

# Moving to Write

## Why Big Movements Matter in Little Learners

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### Aims

- Understanding the physical development and skills that are needed for writing
- Knowing what type of environments and what activities will support development, skills and strength in bodies and fingers for writing



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### Writing your name, what physical skills do you need?

Task



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- Stability of whole body
- Stable shoulder (shoulder pivot)
- Arm function extended
- Elbow and wrist pivot
- Head controlled
- Bi-lateral co-ordination
- Hand co-ordinated with eye
- Eyes focussed tracking
- Sense of direction
- Position in space
- Hand functioning
- Finger function



**Writing - easy isn't it!**

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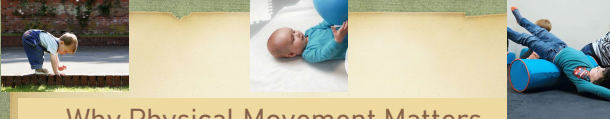
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### Why Physical Movement Matters

- Gross motor skills and core stability are needed for writing
- Children don't learn to write from holding pencils alone
- Core strength, balance, and shoulder stability are key building blocks
- Poor gross and fine motor skills can hinder writing progress and stamina

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### What Research Tells Us

- Gross motor coordination predicts later academic success (Bart et al., 2021)
- Fine Motor skills are a strong predictor of expressive vocabulary in preschool children (Claire Cameron 2012)
- Gross Motor skills are positively associated with children's ability to understand complex sentences (Daniela Mule et al (2022) \*
- Better dexterity is consistently linked to larger receptive vocabularies and superior oral narrative skills (Sebastian Suggate 2024) \*
- Physical strength & control in the upper body supports writing (DfE, 2023)
- EEF highlights movement-rich environments as essential for literacy development



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## The new Writing Framework DfE July 2025 says:

“Children need to develop the following skills in order to hold a pencil effectively:  
 gross and fine motor skills to develop strength, coordination and positional awareness;  
 core strength, stability, balance and spatial awareness;  
 fine motor control and precision”

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### Occupational Therapists are saying:



Fewer opportunities to take movement risks such as climbing trees and swinging across monkey bars than in previous generations



Increased use of electronics, reducing time spent engaged in more active pursuits

Increased use of “containers” during babyhood – e.g. car seats, baby bouncers, bumbo seats, baby swings, and exersaucer type equipment that are so successfully marketed to new mums and dads.

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## Ready for Writing

Can they balance on one leg for 8 seconds?


Can they support their own body weight when doing a press-up in the proper press-up position?

Can they lift their knee and touch with the opposite hand alternately?

Can they crawl?

Can they touch each finger on their hand in turn with their thumb?

Morris and Simmons - Let's Get Physical & Ready to Write



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# Gross Motor Movement Linked to Writing



'Exercise cues the building blocks of learning in the brain' and is 'the single most powerful tool to optimise brain function' Ratey and Hagerman 2008

Why is crawling important?  
What is bi-lateral integration?  
What is a shoulder pivot  
Why crossing the mid-line?

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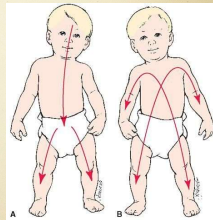
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# Developmental Order (Maude 2008)

Head to feet  
Centre of body out  
towards the  
extremities



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# Physical Development 2-3 years

- Hops on one foot
- Walks upstairs alternating feet
- Walks downstairs alternating feet
- Walks backwards
- Balances on one foot briefly
- Throws overhand at a target
- Catches a rolled ball
- Throws a small ball 2 feet
- Rides a tricycle using pedals



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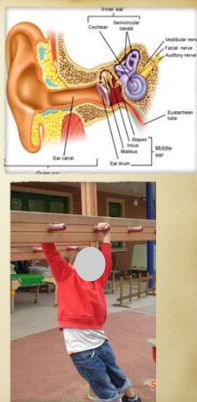
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## Large Motor Skills

- Vestibular system
- Proprioception



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## Bi-lateral co-ordination

### -Crossing the midline



www.pathways.org

WALK THE DINOSAUR [https://youtu.be/898PK6W\\_L1Y](https://youtu.be/898PK6W_L1Y) Teach 20 Skills to Kids <https://skiptut.com/>

### Hand/Eye co-ordination



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## Shoulder Pivot

- The muscles of the back, chest and neck are the first to become well developed.
- Main muscles which help small hands to make their first emergent marks, with most of the movement coming from the shoulder.
- Children will make big marks which will either be long and straight or large and circular



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### Elbow and Wrist Pivot

- Large brushes and rollers
- Sawing wood, blackboard areas and large pieces of lining paper or flip chart
- Drawing circles on large paper, sand in a tuff tray, ribbon/scarf twirling, throwing and catching and sawing wood



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### Crawling



- Stability of hips and shoulders
- Communication between the two sides of the brain
- Strong muscles in the arms, shoulders, neck, legs and fingers
- An understanding of their size and how they fit within a space
- The brain – use the opposite arm, opposite leg movement
- Visual skills – promotes tracking and develops peripheral vision
- Strengthens the fingers
- Independence and exploration

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### Core Strength and Co-ordination



<https://skipout.com/>

Video

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**Core Strength and Coordination**

Core strength is children's ability to keep their position and move from the centre of their body outwards.

Coordination is the brain's ability to control movement of different body parts at the same time.

To be confident with movement, children must develop both core strength and coordination



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**Consider the Environment**

- ✓Textured surfaces
- ✓Angled surfaces
- ✓Uneven surfaces
- ✓Flexible materials – sand / earth / water
- ✓Steps



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**Gross Motor and Core Stability**

- Spinning / Swinging
- Jumping off
- Hanging upside-down
- Balancing
- Climbing
- Digging
- Pushing / Pulling
- Resistance
- Crawling
- Crossing the midline
- Developing strength

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### Types of Equipment

- A-frames
- Balancing equipment
- Ropes to swing on
- Mats
- Large bricks
- Ladders
- Spinning cones
- Swings – soft material
- Monkey bars
- Climbing frames



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### Portable Resources

 Wheelbarrows	Tumbling mats	Loose parts	Tyres
Lycra/stretchy material	Den-making materials	A-Frames	Blocks
Bats, balls, hoops, beanbags	Cones	Bottle babies	Tunnels
Task Crates	Music and ribbon sticks	Brushes	Buckets – large adult-sized

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### Cooking



Let's Cook! A Froebel Trust short film all about cooking and developing community connections in early years settings (produced in July 2023): [www.froebel.org.uk/case-studies](http://www.froebel.org.uk/case-studies)

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**Hammers and Nails**

<https://www.youtube.com/watch?v=OZkr5X-CqRE>

<https://skipcut.com/>

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**Write Dance**

A unique blend of music, dance, and movement that develops the physical skills children need for confident writing.

1) Stand up and get ready to join in a write dance session – <https://youtu.be/Hwp mgbUfzGg>

2) Video example to watch – Nursery <https://youtu.be/Jv AjCGRjPQQ>

<https://skipcut.com/>

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**Everyday Opportunities – Your Curriculum**

Sequence of development

Type of movement

Type of material

Progression

Every child

<https://skipcut.com/>

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Planning and Auditing the Environment	
Vestibular	
Proprioception	
Bi-lateral control	
Low load control and shoulder pivot	
Hand eye coordination	
Elbow and wrist pivots	

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### Recommendations . . .

- ✓ Develop gross motor development knowledge
- ✓ Review opportunities and equipment
- ✓ Provide adult-led activity sessions throughout the day
- ✓ Reflect how activities can be made more active
- ✓ Provide specific opportunities for defined skill teaching
- ✓ Monitor children's progress and skills
- ✓ Reflect on how areas are used
- ✓ Balance adult-led activity sessions with opportunities for indoor and outdoor free play
- ✓ Explain to parents

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### Reflect and Consider

How do you support the development of gross motor skills such as shoulder pivot, bi-lateral integration, crossing the mid-line?

What observations do you make of individual children's physical skills?

What gross motor opportunities do you provide to build stamina and prepare children's bodies for writing?

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## Fine Motor Skills are Needed for Writing

*"We all use fine motor skills in day-to-day activities, and they are vital in learning to write. Holding and controlling the movement of a pencil or other writing utensil involves using a range of skills simultaneously. These skills support the development of the pincer grasp, which is important not just for handwriting but for any activity using our hands."*

Paediatric occupational therapist Margaret Olney

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### Progression in Fine Motor Skills

**2 - 3 YEARS**


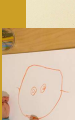
- Pushes, winds, slides to activate toys
- Self-feeds with utensils and open cup, some spillage
- Screws/unscrews lids
- Strings several large, 1 -1.5 inch beads
- Imitates, eventually copies from a model, vertical, horizontal lines, and circle
- Holds crayon with thumb and fingers
- Stacks 6-8 block tower
- Uses scissors to snip paper
- Turns single pages in book

**3 - 4 YEARS**

- Self-feeds with utensils and open cup, little spillage
- Strings small beads
- Snaps clothing, zips with assistance, begins to manipulate large buttons
- Folds and creases paper
- Imitates, then copies a cross ("t")
- Draws a two-part person
- Holds pencil with thumb and fingers
- Stacks 9-10 block tower, begins to copy block designs (train, bridge, wall)
- Uses scissors to cut along a thick, straight line

**4 - 5 YEARS**

- Self-feeds with utensils and an open cup, no spillage.
- Imitates 4-6 part block designs
- Buttons clothes
- Laces sewing card
- Opens all fasteners
- Imitates then copies a diagonal line, square, triangle, and X
- Draws a 3-part person
- Uses scissors to cut simple shapes

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### Fine Motor Skills

Physical skills that involve small muscles and hand:eye coordination

- Bi-lateral coordination
- Movements are more controlled and precise
- Pinch and grip strength
- Separation of the sides of the hand
- Arch development
- Finger isolation
- Thumb web space
- Opposition



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### Tripods




#### Static Tripod

- Pincer
- Palmer arches
- In-hand manipulation

#### Dynamic Tripod

- Thumb opposition
- Finger Isolation

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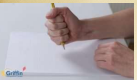
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### Palmer




### Digital Pronate



### Static Pronate



### Dynamic Tripod Grasp



Typical Development Handout

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### Less functional grasps

Fingers along shaft

Thumb wrap

Lateral Pencil grasp

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**Fine Motor Skills**

<https://skipcut.com/>

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**Using Clay**

<https://skipcut.com/>

[https://youtu.be/1E\\_8tU-ZPuY?si=llKkUiyHC9RySCF](https://youtu.be/1E_8tU-ZPuY?si=llKkUiyHC9RySCF)

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**Playdough**

**Recipe 1, super stretchy dough (no eaters please)**  
 1 cup of hair conditioner  
 2 cups of Corn flour  
 Mix it together with your hands or a wooden spoon and enjoy

**Recipe 2, original non-cook dough**  
 2 cups flour  
 1 cup water  
 ½ cup salt  
 2 tablespoons oil  
 Food colouring (variable)  
 Mix it together with a wooden spoon

**Recipe 3, original cooked dough**  
 2 cups flour  
 1 cup salt  
 1 tablespoon oil  
 2 cups water  
 1 teaspoon cream of tartar  
 Food colouring  
 Mix together using a wooden spoon/whisk or spatula  
 Microwave on a medium heat for 4-5 mins  
 Knead once cool and enjoy

Get your playdough ready to have a go  
 Let's play  
<https://youtu.be/9gvtpxbtN8s>

<https://skipcut.com/>

*Super Silly stretchy Play Dough*

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### Cutting Skills

**What to cut?**

- Playdough
- Coffee Filters
- Wax Paper
- Cooked Spaghetti
- Leaves
- Herbs
- Grass
- Flower Stems
- ✓ Cardboard Tubes
- ✓ Cloths
- ✓ Straws
- ✓ Aluminum Foil
- ✓ Cardboard
- ❖ Sandpaper
- ❖ Fabric
- ❖ Thin Twigs
- ❖ Cotton Balls

- ✓ Stability
- ✓ Bi-lateral co-ordination
- ✓ Hand strength
- ✓ Separation of the two sides of the hand
- ✓ Motor planning
- ✓ Hand:eye co-ordination
- ✓ Opening and closing of the thumb space
- ✓ Precision grasp and release

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### Sequence of Cutting Skills

#### First Stage

1. Tears paper
2. Hold scissors incorrect hand placement
3. Hold scissors in correct grip with adult support
4. Begins to open and close scissors
5. Hold paper and make small random snips
6. Consecutive cuts with forward motion of scissors – tears paper
7. Consecutive cuts with a forward motion without tearing paper

#### Second Stage

1. Cut straight line
2. Cut simple curves without moving helper hand
3. Cut simple curves moving paper with helper hand
4. Cut in straight line and change direction
5. Cut circles and other complicated shapes

Colleen Beck OT Therapist

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### Developing Precision Movements



Handout



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### Threading, Sewing and Beads



**Develops**

- Pincer
- In-hand manipulation
- Wrist

**SEQUENCING - PROGRESSION**

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### Sequence of Threading and Sewing



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### Making Marks Let's go large!



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### Reflect and Consider?

What opportunities does your environment afford for the development of each aspect of fine motor skills, e.g., in-hand manipulation?

How do you sequence your fine motor activities?

How often do you plan for the development of fine motor skills for individual children?

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### Key Takeaways

Gross motor are the building blocks for fine motor –  
Know children's development  
~  
Embed fine motor skills development across the day  
~  
Sequence skills – think about progression in resources  
~  
Teach skills, repeat and practise  
~  
Observe, adapt, and respond to each child  
~  
Share with parents  
[Write with me leaflets - tips for parents of 0-5s - Surrey County Council](#)  
~  
Audit your environment and the skills you are developing

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