

Dr. Anjali Morris Education and Health Foundation **NEWSLETTER**



All it takes is a helping hand

Edition 8

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Pune

In the previous newsletters we have discussed the various components of reading. As per the National Reading Panel, the five components of reading discussed in the past were: Phonological Awareness, Phonics, Fluency, Vocabulary and Comprehension. This newsletter will be focusing on writing and the prerequisites of writing.

Why is writing important?

To communicate? To preserve information? Yes, it is definitely an important skill we all must acquire. Writing is an act of communication and a purposeful means of addressing an audience. It is not only writing a sentence but an activity of producing a text in a context. Writing needs some process of thinking. By knowing the process of writing, students can develop their ability to create a good written text.

Writing involves two important domains: Graphomotor skills and Written Language.

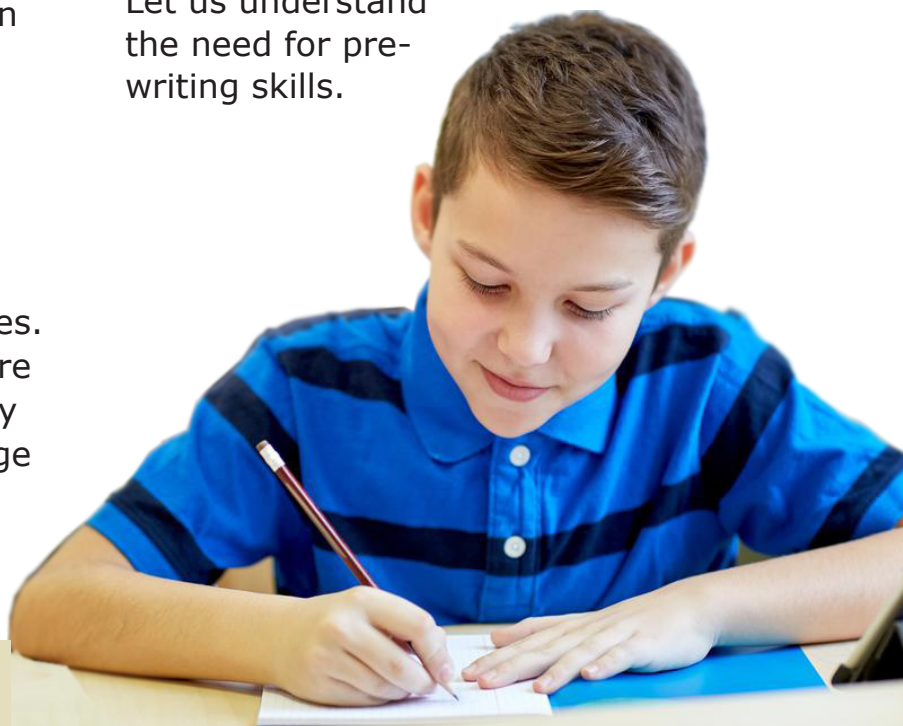
'Grapho' means writing and 'Motor' means use of gross and fine muscles. Graphomotor skills are skills that are important for writing and eventually the development of written language skills.

Graphomotor activity thus appears to be an important

domain of the writing act because it has an impact on student performances in spelling and written composition and because handwriting problems influence the quality of text production. Moreover, various studies have clearly shown the contribution of this component by demonstrating that good spelling and text production abilities are dependent upon the automation of graphomotor skills during elementary school. ⁽¹⁾

As we all know, every child starts acquiring various skills soon after birth. Infinite developments take place within the brain as well as in the body. A child does not immediately start writing but acquires and polishes the skill over a period of time. Development of these skills are necessary and helpful for learning to write.

Let us understand the need for pre-writing skills.





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Why are writing readiness (pre-writing) skills important?

Pre-writing skills are essential for the child to be able to develop the ability to hold and move a pencil fluently and effectively and therefore produce legible writing. When these skills are underdeveloped, it can lead to frustration and resistance due to the child not being able to produce legible writing or to 'keep up' in class due to fatigue. This can then result in poor self-esteem and academic performance.

The following table gives us a guideline as to what can be expected at that particular age. ⁽²⁾

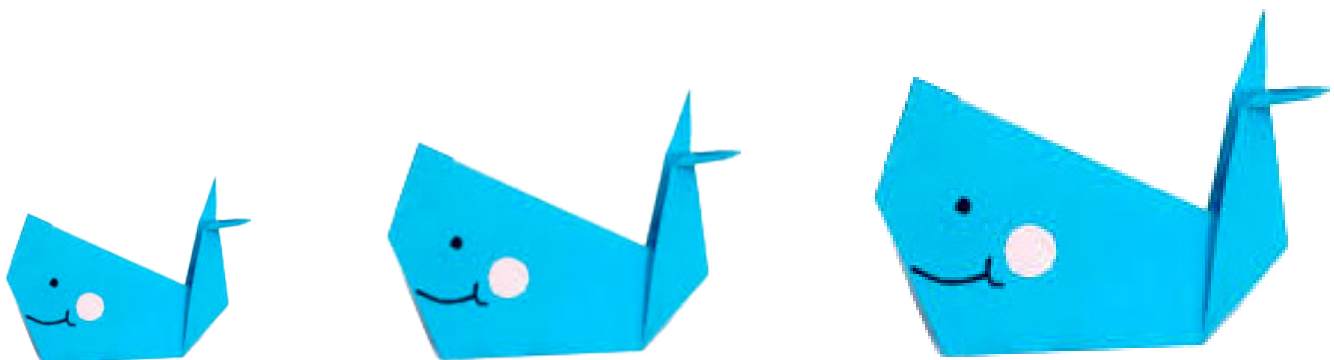
Age	Pre-writing expectation
1 - 2 years	<ul style="list-style-type: none"> • Randomly scribbles • Spontaneously scribbles in vertical/horizontal and/or circular direction • Imitates a horizontal/vertical/circular direction
2 - 3 years	<ul style="list-style-type: none"> • Imitates a horizontal line • Imitates a vertical line • Imitates a circle
3 - 4 years	<ul style="list-style-type: none"> • Copies a horizontal line • Copies a vertical line • Copies a circle • Imitates + • Imitates / and \ • Imitates a square
4 - 5 years	<ul style="list-style-type: none"> • Copies a + • Traces a line • Copies a square • Copies a / and \ • Imitates X • Imitates Δ • Grasps pencil in writing position
5 - 6 years	<ul style="list-style-type: none"> • Copies X • Copies Δ • Recognizes between a big and small line or curve

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To put simply, graphomotor skills are skills that are required for writing. While it sounds simple, a lot goes into the process of being able to write something by hand. It requires a fine balance of several different skills, and when one or more of these specific skills is underdeveloped or falls short, the whole process can be thrown off. There are five distinct areas of skill that must all work together in order for handwriting to take place. These include: ⁽³⁾

- 1. Visual perceptual skills**, which are the ability to see a letter or word and assign meaning or judge accuracy.
- 2. Orthographic coding**, which is the ability to store letters or groups of letters in memory and then retrieve them when needed.
- 3. Motor planning and execution**, which is also called “praxis”, the ability to carry out necessary motor movement.
- 4. Kinesthetic feedback**, which is the ability to know where a part of the body is in space (in the case of handwriting, the hand and fingers) for the purpose of carrying out necessary motor movement.
- 5. Visual-motor coordination**, which is the ability to correlate motor movement with visual perception, or the ability physically to create letters and words on the paper.

It is very important to expose the child to various readiness activities before the child actually starts to write. Hence, we encourage children to use their larger muscles (gross motor skills) in the early years where the child starts scribbling and colouring within shapes, drawing patterns, etc with thick crayons and creating patterns with given objects. Over time, as fine motor skills are developed, the child begins to hold a pencil correctly and develops a relevant and firm grip while learning to write between lines and boxes.



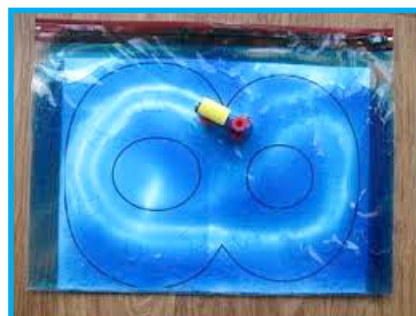
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What can be done to develop writing readiness (pre-writing) skills?

- **Hand dominance:** Allow the child to use his dominant hand in precision task performance.
- **Experience:** Encourage participation in activities that involve grasping and manipulating small objects such as drawing, puzzles, opening containers, threading or other related tasks.
- **Poking and pointing:** Practice tasks that use just one or two fingers (not all at once) e.g. poking games.
- **Hand and finger strength:** (e.g. scrunching, paper, using tweezers, play dough, pegs).



- **Sensory play activities:** (e.g. rice play, finger painting) To assist the development of tactile awareness.



- **Hand-eye coordination:** Practice activities that involve hand-eye coordination (e.g. throwing and catching).
- **Upper limb strength:** Encourage play activities that develop upper limb strength (e.g. climbing ladders, wheelbarrow walking).
- **Praise and encouragement:** When the child engages in fine motor activities, especially if they are persistent when finding an activity difficult.

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More activities for developing pre-writing skills:

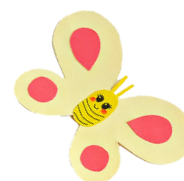
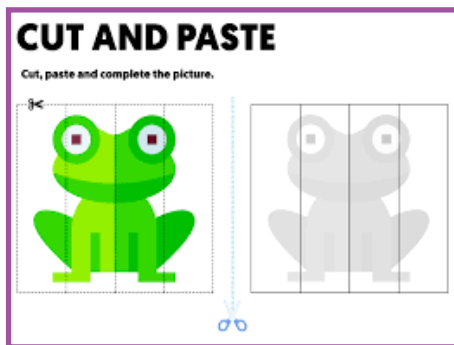
- **Threading and lacing** with a variety of sized laces.



- **Play-doh (playdough)** activities that may involve rolling with hands or a rolling pin, hiding objects such as coins in the play dough or just creative construction.



- **Scissor projects** that may involve cutting out geometric shapes to then paste them together to make pictures such as robots, trains or houses.



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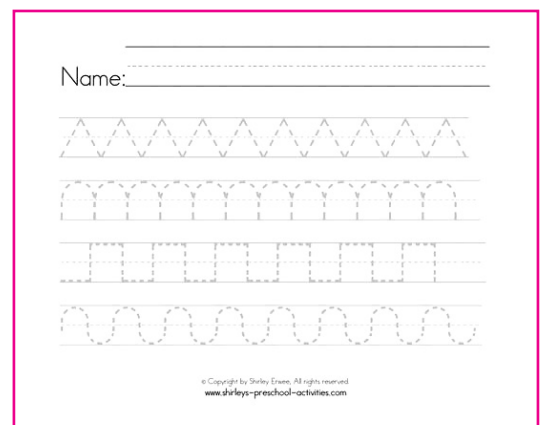
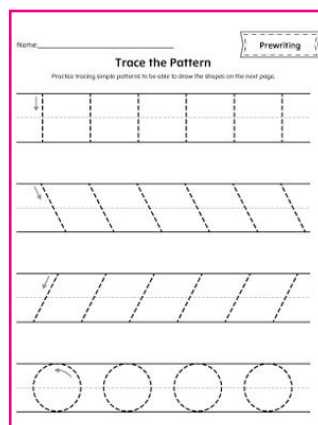
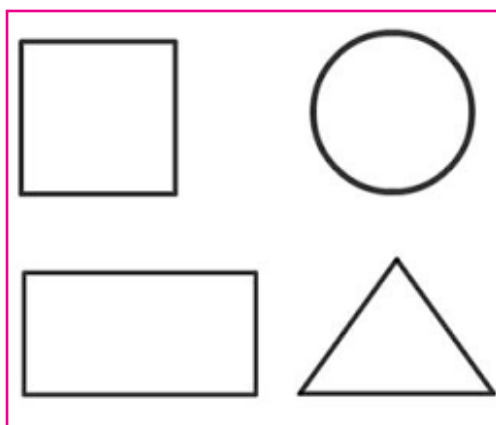
- **Tongs or tweezers** to pick up objects or simple grain sorting activities.



- **Drawing or writing** on various sensory aids like sand and squishy bags.



- **Every day activities** that require finger strength such as opening containers and jars.
- **Pre writing shapes:** Practice drawing the pre-writing shapes (l, —, O, +, /, square, \, X, and Δ).



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- **Finger games:** That practice specific finger movements such as Incy wincy Spider.
- **Craft:** Make things using old boxes, egg cartons, wool, paper and sticky or masking tape.



- **Construction:** Building with lego or other construction toys.





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Why should one seek therapy if one notices difficulties with writing readiness (pre-writing) skills in the child?

Therapeutic intervention to help a child with writing readiness difficulties is important to:

- Improve ability and persistence with fine motor tasks for academic performance.
- Increase school readiness skills for the child's emotional comfort and ease of transition into school.
- Help a child to develop age appropriate self care tasks such as doing up buttons and zips.
- Avoid the child becoming disengaged in writing activities in school.
- Avoid frustrations experienced by parents, teachers and children when the child is struggling to remain engaged in academic activities.
- Develop and maintain the child's positive sense of well-being through belief in their pencil skills for academic and play tasks.
- Ensure that the child doesn't fall behind his peers in development of handwriting or drawing.

So far, we have tried to understand one of the domains of writing, i.e. graphomotor skills and the various readiness activities that can be done at home and school to develop those skills. However, we will come across many children who fail to achieve the development of their gross and fine motor skills. Hence it is necessary to keep an eye on every step of your child's development and reach out an expert, if necessary. Timely diagnosis and an early intervention will help stem future challenges.

In our next newsletter, we will be discussing about the next important domain of writing: **Written Language**.

References:

1. https://www.researchgate.net/publication/279506206_The_Effects_of_Manuscript_Cursive_or_ManuscriptCursive_Styles_on_Writing_Development_in_Grade_2
2. <https://childdevelopment.com.au/areas-of-concern/writing/writing-readiness-pre-writing-skills/>
3. <https://study.com/academy/lesson/what-are-graphomotor-skills-definition-deficits.html>