

Unit Four:
Motor Skills

- 4.1 Manual Dexterity
- 4.2 Eye-Hand Co-ordination
- 4.3 Physical Activities
- 4.4 Locomotion
- 4.5 Co-ordination/Strength

MOTOR SKILLS

4.1 Manual dexterity

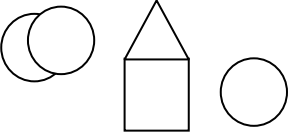
A	B	C
Fine Motor Skills	Fine Motor Skills	Fine Motor Skills
<ul style="list-style-type: none">• grasps and maintains an object in hand• isolates the index finger for pointing or activating a toy/object (telephone dial, points to an object in a book)• executes bilateral activities (claps hands, bangs cymbals, pushes a wagon or carriage)• releases an object voluntarily into a container• uses index-thumb grip to pick up small objects• starts two handed activities using one hand to stabilize and the other to manipulate an object (inserts chips into an opening, turns pages of a cardboard book)• uses pro-supination movements (turns a doorknob, unscrews a lid)• squashes, flattens and stretches play dough• has a palm grip on a crayon: all fingers wrap around the crayon• controls the opening and closing of scissors with two hands	<ul style="list-style-type: none">• uses a preferred hand for manipulating objects• demonstrates better control in supination (screws on a lid correctly)• uses supination movements with proper force (turns a dial to activate a radio, pushes a switch on a toy)• uses thumb index grip to transfer objects to the palm (successfully picks up 5 to 10 small objects ie. raisins, pennies, small blocks, in one hand)• demonstrates good bilateral coordination (strings pearls, drops pennies in a bank, buttons and unbuttons large buttons)• rolls play dough into snakes on the table or in hands; uses a rolling pin and cookie cutters• has a digital grip on a crayon (thumb-four fingers)• begins to incorporate wrist and finger movements when colouring• places scissors correctly in hand• has hand control when using tools (scissors, salad tongs, sprayers)	<ul style="list-style-type: none">• establishes hand dominance: occasionally changes hands• moves all fingers independently (touches thumb to each)• demonstrates good control in bilateral activities (assembles small objects, constructs with small blocks)• uses complex movements when manipulating objects (stabilizes objects with one hand during manipulation, uses thumb index grip to transfer objects to the palm)• rolls a ball of play dough in a circular motion on the table or between hands• has a more mature grip on the crayon: digital grip with weight on the hand or tri-digital grip with wrist control• movement of wrist and fingers during colouring• uses non-dominant hand to guide paper while cutting simple shapes

D	E	F
<p align="center">Fine Motor Skills</p>	<p align="center">Fine Motor Skills</p>	<p align="center">Fine Motor Skills</p>
<ul style="list-style-type: none"> • establishes hand dominance • combines finger movements to perform tasks (uses more than one finger on the computer key board, plays a simple piano or flute piece, snaps fingers) • executes precise manipulative movements (uses a key to lock and unlock a door or padlock, attaches paperclips to cardboard, moves and clicks the mouse simultaneously) • combines speed with fine motor skills (deals cards, plays video games) • has a mature pencil grip (tri-pod grip with stability) • precisely adjusts scissor movements to cut out irregular shapes 	<ul style="list-style-type: none"> • synchronizes fine motor skills with speed (plays piano, uses all fingers on the keyboard) • executes fine movements with exactitude (threads a needle and sews on a button, paints by numbers, assembles model toys) 	<ul style="list-style-type: none"> • executes with mastery any activity requiring manual dexterity • transfers acquired fine motor abilities from work to leisure activities (initiates a sewing or mechanical project)

MOTOR SKILLS

4.2 Eye-hand Co-ordination

	A	B	C
	<p>Eye-Hand Co-ordination</p> <p>General Skills:</p> <ul style="list-style-type: none"> • inserts tokens into a container • deposits letters into a mail box • places clothing into a clothes dryer • transfers a cup of flour into a mixing bowl • stabs food with a fork • clicks on the mouse to initiate changes on the computer monitor • places dishes into a water-table, sand-table etc. <p>Crayons/Scissors</p> <ul style="list-style-type: none"> • scribbles intentionally and remains within the paper borders • imitates horizontal, circular and vertical scribbles • tears paper with two hands • makes cuts with scissors when an adult is holding the cardboard (opens and closes scissors with both hands) 	<p>Eye-Hand Co-ordination</p> <p>General Skills:</p> <ul style="list-style-type: none"> • strings pearls to make a necklace or bracelet • piles blocks to make a tower • transfers a spoon of flour to fill a measuring cup • moves the computer mouse towards a specific point • opens and closes zipper on a packsack <p>Crayons/Scissors</p> <ul style="list-style-type: none"> • draws a horizontal line within a 2cm wide lined space • colours in most of a simple shape while staying within the lines • copies a cross, vertical, horizontal and circular lines • tears paper following a straight line (1cm wide) • places cardboard between the scissors and cuts on a straight line (1cm wide) 	<p>Eye-Hand Co-ordination</p> <p>General Skills:</p> <ul style="list-style-type: none"> • operates a child's fishing line • pours liquid from a small container • plays with Velcro balls/darts and target • uses a screwdriver to fasten screws and build (Duplo, Junior Meco) • begins and zips a zipper <p>Crayons/Scissors</p> <ul style="list-style-type: none"> • draws a horizontal or curved line within a 1cm wide lined space • traces a simple shape following dotted lines • colours a simple shape with accuracy • copies a cross, diagonal lines, a square and an X • tears the contours of a simple shape (square) • cuts small straight lines and simple shapes with angles and curves (square, circle)

D	E	F
Eye-Hand Co-ordination	Eye-Hand Co-ordination	Eye-Hand Co-ordination
<p>General Skills:</p> <ul style="list-style-type: none"> • uses a glue gun • uses a screw driver • hammers a nail • puts a key into a lock • clicks and moves the mouse simultaneously • plays video games <p>Crayons/Scissors</p> <ul style="list-style-type: none"> • draws a line within a curved space (0.5cm wide) • draws an irregular shape following a dotted line • colours an irregular shape with accuracy • copies simple shapes adjacent or superimposed on shape:  <ul style="list-style-type: none"> • cuts irregular shapes (animal pictures, paper dolls) 	<p>General Skills:</p> <ul style="list-style-type: none"> • uses tweezers appropriately • threads a needle • paints by numbers • uses a fishing rod • plays darts or uses a bow and arrows <p>Crayons/Scissors</p> <ul style="list-style-type: none"> • draws a complex picture using dot to dots • copies complex pictures adjacent or superimposed on picture • cuts complex irregular shapes (detailed pictures) • cuts different materials (tissue paper, fabric) 	<p>General Skills:</p> <ul style="list-style-type: none"> • transfers acquired eye hand coordination skills from work to leisure activities (cuts fabric using a pattern, crochets, embroiders, mechanical jobs) <p>Crayons/Scissors</p> <ul style="list-style-type: none"> • copies three dimensional shapes (cube)

MOTOR SKILLS 4.3 Physical Activities	A	B	C
	Participation	Participation	Participation
	Manipulation <ul style="list-style-type: none"> • throws a ball (20cm diameter) using two hands and global body movement • rolls a ball a short distance (using two hands) • kicks a standing ball 	Manipulation <ul style="list-style-type: none"> • throws a ball using two hands • catches a ball with two hands • throws an object towards a target • bounces and catches a ball using two hands • kicks a moving ball 	Manipulation <ul style="list-style-type: none"> • throws and catches various medium size objects (Frisbee, ball) • throws and aims an object in the direction of a partner or large target • dribbles consecutively using two hands • begins to use various sporting instruments to strike an object (hockey stick and ball) • kicks a ball towards a partner or target
	Co-ordination <ul style="list-style-type: none"> • jumps in place with two feet, height (one step) or a short distance 	Co-ordination <ul style="list-style-type: none"> • jumps with two feet forward and backward • jumps and lands with two feet from a small bench 	Co-ordination <ul style="list-style-type: none"> • jumps with two feet sideways • gallops a short distance (moves by jumping using one dominant foot and the other following) • transfers weight from one side of the body to the other (rolls on mat, somersaults) • jumps from various heights (60cm minimum) • jumps over a skipping rope
Physical Conditioning <ul style="list-style-type: none"> • collaborates during physical education classes and calming period • demonstrates good muscle tone for sitting and standing (sits on floor or chaise unassisted) and shifts positions (goes from sitting to standing) 	Physical Conditioning <ul style="list-style-type: none"> • participates in short distance cardio activity with frequent stops (short distance runs, walks back and forth delivering messages) • ends physical education classes with a cool down or calming period 	Physical Conditioning <ul style="list-style-type: none"> • participates in low level cardiovascular activities with occasional stops (walks to nearby park) • ends a physical activity with a cool down • demonstrates good muscle tone • maintains an anti gravity position (wheelbarrow) 	
Locomotion <ul style="list-style-type: none"> • see gross motor activities 	Locomotion <ul style="list-style-type: none"> • see gross motor activities 	Locomotion <ul style="list-style-type: none"> • see gross motor activities 	

D	E	F
Participation	Participation	Participation
<p>Manipulation</p> <ul style="list-style-type: none"> • throws and catches a ball with two hands • aims and hits targets of various sizes • dribbles consecutively with dominant hand • kicks a ball while moving toward a partner or target <p>Co-ordination</p> <ul style="list-style-type: none"> • jumps in a patterned fashion (jumps from one foot to two as in hopscotch) • skips while moving: skips forward while alternating feet • coordinates upper and lower body parts (jumps and claps simultaneously, imitates animal walks) • transfers weight while using a piece of equipment (crawls on a bench) • jumps rope turned by an adult <p>Physical Conditioning</p> <ul style="list-style-type: none"> • participates in cardiovascular warm-ups (2-5 min.) • executes a simple cool down at the end of a sustained physical activity (stretches various muscles, regains controlled breathing) • executes simple weight bearing exercises (sit ups) <p>Locomotion See gross motor activities</p>	<p>Manipulation</p> <ul style="list-style-type: none"> • throws and catches a ball with one hand • throws and catches a ball while moving • dribbles while moving in various directions and speeds • strikes a ball using a piece of sports equipment towards a target (baseball, badminton) • kicks, passes and stops a ball while moving <p>Co-ordination</p> <ul style="list-style-type: none"> • jumps in place while changing hand and foot positions (jumping jacks) • jumps rope independently • combines several body movements in a sequence (gymnastics: jumps, somersaults, etc. long jump: runs, jumps, lands) <p>Physical Conditioning</p> <ul style="list-style-type: none"> • sustains 5-10 minutes of cardiovascular activity (jump rope, cycling, soccer) • initiates own cool down after a sustained physical activity (stretches, controlled breathing) • executes specific weight bearing exercises (push ups) <p>Locomotion See gross motor activities</p>	<p>Manipulation</p> <ul style="list-style-type: none"> • throws, passes and catches an object during sporting activities (football, soccer, volleyball) • throws an object towards a target with precision and force • strikes object using a piece of sports equipment with forehand or backhand (badminton, tennis) • dribbles in sport specific activities (soccer, basketball) • kicks accurately to various distances (soccer, football) <p>Co-ordination</p> <ul style="list-style-type: none"> • executes coordinated muscle movements in isolation or in sequence with rhythm (gymnastic program, karate, aerobics) <p>Physical Conditioning</p> <ul style="list-style-type: none"> • sustains 10-15 minutes of cardiovascular activity (dance aerobics, swimming, jogging, cross country skiing) • attempts various stretching techniques (yoga, tai-chi) • executes warm-ups related to a specific sport • executes specific weight bearing exercises (weight lifting, Nautilus) <p>Locomotion See gross motor activities</p>

MOTOR SKILLS 4.4 Locomotion	A	B	C		
	Locomotion	Locomotion	Locomotion		
	<ul style="list-style-type: none"> • stands unassisted • walks a short distance without falling using a walking aid • walking pattern may be immature (walks with wide foot base, does not alternate arms and feet) • climbs stairs without alternating feet and uses hand rail <p>N.B. May require the use of mechanical device for movement (walker, manual wheelchair, mechanical wheelchair)</p>	<ul style="list-style-type: none"> • stands momentarily on one foot • walks on flat terrain • walks backwards: straddles objects • runs, stops, restarts easily • immature running start • climbs stairs alternating feet using handrail 	<ul style="list-style-type: none"> • stands for a few seconds on one foot (puts leg into pants while standing) • walks with assistance on uneven terrain (snow, sand, grass) • walks following various formations (straight or curved lines, zigzags) • runs alternating arm and foot (normal running pattern) • runs quickly, changes directions, stops on signal • climbs stairs alternating feet and without the use of a handrail • moves in various ways (runs, walks, skips, crawls) 		

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<p style="text-align: center;">Locomotion</p> <ul style="list-style-type: none"> • moves in various ways (runs, skips, crawls) on a piece of equipment (ladder, incline plane, hopscotch, floor beam) • good endurance walking (walks to nearby park, goes shopping, walks through museums) • balances on the spot (stands on one foot) or while moving (walk on a straight line) • begins sports requiring balance (skating, ballet, gymnastics) 	<p style="text-align: center;">Locomotion</p> <ul style="list-style-type: none"> • demonstrates running endurance • integrates running into sports such as soccer, baseball • demonstrates balanced movement on a narrow piece of equipment (balance beam) • changes directionality and speed using sporting equipment (on skates, on skis) • uses defensive manoeuvres (moves away, sideways) during a simple game with or without an object • uses offensive manoeuvres during an organized game 	<p style="text-align: center;">Locomotion</p> <ul style="list-style-type: none"> • practices sports requiring complex movements during leisure time (jogs, cross country runs or skis, roller blades, downhill skis)

MOTOR SKILLS**4.5 Co-ordination/ Strength**

A	B	C
Motor Skills	Motor Skills	Motor Skills
<ul style="list-style-type: none">• pedals a tricycle with assistance• gathers various types of objects with one or two hands (balls, bean bags, balloons, toys)• stays in a sitting position for several minutes (with or without support)• can assume different positions (kneels, crouches, sits cross legged, may require help to get up from these positions)• demonstrates changes in positions (sits up from a prone position, stands up from a seated position)• pushes a cart or carriage• explores play equipment with assistance (climbs and slides)• cycles (requires help with steering)	<ul style="list-style-type: none">• carries objects (basket, lunch pail) while walking and places them on waist level shelves• demonstrates sufficient muscle tone for simple functional activities:<ul style="list-style-type: none">• erases blackboards• washes the table• places a chair at a table• empties the garbage• is comfortable with some of the play equipment (climbs a ladder, slides, crawls through a tunnel)• pedals and steers a tricycle independently	<ul style="list-style-type: none">• executes functional activities requiring some strength:<ul style="list-style-type: none">• carries a jug of juice• opens a push door• opens a refrigerator/car door• rakes, sweeps, shovels• balances on a swing• begins to use a piece of sporting equipment to strike an object (hockey stick and ball)• is comfortable with most play equipment (climbs, crawls, jumps)• pedals a bicycle with training wheels

D	E	F
Motor Skills	Motor Skills	Motor Skills
<ul style="list-style-type: none"> • executes functional activities requiring strength and coordination: <ul style="list-style-type: none"> • pulls a sled or pushes a wheelbarrow following a trail • takes a bag of groceries out of a car and carries it to the kitchen • vacuums • masters the basic skills on the play equipment (slides down the "fire pole", walks on a balance beam, hangs from the ropes) • pedals and steers a bicycle • cross country skis on flat terrain 	<ul style="list-style-type: none"> • executes functional activities requiring strength and endurance: <ul style="list-style-type: none"> • carries chairs • carries wood for fireplace • moves furniture • delivers pamphlets to mail boxes • controls strength and movements in functional activities: <ul style="list-style-type: none"> • lifts a plate from the oven • carries a pot and serves food • mows the lawn • demonstrates agility and complex movements on play equipment(walks backwards on a balance beam) • strikes an object using a piece of sporting equipment towards a target (basketball) • goes for bicycle rides • practices sports like badminton, skiing, swimming 	<ul style="list-style-type: none"> • works out (swims, dances, jogs) • rides a mountain bike • downhill skis, rollerblades, plays tennis, etc. • does housework • does yard work