifts weight from back to front foot – “<b>back to front</b>”</li> <li>Leads throw with elbow, follows through down and across - “<b>In pocket</b>”</li> </ul>	<ul style="list-style-type: none"> <li>Eyes focused on object being struck – “<b>Watch ball</b>”</li> <li>Stands side on to target– “<b>Stand Sideways</b>”</li> <li>Displays preparatory backswing– “<b>Swing back</b>”</li> <li>Hip and shoulder rotation during swing – “<b>Rotate</b>”</li> <li>Transfers weight from back to front foot – “<b>Back to Front</b>”</li> <li>Follows through along swinging path – “<b>Follow Through</b>”</li> </ul>
<b>Dribbling</b>	<b>Kicking</b>
<ul style="list-style-type: none"> <li>Eyes focused forward – “<b>look ahead</b>”</li> <li>Initiates ball contact with fingertips– “<b>5 fingers</b>”</li> <li>Bends and straightens wrist and elbow to push the ball– “<b>yo-yo</b>”</li> <li>Hips and knees flexed slightly while dribbling – “<b>bend and lean slightly</b>”</li> <li>Dribble in front and to the side of the body– “<b>opposite foot forward</b>”</li> <li>Performs a rhythmical series of controlled dribbles– “<b>wave to the ball</b>”</li> </ul>	<ul style="list-style-type: none"> <li>Focuses eyes on target – “<b>Eyes on target</b>”</li> <li>Steps beside the ball with non-kicking foot – “<b>Plant foot</b>”</li> <li>Bends body at waist, initiates kick from hip – “<b>Lean in</b>”</li> <li>Bends kicking leg (knee over ball) to contact with shoelaces – “<b>shoelaces</b>”</li> <li>Swings arms in opposition to kicking foot – “<b>swing</b>”</li> <li>Follows through with kicking leg pointing to target – “<b>swing through</b>”</li> </ul>

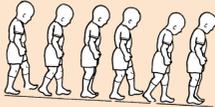
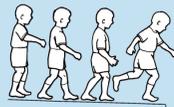
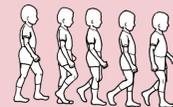
# Dynamic Balance

Critical Elements in Developmental Order <sup>1</sup>
<ul style="list-style-type: none"> <li>Maintains balance by using arms as needed – “Airplane arms”</li> <li>Maintains balance while using alternate stepping action – “alternate”</li> <li>Maintains and upright posture – “tall”</li> <li>Focuses eyes forward – “looking forward”</li> </ul>

Teaching Cues
<ol style="list-style-type: none"> <li>Look</li> <li>Airplane arms</li> <li>Tall</li> <li>Feel the beam</li> </ol>



Literacy		
balance	beam	dynamic
forward	control	eyes
stability	focus	alternate

Stages of Motor Development <sup>3</sup>		
Stage 1	Stage 2	Stage 3
<b>Initial Stage</b> <i>Support or Side step</i> Balances with support, eyes on feet, uses follow step with dominant foot lead 	<b>Elementary Stage</b> <i>Focused, Eyes on beam</i> Eyes focused on beam, loses balance easily, uses alternate stepping action 	<b>Mature Stage</b> <i>Relaxed, Eyes forward</i> Eyes focused beyond beam, movements are fluid, relaxed, and in control, may lose balance rarely 

Assessment & Teaching Indicators	
<b>Directions for assessment<sup>2</sup>:</b> Walk across a narrow balance beam forward for 10 steps 	<b>What to look for?</b> Maintains balance while using alternate stepping action, Maintains and upright posture, Maintains balance by using arms as needed, Focuses eyes forward

When do you know when to move to the next stage?			
	Initial Stage	Elementary Stage	Mature Stage
<b>Generic criteria and tasks to aim for in this stage.</b>	Looses balance on a high beam, needs help. Perform balance activities on floor and move across wide obstacles. At the end of this stage, should be able to walk heel toe on a thick line on the floor while looking at the line.	Can walk on a beam by themselves without losing balance. Practices with different size beams, at different heights, becoming comfortable moving. At the end of this stage, can walk at height on narrow beam comfortably by themselves.	Can perform balance tasks on the high and narrow beam while looking forward, focus on combining concepts at height. Or combining dynamic balance tricks with static balance or locomotor skills to perform a routine.
<b>Cues to focus on</b>	<b>Airplane arms</b>	<b>Stand Tall</b>	<b>Look Forward</b>

Developmentally Appropriate Progressions		
Initial Stage / Emerging	Elementary Stage / Able	Mature Stage / Competent
<ol style="list-style-type: none"> <li>Walk in a straight pathway</li> <li>Walk in a straight pathway on a line</li> <li>Walk in different pathways (straight, zigzag, curved)</li> <li>Walk at different levels (low, medium, high)</li> <li>Walk at different levels on lines (low, medium, high)</li> <li>Walk while changing directions (forward, backward, sideway)</li> <li>Walk while changing directions on lines (forward, backward, sideway)</li> <li>Walk while changing speed (slow, fast)</li> <li>Walk while changing speed on lines (slow, fast)</li> <li>Walk on numbers or abc poly spots that are somewhat far away so they have to stretch their bodies to get there. At times they may lose their balance – talk about what to do with your body when they become unstable (far, near)</li> <li>Walk across wide gymnastic equipment (wide beam, bench) and repeat tasks # 3-10</li> <li>Side step on wide beam (4”/ 10 cm) with and then without support</li> <li>Side step on narrow beam (2.5”/ 6 cm) with and then without support</li> <li>Alternate stepping at height on wide beam while supported by teacher straddling the beam while walking backwards</li> <li>Walk in straight line heel to toe (10 steps)</li> <li>Walk in a curved line heel toe (10 steps)</li> <li>Walk in a zig zag line heel toe (10 steps)</li> </ol>	<ol style="list-style-type: none"> <li>Alternate stepping on wide beam while slowly removing the level of support by teacher</li> <li>Walk across narrow beam with low level support using extended arms for support</li> <li>Walk across narrow beam with extended arms without support</li> <li>Walk backwards across wide beam</li> <li>Walk across the wide then narrow beam while balancing a bean bag on shoulders (posture)</li> <li>Walk across wide then narrow beam at height moving at different levels (low, medium, high)</li> <li>Walk across the wide then narrow beam stepping over beanbags (directions)</li> <li>Walk across the narrow beam and pick up an object without losing balance (levels)</li> <li>Carry smaller objects across a balance beam (like ping pong balls) and place them on the other side. Use a color order, grab with pinchers, walk over an object on the beam, etc.</li> <li>Looking at the narrow beam, walk across as smoothly as you can.</li> <li>Walk across a slanted wide beam/bench (up and down).</li> <li>Walk across wide balance beam with support (teach them how to scoop – looking forward, moving foot downwards next to beam when moving)</li> <li>Walk across wide balance beam while scooping without support</li> <li>Walk backwards while scooping</li> </ol>	<ol style="list-style-type: none"> <li>With eyes forward walking across narrow beam while scooping with support (eyes)</li> <li>With eyes forward walking across narrow beam while scooping without support (eyes)</li> <li>With eyes forward walking backwards across narrow beam while scooping without support (eyes)</li> <li>With eyes forward walking across wide beam while scooping and balancing a beanbag on their head (eyes, posture)</li> <li>With eyes forward walking across narrow beam while scooping and balancing a beanbag on their head (eyes, posture)</li> <li>With eyes forward walking across narrow beam at different levels (low, medium, high)</li> <li>With eyes forward walking across the narrow beam stepping over beanbags (levels)</li> <li>With eyes forward walking across the narrow beam and pick up an object without losing balance (levels)</li> <li>With eyes forward walking across the narrow beam while identifying numbers or letters held up by the teacher (eyes)</li> <li>Looking forward, walk across a narrow beam as smoothly/relaxed as you can. (control)</li> <li>Combine various movement concepts while walking across low and high beams.</li> <li>Combine various locomotor skills and movement concepts in a routine.</li> </ol>

Difficulties to watch for <sup>1</sup>	
If...	Then...
They are not able to keep their balance using their arms	Allow them to perform the skill while balancing light objects on shoulders
They have difficulty alternating steps	Allow for external support (wall or bar)
Children are visually checking their feet or beam	Encourage children to keep their head up by looking at something on the wall
Children have difficulty maintaining balance	Start with short distance and gradually increase length

References: 1. PHE Canada (2011). *Fundamental movement skills: An educator’s guide to teaching fundamental movement skills.* 2. Ulrich, D. (2000). *Test of Gross Motor Development*, 2<sup>nd</sup> ed. (TGMD-2) Assessment protocol 3. Gallahue, D., Ozmun, J., & Goodway, J. (2007). *Understanding motor development: Infant, children, adolescents, adults* (7<sup>th</sup> ed.). McGraw Hill: New York, NY.

References Continued: 4. Baumgarten, S. & Langton, T. (2006). *Elementary Physical Education: Building a Solid Movement Foundation.* Stipes Publishing L.L.C.: Champaign, IL. 5. Poster created by Dr. Helena Baert, SUNY Cortland, 2016-Present



# Static Balance

## Critical Elements in Developmental Order<sup>1</sup>

- Maintains a steady balance holding a position for 5 sec – “still” / Freeze
- Adjusts body to maintain balance – “airplane arms”
- Stands tall and relaxed on one leg – “Stand Tall”
- Focuses eyes forward – “looking forward”

## Teaching Cues

1. Look
2. Tall
3. Airplane Arms
4. Relax

## Video<sup>5</sup>



## Literacy

balance	static	on
eyes	freeze	off
stability	focus	stillness

## Stages of Motor Development<sup>3</sup>

Stage 1	Stage 2	Stage 3
<b>Initial Stage</b>	<b>Elementary Stage</b>	<b>Mature Stage</b>
<i>High Knee</i> Raises non supporting leg several inches so that thigh is nearly parallel with Surface. Very unstable, overcompensates balances with outside support	<i>Tied-in Leg</i> May lift non supporting leg to a tied-in position on support leg, performs better on dominant leg. Uses arms for balance but may keep on at side. Cannot balance with eyes closed	<i>Relaxed</i> Can balance with eyes closed Uses arms and trunk as needed Changes to non dominant leg

## Assessment & Teaching Indicators

**Directions for assessment<sup>2</sup>:** Stork stance on one leg and then on the opposite leg hold for 30 seconds

**What to look for?** Maintains balance while standing still, Maintains balance by using arms as needed, Focuses eyes forward, Can remain in position for 30 seconds

## When do you know when to move to the next stage?

	Initial Stage	Elementary Stage	Mature Stage
<b>Generic criteria and tasks to aim for in this stage.</b>	Looses balance easily, hold leg up in front. Use balance activities with 2 legs or on various body parts. Incorporate yoga poses. Encourages being still and holding positions. At the end of this stage can stand still on preferred leg for 3 sec.	Use body (tied in leg) to balance or compensate. Needs many practice tasks balancing on one leg using a variety of concepts and on a variety of surfaces and apparatus. At the end of this stage can balance on 1 leg, better on dominant while holding 5 sec (both legs).	Is very comfortable balancing on one leg and can do more advanced balancing tricks including tricks with partners and in routines. At the end of this stage can balance on 1 leg for 10 sec. with eyes open and closed on both legs.
<b>Cues to focus on</b>	<b>Still / Freeze</b>	<b>Airplane arms / Stand Tall</b>	<b>Look Forward</b>

## Developmentally Appropriate Progressions

Initial Stage / Emerging	Elementary Stage / Able	Mature Stage / Competent <sup>4</sup>
<ol style="list-style-type: none"> <li>1. Standing with two feet apart for 5 count (wide base)</li> <li>2. Standing with two feet on a poly spot for 5 count (narrow base) – maintaining stillness</li> <li>3. Play red light green light holding a position when freezing.</li> <li>4. Like 1 but with bean bags on different body parts</li> <li>5. Like #2 but with bean bags on different body parts</li> <li>6. Standing on two feet with arms extended (extensions) symmetrically with wide base</li> <li>7. Standing on two feet with arms extended (extensions) asymmetrically with wide base</li> <li>8. Attempt #1 through #6 and close eyes for 3 sec</li> <li>9. Balance on poly spot on preferred leg with support</li> <li>10. Same as #8 but with bean bag on body part and holding for 5 counts with support</li> <li>11. Balance on poly spot on other leg with support</li> <li>12. Same as #10 but with bean bag of body parts and holding for 5 counts</li> <li>13. Do different easy balance tricks on mats with wide base: Balance on 3 body parts for example</li> <li>14. Create shapes with body holding the shape for 5 counts (using wide base)</li> <li>15. Create letters with body holding the letter for 5 counts (using wide base)</li> <li>16. Do beginner yoga poses</li> <li>17. Complete the ABC cards doing different movement tasks for each letter / Play Balance Bingo</li> <li>18. Balance on 1 leg with the elevated leg on a stable / unstable surface</li> <li>19. Can balance on preferred leg for 3 sec, eyes open</li> </ol>	<ol style="list-style-type: none"> <li>20. Balance on different wide surfaces and heights on two feet playing the freeze game</li> <li>21. Balance on preferred leg without support for 5 sec</li> <li>22. Same as #16 but focusing on tightening muscles and creating stillness</li> <li>23. Same as #16 but balancing bean bags on different body parts.</li> <li>24. Balance on bean bags with 2 legs with eyes open (uneven surface)</li> <li>25. Same as #19 but with eyes closed</li> <li>26. Balance on 2 by 4 on ground</li> <li>27. Balance on 1 leg trying to pick up something of the floor</li> <li>28. Elevator Rides: Carry a bean bag on top of your foot and place beanbag into basket</li> <li>29. Balance on one leg trying to strike a balloon</li> <li>30. Balance on one leg on a low beam</li> <li>31. Balance on one leg on a higher beam</li> <li>32. Balance on non-preferred leg without support</li> <li>33. Repeat #21-32 using non-preferred leg</li> <li>34. Counterbalances – 1 leg and opposite arm (extensions to side of body)</li> <li>35. Symmetrical and asymmetrical shapes while balancing on 1 leg.</li> <li>36. Combining dynamic and static balance</li> <li>37. Play shadow balance, show what tricks you have up your sleeve</li> <li>38. Play mirror balance, show what tricks you have up your sleeve</li> <li>39. Play twister with a friend (different bases of support – great assessment tool)</li> </ol>	<ol style="list-style-type: none"> <li>40. Perform different balance tricks on mats such as: V-sit, knee scale, Stork stance, airplane scale, Y scale and other variety of static balances.</li> <li>41. Perform more advanced yoga poses and hold on to the poses for longer</li> <li>42. Perform balance tasks on a bosu ball (turn it around as well)</li> <li>43. Same as elementary stage tasks but with bean bags on body parts and holding the poses for a longer count</li> <li>44. Same as elementary stage tasks but on sturdy surfaces at height(e.g. boxes, benches, beams)</li> <li>45. Inverted balances</li> <li>46. Transferring weight from feet to hands in preparation for handstand (kick-ups)</li> <li>47. Doing different balances and exploring combining balance with different movement concepts (e.g. static balance using stork stance in unison with a partner)</li> <li>48. Balance tricks with a partner</li> <li>49. Combine static and dynamic balances in a sequence</li> <li>50. Balance tasks that combines movement concepts and skills and have them perform.</li> </ol>

## Difficulties to watch for<sup>1</sup>

If...	Then...
They are not able to keep their balance by using their arms	Allow them to perform the skill while balancing light objects on shoulders
They have difficulty maintaining balance	Allow for external support (wall or bar)
Children are visually checking their feet	Encourage children to keep their head up by putting a soft object on their head
Children keep non-support leg in front	Tell them their leg is a dog and the nose is their knee. The dog likes to sniff the ground

### References:

1. PHE Canada (2011). *Fundamental movement skills: An educator's guide to teaching fundamental movement skills*.
2. Ulrich, D. (2000). *Test of Gross Motor Development*, 2<sup>nd</sup> ed. (TGMD-2) Assessment protocol
3. Gallahue, D., Ozmun, J., & Goodway, J. (2007). *Understanding motor development: Infant, children, adolescents, adults* (7<sup>th</sup> ed.). McGraw Hill: New York, NY.
4. Malmberg E. (2003). *Kidnastics: A child centered approach for teaching gymnastics*. Human Kinetics: Champaign, IL.

### References Continued:

4. Baumgarten, S. & Langton, T. (2006). *Elementary Physical Education: Building a Solid Movement Foundation*. Stipes Publishing L.L.C.: Champaign, IL.
5. Poster created by Dr. Helena Baert, SUNY Cortland, 2016-Present



# Locomotor: Running

## Critical Elements in Developmental Order<sup>1</sup>

- Eyes focused forward throughout the run – “look ahead”
- Knees bend at right angles during the recovery phase – “high knees”
- Arms bend at elbows and move in opposition of legs – “pump arms”
- Front part of foot contacts ground – “light feet”
- Body leans slightly forward – “lean forward”

## Teaching Cues

1. Look
2. Light Feet
3. High Knees
4. Pump Arms
5. Lean slightly

## Video<sup>5</sup>



## Literacy

run	slow	fast
straight	curved	zig zag
forward	left	right

## Stages of Motor Development<sup>3</sup>

Stage 1	Stage 2	Stage 3	Stage 4
<b>Initial Stage</b>	<b>Elementary Stages</b>		<b>Mature Stage</b>
<p><i>Run High Guard</i></p> <p>Arms – high guard Flat Footed contact Short, wide stride Wide shoulder width Legs &amp; arms swing out No flight</p> 	<p><i>Run Middle Guard</i></p> <p>Arms- middle guard Vertical component still great Increase stride Increase arm swing</p> 	<p><i>Heel-Toe Arms Extended</i></p> <p>Arms- low guard Arms opposition – elbows nearly extended Heel-toe contact</p> 	<p><i>Pumping Arms</i></p> <p>Heel-toe contact (toe-heel when sprinting) Arm-leg opposition High heel recovery Elbow Flexion</p> 

## Assessment & Teaching Indicators

**Directions for assessment<sup>2</sup>:** Run as fast as possible between 2 cones set 60 feet apart



**What to look for?** Can they run straight? Are they rolling their feet or are they flat footed? Are arms and legs going in opposition? Are they looking forward? Are arms bent?

## When do you know when to move to the next stage?

	Initial Stage	Elementary Stage	Mature Stage
<b>Generic criteria and tasks to aim for in this stage.</b>	As soon as they are walking, kids often will run with wide base and arms in high guard. Initial stage occurs often at 1-2 years old. Focus on space awareness and freezing on command. At the end of the initial stage the child should be able to run a short distance with eyes forward.	In the elementary stage they are working on arm movement and foot placement. They either swing arms out or have the extended. This is a good time to focus on pumping arms close to body and using different speeds. At the end of this stage they should be able to run fast while staying straight	In the mature stage they are focusing on leaning in when running and including a heel recovery phase. Here you can combine different movement concepts and locomotor skills to challenge students. They can also learn to run faster and longer in a variety of environments with people.
<b>Cues to focus on</b>	<b>Eyes forward</b>	<b>Pump Arms, Heel Toe</b>	<b>Body lean</b>

## Developmentally Appropriate Progressions

Initial Stage / Emerging	Elementary Stage / Able	Mature Stage / Competent
<ol style="list-style-type: none"> <li>1. Walk in a straight line</li> <li>2. Exploring movement concepts: Walk in different pathways (straight, curved, zig zag), walk at different levels (high, medium, low), walk in different directions (forward, sideways, backwards), walk quietly and loudly (force), in self-space or between 2 cones.</li> <li>3. Walk in an open space around obstacles (station: around, over, through, across)</li> <li>4. Walk in an open space around obstacles changing speeds (station)</li> <li>5. Teach students how to freeze on command (e.g. Freeze! Hands on Knees) Practice freezing on command throughout all tasks.</li> <li>6. Walk in an open space around obstacles with a peer (station) staying in self-space (eyes up)</li> <li>7. Walk in an open space around obstacles changing speeds with a peer (station) staying in self-space (eyes up)</li> <li>8. Continue with #6 and 7 adding more peers and space (space, relationship with others, speed)</li> <li>9. Walk following the teacher in different pathways</li> <li>10. Walk with peers in different pathways (leading and following)</li> <li>11. Culminating event: bear hunt using walking</li> </ol>	<ol style="list-style-type: none"> <li>12. Run in a straight line (station – between 2 cones)</li> <li>13. Run as fast as you can between 2 cones, 20 feet apart</li> <li>14. Run as fast as you can between 2 cones, choose the distance</li> <li>15. Run while pumping your arms back and forth</li> <li>16. Repeat Tasks #2-5 with running (limit space to small group/space)</li> <li>17. Run between 2 cones and on a signal turn around and run back</li> <li>18. Travelling in open space to the music (slow and fast – walking vs running)</li> <li>19. Teacher designed obstacle course focusing on different speeds and pathways (e.g. walk zig zag, run straight)</li> <li>20. Students will create their own pathways with ropes/cones and explore the area using walking and running (teacher assist)</li> <li>21. On the signal students will run the pathway as directed by the teacher (station – open space)</li> <li>22. Repeat #6-10 with running (space, effort, and relationship) **Keep the number of students limited to 4 and space large ***</li> </ol>	<ol style="list-style-type: none"> <li>23. Red light, green light, walking/running/stopping from one side of gym to other with large group</li> <li>24. Run in open space dodging others and listening or watching for signals from teacher (stop, run, walk, “look up”).</li> <li>25. Run in general space with peers while following different instructions from teacher (example: 1 clap = run &amp; touch 4 walls, 2 claps = 5 jumping Jacks or Janes, 3 claps = walk and high 5 peers). Increase the number of instructions from 1 to 3 and change the tasks from simple to complex.</li> <li>26. Repeat #24 but add obstacles such as hula hoops, low apparatus, spots, ropes, cones (example: 1 clap= run &amp; touch 3 different obstacles, 2 claps= balance on low safe obstacles, 3 claps= 5 star jumps)</li> <li>27. Creating movement sentences with a partner incorporating running and movement concepts (MC) (e.g. I run fast with a partner in general space).</li> <li>28. Introduce the skill of dodging (changing direction quickly) and students will dodge stationary objects while running.</li> <li>29. Dodge other moving students while running in a large space (entire gym)</li> <li>30. Dodge other moving students while decreasing the size of the general space (1/2 gym, 1/4 gym)</li> <li>31. Run through a maze or obstacle course w/others</li> <li>32. Culminating event: Appropriate Tag Games</li> </ol>

## Difficulties to watch for<sup>1</sup>

If...	Then...
There are small steps and little flight	Show them how to exaggerate the length of the stride
Feet are spread too wide apart	Coach them to run along a line
Children have short strides	Place bean bags on a line so they can widen their stride
Arms swing from side to side	Stand still and only move arms, arms should not cross and hands can lightly brush hips
Children lean too far forward	Run on toes and stay as tall as possible

### References:

1. PHE Canada (2011). *Fundamental movement skills: An educator's guide to teaching fundamental movement skills.*
2. Ulrich, D. (2000). *Test of Gross Motor Development, 2<sup>nd</sup> ed.* (TGMD-2) Assessment protocol
3. Gallahue, D., Ozmun, J., & Goodway, J. (2007). *Understanding motor development: Infant, children, adolescents, adults* (7<sup>th</sup> ed.). McGraw Hill: New York, NY.

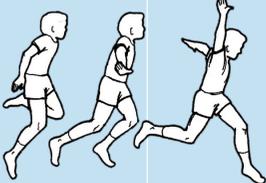
### References Continued:

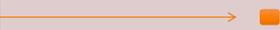
4. Baumgarten, S. & Langton, T. (2006). *Elementary Physical Education: Building a Solid Movement Foundation.* Stipes Publishing L.L.C.: Champaign, IL.
5. Poster created by Dr. Helena Baert, SUNY Cortland, 2016-Present



# Locomotor: Leaping

Critical Elements in Developmental Order <sup>1</sup>	Teaching Cues	Video <sup>5</sup>	Literacy	
<ul style="list-style-type: none"> <li>Forward movement sustained throughout the leap – “<b>move forward</b>”</li> <li>Eyes focused forward – “<b>looking ahead</b>”</li> <li>Take off from one foot, land on opposite foot – “<b>opposite feet</b>”</li> <li>Straighten legs in flight, arms in opposition – “<b>stretch</b>”</li> <li>Controlled landing without losing balance – “<b>control</b>”</li> </ul>	<ol style="list-style-type: none"> <li>Look</li> <li>Run, Leap, Run</li> <li>Stretch</li> <li>Opposition</li> <li>Land Softly</li> </ol>		run	leap
			air	extend
			forward	over

Stages of Motor Development <sup>3</sup>				
Stage 1	Stage 2	Stage 3	Stage 4	
Initial Stage	Elementary Stages		Mature Stage	
<p style="text-align: center;"><i>Inconsistent Run</i></p> <p>Child appears confused in attempts Inability to push off and gain distance and elevation / Each attempt looks like another running step / Inconsistent use of take-off leg Arms ineffective</p> 	<p style="text-align: center;"><i>Elongated Run</i></p> <p>Appears to be thinking through the action / Attempt looks like elongated run / Little elevation above supporting surface / Little forward trunk lean</p> 		<p style="text-align: center;"><i>Controlled Extension</i></p> <p>Relaxed rhythmical action Forceful extension of takeoff leg Good summation of horizontal and vertical forces / Definite forward trunk lean / Definite arm opposition Full extension of legs during flight</p> 	

Assessment & Teaching Indicators	
<p><b>Directions for assessment<sup>2</sup>:</b> Run and then leap over beanbag starting from tape</p> 	<p><b>What to look for?</b> Can they take off on one foot and land on the opposite foot? Is there arm/leg opposition? Do they have elevation?</p>

When do you know when to move to the next stage?			
	Initial Stage	Elementary Stage	Mature Stage
<b>Generic criteria and tasks to aim for in this stage.</b>	Child runs, does not really understand a leap. When leaping over a line they either run through it or they may stop and jump over line/object. Focus on jumping/leaping over lines / ropes. Have students run, leap, run. Single play in controlled environment. By the end of initial stage, they have some elevation and or distance when leaping	In the elementary stage you want to focus on elevation and distance – take of on one foot and land on the opposite foot. Use different size objects to help them leap over and / or far. Do not worry about about the arms yet, they are mostly used for balance at this point. They can move to the next stage if they can leap over obstacles with ease.	Focus on force to go higher and further distances. In this stage you are working on arm and leg opposition which will help with producing force. In the mature stage you will integrate different concepts and locomotor skills, leap over hurdles, leap continuously and embed leaping into routines of dance and gymnastics.
<b>Cues to focus on</b>	<b>Over, 1 foot</b>	<b>Stretch</b>	<b>Opposition</b>

Developmentally Appropriate Progressions		
Initial Stage / Emerging	Elementary Stage / Able	Mature Stage / Competent
<ol style="list-style-type: none"> <li>Check ability to run/jump</li> <li>Run as high as you can in the air</li> <li>Run quickly with short steps, then leap forward in a giant step through the air</li> </ol> <p>*** Encourage students to use a running approach, one leap and landing on two feet</p> <ol style="list-style-type: none"> <li>Leap forward with strong (loud, hard) landing</li> <li>Leap forward with light (quiet, soft) landing</li> <li>Leap forward over a line on the floor</li> <li>Leap forward on a line on the floor</li> <li>Leap into a hula hoop / large target</li> <li>Leap forward with 1 foot landing on opposite foot</li> <li>Leap over a line or rope as far as possible</li> </ol>	<p>***Encourage students to use a running approach, one leap and landing on opposite foot to slow the pace of the run</p> <ol style="list-style-type: none"> <li>Place one rope 5 feet away from the start of the approach, run fast over the rope</li> <li>Place two ropes parallel 5 feet away from the start of the approach and run as fast as possible over the ropes</li> <li>Slowly increase the distance between the ropes, telling the students it is a river and we can't fall in so we must leap across. Encourage to run as fast as possible and leap high in the air to get across the river.</li> <li>Leap near and far (vary distances between the 2 parallel ropes “wide vs narrow river”)</li> <li>To encourage proper stride position during flight, in the gymnasium, use a flash light to help students see their shadow. If outside, check shadow produced by sun.</li> <li>Leap over a beanbag or small object</li> <li>Leap over a larger object (pool noodle)</li> </ol>	<ol style="list-style-type: none"> <li>Have students explore leaping on their non-dominant side (run-leap-run)</li> <li>Have students explore the following pattern: run, leap, leap, run.</li> <li>Leaping in a rhythmic pattern with music</li> <li>In general space, ask students to demonstrate a variety of locomotor movements including leaping</li> <li>Same as #19 but with music</li> <li>Move through an obstacle course set up to include leaping</li> <li>Leap over low hurdles continuously (run-run-run-leap, run-run-run-leap)</li> <li>Leaping and catching an object in flight</li> <li>Teacher designs a dance routine that includes leaping and other locomotor skills for students to attempt</li> <li>Teacher designs a gymnastics routine that includes leaping and other locomotor skills for students to attempt</li> </ol>

Difficulties to watch for <sup>1</sup>	
If...	Then...
Child is showing insufficient extension of legs and body on takeoff	Ask the child to leap over horizontal target, gradually increasing the distance between takeoff and target
Child is using ineffective arm swing	Encourage the child to use arms to move through the air
Arms are behind or beside on landing	Encourage children to keep their head up by looking at something on the wall

**References:**

- PHE Canada (2011). *Fundamental movement skills: An educator's guide to teaching fundamental movement skills.*
- Ulrich, D. (2000). *Test of Gross Motor Development*, 2<sup>nd</sup> ed. (TGMD-2) Assessment protocol
- Gallahue, D., Ozmun, J., & Goodway, J. (2007). *Understanding motor development: Infant, children, adolescents, adults* (7<sup>th</sup> ed.). McGraw Hill: New York, NY.

**References Continued:**

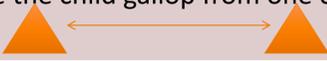
- Baumgarten, S. & Langton, T. (2006). *Elementary Physical Education: Building a Solid Movement Foundation.* Stipes Publishing L.L.C.: Champaign, IL.
- Poster created by Dr. Helena Baert, SUNY Cortland, 2016-Present



# Locomotor: Galloping

Critical Elements in Developmental Order <sup>1</sup>	Teaching Cues	Video <sup>5</sup>	Literacy		
<ul style="list-style-type: none"> <li>Steps forward with lead leg and trail leg follows – “Step, together”</li> <li>Trail leg stays behind lead leg– “Feet don’t cross”</li> <li>Turns hips, shoulders, and eyes to direction of movement – “forward”</li> <li>Can gallop using either leg as lead – “lead leg”</li> <li>Displays rhythmical bilateral arm movement – “arms move with beat”</li> </ul>	<ol style="list-style-type: none"> <li>Step</li> <li>Together</li> <li>Feet don’t cross</li> <li>Arms to beat</li> </ol>		gallop	horse	forward
			rhythm	open	close
			lead	follow	trail

Stages of Motor Development <sup>3</sup>		
 <p style="text-align: center;"><b>Stage 1</b> <b>Initial Stage</b></p> <p style="text-align: center;"><i>Choppy Run</i></p> <p>Resembles rhythmically uneven run Trail leg crosses in front of lead leg during airborne phase, remains in front at contact Arms of little use</p> 	 <p style="text-align: center;"><b>Stage 2</b> <b>Elementary Stage</b></p> <p style="text-align: center;"><i>Stiff Back Leg</i></p> <p>Slow-moderate tempo, choppy rhythm Trail leg stiff Hips often oriented sideways Vertical component exaggerated</p> 	 <p style="text-align: center;"><b>Stage 3</b> <b>Mature Stage</b></p> <p style="text-align: center;"><i>Smooth Rhythmical</i></p> <p>Smooth, rhythmical pattern, moderate tempo Feet remain close to ground Hips oriented forward</p> 

Assessment & Teaching Indicators	
<b>Directions for assessment<sup>2</sup>:</b> Have the child gallop from one cone to the other for about 25 feet 	<b>What to look for?</b> When galloping is there a lead leg and a trail leg? Can they gallop on both sides? Do their feet cross? Do they have rhythm? Do they use their arms?

When do you know when to move to the next stage?			
	Initial Stage	Elementary Stage	Mature Stage
<b>Generic criteria and tasks to aim for in this stage.</b>	Initial movers likely cross their feet when they gallop. The focus should be on body awareness and body shapes to practice the open close motion forward. Likely the gallop activities will be slow to prevent feet from crossing. At the end of this stage, they should be able to do a slow gallop on preferred side.	In the elementary stage, movers will need lots of practice on both sides of the body using different movement concepts (in isolation). Practice keeping hips forward and galloping on both lead legs. By the end of this stage, they should be able to gallop comfortably with medium speed on both lead legs.	In the mature stage they will add rhythm and arm movement to allow smooth tempo. Here you can combine different movement concepts and locomotor skills to create creative routines. Practice galloping on music.
<b>Cues to focus on</b>	<b>Step, Together / Feet don’t cross</b>	<b>Forward, Lead Leg</b>	<b>Arms move with beat</b>

Developmentally Appropriate Progressions		
Initial Stage / Emerging	Elementary Stage / Able	Mature Stage / Competent
In order to gallop/slide, young children should be able to do actions such as turning, twisting, bending, stopping, jumping, stretching, etc. <ol style="list-style-type: none"> <li>Moving body in different shapes, feet together (narrow) feet apart (wide) in straddle stance</li> <li>Explore bases of support using narrow and wide foot placement (front and back)</li> <li>Traveling (moving, not galloping) in different directions</li> <li>Traveling forward, backwards, sideways</li> <li>Scissor jumps or forward shuffle (open, close)</li> <li>Students travel slowly on a line with their preferred 1 lead foot and 1 trail foot (cue: step, together) – assess whether their trail leg crosses the lead leg</li> <li>Place stickers on dominant heel and non-dominant toe to encourage the trail leg to stay behind the lead leg (ask students to gallop by making the stickers touch)</li> <li>See 7 for task, switch stickers to non-dominant heel and dominant toe</li> <li>Increase speeds traveling on a line and include the cues: step, together.</li> <li>See 9 both switch lead leg – slow!</li> <li>Play freeze game</li> </ol>	<p><b>Progression occur in a closed environment</b></p> <ol style="list-style-type: none"> <li>Gallop with both lead legs (add initial tasks for non-dominant leg when needed)</li> <li>Play red light green light with galloping</li> <li>Galloping on a line using different speeds</li> <li>Galloping in different pathway (zig-zag, straight, curved)</li> <li>Galloping in different directions (forward, right, left, diagonal)</li> <li>Galloping at different levels</li> <li>Galloping while changing speeds and directions</li> <li>Galloping while changing different speeds on different pathways</li> <li>Galloping at different levels while changing speeds</li> <li>Galloping in different pathways while changing levels</li> <li>Galloping through an obstacle course using over, through, around (varying apparatus)</li> </ol> <p><b>Progressions occur in an open environment</b></p> <ol style="list-style-type: none"> <li>Galloping in a large space (general space) with other students while paying attention to self-space (bubble) careful not to “pop” other students bubbles</li> <li>Galloping in different directions/or pathways while changing speeds</li> </ol>	<ol style="list-style-type: none"> <li>Student gallop while following the rhythm of the music</li> <li>Changing speeds to music</li> <li>Galloping to the music while changing directions, pathways, and levels</li> <li>Galloping while shadowing each others movement (one partner in front and other behind)</li> <li>Galloping while shadowing your partner and changing directions, pathways, levels, and speeds</li> <li>Galloping while matching a partner (student standing next to each other)</li> <li>Galloping while matching a partner: matching different pathways, speeds, and directions</li> <li>Galloping while chasing, fleeing, dodging with a partner</li> <li>Galloping with a partner to rhythm of the music</li> <li>The combination of multiple locomotor skills (including galloping) to create routines</li> </ol>

Difficulties to watch for <sup>1</sup>	
If...	Then...
Trail leg crosses lead leg	Use colored tape / stickers to dominant heel and non-dominant toe to make tape touch
There is a lack of rhythm in the gallop	Use music where the sound of horses running dictate the rhythm
Movements are exaggerated	Encourage the children to lift their feet just off the ground
Slight loss of balance from time to time	Have the child slow the gallop down
Children are landing flat footed	Ask children to see if they can make their gallops as “quiet” as possible

**References:**

- PHE Canada (2011). *Fundamental movement skills: An educator’s guide to teaching fundamental movement skills.*
- Ulrich, D. (2000). *Test of Gross Motor Development*, 2<sup>nd</sup> ed. (TGMD-2) Assessment protocol
- Gallahue, D., Ozmun, J., & Goodway, J. (2007). *Understanding motor development: Infant, children, adolescents, adults* (7<sup>th</sup> ed.). McGraw Hill: New York, NY.

**References Continued:**

- Baumgarten, S. & Langton, T. (2006). *Elementary Physical Education: Building a Solid Movement Foundation.* Stipes Publishing L.L.C.: Champaign, IL.
- Poster created by Dr. Helena Baert, SUNY Cortland, 2016-Present



# Locomotor: Sliding

## Critical Elements in Developmental Order<sup>1</sup>

- Legs open and close in sliding – “open and close”
- Keeps trail leg behind/following lead leg – “side, together”
- Can slide with both lead legs – “lead leg”
- Sideways movement while facing in the direction you are going – “sideways”
- Displays rhythmical arm movement – “arms move with beat”

## Teaching Cues

1. Side
2. Together
3. Feet don't cross
4. Arms open and close to beat

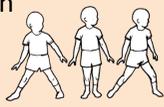
## Video<sup>5</sup>



## Literacy

slide	sticky	side
sideways	open	close
lead	together	follow

## Stages of Motor Development<sup>3</sup>

Stage 1	Stage 2	Stage 3
<b>Initial Stage</b>	<b>Elementary Stage</b>	<b>Mature Stage</b>
<i>Choppy Run</i>	<i>Stiff Back Leg</i>	<i>Smooth Rhythmical</i>
<p>Resembles rhythmically uneven run</p> <p>Trail leg crosses in front of lead leg during airborne phase, remains in front at contact. Little arm action</p> 	<p>Slow-moderate tempo, Choppy rhythm, Trail leg stiff, Hips often oriented sideways</p> <p>Vertical component exaggerated</p> 	<p>Smooth, rhythmical pattern, moderate tempo, feet remain close to ground, hips oriented forward. Moving sideways while facing in direction of movement</p> 

## Assessment & Teaching Indicators

**Directions for assessment<sup>2</sup>:** Have the child slide from one cone to the other for about 25 feet



**What to look for?** Are they moving sideways? Does the lead leg open and follow leg closes without crossing in front? Do they show a rhythmical movement. Are arms used?

## When do you know when to move to the next stage?

	Initial Stage	Elementary Stage	Mature Stage
<b>Generic criteria and tasks to aim for in this stage.</b>	In the initial stage we focus on sideways movement with body. This is difficult for young movers. Space and body awareness is the focus. By the end of the initial stage movers can slowly slide sideways with preferred lead leg.	In the elementary stage we will work on their ability to slide sideways using both lead legs. In addition, watch the foot placement – in elementary stage they can learn to place feet perpendicular to direction of travel. By the end of the stage, they can slide with moderate tempo in both directions	Movers in the mature stage are adding the arm movement to develop rhythm and power, and speed. Bending legs in preparation for shuffling skills. Focus on fluency and rhythm. Combine concepts and skills, add sliding and catch / pass (combining sliding and manipulative skills).
<b>Cues to focus on</b>	<b>open-close, slide-together</b>	<b>Lead leg, sideways vs forward</b>	<b>Arms move to beat</b>

## Developmentally Appropriate Progressions

Initial Stage / Emerging	Elementary Stage / Able	Mature Stage / Competent
<p>In order to slide, young children should be able to do actions such as turning, twisting, bending, stopping, jumping, stretching, etc. Working on balance, body and space awareness first is key!</p> <ol style="list-style-type: none"> <li>1. Explore different body shapes where feet are narrow (together) or feet are wide (apart)</li> <li>2. Explore bases of support using narrow and wide foot placement</li> <li>3. Traveling in directions (not sliding – just moving)</li> <li>4. Traveling forward, backwards, sideways</li> <li>5. Side to side shuffle in general space</li> <li>6. Students lineup on a circle (center court-three point line) and practice moving side to side with toes pointed to the center</li> <li>7. Students travel slowly on a line with a side shuffle step or slide step (cue: open closed)</li> <li>8. Repeat #7 and increase speed of steps</li> <li>9. On a scooter, students work on moving feet side to side while moving the scooter sideways (the focus is for student to “not” cross their feet)</li> <li>10. Same as 9 but on a line</li> <li>11. Sliding on preferred side slowly on circle line or rope</li> <li>12. Sliding on preferred side slowly while hands on wall, facing wall.</li> </ol>	<p><b>Progression occur in a closed environment</b></p> <p><i>On preferred side first!</i></p> <p><i>Slow first!</i></p> <ol style="list-style-type: none"> <li>13. Sliding over lines</li> <li>14. Sliding while following a teacher, sliding by being a leader (on / over lines)</li> <li>15. Sliding in different pathway (zig-zag, straight, curved)</li> <li>16. Sliding in different directions (right, left, diagonal)</li> <li>17. Sliding at different levels</li> <li>18. Sliding on non-preferred side (do all above tasks)</li> <li>19. In order to go slightly faster they need to be able to slide while bending knees. Sliding while going under gates in obstacle course.</li> </ol> <p><b>When changing speeds only focus on slow and medium speeds – not fast! If movers start to cross legs, slow down.</b></p> <ol style="list-style-type: none"> <li>19. Sliding while changing speeds</li> <li>20. Sliding while changing speeds and directions</li> <li>21. Sliding while changing different speeds on different pathways using both lead legs</li> <li>22. Sliding at different levels while changing speeds using both lead legs</li> <li>23. Sliding in different pathways while changing levels using both lead legs</li> <li>24. Sliding through an obstacle course using over, under, around (varying apparatus) using both lead legs</li> </ol>	<p><b>Progressions occur in an open environment, both legs</b></p> <ol style="list-style-type: none"> <li>25. Sliding in a large space (general space) with other students while paying attention to self space and not “pop” other students bubbles.</li> <li>26. Sliding in different directions/or pathways while changing speeds</li> <li>22. Student slide while following the rhythm of the music</li> <li>23. Changing speeds to music</li> <li>24. Sliding to the music while changing directions, pathways, and levels</li> <li>25. Sliding while shadowing each others movement (one partner in front and other behind)</li> <li>26. Sliding while mirroring your partner (student face each other)</li> <li>27. Sliding while mirroring your partner and changing directions, pathways, levels, and speeds</li> <li>28. Sliding while matching a partner (student standing next to each other)</li> <li>29. Sliding while matching a partner: matching different pathways, speeds, and directions</li> <li>30. Sliding with a partner to rhythm of the music</li> <li>31. Sliding while mirroring a partner, tossing a soft ball to each other</li> <li>32. Sliding with a partner mirroring, tossing a soft ball to each other with a bounce</li> <li>33. Sliding with a partner mirroring, tossing a soft ball to each other while increasing the distance apart</li> <li>34. The combination of multiple locomotor skills (including sliding) to create routines</li> </ol>

## Difficulties to watch for<sup>1</sup>

If...	Then...
Students cross legs	Practice the open/close slowly and increase speed gradually
There is a lack of rhythm in the slide	Clap the rhythm for children
Movements are exaggerated	Encourage the children to lift their feet just off the ground
Slight loss of balance from time to time	Have the child slow the slide down slide on a line
Children are landing flat footed	Ask children to see if they can make their slides as “quiet” as possible

### References:

1. PHE Canada (2011). *Fundamental movement skills: An educator's guide to teaching fundamental movement skills.*
2. Ulrich, D. (2000). *Test of Gross Motor Development*, 2<sup>nd</sup> ed. (TGMD-2) Assessment protocol
3. Gallahue, D., Ozmun, J., & Goodway, J. (2007). *Understanding motor development: Infant, children, adolescents, adults* (7<sup>th</sup> ed.). McGraw Hill: New York, NY.

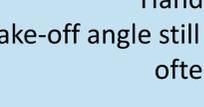
### References Continued:

4. Baumgarten, S. & Langton, T. (2006). *Elementary Physical Education: Building a Solid Movement Foundation*. Stipes Publishing L.L.C.: Champaign, IL.
5. Poster created by Dr. Helena Baert, SUNY Cortland, 2016-Present



# Locomotor: Horizontal Jumping

Critical Elements in Developmental Order <sup>1</sup>	Teaching Cues	Video <sup>5</sup>	Literacy	
<ul style="list-style-type: none"> <li>Eyes focused forward – “look ahead”</li> <li>Bends knees and body at waist in preparation for jump - “bend then explode”</li> <li>Swings arms fully in a backward-forward direction – “swing”</li> <li>Extends body in flight and lands with bent knees – “spring”</li> <li>Takes off and lands on two feet – “soft feet- ssss”</li> </ul>	<ol style="list-style-type: none"> <li>Look</li> <li>Swing back</li> <li>Bend</li> <li>Spring/explode</li> <li>Ssssst (soft landing)</li> </ol>		jump	over
			near	far
			light	bend
			on	off

Stages of Motor Development <sup>3</sup>			
 <p style="text-align: center;"><b>Stage 1</b> <b>Initial Stage</b></p>	 <p style="text-align: center;"><b>Stage 2</b></p>	<p style="text-align: center;"><b>Stage 3</b></p> 	<p style="text-align: center;"><b>Stage 4</b></p> 
<p style="text-align: center;"><b>Braking arms</b></p> <p>Arms act as “brakes” Large vertical component Legs not extended</p> 	<p style="text-align: center;"><b>Elementary Stages</b></p>		<p style="text-align: center;"><b>Mature Stage</b></p>
<p style="text-align: center;"><i>Winging Arms</i></p> <p>Arms act as “wings” Vertical component still great Legs near full extension</p> 	<p style="text-align: center;"><i>Arms swing to head</i></p> <p>Arms move forward, elbows in front of trunk at takeoff Hands to head height Take-off angle still above 45% Legs often fully extended</p> 	<p style="text-align: center;"><i>Full Body Extension</i></p> <p>Complete arm and leg extension at takeoff, takeoff near 45 degree angle Thighs parallel to surface when feet contact for landing</p> 	

Assessment & Teaching Indicators	
<p><b>Directions for assessment<sup>2</sup>:</b> Have a starting line on the floor tell the child to jump as far as they can</p> 	<p><b>What to look for?</b> Are they jumping off and landing on 2 feet? How are they swinging their arms? What height and distance are they getting?</p>

When do you know when to move to the next stage?			
	Initial Stage	Elementary Stage	Mature Stage
<b>Generic criteria and tasks to aim for in this stage.</b>	Initial jumpers will lose balance easily and they are working on jumping upwards and forward using two feet at the same time. At the end of this stage, they should be able to jump forward with two feet and land on two feet.	Elementary stage jumpers are focusing on their arm swing and absorbing the landing by bending the knees. They will jump using a variety of movement concepts. By the end of the elementary stage, they should be jumping forward with distance and landing softly.	In the mature stage, jumpers are focusing on combining different movement concepts on the ground or off raised surfaces. They will create routines to include jumping and other locomotor skills and can even combine jumping with manipulative skills.
<b>Cues to focus on</b>	<b>Two Feet, bend and explode</b>	<b>Swing, Spring, SSHHT</b>	<b>Extend</b>

Developmentally Appropriate Progressions		
Initial Stage / Emerging	Elementary Stages / Able	Mature Stage / Competent
<ol style="list-style-type: none"> <li>Bend your knees and crouch low, come back up and reach high, stretch high, push feet against floor.</li> <li>Animal moves and jumps</li> <li>Have student jump to hit target that is above their head and land lightly (SPRING)</li> <li>Jump and light showing an S with your body in balance (SSSSS)</li> <li>Jump forward with hard (loud, strong) landing</li> <li>Jump forward with soft (quiet, light) landing</li> <li>Jump forward on a line on the floor</li> <li>Jump forward over a line on the floor</li> <li>If the student can jump forward without losing balance they can try to jump backwards (small jumps)</li> <li>Jump sideways</li> <li>Jump over a rope on the floor</li> <li>Jump in and out of a hoop that is on the floor</li> <li>Jump in front, behind, and along side a hoop</li> <li>Jump forward slowly</li> <li>Jump forward quickly</li> <li>Jump with your feet straddled then together, slowly then increase speed (open, closed)</li> <li>Play music and have students jump to the beat (slow, medium, fast)</li> <li>Jumping and landing without losing balance</li> </ol>	<ol style="list-style-type: none"> <li>Jump near and far focusing on arm swing</li> <li>Jump forward and strike a ball down to encourage arms moving forward from winged arms</li> <li>Jump off a heightened box (start small)</li> <li>Jump off a box but into a hula hoop with controlled landing</li> <li>Jump off a box with extension in flight and controlled landing</li> <li>Place three small hula hoops in front of hoop, choose a hoop to jump (extensions, far &amp; near)</li> <li>Place two cones with a noodle across in front of hoop, jump from box over the noodle (extension, far &amp; near)</li> <li>Jump off a box and land sideways in balance (90- both sides)</li> <li>Jump off, turn and land backwards (180)</li> <li>Jump off, turn and land forwards (360)</li> <li>Jump on a heightened box</li> <li>Jump over a slow-moving rope, a fast-moving rope</li> <li>Jump and mark your landing with a beanbag. Try to jump farther next time (near and far).</li> <li>Jump over a heightened box</li> <li>Jump across the general space using different pathways (straight, zigzag, curved)</li> <li>Play hopscotch combining hopping and jumping</li> <li>Jumping on a trampoline</li> <li>Jumping Jacks</li> <li>Jumping together with a peer or in a small group</li> <li>Jumping in unison with a larger group</li> <li>Using a parachute and jump together to make the parachute go high and then low.</li> </ol>	<p>*** all performance indicators should be met prior to combining skills***</p> <ol style="list-style-type: none"> <li>Jump rope skills progressions from simple to moderately challenging</li> <li>Jump off a box and make different shapes (straight, wide, round, narrow, twisted, star, symmetrical, asymmetric) while landing softly and safely.</li> <li>Jump over separated ropes (river) on the floor, move ropes farther away to jump for distance (maximum length would be child’s own length)</li> <li>Jump through an obstacle course which includes using a variety of movement concepts in combination</li> <li>Create a routine with different jumps, shapes, and turns (off a box or on the floor)</li> <li>Create a routine with a variety of locomotor skills and movement concepts</li> <li>Jump to the rhythm of music changing speeds</li> <li>Combining different locomotor skills to music</li> <li>Combine jumping and catching a ball in a controlled environment</li> <li>Combine running, jumping and catching in a controlled environment</li> </ol>

Difficulties to watch for <sup>1</sup>	
If...	Then...
Child is showing insufficient extension of legs and body at takeoff	Ask the child to jump over a horizontal target, gradually increasing the distance between take off and object.
Child is using ineffective arm swing in the jump	Encourage the child to rock forward in a heel-to-toe motion while coordinating arm swing
Child is falling backward on landing	Encourage the child to reach forward on landing
Arms are beside or behind on landing	Use cue words as a reminder (reach forward)

**References:**

- PHE Canada (2011). *Fundamental movement skills: An educator’s guide to teaching fundamental movement skills.*
- Ulrich, D. (2000). *Test of Gross Motor Development*, 2<sup>nd</sup> ed. (TGMD-2) Assessment protocol
- Gallahue, D., Ozmun, J., & Goodway, J. (2007). *Understanding motor development: Infant, children, adolescents, adults* (7<sup>th</sup> ed.). McGraw Hill: New York, NY.

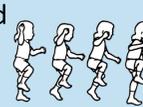
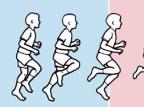
**References Continued:**

- Baumgarten, S. & Langton, T. (2006). *Elementary Physical Education: Building a Solid Movement Foundation.* Stipes Publishing L.L.C.: Champaign, IL.
- Poster created by Dr. Helena Baert, SUNY Cortland, 2016-Present



# Locomotor: Hopping

Critical Elements in Developmental Order <sup>1</sup>	Teaching Cues	Video <sup>5</sup>	Literacy		
<ul style="list-style-type: none"> <li>Takes off on one foot and lands on the same foot - <b>“one foot”</b></li> <li>Holds knee behind body at 90 degree angle – <b>“make an L shape”</b></li> <li>Uses arms for lift in opposition– <b>“arms”</b></li> <li>Displays rhythmical hopping – <b>“hop to a beat”</b></li> <li>Maintains balance – <b>“controlled”</b></li> </ul>	<ol style="list-style-type: none"> <li>One foot</li> <li>L Shape</li> <li>Pendulum</li> <li>Pump Arms</li> <li>Hop to beat</li> </ol>		hop	control	swing
			L shape	1 foot	up
			balance	rhythm	down

Stages of Motor Development <sup>3</sup>			
	Stage 1 <b>Initial Stage</b>		Stage 2 <b>Elementary Stages</b>
	Stage 3 <b>Elementary Stages</b>		Stage 4 <b>Mature Stage</b>
<p><i>Foot in Front</i></p> <p>Nonsupport foot in front with thigh parallel to floor Body erect Hands shoulder height</p> 	<p><i>Foot by Support Leg</i></p> <p>Nonsupport knee flexed with knee in front and foot behind support leg Slight body lean forward Bilateral arm action</p> 	<p><i>Foot Behind Support Leg</i></p> <p>Nonsupport thigh vertical with foot behind support leg, knee flexed More body lean forward Bilateral arm action</p> 	<p><i>Perpendicular Free Leg</i></p> <p>Nonsupport leg is bent, knee pumps forward and back in perpendicular action, forward body lean Arm opposition with swing leg</p> 

Assessment & Teaching Indicators	
<b>Directions for assessment<sup>2</sup>:</b> Have the child hop forward on one foot for 6 feet and then then back on the other foot.	<b>What to look for?</b> Can they hop of one foot? Can they hop on non-dominant foot? Where is the nonsupport leg? Are they able to hop while travelling? How are the arms moving?

When do you know when to move to the next stage?			
	Initial Stage	Elementary Stage	Mature Stage
<b>Generic criteria and tasks to aim for in this stage.</b>	Initial hoppers lose their balance quickly. They use their non-supportive leg to help them keep balance. The focus in this stage if on balance. If they are unable to balance, they will have difficulty with hopping. By the end of this stage, they should be able to hop stationary on preferred foot 3-5 times.	Elementary hoppers will be able to keep their balance more while hopping. This is a time to practice hopping with cues. By the end of this stage, they should be able to hop 5 times on both feet stationary, and travel while hopping on preferred foot.	They can hop while traveling and will be working on using their arms and legs in opposition for power and speed. Include a variety of movement concepts.
<b>Cues to focus on</b>	<b>1 foot, airplane arms</b>	<b>L shape, airplane arms</b>	<b>Opposition Arms/Legs, Rhythm</b>

Developmentally Appropriate Progressions		
*** use hopping in combination with other locomotor skills to prevent fatigue***		
Initial Stage / Emerging	Elementary Stage / Able	Mature Stage / Competent
<p><b>**Hopping in self-space</b></p> <ol style="list-style-type: none"> <li>Balance on preferred leg without support</li> <li>Balance on preferred leg focusing on tightening muscles and creating stillness</li> <li>Balance on preferred leg while placing bean bags on different body parts</li> <li>Same as #1 but with eyes closed</li> <li>Balance on 1 leg trying to pick up something of the floor</li> <li>Counterbalances – 1 leg and opposite arm (extensions to side of body)</li> <li>Symmetrical and asymmetrical shapes while balancing on 1 leg</li> <li>Hop off one foot and land on two feet inside a hula-hoop</li> <li>Hop off non-dominate leg and land on two feet inside of a hula-hoop</li> <li>Hop off one foot and land on one foot</li> <li>Same as #10 on non-dominate foot</li> <li>Hop continuously 3-5 times in self-space on dominant leg</li> <li>Hop continuously 3-5 times in self-space on non-dominant leg</li> </ol> <p>**Encourage keeping non-hopping leg close to the ground, avoid high knee</p>	<p><b>** Travelling while hopping in closed environment</b></p> <ol style="list-style-type: none"> <li>Hop in a straight line between 2 cones</li> <li>Hop in different pathways (straight, curved, zig zag) in self-space or between 2 cones</li> <li>Hop as fast as you can between 2 cones, 20 feet apart</li> <li>Hop as fast as you can between 2 cones, choose the distance</li> <li>Hop while pumping your arms back and forth (alternating arms)</li> <li>Hop between 2 cones and on a signal turn around and hop back</li> <li>Hop between 2 cones and on signal hold a static balance pose on 2 feet</li> <li>Hop between 2 cones and on signal hold a static balance pose on 1 foot for 3 seconds</li> <li>Hop to the left and to the right in open space (station work)</li> <li>Hop quietly and loudly (force) in open space (station work)</li> <li>Hop in an open space around obstacles (station: around cones, over lines, between cones, across lines)</li> <li>Hop in an open space around obstacles changing speeds (station)</li> </ol>	<p><b>**Travelling while hopping in open environment</b></p> <ol style="list-style-type: none"> <li>Hop with partner in different pathways (leading and following)</li> <li>Hop in an open space around obstacles with a partner (station) staying in self-space (eyes up)</li> <li>Hop in an open space around obstacles changing speeds with a partner (station) staying in self-space (eyes up)</li> <li>Continue with #27 and 28 adding more people and space (space, relationship with others, speed)</li> <li>Travelling in open space to the music (slow and fast – walking vs running and hopping vs. jumping)</li> <li>Teacher designed obstacle course focusing on different locomotor skills (including hopping), speeds and pathways (e.g. walk zig zag, hop straight)</li> <li>Students will create their own pathways with ropes/cones and explore the area using hop and jumping (teacher assist)</li> <li>On the signal students will run the pathway as directed by the teacher (station – open space)</li> <li>Repeat #32-33 with hopping (space, effort, and relationship)</li> </ol>

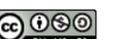
Difficulties to watch for <sup>1</sup>	
If...	Then...
Child is not actually getting off the ground	Provide flat obstacles for the child to try to hop over (rope or line)
Hopping appears very uncoordinated and awkward	Have the child verbalize the parts of the hop out loud (bent knees, push-off, arm swing, landing)
Child is unable to alternate hopping foot	Encourage the child to practice hopping on each foot separately
Child is using insufficient arm swing	Encourage the child to stand in a stationary position and swing arms to imitate a hopping motion

**References:**

- PHE Canada (2011). *Fundamental movement skills: An educator’s guide to teaching fundamental movement skills.*
- Ulrich, D. (2000). *Test of Gross Motor Development*, 2<sup>nd</sup> ed. (TGMD-2) Assessment protocol
- Gallahue, D., Ozmun, J., & Goodway, J. (2007). *Understanding motor development: Infant, children, adolescents, adults* (7<sup>th</sup> ed.). McGraw Hill: New York, NY.

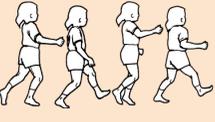
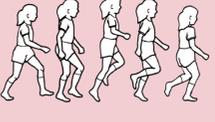
**References Continued:**

- Baumgarten, S. & Langton, T. (2006). *Elementary Physical Education: Building a Solid Movement Foundation.* Stipes Publishing L.L.C.: Champaign, IL.
- Poster created by Dr. Helena Baert, SUNY Cortland, 2016-Present



# Locomotor: Skipping

Critical Elements in Developmental Order <sup>1</sup>	Teaching Cues	Video <sup>5</sup>	Literacy		
<ul style="list-style-type: none"> <li>Displays a step-hop pattern – “step-hop”</li> <li>Uses both sides of body alternately – “left then right”</li> <li>Displays a rhythmical pattern - “keep a beat”</li> <li>Swings arms in opposition to feet – “arm swing”</li> <li>Focuses eye forward - “look ahead”</li> </ul>	<ol style="list-style-type: none"> <li>Look</li> <li>Step</li> <li>Hop</li> <li>Opposition</li> <li>Keep a beat</li> </ol>		skip	balance	rhythm
			step	hop	forward
			slow	medium	fast

Stages of Motor Development <sup>3</sup>		
 <p style="text-align: center;"><b>Stage 1</b> <b>Initial Stage</b></p> <p style="text-align: center;"><i>Broken Skip</i></p> <p>Broken skip pattern or irregular rhythm Slow, deliberate movement Ineffective arm action</p> 	 <p style="text-align: center;"><b>Stage 2</b> <b>Elementary Stage</b></p> <p style="text-align: center;"><i>High Arms &amp; Legs</i></p> <p>Rhythmical skip pattern Arms provide body lift Excessive vertical component</p> 	 <p style="text-align: center;"><b>Stage 3</b> <b>Mature Stage</b></p> <p style="text-align: center;"><i>Rhythmical Skip</i></p> <p>Arm action reduced/hands below shoulders Easy, rhythmical movement Support foot near surface on hop</p> 

Assessment & Teaching Indicators	
<p><b>Directions for assessment<sup>2</sup>:</b> Have the child skip from one cone to another for about 25 feet</p>	<p><b>What to look for?</b> Do they have rhythm? can they skip on both side? Do they implement a step hop? Are they using arms and legs in opposition?</p>

When do you know when to move to the next stage?			
	Initial Stage	Elementary Stage	Mature Stage
<b>Generic criteria and tasks to aim for in this stage.</b>	Skipping is difficult and combines two skills: step & hop. Often initial skippers are unable to skip but rather use a gallop in stead. Practice marching and hopping in personal space and really focus on that step-hop on preferred side. To complete this stage students should be able to skip in self-space or stationary.	In the elementary stage you are working on enhancing the form, including arm swing, opposition of arms and legs while providing many opportunities to skip while travelling. At the end of this stage, students should be able to skip in general space.	In the mature space students can combine movement components and skip in a variety of environments. Use skipping in routines and games.
<b>Cues to focus on</b>	<b>Step-Hop</b>	<b>Opposition</b>	<b>On the beat</b>

Developmentally Appropriate Progressions		
Initial Stage / Emerging	Elementary Stage / Able	Mature Stage / Competent
<p><b>Note: Make sure students are able to balance and hop continuously prior to teaching step-hop</b></p> <ol style="list-style-type: none"> <li>Practice step-hop in self space “step forward and hop on the same foot”</li> <li>Step and lift the knee sharply (fast, strong) upward working on creating a rhythm</li> <li>March with high knees in self space</li> <li>Practice lifting your leg and arm then walking and repeating this pattern</li> <li>Swing your arm and leg upward on the same side, and then swing your arm and leg upward on the other side</li> <li>Step-hop pattern slowly with preferred side</li> <li>Step-hop pattern with non-preferred side</li> <li>Step-hop pattern slowly alternating</li> <li>Step-hop pattern on a mat indicating feet position throughout the process</li> <li>Skip in self-space</li> </ol>	<ol style="list-style-type: none"> <li>Skip in different pathways and directions – straight, zigzag, or curved</li> <li>Skip at different levels – low, middle, or high</li> <li>Skipping forward while changing pathways, and levels</li> <li>Skip landing strong or light</li> <li>Skip for distance (force)</li> <li>Skip swinging arms at low, middle and high levels</li> <li>Skip while alternating strong and light landing</li> <li>Skip while changing speeds (slow, medium, fast)</li> <li>Skip while the teacher claps / drums to a rhythm</li> <li>Skip to music</li> <li>Ski backwards</li> <li>Skipping in general space</li> <li>Skipping to the music while changing directions, pathways, and levels</li> </ol>	<p><b>Space consideration: Students must practice being aware of their environment by keeping eyes up for safety</b></p> <ol style="list-style-type: none"> <li>Practice self-space while skipping in open space with multiple students</li> <li>Skip following a partner</li> <li>Skip along side of a partner</li> <li>Skip mirroring a partner in place</li> <li>Skip while shadowing each others movement (one partner in front and other behind)</li> <li>Skip while shadowing your partner and changing directions, pathways, levels, and speeds</li> <li>Skip while matching a partner (student standing next to each other)</li> <li>Skip while chasing, fleeing, dodging with a partner</li> <li>Skip while playing “tag games” (chasing, fleeing, dodging)</li> <li>The combination of multiple locomotor skills (including skipping) to create routines</li> </ol>

Difficulties to watch for <sup>1</sup>	
If...	Then...
There is an inconsistent step-hop pattern	Use colored tape to mark footsteps on the floor and help establish pattern
There is a lack of rhythm in the skip	Clap the rhythm for children
Movements are exaggerated	Encourage the children to lift their feet just off the ground
Slight loss of balance from time to time	Have the child slow the skip down and exaggerate the hop portion of the skip
Children are landing flat footed	Ask children to see if they can make their skip as “quiet” as possible

**References:**

- PHE Canada (2011). *Fundamental movement skills: An educator’s guide to teaching fundamental movement skills.*
- Ulrich, D. (2000). *Test of Gross Motor Development*, 2<sup>nd</sup> ed. (TGMD-2) Assessment protocol
- Gallahue, D., Ozmun, J., & Goodway, J. (2007). *Understanding motor development: Infant, children, adolescents, adults* (7<sup>th</sup> ed.). McGraw Hill: New York, NY.

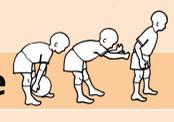
**References Continued:**

- Baumgarten, S. & Langton, T. (2006). *Elementary Physical Education: Building a Solid Movement Foundation.* Stipes Publishing L.L.C.: Champaign, IL.
- Poster created by Dr. Helena Baert, SUNY Cortland, 2016-Present



# Manipulative: Underhand Rolling

Critical Elements in Developmental Order <sup>1</sup>	Teaching Cues	Video <sup>5</sup>	Literacy		
<ul style="list-style-type: none"> <li>Bends knees and releases the ball along floor – “<b>bend &amp; release low</b>”</li> <li>Roll ball with backward and forward arm swing – “<b>tick tock</b>”</li> <li>Focus eyes on target- “<b>eyes on target</b>”</li> <li>Step forward with leg opposite to the hand holding the ball – “<b>opposite</b>”</li> <li>Follows through with hand pointing at target – “<b>follow through</b>”</li> </ul>	<ol style="list-style-type: none"> <li>Look at Target</li> <li>Swing back</li> <li>Step in opposition</li> <li>Release low</li> <li>Follow through</li> </ol>		roll	low	bend
			swing	between	under
			opposite	aim	target

Stages of Motor Development <sup>3</sup>					
 <p style="text-align: center;"><b>Stage 1</b> <b>Initial Stage</b></p> 	 <p style="text-align: center;"><b>Stage 2</b> <b>Elementary Stage</b></p> 	 <p style="text-align: center;"><b>Stage 3</b> <b>Mature Stage</b></p> 			
<p style="text-align: center;"><i>Straddle Stance</i></p> <p>Ball is held with hands on side, palms facing each other, acute bend at sides, backwards pendulum motion, eyes monitor the ball, forward swing and trunk lift to release ball.</p>	<p style="text-align: center;"><i>Stride stance</i></p> <p>Ball held with one hand on bottom and the other on top, backward arm swing without weight transfer, limited knee bend, forward swing with limited follow-through, ball released between knee and waist level, eyes alternate monitoring target and ball</p>	<p style="text-align: center;"><i>Contralateral Step</i></p> <p>Ball held in hand corresponding to trailing leg Slight hip rotation and trunk lean forward Pronounced knee bend, forward swing with weight transfer from back to front foot, release at knee level or below, eyes on target throughout</p>			

Assessment & Teaching Indicators	
<p><b>Directions for assessment<sup>2</sup>:</b> Tennis ball: age 3-6, softball: age 7-10. Roll from 20 ft away between 2 cones 4 ft apart </p>	<p><b>What to look for?</b> Can they roll with 1 hand or are they using 2? Are they stepping in opposition? Are they bending and rolling the ball on the ground versus throwing?</p>

When do you know when to move to the next stage?			
	Initial Stage	Elementary Stage	Mature Stage
<b>Generic criteria and tasks to aim for in this stage.</b>	With a medium size ball students will likely hold the ball with two hands, use a straddle stand or/and throw the ball. First, they need to learn what rolling is and use a small ball to encourage the use of 1 hand. Teach kids to bend and swing first using a bean bag to encourage sliding. By the end of the initial stage they can underhand slide a beanbag with preferred hand to a wall.	Once students know how to make an object roll you can teach opposition of arm and leg to help with force. First start with stride stance, then step in opposition. At the end of this stage, students can underhand roll a small ball with with preferred hand with strong force at a medium size target in line with a straight pathway on the wall.	The focus in mature stage is on aiming. UHR will lead to bowling so helping students how to use their body to position it in order to aim will be good practice. Next you will use different size balls and weights to introduce holding a larger object and learning how different sizes relate to using various forces. At the end of this stage students can participate in bowling without using bumpers.
<b>Cues to focus on</b>	<b>Bend, Tick Tock</b>	<b>Opposite</b>	<b>Eyes, Follow Through</b>

Developmentally Appropriate Progressions		
Initial Stage / Emerging	Elementary Stage / Able	Mature Stage / Competent
<ol style="list-style-type: none"> <li>Sitting roll with two hands to teacher/target (low, near)</li> <li>Sitting roll with two hands at a greater distance to teacher/target (low, far)</li> <li>Sitting roll using two hands with a small group, including teacher (low, directions, relationship)</li> <li>Kneeling roll without ball to teacher/target (low, swing)</li> <li>Kneeling roll to teacher/target with preferred hand with bean bag</li> <li>Kneeling roll to target with preferred hand using strong and light force with bean bag</li> <li>Kneeling roll to target with preferred hand at different distances (far, near) varying force</li> <li>Kneeling roll with preferred hand between two cones varying the width of the cones</li> <li>Kneeling roll with preferred hand under a rope suspended by two cones (vary heights of rope: high, medium, low) with bean bag</li> <li>Kneeling roll with preferred hand under a low rope suspended by two cones using different forces: light, strong with bean bag</li> <li>Use Task 5-10 but standing with beanbag (don't worry about opposition but rather to ensure the beanbag slides)</li> <li>Same as task #11 but using a small ball.</li> </ol>	<ol style="list-style-type: none"> <li>Put student in stride stance (Busy hand, busy foot: busy hand holds the ball, busy foot is opposite to busy hand) (opposition)</li> <li>Have students demonstrate busy hand, busy foot from different positions (in front, behind, on line) (opposition)</li> <li>Stride stand, bean bag, preferred hand: roll ball to targets by varying:                             <ul style="list-style-type: none"> <li>Distances (near, far)</li> <li>Forces (hard, soft)</li> <li>Target sizes (straight pathway)</li> </ul> </li> <li>Same as 15 but with small ball <b>***Use a rope suspended by two cones as needed to reinforce getting low***</b> <b>If they are starting the throw, use bean bag</b></li> <li>Introduce the contralateral step: stand behind the line, step over the line with busy foot while holding ball in busy hand</li> <li>Have students demonstrate stepping with busy hand, busy foot from different positions (in front, behind, on line) (opposition)</li> <li>Step in opposition with ball, bend knees (lunge) to create a low level and swing arm back and forth (transfer weight)</li> <li>Step in opposition and roll with 1 hand using different forces (light, strong, swing)</li> <li>Step in opposition and roll with 1 hand at a target varying the width of the target (large, medium, small)</li> </ol>	<ol style="list-style-type: none"> <li>Step and roll a small ball to target between two cones in small space focusing on follow through</li> <li>Step and roll towards different targets focusing on shifting the body towards the target, stepping towards target and follow through.</li> <li>UHR from different distances and different size targets</li> <li>Set up a UHR golf obstacle course where they need to roll a ball to different “holes” - targets</li> <li>Repeat tasks 24-27 and increase size and weight of ball <b>** at this time, students would roll with the appropriate size/weight ball for their level **</b></li> <li>Have student roll with 1 hand at multiple targets (cones, bowling pins), varying distances (near, far), and varying force (light, strong)</li> <li>Rolling at different size pins, teaching students how to aim and knock all pins down in minimal rolls. Bowling in the gym!</li> <li>UHR at the bowling alley!</li> <li>Indoor Curling Game</li> </ol>

Difficulties to watch for <sup>1</sup>	
If...	Then...
They fail to control the ball in the hand	Use smaller balls
They fail to look at the target	Put a marker down for students to aim at. Go through swinging motion without a ball while partner shows number cards.
They release the ball and it always veers to one side	Mark down a line for students to aim at and follow as they are following through. Have students point at the target and pause there
They do not step in opposition	Put feet markers down and draw a line for students to step over.

**References:**

- PHE Canada (2011). *Fundamental movement skills: An educator's guide to teaching fundamental movement skills.*
- Ulrich, D. (2000). *Test of Gross Motor Development*, 2<sup>nd</sup> ed. (TGMD-2) Assessment protocol
- Gallahue, D., Ozmun, J., & Goodway, J. (2007). *Understanding motor development: Infant, children, adolescents, adults* (7<sup>th</sup> ed.). McGraw Hill: New York, NY.

**References Continued:**

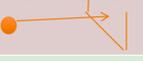
- Baumgarten, S. & Langton, T. (2006). *Elementary Physical Education: Building a Solid Movement Foundation.* Stipes Publishing L.L.C.: Champaign, IL.
- Poster created by Dr. Helena Baert, SUNY Cortland, 2016-Present



# Manipulative: Underhand Throw

Critical Elements in Developmental Order <sup>1</sup>	Teaching Cues	Video <sup>5</sup>	Literacy		
<ul style="list-style-type: none"> <li>Focuses eyes on target – “eyes on target”</li> <li>Throwing arm swing down and then forward – “swing – tick/tock”</li> <li>Shifts weight from back to front foot – “back to front”</li> <li>Steps forward with foot opposite to throwing arm – “step forward”</li> <li>Hand follows through after ball release at waist level – “point at target”</li> <li>Open hand to release ball at waist – “Open up”</li> </ul>	<ol style="list-style-type: none"> <li>Look at Target</li> <li>Swing Back</li> <li>Step in opposition</li> <li>Release</li> <li>Follow Through</li> </ol>		throw	far	target
			toss	over	point
			near	under	in
			out	tick	tock

Stages of Motor Development <sup>3</sup>		
	<b>Stage 1</b> <b>Initial Stage</b> <i>Stationary</i> Ball is held with hands on side, palms facing each other, limited swing backward, eyes monitor the ball, forward swing and trunk lift to release ball	 <b>Stage 2</b> <b>Elementary Stage</b> <i>Ipsilateral Step or Stride stance</i> Ball held with one hand, backward arm swing without weight transfer to the rear, forward swing with limited follow-through, ball released between knee and waist level or above chest level, eyes alternate monitoring target and ball
		 <b>Stage 3</b> <b>Mature Stage</b> <i>Contralateral Step</i> Ball held in hand corresponding to trailing leg, step forward with opposite foot, forward swing with weight transfer from back to front foot, release at waist level, follow through, eyes on target

Assessment & Teaching Indicators	
<b>Directions for assessment<sup>2</sup>:</b> 15 feet from wall, child throws soft ball underhand at the wall 	<b>What to look for?</b> Are they throwing under or overhand? Are they stepping in opposition to swing? Are they looking at target? Are they transferring weight?

When do you know when to move to the next stage?			
	Initial Stage	Elementary Stage	Mature Stage
<b>Generic criteria and tasks to aim for in this stage.</b>	Many students need to first learn the difference between underhand and overhand. Using appropriate size objects to throw with is key. Small objects means they will use one hand. Working on the swing will be an important first step. At the end of the initial stage they should be able to swing an object underhand from a stride position.	In the elementary stage you are refining the form by going from a stride stance to a step in opposition. Using beans can help as these are small, soft and give immediate feedback of the throw. Ensure they can do all tasks in elementary stage with a bean bag before using round objects. At the end of elementary stage they should be able to toss a bean bag into a bucket at 4 feet while stepping with opposition.	In the mature stage you can start using different types of objects with different types of targets and learn to use weight transfer effectively, positioning body towards target and following through. You can also integrate UHT with catching if their partners are able to throw and they are able to catch. Combining different movement concepts into a variety of fun games.
<b>Cues to focus on</b>	<b>Eyes, tick tock</b>	<b>Busy hand, busy foot, step &amp; throw</b>	<b>Follow Through</b>

Developmentally Appropriate Progressions		
Initial Stage / Emerging	Elementary Stage / Able	Mature Stage / Competent
<ol style="list-style-type: none"> <li>Practice rolling to a partner or wall</li> <li>Practice sliding a bean bag on the ground with one hand</li> <li>UHT beanbags in different colored hoops nearby (let them chose the distance they start from).</li> <li>UHT beanbags on spots ( let them pick the starting point) (different shapes, letters to spell, numbers, etc.)</li> <li>Kneeling and underhand throw a bean bag into bucket varying distances from 1 -3 feet</li> <li>Kneeling and underhand throw with small or light weight ball into bucket varying distances</li> <li>Kneeling, underhand throw to wall with 1 hand using strong force (swing)</li> <li>Stride stance (Busy hand, busy foot), UHT beanbags into bucket</li> <li>UHT into hoops with 1 hand at different distances (far, near) varying force</li> <li>Stride stance, UHT into different size buckets or hoops on ground</li> <li>Same as #10 but varying distances</li> <li>Self-toss practice with scarves</li> <li>Self-toss practice with bean bags at eye level</li> </ol>	<p><b>Use beanbags for all tasks to build confidence and get immediate feedback before using round objects</b></p> <ol style="list-style-type: none"> <li>Have students demonstrate busy hand, busy foot from different positions (in front, behind, on line) (opposition)</li> <li>Stride stance underhand throw over a rope suspended by two cones at a low level (transfer weight, low, swing)</li> <li>Stride stance, underhand throw to target with 1 hand at different distances (far, near) varying force</li> <li>Toss golf: Stride stance, underhand throw, using beanbags in targets varying distances and target size / type</li> <li>Introduce the contralateral step: stand behind the line, step over/on the line with busy foot while holding beanbag in busy hand</li> <li>Step and UHT to large targets on ground varying distances / forces</li> <li>Step and UHT to different sized and types targets.</li> <li>Step and UHT to different size and types of targets by turning body towards the targets</li> </ol>	<ol style="list-style-type: none"> <li>Step and UHT to small targets near and far in different places (focus on turning body towards the targets and follow through)</li> <li>Toss golf with stepping in opposition (like # 22)</li> <li>UHT different size and weight (safe) objects to different size targets from different distances</li> <li>Ring toss</li> <li>Bocce ball</li> <li>Bean bag self-toss challenges (catching &amp; UHT):               <ul style="list-style-type: none"> <li>At different levels</li> <li>Toss, clap and catch</li> <li>Stationary</li> <li>With moving to different directions</li> <li>Toss and turn</li> <li>Toss &amp; catch while walking</li> <li>Toss and balance</li> </ul> </li> <li>UHT and catch to partner</li> </ol> <p><b>*** Tossing &amp; catching would occur only when students are comfortable with catching the ball (see catching poster) ***</b></p>

Difficulties to watch for <sup>1</sup>	
If...	Then...
They fail to control the ball in the hand	Use bean bag or smaller balls
They take object upwards in preparation to throw	They should make a downward circle and take object behind the trunk
Children are not keeping eyes on target	Partner hold flashcards with numbers or letters as thrower goes through action without throwing
Small step in opposition	Place skipping rope a bit further and coach them to step bigger
They release the ball and it always veers to one side	Mark down a target for students to aim at and have students point at the target and pause there

**References:**

- PHE Canada (2011). *Fundamental movement skills: An educator's guide to teaching fundamental movement skills.*
- Ulrich, D. (2000). *Test of Gross Motor Development*, 2<sup>nd</sup> ed. (TGMD-2) Assessment protocol
- Gallahue, D., Ozmun, J., & Goodway, J. (2007). *Understanding motor development: Infant, children, adolescents, adults* (7<sup>th</sup> ed.). McGraw Hill: New York, NY.

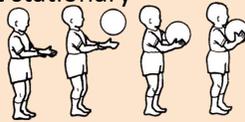
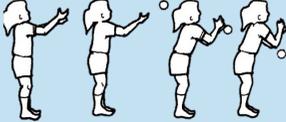
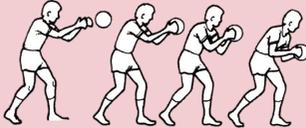
**References Continued:**

- Baumgarten, S. & Langton, T. (2006). *Elementary Physical Education: Building a Solid Movement Foundation.* Stipes Publishing L.L.C.: Champaign, IL.
- Poster created by Dr. Helena Baert, SUNY Cortland, 2016-Present



# Manipulative: Catching

Critical Elements in Developmental Order <sup>1</sup>	Teaching Cues	Video <sup>5</sup>	Literacy		
<ul style="list-style-type: none"> <li>Focus eyes on object throughout catch – “Look”</li> <li>Positions body in the path of the object (midline catch) – “get behind”</li> <li>Positions one foot slightly ahead of the other in balanced position – “ready”</li> <li>Catching object with hands – “pinkies together – thumbs together”</li> <li>Relaxes and absorbs the force of the object – “soft hands”</li> </ul>	<ol style="list-style-type: none"> <li>Ready</li> <li>Look</li> <li>Get Behind</li> <li>Pinkies / thumbs together</li> <li>Absorb</li> </ol>		catch	midline	soft
			low	medium	high
			pinkies	thumbs	look

Stages of Motor Development <sup>3</sup>				
Stage 1	Stage 2	Stage 3	Stage 4	Stage 5
Initial Stage	Elementary Stages			Mature Stage
<p><i>Delayed Reaction</i></p> <p>Delayed arm action Arms straight in front until ball contact, then scooping action to chest Feet stationary</p> 	<p><i>Hugging</i></p> <p>Arms encircle ball as it approaches Ball is “hugged” to chest Feet are stationary or may take one step</p> <p><i>Scooping</i></p> <p>“to chest” catch Arms “scoop” under ball to trap it to chest. Single step may be used to approach the ball</p> 			<p><i>Hand catch</i></p> <p>Catch with hands only Feet stationary or limited to one step</p> <p><i>Move to ball</i></p> <p>Catch with hands only Whole body moves through the space</p> 

Assessment & Teaching Indicators	
Directions for assessment <sup>2</sup> : 4' ball, 2 lines 15ft apart. Toss ball lightly/ underhand to child aiming at chest.	What to look for? Are they ready to catch? In line with ball? Eyes on ball? Hands out? Check timing of catch. How do they catch the ball? Stationary or moving to catch?

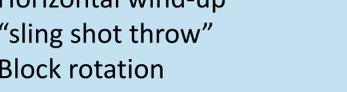
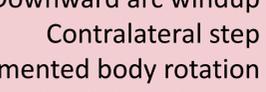
When do you know when to move to the next stage?			
	Initial Stage	Elementary Stage	Mature Stage
Generic criteria and tasks to aim for in this stage.	When learning how to catch a child may be afraid of the ball. Ensure the safety and confidence by using soft, light and larger objects. Work on being ready and tracking the ball. At the end of this stage, you can catch a large ball by hugging it with arms and chest from 3 feet.	In the elementary stage we use soft, medium size balls using a soft toss to increase confidence in catching. As they become more confident, they will use their hands more. Continue to use soft tosses. Use mature throwers to catch only! All catches within static environments. By the end of this stage, you can catch a small to medium size ball with hands from 4 feet.	In the mature stage they practice moving to catch the ball so positioning of body, anticipating the trajectory of the ball and considering absorbing faster balls are focus areas. Use a variety of movement concepts, use a variety of types of throws and include more dynamic environments. At the end of this stage you can catch a small ball on the move.
Cues to focus on	Ready? Show your hands!	Eyes, pinkies or thumbs to catch	Move & Catch, Absorb

Developmentally Appropriate Progressions		
Initial Stage / Emerging	Elementary Stage / Able	Mature Stage
<ol style="list-style-type: none"> <li>Catch a rolled ball with the body (trapping)</li> <li>Catch a rolled ball with their hands</li> <li>Seated roll with a partner 4 feet away</li> <li>Seated roll with a partner 8 feet away</li> <li>Catch a two-handed light bounce from a teacher (or partner when ready) seated 4 feet away (encourage scooping)</li> <li>Pushing and catching a tethered ball (body)</li> <li>Pushing and catching a tethered ball (hands)</li> <li>Toss, track and catch scarf with hands</li> <li>Toss, track and catch a balloon with body</li> <li>Toss &amp; catch balloon at different levels with body</li> <li>Catch a large lightweight ball (beach ball) with body</li> <li>Toss &amp; catch a large lightweight ball at the different levels (medium, high, low) with body</li> </ol>	<ol style="list-style-type: none"> <li>Toss, track and catch a balloon (with hands only)</li> <li>Toss &amp; catch balloon at different levels (medium, high, low) hands</li> <li>Toss &amp; catch a large lightweight ball at the different levels (hands)</li> <li>Toss &amp; catch a lightweight ball (balloon, beach ball) using turning and twisting, stationary feet</li> <li>Use a medium size ball and toss it to self at different levels (seated, medium, standing)</li> <li>Use bean bags and toss it to self at different levels (seated, medium, standing)</li> <li>Use small ball and toss it to self at different levels (seated, medium, standing)</li> <li>Toss &amp; catch a small ball while crossing the midline (twisting)</li> <li>Catch a ball after a bounce</li> <li>Throw &amp; catch with a mature throwing</li> <li>Underhand toss with a mature thrower from 2 feet away, choice in ball (larger/lighter ball is easier)</li> <li>Underhand toss with a mature thrower, student receiving ball takes 1 step towards ball to catch</li> <li>Underhand toss with a mature thrower (increase distance)</li> <li>Underhand toss with mature thrower, changing distance, levels, directions (stationary)</li> </ol>	<p><b>Before throwing and catching with partners of all abilities you must ensure that the abilities match so the students can be challenged together.</b></p> <ol style="list-style-type: none"> <li>With partner, moving to a large ball and catching it.</li> <li>With partner, move &amp; catch a tennis size ball.</li> <li>With partner, move &amp; catch a tennis size ball at different levels</li> <li>With partner, move &amp; catch a tennis size ball off a bounce</li> <li>With partner, move &amp; catch a tennis size ball from different distances</li> <li>Catching a rebounded ball off the ball</li> <li>With partner, move &amp; catch a ball from different speeds</li> <li>With a partner, toss &amp; catch while changing levels, distances, speeds, objects</li> <li>With a partner, catch with different objects (e.g. scoops, gloves, nets, buckets)</li> </ol>

Difficulties to watch for <sup>1</sup>	
If...	Then...
Eyes not on object	Mark the ball with an X and ask to look at X. Use two colored balls catch the correct color
Can't catch ball thrown by partner	Catch ball that is rolled first. Have child drop ball and catch it
Trouble catching ball thrown by partner	Let the ball bounce before catching it
Cradling ball against chest	Select larger, lighter balls. Have child reach for ball to catch it without touching his/her chest
Catcher must move to catch and is unsuccessful	Thrower should toss underhand in catcher's zone so that partner doesn't need to move. Encourage midline catching
Trouble catching small objects	Increase size of object – difficult to throw but easier to catch

# Manipulative: Overhand Throw

Critical Elements in Developmental Order <sup>1</sup>	Teaching Cues	Video <sup>5</sup>	Literacy		
<ul style="list-style-type: none"> <li>• Focuses eyes on target – “eyes on target”</li> <li>• Rotates hips so that opposite shoulder is in line with the target – “side to target”</li> <li>• Bends and hold elbow back at shoulder height behind ear – “L”</li> <li>• Steps forward with foot opposite to throwing arm – “step forward”</li> <li>• Shifts weight from back to front foot – “back to front”</li> <li>• Leads throw with elbow, follows through down and across - “follow through”</li> </ul>	<ol style="list-style-type: none"> <li>1. Eyes on Target</li> <li>2. Side to Target (point)</li> <li>3. Make an L</li> <li>4. Step</li> <li>5. Twist</li> <li>6. Throw</li> <li>7. Follow Through</li> </ol>		eyes	L	opposite
			side	step	target
			twist	back	point

Stages of Motor Development <sup>3</sup>					
Stage 1	Stage 2	Stage 3	Stage 4	Stage 5	
Initial Stage	Elementary Stages			Mature Stage	
<p style="text-align: center;"><i>Chop</i></p> <p>Vertical windup “Chop” throw Feet stationary No spinal rotation</p> 	<p style="text-align: center;"><i>Sling shot</i></p> <p>Horizontal wind-up “sling shot throw” Block rotation Follow-through across body</p> 	<p style="text-align: center;"><i>Ipsilateral step</i></p> <p>High windup Feet cross over Little spinal rotation Follow-through across body</p> 	<p style="text-align: center;"><i>Contralateral step</i></p> <p>High windup Contralateral step Little spinal rotation Follow-through across body</p> 	<p style="text-align: center;"><i>Windup</i></p> <p>Downward arc windup Contralateral step Segmented body rotation Arm-leg follow-through</p> 	

Assessment & Teaching Indicators	
<p><b>Directions for assessment<sup>2</sup>:</b> 20 feet from wall, child soft ball hard at the wall or large target</p>	<p><b>What to look for?</b> Throwing overhand? Throwing with 1 hand? Stance? Stationary, standing or stepping? Ipsilateral or contralateral step? Arm movement?</p>

When do you know when to move to the next stage?			
	Initial Stage	Elementary Stage	Mature Stage
<p><b>Generic criteria and tasks to aim for in this stage.</b></p>	<p>Initial overhand throwers are stationary and use a chop throw. Ensure they first know the difference between throwing UH vs OH. Once they know that, teach the difference between straddle and stride. Have thrower in a sideways – stride stance – perpendicular (side) to target. At the end this stage they should be able to throw OH to a large target from a stride stance prompted by a teacher</p>	<p>In the elementary stage the thrower will learn how to step in opposition. Start with the stride stance (side to target), making an L and and point, then add the step in opposition from the stance. By the end of this stage, the thrower can step in opposition and throw a small ball in smaller targets with different forces</p>	<p>In the mature stage, OH throwers will focus on their rotational power and follow through across the body. Ensuring segmented body rotation – Leading with elbow- hand is last. In this stage, implement games focusing on moving positions to throw at different targets, stationary and moving catchers and combining catching and throwing overhand.</p>
<p><b>Cues to focus on</b></p>	<p style="text-align: center;"><b>Side to Target, Eyes on Target</b></p>	<p style="text-align: center;"><b>Make an L, Step</b></p>	<p style="text-align: center;"><b>Rotate, Follow Through</b></p>

Developmentally Appropriate Progressions		
Initial Stage / Emerging	Elementary Stage / Able	Mature Stage / Competent
<ol style="list-style-type: none"> <li>1. Overhand throw without a ball to wall</li> <li>2. Overhand throw with small and light weight ball to wall</li> <li>3. Kneeling, overhand throw to target with 1 hand using strong force</li> <li>4. Kneeling, overhand throw to target with 1 hand using light force</li> <li>5. Kneeling, overhand throw to target with 1 hand at different distances (far, near) varying force</li> <li>6. Overhand throw, using light objects to throw to large targets on wall or suspended</li> <li>7. Same as #6 but varying distances</li> <li>8. Practice the difference between straddle stance and stride stance over rope or line.</li> <li>9. Busy Hand, Busy Foot – stride stance over a rope perpendicular to the wall. (sideways stance), OHT at the wall – Busy hand has ball behind the rope/line and busy foot is in front of line pointing at target.</li> <li>10. Practice busy hand busy foot OHT at large target</li> </ol>	<p><b>*Place foot markers on floor to indicate opposition, the following progressions are all from a standing position</b></p> <p><b>FIRST – STRIDE STANCE</b></p> <ol style="list-style-type: none"> <li>11. OHT to target with using strong force</li> <li>12. OHT to target with using light force</li> <li>13. OHT to target with at different distances (far, near) varying force</li> <li>14. OHT to various size targets on wall or suspended</li> <li>15. OHT to various size targets varying distances</li> </ol> <p><b>SECOND - STEP ** Remove foot markers and introduce step in opposition</b></p> <ol style="list-style-type: none"> <li>16. OHT with step in opposition to large targets</li> <li>17. OHT with step to large targets with strong and light force</li> <li>18. OHT with step to large targets varying distance to the target</li> <li>19. OHT with step to various size targets varying distance and forces</li> <li>20. OHT through suspended hoops, use different sized hoops and different heights for challenge.</li> <li>21. OHT far at different levels</li> </ol>	<p><b>**When throwing to partners, mature catching patterns are pre-requisite skills</b></p> <ol style="list-style-type: none"> <li>22. Create paper airplanes and throw them through hoops or for distance.</li> <li>23. Throw to a stationary partner varying distances</li> <li>24. Throw to a stationary partner for accuracy (limit steps taken by catcher)</li> <li>25. Throw to a partner who is moving laterally</li> <li>26. Throw to a partner who is moving towards you</li> <li>27. Throw to a partner who is moving away from you</li> <li>28. Throw to a partner standing stationary while you (person throwing) moves laterally</li> <li>29. Throw to a partner standing stationary while you (person throwing) move towards target</li> <li>30. Throw to a partner standing stationary while you (person throwing) move away from target (throw while walking backward)</li> <li>31. Throw while you and a partner are moving the same way (laterally, towards and away from each other)</li> <li>32. Throw while moving in opposite directions</li> <li>33. Combine different manipulative skills (throwing &amp; catching) in small sided games</li> </ol>

Difficulties to watch for <sup>1</sup>	
If...	Then...
Children are not standing sideways to target	They should straddle a line so that the shoulder opposite the throwing hand faces the target
They take object upwards in preparation to throw	They should make a downward circle and take object behind the head
Children are not keeping eyes on target	Partner hold flashcards with numbers or letters as thrower goes through action without throwing
There is no opposition	Partner can hold the object to be thrown behind the thrower so that the thrower has to reach behind
Small step in opposition	Place skipping rope a bit further and coach them to step bigger
Rotate trunk and hips in block formation	Lead them into how to isolate the hip first, next rotate shoulders
Ending throw with throwing hand pointing	Throw the object and touch outside of knee opposite the throwing arm

**References:**

1. PHE Canada (2011). *Fundamental movement skills: An educator's guide to teaching fundamental movement skills.*
2. Ulrich, D. (2000). *Test of Gross Motor Development*, 2<sup>nd</sup> ed. (TGMD-2) Assessment protocol
3. Gallahue, D., Ozmun, J., & Goodway, J. (2007). *Understanding motor development: Infant, children, adolescents, adults* (7<sup>th</sup> ed.). McGraw Hill: New York, NY.

**References Continued:**

4. Baumgarten, S. & Langton, T. (2006). *Elementary Physical Education: Building a Solid Movement Foundation.* Stipes Publishing L.L.C.: Champaign, IL.
5. Poster created by Dr. Helena Baert, SUNY Cortland, 2016-Present



# Manipulative: Kicking

Critical Elements in Developmental Order <sup>1</sup>	Teaching Cues	Video <sup>5</sup>	Literacy		
<ul style="list-style-type: none"> <li>• Focuses eyes on target – “Eyes on target”</li> <li>• Steps beside the ball with non-kicking foot – “Plant foot”</li> <li>• Bends body at waist, initiates kick from hip – “Lean in”</li> <li>• Bends kicking leg (knee over ball) to contact with shoelaces – “shoelaces”</li> <li>• Swings arms in opposition to kicking foot – “swing”</li> <li>• Follows through with kicking leg pointing to target – “swing through”</li> </ul>	<ol style="list-style-type: none"> <li>1. Eyes on Target</li> <li>2. Run to ball</li> <li>3. Plant</li> <li>4. Swing</li> <li>5. Shoelace</li> <li>6. Follow Through</li> </ol>		kick	inside	tap
			soft	low	foot
			soccer	hard	high
			swing	plant	target

Stages of Motor Development <sup>3</sup>					
 <b>Stage 1</b> <b>Initial Stage</b>	 <b>Stage 2</b>	<b>Stage 3</b> <b>Elementary Stages</b>		 <b>Stage 4</b> <b>Mature Stage</b>	
<p style="text-align: center;"><i>Stationary Push</i></p> <p>Little/no leg windup / Stationary position / Foot “pushes” ball / Step backward after kick</p> 	<p style="text-align: center;"><i>Stationary Leg swing</i></p> <p>Leg windup to the rear Stationary position Opposition of arms and legs</p> 		<p style="text-align: center;"><i>Moving approach</i></p> <p>Foot travels in a low arc Arm/leg opposition Forward or sideward step on follow-through</p> 		<p style="text-align: center;"><i>Leap-kick-hop</i></p> <p>Rapid approach. Backward trunk lean during windup. Leap before kick / Hop after kick</p> 

Assessment & Teaching Indicators	
<p><b>Directions for assessment<sup>2</sup>:</b> Run and kick a stationary ball for 20 feet to a wall</p>	<p><b>What to look for?</b> Do they run to ball or are they stationary? Do they swing their leg back or not? Do they look at the ball? Are they stepping next to the ball?</p>

When do you know when to move to the next stage?			
	Initial Stage	Elementary Stage	Mature Stage
<p><b>Generic criteria and tasks to aim for in this stage.</b></p>	<p>Initial stage kickers stand stationary and push the ball forward to kick, even when they approach the ball with a run. The focus is on swinging the leg back to kick with more power. By the end of this stage, they can swing their leg back and forth to kick a light ball forward at a wall.</p>	<p>Elementary stage kickers will focus on stepping next to the ball with or without an approach. You will focus on movement concepts such as strong, light, near, far, while kicking forward at different size targets. By the end of this stage students can run, plant and kick the ball forward at a medium size target with different forces from different distances.</p>	<p>In the mature stage, kickers will focus on the rapid approach and follow through when positioning to kick the ball to the target. At this stage we can include people and targets while learning how to dribble with feet, passing to partners and kicking to net. Combining concepts and skills and use kicking skills indoor or outdoor.</p>
<p><b>Cues to focus on</b></p>	<p style="text-align: center;"><b>Swing and kick</b></p>	<p style="text-align: center;"><b>Plant and Swing, Run &amp; Plant</b></p>	<p style="text-align: center;"><b>Leap-Kick-Hop, Follow through</b></p>

Developmentally Appropriate Progressions		
Initial Stage / Emerging	Elementary Stage / Able	Mature Stage / Competent
<ol style="list-style-type: none"> <li>1. Check ability to balance while swinging leg to kick a stationary ball to a wall.</li> <li>2. Hold onto wall and practice swinging back and forth without ball.</li> <li>3. Hold onto wall and practice swinging leg back and then kick a ball forward</li> </ol> <p><b>Note : Create an “Easy ball” which is a tethered ball suspended from ceiling. Teach kids to stop ball from swinging before kicking</b></p> <ol style="list-style-type: none"> <li>4. Hold onto wall/chair and kick an “easy ball” or stationary ball to wall</li> <li>5. Stand and kick an “easy ball” or stationary ball to wall</li> <li>6. Stand and kick an “easy ball” or stationary ball softly to wall</li> <li>7. Stand and kick an “easy ball” or stationary ball as hard as you can to wall</li> <li>8. Use a sticker to mark where the non-kicking foot should go and put students in stride stance, then and have them kick the stationary ball with their other foot.</li> <li>9. Tasks 5-7 starting from stride stance.</li> <li>10. Can complete a stationary kick to wall with backswing without assistance.</li> <li>11. Trap ball with foot.</li> </ol>	<p><b>Introduce stepping to the side of the ball with the non-kicking foot “plant foot”</b></p> <p><b>With a spot to direct students where to plant their foot:</b></p> <ol style="list-style-type: none"> <li>12. Kick stationary ball to the wall (hint: to prevent ball rolling, place ball on bean bag)</li> <li>13. Kick stationary ball at wall as hard as you can (force)</li> <li>14. Kick a stationary ball lightly (force) to target</li> <li>15. Kick a stationary ball to a target varying distance from target</li> <li>16. Kick a stationary ball to a target varying parts of the foot</li> <li>17. Kick a stationary ball with different levels (low, medium, high)</li> <li>18. Run and kick a stationary ball at the wall</li> <li>19. Repeat #12-18 with a running approach. In the approach, encourage an extended step (leap) before planting foot and then kick (with no ball) to increase force</li> <li>20. Complete all elementary skills without the spot to show them where to plant their foot.</li> <li>21. Kick a ball to a stationary partner</li> <li>22. Dribble a ball with feet</li> </ol>	<ol style="list-style-type: none"> <li>23. Kick a ball to a target varying angles to target</li> <li>24. Kick a ball to a target varying directions to the target</li> <li>25. Kick a ball to a stationary partner who will move to different spots so that the kicker needs to reposition their body towards the target.</li> <li>26. Play Kick golf – kick to different hoops – “holes” with a partner.</li> <li>27. Kick a slow-moving ball</li> <li>28. Kick a slow-moving ball as far as you can</li> <li>29. Kick a slow-moving ball at a large target and then a small target</li> <li>30. Kick a slow-moving ball to a partner while walking (passing)</li> <li>31. Run and kick the ball so it stays on the ground</li> <li>32. Run and kick the ball high to a partner</li> <li>33. Kick while you and a partner are moving the same way (laterally, towards and away from each other)</li> <li>34. Dribble (light taps) slowly and then kick the ball at a large target and then a small one</li> <li>35. Dribble quickly and then kick the ball at target (vary size of target)</li> <li>36. Play a small sided game that includes running, kicking and dribbling.</li> <li>37. When ready, complete elementary and mature tasks using non-preferred foot</li> </ol>

Difficulties to watch for <sup>1</sup>	
If...	Then...
There is limited back swing	Without using ball, practice full-range leg swing with kicking leg
Non-kicking foot is not planted next to ball	Place a mark where child should place their foot
Instep of foot does not contact ball below center	Make a mark on the ball to show the point of contact
Kicking foot does not follow through	Without ball, coach the child to swing through with kicking leg to touch fingers of outstretch opposite arm

**References:**

1. PHE Canada (2011). *Fundamental movement skills: An educator’s guide to teaching fundamental movement skills.*
2. Ulrich, D. (2000). *Test of Gross Motor Development*, 2<sup>nd</sup> ed. (TGMD-2) Assessment protocol
3. Gallahue, D., Ozmun, J., & Goodway, J. (2007). *Understanding motor development: Infant, children, adolescents, adults* (7<sup>th</sup> ed.). McGraw Hill: New York, NY.

**References Continued:**

4. Baumgarten, S. & Langton, T. (2006). *Elementary Physical Education: Building a Solid Movement Foundation.* Stipes Publishing L.L.C.: Champaign, IL.
5. Poster created by Dr. Helena Baert, SUNY Cortland, 2016-Present



# Manipulative: 2-Handed Striking

## Critical Elements in Developmental Order<sup>1</sup>

- Eyes focused on object being struck – “Watch ball”
- Stands side on to target– “Stand Sideways”
- Displays preparatory backswing– “Swing back”
- Step & Hip and shoulder rotation during swing – “Step & Rotate”
- Transfers weight from back to front foot – “Back to Front”
- Follows through along swinging path – “Follow Through”

## Teaching Cues

1. Eyes on ball
2. Stand Sideways
3. Bat over Shoulder
4. Step
5. Rotate & Swing
6. Follow Through

## Video<sup>5</sup>



## Literacy

strike	light	hard
hit	turn	rotate
swing	front	back

## Stages of Motor Development<sup>3</sup>

Stage 1 Initial Stage	Stage 2 Elementary Stages	Stage 3	Stage 4 Mature Stage
 <p><b>Chop Strike</b> “Chop” Strike-bat / Feet Stationary Trunk faces tossed ball / No trunk rotation / Elbows fully flexed Force comes from extension of flexed joints in a downward plane</p>	 <p><b>Pushing</b> Horizontal push/swing Feet stationary/stepping Weight shift to front foot before striking / Combined trunk and hip rotation (block rotation)</p>	 <p><b>Ipsilateral Step</b> Back foot steps across Diagonal downward swing Strike in oblique plane</p>	 <p><b>Contralateral Step</b> Contralateral step / Segmented body rotation / Wrist rollover on follow-through / Weight shifts to back foot / Weight shift occurs while object is still moving backwards / Striking in a long, full arc in horizontal plane / Weight shifts to front foot on contact</p>

## Assessment & Teaching Indicators

**Directions for assessment<sup>2</sup>:** Hit 4’ ball off batting tee. Tell child to hit hard

**What to look for?** Do they position themselves sideways to the T. Do they look at ball? Do they include a backswing? Do they spin around when striking? Are they stepping?

## When do you know when to move to the next stage?

	Initial Stage	Elementary Stage	Mature Stage
<b>Generic criteria and tasks to aim for in this stage.</b>	In the initial stage, students strike vertically and are stationary. The focus of in this stage is “stance” - teach students to stand sideways to the target and swing back. Keeping eyes on the ball will help them to make contact. By the end of this stage students can swing a ball off a T to the wall.	In the elementary stage keep using a T or suspended ball to help students with their form. The focus here is on controlling their rotation and adding power by incorporating a step and swing. Use a variety of concepts to teach students about the relationship between force and distance. At the end of this stage, students can position their body and strike a ball off a T without assistants to a variety of targets.	In the mature stage, students will focus on striking a ball from a soft toss at different targets. The focus will be on rotation and follow through. By the end of this stage, they will be able to strike off a toss to different targets. Students can use striking within small sided softball and baseball games. They can also transfer striking skills with different implements (hockey stick, golf club, tennis racket, etc.)
<b>Cues to focus on</b>	<b>Sideways, watch ball</b>	<b>Swing, Step &amp; Swing</b>	<b>Rotate, Follow Through</b>

## Developmentally Appropriate Progressions

Initial Stage / Emerging	Elementary Stage / Able	Mature Stage / Competent
<ol style="list-style-type: none"> <li>1. Strike light object upward with different body parts</li> <li>2. Strike light object forward with different body parts</li> <li>3. Strike balloon up in the air with hand</li> <li>4. Strike “easy ball” (tethered ball) with hand forward</li> <li>5. Strike easy ball with a light paddle</li> <li>6. Strike balloon with a lollipop paddle varying force</li> <li>7. Strike balloon with lollipop paddle at different levels and to different levels</li> <li>8. Strike balloon with lollipop paddle to different directions</li> <li>9. Strike balloon forward towards a wall with hand</li> </ol> <p><b>***use stickers for foot placement to show perpendicular stance “sideways”</b></p> <ol style="list-style-type: none"> <li>10. Strike “easy ball” with hand</li> <li>11. Strike easy ball with a lollipop paddle</li> <li>12. Strike easy ball with light bat</li> <li>13. Strike ball off Tee with hand</li> <li>14. Strike ball off Tee with lollipop paddle</li> <li>15. Strike ball off Tee with light bat.</li> </ol>	<p><b>Reminder: use markers to indicate sideways foot placement to the tee. Add noodles to the tee for level swing path</b></p> <ol style="list-style-type: none"> <li>16. Strike ball off tee with different forces</li> <li>17. Strike ball off tee to targets at different distances</li> <li>18. Strike ball off tee towards different levels</li> <li>19. Add additional sticker for front foot step, strike ball off tee with different forces</li> <li>20. Step and strike ball off tee to targets at different distances.</li> <li>21. Step and strike ball off tee to different size targets</li> <li>22. Step and strike ball off tee to targets at different levels</li> <li>23. Strike off tee towards different targets placed side to side so students must change their body position</li> <li>24. Play tennis with balloons and hands over a net with a partner</li> </ol>	<ol style="list-style-type: none"> <li>25. Strike softly tossed large ball from a mature thrower about swinging at a horizontal plane</li> <li>26. Strike tossed ball from mature thrower varying the speed of the ball</li> <li>27. Strike tossed ball as hard as possible for distance</li> <li>28. Strike tossed ball under more control to different locations</li> <li>29. Strike tossed ball and run to a cone</li> <li>30. Strike tossed ball using varying the speed of the throw at different targets and distances.</li> <li>31. Combine striking, fielding, running, throwing and catching in small sided games</li> <li>32. Practice striking to targets and peers with different implements (hocky stick, golf club, tennis racket,...)</li> </ol>

## Difficulties to watch for<sup>1</sup>

If...	Then...
They do not watch the incoming object	Ask them to watch an X marked on ball, use bright colored ball
They are not opening up when preparing to strike	They should stand in ready position facing the object, then turn sideways with arms apart
They strike the object outside the hitting zone	Place ball on large cone or tee; children practice hitting ball off tee – make sure they open up
They are not transferring weight	Practice opening up with weight on back foot and striking motion when shifting to front foot. Without bat or ball, have students say back / front
They have trouble striking ball in air	Allow a bounce before you strike
They have trouble striking small objects	Practice with balloons, then progress to smaller balls
They are having an easy time striking with hands	Allow practice with paddle bat; start with popping object up and letting it bounce between strikes

**References:**

1. PHE Canada (2011). *Fundamental movement skills: An educator’s guide to teaching fundamental movement skills.*
2. Ulrich, D. (2000). *Test of Gross Motor Development*, 2<sup>nd</sup> ed. (TGMD-2) Assessment protocol
3. Gallahue, D., Ozmun, J., & Goodway, J. (2007). *Understanding motor development: Infant, children, adolescents, adults (7<sup>th</sup> ed.)*. McGraw Hill: New York, NY.

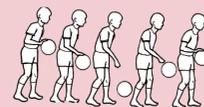
**References Continued:**

4. Baumgarten, S. & Langton, T. (2006). *Elementary Physical Education: Building a Solid Movement Foundation*. Stipes Publishing L.L.C.: Champaign, IL
5. Poster created by Dr. Helena Baert, SUNY Cortland, 2016-Present



# Manipulative: Dribbling

Critical Elements in Developmental Order <sup>1</sup>	Teaching Cues	Video <sup>5</sup>	Literacy												
<ul style="list-style-type: none"> <li>Initiates ball contact with fingertips– “5 fingers”</li> <li>Bends and straightens wrist and elbow to push the ball– “yo-yo”</li> <li>Dribble in front and to the side of the body– “opposite foot forward”</li> <li>Performs a rhythmical series of controlled dribbles– “wave to the ball”</li> <li>Hips and knees flexed slightly during dribbling – “bend and lean slightly”</li> <li>Eyes focused forward – “look ahead”</li> </ul>	<ol style="list-style-type: none"> <li>Head up</li> <li>Knees bend</li> <li>Soft wrist / yo-yo</li> <li>Consistent force @ waist</li> <li>Bounce in front &amp; to side</li> </ol>		<table border="1"> <tr> <td>dribble</td> <td>bounce</td> <td>fingers</td> </tr> <tr> <td>eyes</td> <td>ball</td> <td>yo-yo</td> </tr> <tr> <td>slow</td> <td>fast</td> <td>wave</td> </tr> <tr> <td>high</td> <td>low</td> <td>ready</td> </tr> </table>	dribble	bounce	fingers	eyes	ball	yo-yo	slow	fast	wave	high	low	ready
dribble	bounce	fingers													
eyes	ball	yo-yo													
slow	fast	wave													
high	low	ready													

Stages of Motor Development <sup>3</sup>			
Stage 1	Stage 2	Stage 3	Stage 4
Initial Stage	Elementary Stages		Mature Stage
<p><i>Palms facing</i></p> <p>Ball held with both hands Hands placed on side of ball, palms facing each other / Downward trust with both arms / Ball contacts surface close to body, may contact foot / Great variation in height of bounce / Repeated ball catch pattern</p> 	<p><i>Flat bounce</i></p> <p>Ball held with both hands, one on top, one near bottom. Downward trust, force inconsistent. Watches ball. Palm hits ball. Limited control of ball. Slight forward lean</p> 		<p><i>Flex wrist</i></p> <p>Wrist flexes and extends Ready position, more steady More consistent dribbles</p> 
			<p><i>Controlled dribble</i></p> <p>Feet in narrow stance, opposite foot forward. Slight forward trunk lean Ball waist high/ Ball pushed, fingers used. Visual monitoring unnecessary Controlled dribbling</p> 

Assessment & Teaching Indicators	
<p><b>Directions for assessment<sup>2</sup>:</b> Playground ball for 3-5 year olds, basketball for 6-10. Dribble ball 4x without moving, repeat on other side (6-10) – dribble while moving.</p>	<p><b>What to look for?</b> Can students dribble with 1 hand and keep the ball under control? If not, can they drop and catch a ball? Can they dribble the ball 3 times? Do they look at the ball? Do they understand the impact of power on the ball?</p>

When do you know when to move to the next stage?			
	Initial Stage	Elementary Stage	Mature Stage
<b>Generic criteria and tasks to aim for in this stage.</b>	Initial stage dribblers are new and are unable to dribble a ball with 1 hand. In this stage, practice dropping and catching the ball. Once they can catch the ball of a drop, turn hand up and down to drop the ball and later move into a dribble. At the end of the initial stage, they can dribble the ball with one hand two consecutive times without losing control.	In the elementary stage students can dribble a ball stationary. Here we practice dribbling stationary using different concepts before dribbling when moving forward. At the end of this stage, students can dribble with control while looking forward.	In the mature stage, students dribble while moving. We focus on integrating a variety of movement concepts when dribbling in space. Once they can dribble with preferred hand you can practice dribbling with non-preferred hand. We can also integrate dribbling with other skills such as running, throwing, shooting, etc. and use dribbling in small-sided games. By the end of the mature stage they can dribble with good form while travelling.
<b>Cues to focus on</b>	<b>Drop &amp; Catch, Push and catch</b>	<b>yo-yo, Waist high</b>	<b>Head up, Look</b>

Developmentally Appropriate Progressions		
Initial Stage / Emerging	Elementary Stage / Able	Mature Stage / Competent
<ol style="list-style-type: none"> <li>Bounce and catch a ball with 2 hands while sitting</li> <li>“Mummywrap”- students move the ball around their body going from feet to neck</li> <li>Bounce and catch a ball with 2 hands while standing (hands on side of ball)</li> <li>Bounce &amp; catch ball 2x with 2 hands (hands on side of ball)</li> <li>Bounce &amp; catch ball with 2 hands on different poly spots.</li> <li>Bounce and catch ball with 2 hands as many times as possible</li> <li>Bounce and catch ball with hand on top and bottom</li> <li>Bounce and catch ball with hand on top and bottom several times in a row</li> <li>Bounce and catch ball with hand on top and bottom and letting go of bottom hand to start dribbling with 1 hand.</li> <li>Bounce a balloon hung by a stocking with two, one hand, fast, slow, light, and alternating hands and speed</li> <li>Dribble and catch a ball with one hand</li> <li>Dribble a ball on one poly spot while catching it</li> <li>Dribble a ball as many times as you can until it stops</li> <li>Dribble a ball in a hula hoop (big to small)</li> <li>Dribble a ball two times in control</li> </ol>	<ol style="list-style-type: none"> <li>Dribble a ball consecutive while staying in self-space</li> <li>Dribble the ball with your opposite foot forward across a line</li> <li>Dribble the ball at knee level with opposite foot forward</li> <li>Dribble the ball at waist level with opposite foot forward</li> <li>Dribble the ball while flexing the wrist like a yo-yo encouraging a medium size dribble</li> <li>Dribble the ball on one side of your body</li> <li>Dribble a ball using different forces</li> <li>Dribble a ball while looking up at the teacher</li> <li>Dribble the ball while walking forward</li> <li>Dribble the ball while walking backwards</li> <li>Dribble the ball alternating between walking forwards and backwards</li> <li>While travelling, dribble the ball with different forces.</li> <li>While travelling, dribble the ball continuously at different levels alternating between medium and low</li> <li>Dribble a ball 5 times while looking forward and identifying numbers the teacher shows</li> </ol>	<ol style="list-style-type: none"> <li>Dribble the ball in different pathways (straight, curved, zig zag) focusing on controlled dribbling with eyes forward</li> <li>Dribble on the lines of the basketball court</li> <li>Dribble the ball from side to side using just your preferred hand</li> <li>Dribble the ball from side to side switching from preferred to non-preferred hand</li> <li>Dribble stationary and while moving with your non-preferred hand.</li> <li>Dribble the ball in different directions</li> <li>Dribble the ball while sliding in different directions</li> <li>Dribble the ball at different speeds while travelling</li> <li>“Globetrotters” Students will show off different tricks dribbling around their body, behind your back, between their legs, with music</li> <li>Combining different skills like dribbling, throwing, catching, running in small sided games</li> </ol>

Difficulties to watch for <sup>1</sup>	
If...	Then...
They use slapping motion	Ask the child to imitate waving good-bye to the ball
Looking at the ball while dribbling	While dribbling, have child follow a partner (follow the leader)
Child uses palm in stead of fingers	While partner holds the ball from the bottom, child pushes ball with finger pads

**References:**

- PHE Canada (2011). *Fundamental movement skills: An educator’s guide to teaching fundamental movement skills.*
- Ulrich, D. (2000). *Test of Gross Motor Development*, 2<sup>nd</sup> ed. (TGMD-2) Assessment protocol
- Gallahue, D., Ozmun, J., & Goodway, J. (2007). *Understanding motor development: Infant, children, adolescents, adults* (7<sup>th</sup> ed.). McGraw Hill: New York, NY.

**References Continued:**

- Baumgarten, S. & Langton, T. (2006). *Elementary Physical Education: Building a Solid Movement Foundation.* Stipes Publishing L.L.C.: Champaign, IL.
- Poster created by Dr. Helena Baert, SUNY Cortland, 2016-Present



# Universal Design of Learning



UDL ENCOURAGES A SHIFT IN PERSPECTIVE WHEN IT COMES TO STUDENT LEARNING. INSTEAD OF EXPECTING STUDENTS TO ADAPT, UDL PROMPTS EDUCATORS TO EXAMINE THE LEARNING ENVIRONMENT ITSELF. WHAT ELEMENTS WITHIN THIS ENVIRONMENT MIGHT BE HINDERING LEARNING? IT COULD BE THE PHYSICAL SPACE, THE TOOLS BEING USED, OR EVEN THE TEACHING METHODS. OTHER POTENTIAL OBSTACLES MIGHT LIE IN THE CLASS OBJECTIVES, HOW EVALUATIONS ARE DONE, OR THE GROUPING OF STUDENTS. UDL OFFERS A BLUEPRINT FOR DEVISING STRATEGIES TO MINIMIZE THESE LEARNING IMPEDIMENTS. THE PRIMARY OBJECTIVE IS TO CRAFT A LEARNING SETTING WHERE STUDENTS ARE EQUIPPED WITH THE RESOURCES TO ACHIEVE LEARNING OBJECTIVES IN A FLEXIBLE MANNER. SO, WHEN YOU'RE DESIGNING YOUR LESSONS, REFLECT ON THE LEARNERS, THE CLASSROOM SETTING, AND THE CONTENT AT HAND.

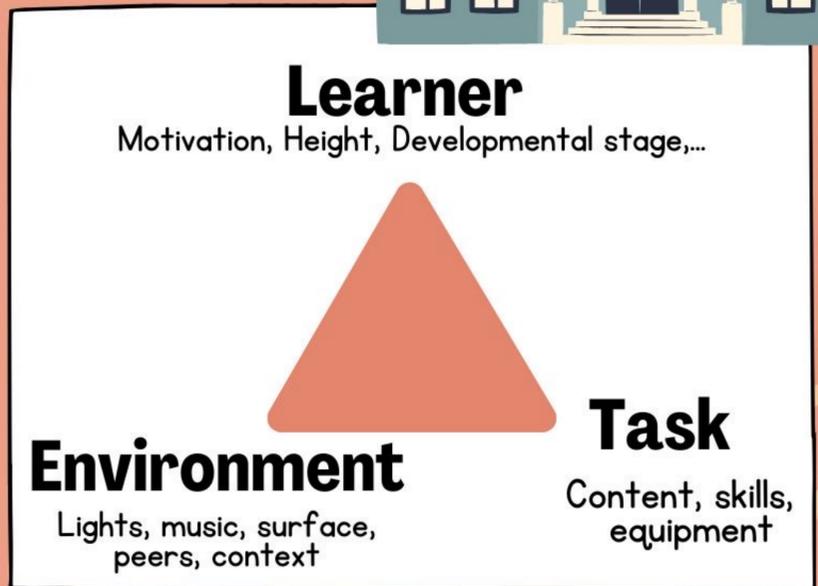
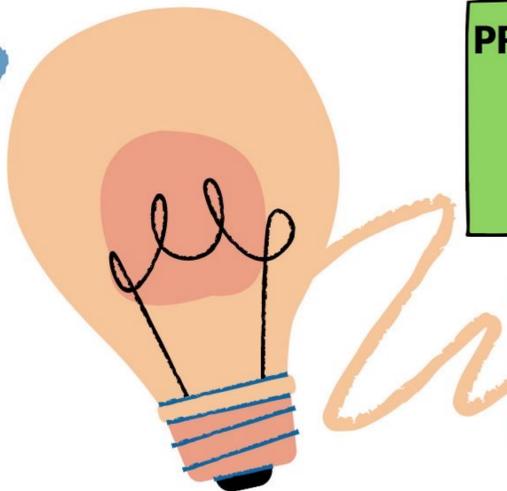


Figure: Newell's Constraints Theory (1986)

## UDL Principles



### PROVIDE MULTIPLE MEANS OF REPRESENTATION

Principle: Present information and content in different ways to cater to diverse learners.

### PROVIDE MULTIPLE MEANS OF ACTION AND EXPRESSION

Principle: Allow students different ways to express what they know and to demonstrate their learning.

### PROVIDE MULTIPLE MEANS OF ENGAGEMENT

Principle: Tap into students' interests, challenge them appropriately, and motivate them to learn.

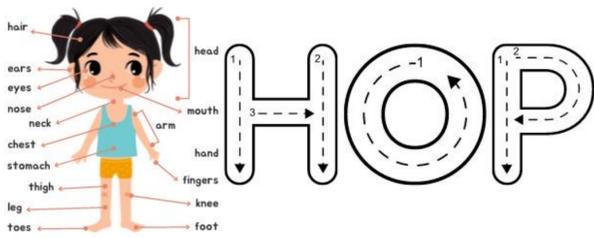


## UDL

The Universal Design for Learning (UDL) is a framework to improve and optimize teaching and learning for all people based on scientific insights into how humans learn. When applied to preschool physical education, UDL can ensure that all young children, regardless of their abilities or backgrounds, can participate, learn, and grow.



# Multiple Means of Representation



## REAL-LIFE OBJECTS

BRING IN OBJECTS LIKE FEATHERS TO DEMONSTRATE CONCEPTS LIKE "LIGHT" OR ROCKS TO DEMONSTRATE "HEAVY." CHILDREN CAN THEN MOVE OR DANCE IN A WAY THAT REPRESENTS THESE CONCEPTS.

## VISUAL

Use visual aids, charts, cue cards, GIFs, or videos to demonstrate a new concept, skill or tasks. Use pictures that represent the students.

## COLOR CODING

USE COLORED SPOTS OR MARKERS TO INDICATE WHERE CHILDREN SHOULD STAND, MOVE TO, OR HOW THEY SHOULD MOVE. FOR INSTANCE, RED MIGHT MEAN "STOP" OR "JUMP," WHILE GREEN MIGHT MEAN "GO" OR "RUN."

## AUDITORY

Play songs or rhymes that guide children through a movement sequence. Use movement story kids can listen to and act out. Use songs or rhymes with clear instructions for movement, like "Head, Shoulders, Knees, and Toes."



## TACTILE

Use props or equipment like scarves, balls, or hoops to help children understand and practice a skill. Introduce props like scarves, ribbons, or parachutes to visually and tactilely represent movement concepts.



# Multiple Means of Action and Expression

## PHYSICAL DEMONSTRATION

Let children show a skill or movement they've learned. Students create their own sensory pathway or obstacle course showing different concepts.

## MOVEMENT TO MUSIC

PLAY DIFFERENT GENRES OF MUSIC AND ENCOURAGE CHILDREN TO MOVE IN A WAY THAT THEY FEEL EXPRESSES THE MOOD OR RHYTHM OF THE SONG



## VERBAL EXPLANATION

Encourage children to describe how to perform a certain activity or why it's important. Children answer questions about a movement or concept.

## INTERACTIVE STORYTELLING

READ A STORY TO THE CHILDREN AND HAVE THEM ACT OUT CERTAIN PARTS USING MOVEMENT. FOR INSTANCE, IF THE STORY MENTIONS A CHARACTER RUNNING, THE CHILDREN CAN RUN IN PLACE.



## CREATIVE EXPRESSION

Allow children to come up with their own dance moves or games and share them with the class. Draw a picture of a certain concept.



# Multiple Means of Engagement

## SENSORY ACTIVITIES

CHILDREN CAN WALK OR JUMP ON DIFFERENT TEXTURES, EXPLORING HOW EACH FEELS UNDER THEIR FEET.

## STORY-BASED ACTIVITIES

Create a movement story where children have to move according to the narrative. For instance, they can "climb" a mountain, "swim" across a river, or "jump" over obstacles, all while following along with a story.



Let's Go!  
**ROAD TRIP**

## REAL-WORLD RELEVANCE

Incorporate games or activities that mimic real-world tasks, like an obstacle course where children "deliver" packages to different locations or they become fire fighters who put out fires!

**OUTDOOR EXPLORATION**  
NATURE WALKS OR SCAVENGER HUNTS



LET'S VISIT  
**THE JUNGLE**



## THEMED DAYS OR STATIONS

Have a "jungle theme" where children can pretend to be different animals, moving and sounding like them. This can include slithering like snakes, hopping like frogs, or swinging like monkeys.

