Fundamental Movement Skill links to Academic Learning



The purpose of the document is to understand the importance of movement and the links to longer term development (e.g. academic learning).

What are fundamental movement skills?

Fundamental Movement Skills (FMS) are the building blocks for all movement, and lead to more complex movements which enable us to play games, dance, and play sport. They are important to the motor development of children's physical, cognitive, and social growth. There are four categories in which the fundamental skills fit for under-fives: Stability and Balance, Manipulative, Locomotor, and Movement and Body Awareness.

Movement and brain development

In a child's first three years they develop 85% of their brain pathways. Every experience a child has helps to wire the brain and build those pathways. Through repetition children make those brain pathways stronger and connect them together. On average it takes 90 repetitions to create one pathway and make it 'permanent', i.e. learning to tie your shoelaces; you would have to practice that skill around 90 times before you can do that skill without thinking. If you release endorphins, you take on information faster. Children release endorphins through...movement/ laughter/ singing.



Stability and Balance Link to more information

Stability skills relate to the body's ability to gain or maintain balance, either when still or moving.

Fundamental Movement Skills		Development of		Learning how to	How?
Spinning Turning Rolling Rocking Swinging Being upside down Balancing	ightharpoonup	<u>Vestibular (Balance)</u> <u>System</u>		Sit still on the mat Be alert to information Focus on a task	The more spinning, rolling, swinging etc activities you do the more developed your vestibular system is. Therefore, you can control your body and maintain balance which helps you to stay still and focus on what is happening around you.
		(Ability to gain or maintain balance)		Encourages self-regulation	The vestibular system can be also likened to the 'volume control button' for the body, as quick up and down or spinning head movements tend to 'wake us up' whilst slower rocking head movements, or keeping the head still, helps us to calm down.
		Eye-head coordination (improved visual tracking)		Smoothly look up at a whiteboard, then down at their work	Maintaining a steady visual image while watching a moving object.
				Read effortlessly Supports language development	Integrates with our auditory & visual senses
		Core Strength		Sit upright Having good posture Good balance	Keep yourself upright as you perform the different skills transfers to keeping yourself upright on the mat, on a chair etc.



Manipulative Skills Link to more information

Manipulative skills are the skills we need for moving objects around.

Rolling
Throwing
Catching
Bouncing
Striking with an
implement
Pushing/Pulling
Kicking

Fundamental Movement Skills

Development of
Fine Movement
Skills (involve the use of the
smaller muscle of the
hands)
Hand/eye coordination
(the ability of the vision
system to co-ordinate the
information received
through the eyes to control,
guide and direct the hands
to accomplish a task)
Fingers/hand development
Eye development
(The eyes are a muscle and
we need to train them)
Timing
Foot/eye coordination
(the ability of the vision
system to co-ordinate the
information received
through the eyes to control,
guide and direct the feet to

Learning how to	How?
Do daily tasks such as using scissors, brushing teeth, using a knife and fork, feeding. Hold a pencil and write/draw.	Fine motor skill efficiency significantly influences the quality of the task outcome as well as the speed of task performance. Efficient fine motor skills require several independent skills to work together to appropriately manipulate the object or perform the task.
Read across a page. Cross a road safely Playing musical instruments. Balance.	Control of our eye muscle when reading is so important as we can then just track the words with our eyes across the page and not have to move our entire head or the book.



Locomotor Skills Link to more information

Locomotor skills are the skills involved in moving from one location to another.

Fundamental Movement Skills		Development of		Learning how to	How?
Walking Running		Spatial Awareness Speed Cross Patterning		Judge how fast cars are travelling Know where my body can fite.g. sitting on the mat, chairs, lining up Know how far away to stand from someone Put spaces in writing-letters, words, sentences Complete activities at different speeds	When a child is developing their spatial awareness, they begin to become aware of their placement in relation to the things around them. They are central to this, and they need to understand their location as well as concepts like distance, speed and placement (over, under, behind etc.). This translates to knowing what sort of space you need between letters, words and sentences.
Jumping Hopping Skipping		Bopping (bouncing up and down) Plantar (push away) reflex Bending of knees Safe landing- soft, hard etc		Do tasks hard or softly e.g. pencil pressure Jump - Hop - Skip	Opposite arm, opposite leg movement is so important for brain development. It is this movement that helps develop the brain so it can send information between the left and right sides of the brain. Pathways between the two hemispheres of the brain develop. The more pathways, the more efficient the processing.
Crawling Climbing Swimming		Cross patterning Using both sides of the brain Upper body Strength development		Coordination Write across a page Think and write creatively Complete self-care tasks such as putting on your socks and shoes, brushing hair, feeding Crossing arms and legs	Crossing the midline breaks down the midline (imaginary line that separates the left from right). Development of laterality- the understanding that the body has two sides and that each side can be used independently.



Movement and Body Awareness Link to more information

Movement and body awareness is the understanding of 'what my body is like and how I move with it'.

Fundamental Movement Skills		Development of		Learning how to	How?
Names of body parts		Spatial awareness		Judge how fast cars are travelling Know where my body can fit- e.g. sitting on the mat, chairs Know how far away to stand from someone Put spaces in writing-letters, words, sentences	When a child is developing their spatial awareness they begin to become aware of their placement in relation to the things around them. They are central to this, and they need to understand their location as well as concepts like distance, speed and placement (over, under, behind etc.). This translates to knowing what sort of space you need between letters, words and sentences.
Location of body parts		Body Rhythm		Timing (required for crossing a road) Understand mathematical concepts Pattern recognition Improve memory Use listening skills Develop language Self-regulate Following instructions	While moving, singing and playing, a child learns through hearing the appropriate language associated with the task, e.g. under, over, behind, in front, on top of etc. Music also enhances body rhythm which is a prerequisite for skills such as timing mathematical concepts, memory, handeye and foot-eye coordination.
How these body parts move		Repetition			
(Teach through music as it enhances development)		That your body belongs to you		Child protection	Children are more likely to learn and understand what words are by physically doing things and hearing the language.

