

**enable
ireland**

Disability Services
Life With No Limits

**PRE-WRITING
BOOKLET
FOR PARENTS,
PRE-SCHOOLS
& SCHOOLS**

NORTH EAST



INTRODUCTION

Young children use their hands to explore and learn about the world around them. By developing good hand skills and other pre-writing skills you will prepare the child for the next step, which includes handwriting.

This booklet has been created for parents, pre schools and schools. It is intended to give information on the developmental stages a child goes through to acquire the skills necessary for writing. The booklet outlines the importance of all the skills and gives tips and suggestions of activities to help the child learn these skills.



ACKNOWLEDGEMENTS

This booklet has been developed by Mary Frances Coyle (Occupational Therapist) and Pam Fausset (Child & Family Support Worker) of Enable Ireland Cavan/Monaghan. It will help promote the skills associated with early pre-writing development.

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POSTURE

To begin pre-writing tasks the child must be able to sit independently. The child must be seated correctly with **their feet on the floor** (or a stool or footrest) and a table at an appropriate height. The table height should be slightly higher than the child's bent elbow position when the child is seated. Add 25cm from top of seat height to get a guide height for what the table should be. If the table is too low, it will encourage poor posture and the child will often lean onto the table. Alternatively, if the table is too high it will encourage shoulder and arm elevation and affect the child's pencil control.

If the child is unbalanced and feel as if they will fall off the chair, they will put all their attention into their sitting posture and balance rather than the pre-writing task. The child's arms must be free to interact with the crayon and not be used to hold them stable in the chair.

Balance and trunk control becomes a more significant issue when pre-writing skills move from scribbling to more complex colouring and letter formation.

Ensure the child is sitting close to the table, with the page 1-2 inches from the end of the table so that the forearm and wrist can rest on the table. Ensure the page is placed at a slightly tilted angle to the child.

Note: You may need to remind the child to rest their forearm and wrist onto the table as this will assist in the stability of the hand and allow better control.



JOINT STABILITY IS IMPORTANT

The development of pre-writing, colouring and handwriting skills rely heavily on the development of upper limb joint stability at the shoulder, elbow and wrist. Without good upper limb joint stability it will be difficult to control the writing tool within the hand effectively.

SHOULDER STABILITY

Good shoulder stability is necessary as the muscles on either side of the shoulder joint controls smooth movements of the arm. If the shoulder isn't stable and steady, the hand will not have as much controlled movements.

ELBOW AND WRIST STABILITY

It is essential that you encourage the child to rest their forearm and wrist on the table as this will add to the stability within their hand during writing tasks.

HAND STRENGTH

Reduced finger joint stability and hand strength can contribute to the quality of the child's pre-writing and writing skill. Reduced hand strength can lead to poor pencil grasp and may be a contributory factor in the child swapping writing hands. The child may swap the crayon between hands if they tire.

It is essential that all children of preschool age and early school age are encouraged to develop upper limb joint stability and hand strength in conjunction with developing their pre-writing and writing skills.

ACTIVITIES TO DEVELOP JOINT STABILITY AND HAND STRENGTH

Note: If the child has a medical condition or restricted mobility, advice should be sought before completing any of the activities outlined.

- Try working on a vertical surface to develop the muscles in their shoulders. Use a blackboard/whiteboard, or paper placed on the wall.
- Animal walking – walking with hands and feet on the floor.
- Crab walking-sitting on the floor with hands behind the back and knees bent, push with arms and lift bottom off the floor and walk.
- Bunny hops-putting weight through arms and kicking with legs
- Playground activities – climbing, hanging from monkey bars etc.
- Hands on a bench, jump over side to side of bench
- Daily home activities which require weight through the shoulders i.e. carrying in the shopping



- Pushing and pulling activities e.g. Tug of War, moving furniture around in the classroom or at home.
- Squirty water bottles during water play.
- Games such as: Operation or picking up objects with tweezers
- Small Lego
- Wind up toys
- Clothes peg games
- Small peg boards
- Marla and modelling clay, play dough using cutters
- Small nuts & bolts
- Chair push ups
- Paper punches
- Tearing paper



GRASP DEVELOPMENT

The overall aim is to achieve a dynamic tripod grasp where the tool is held between the pads of the thumb and index finger (Taylor, 2001). It is important to be familiar with the developmental stages of grasp development so you can slowly guide the child to achieving a functional grasp. A delay in the development of an appropriate grasp will make pre-writing control more difficult for the child.

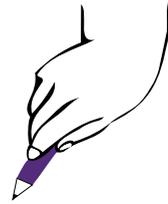
STAGE 1:

The first stage of grasp development is a gross palmer grasp.



STAGE 2:

The child will start to use a digital grasp of the crayon.



STAGE 3:

However, the child's pencil grasp may involve 3, 4 fingers. The important goal is that the child has good control of their crayon/pencil.



TIPS FOR DEVELOPING A PENCIL GRASP:

- Use a very **short** chunky crayon. Break a regular chunky crayon to a size of approximately 2 cms. Using crayons of this size prevents the child from using a palmer grasp to hold their crayon.
- A thick pencil/marker/crayon is better as this encourages a better grasp – try to avoid long slim colouring pencils/markers.
- Gradually increase the length of the child's crayon if the child can consistently maintain an appropriate grasp.



- Adult sized pencils can be difficult for children to control. It is better to use a shorter pencil.
- Rubber band on pencil as a visual guide of where to hold pencil
- Mark a spot/place a sticker on the pencil to guide the child where to hold it.

PENCIL CONTROL

When the child can stabilise their crayon/pencil to complete a range of pencil mazes, colour within boundaries and draw simple shapes, we can say they have obtained good pencil control.

To help the child gain pencil control it is important to start with a series of pencil mazes, working from simple to more complex mazes. Asking the child to colour particular parts of a picture e.g. colour the dogs nose, also helps develop pencil control.

Note: Encourage the child to rest their forearm and wrist on the table for stability.



PRE WRITING DEVELOPMENTAL SKILLS CHECKLIST 0-6 YEARS

| DEVELOPMENTAL STAGE | ACHIEVED |
|--|----------|
| The child bangs crayons on paper | |
| The child scribbles randomly | |
| The child scribbles randomly in any direction. | |
| The child imitates a vertical scribble | |
| The child imitates a horizontal scribble | |
| The child imitates a circular scribble | |
| The child imitates a vertical line | |
| The child imitates a horizontal line | |
| The child imitates a circular line | |
| The child copies a vertical line | |
| The child copies a horizontal line | |
| The child copies a circle | |
| The child imitates a cross + | |
| The child copies a cross | |
| The child imitates a right/left diagonal / | |

| DEVELOPMENTAL STAGE | ACHIEVED |
|---|----------|
| The child copies a right/left diagonal | |
| The child imitates a square  | |
| The child copies a square | |
| The child imitates a left/right diagonal \ | |
| The child copies a left/right diagonal | |
| The child imitates an X | |
| The child copies an | |
| The child imitates a triangle  | |
| The child copies a triangle | |

NOTE

IMITATION: This is when the child watches you make a mark/shape on the paper and they have to attempt to do the same.

COPYING: This is when the child does not see you make the mark on the paper and you then show them the paper and ask them to do the same.

STAGES OF COLOURING DEVELOPMENT

All children love to colour. This is an important skill as it can be used to help develop pencil grasp, pencil control and awareness of boundaries within a picture and prepares the child for handwriting.

STAGE 1

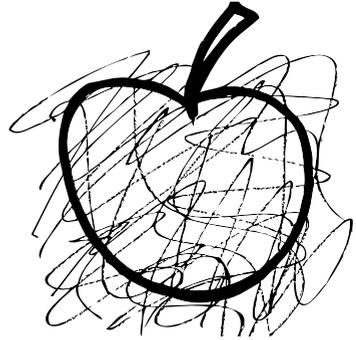
Children show an interest in colouring on surfaces e.g. paper, walls and tables.



STAGE 2

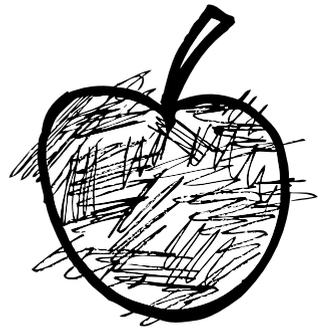
Children develop an understanding of colouring on paper – often reinforced by adults. No attention is given to colouring within lines and colouring strokes are random.

* During stage 1 & 2 the child will show no regard for colour.



STAGE 3

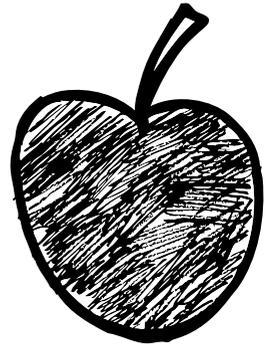
Children are developing better stroke control and will start to use more stroke directions. Children will start to show awareness for boundaries of the picture. The child will often change the position of the page while colouring and will begin to use various colours, some appropriately.



STAGE 4

The child has now developed sufficient stroke control to colour in various stroke directions while keeping the page still. The child can now colour a small single picture within lines.

The child will use colours appropriately.



TIPS

- Always encourage the child to stabilise the page with their non writing hand.
- Always present the colouring tools in front of the child rather than either side
- It is best to start with small simple pictures so the child will not tire and will be more successful.
- Cut out a simple picture and place it on a different coloured page e.g. white picture on black background. This will give the child a clear idea of where to colour and the boundary.
- Laminate a coloured page. Cut out a medium size square in the centre. Place laminated page over white page. This will give a visual and physical prompt of where to colour.

HAND DOMINANCE

When one hand is consistently used more than the other hand and has more control and skill then it is considered to be the **dominant hand**.

There are differing views on when hand dominance emerges but some children start to show a hand preference by ages 2-4 years. It would be preferable if most children have a consistent hand dominance established before entering school.

It is much more beneficial for a child to develop strength and dexterity in one hand as this will develop accuracy and speed with fine motor tasks especially handwriting. The other non dominant hand plays an important role as the “**helper**” hand and this should be encouraged. The helper hand is important for stabilising the page.

Note: Activities that require using both hands together in a controlled manner allows the child understand which hand is more dominant (Bilateral activities). Exposure to these types of activities is essential in assisting the child develop hand dominance, for example threading, lego, and craft activities.



SWITCHING HANDS

Switching hands is often seen in children. They may swap hands for painting, eating etc. It is not usually a concern when a young child swaps hands as they are still learning how to use their hands well together and what feels right for them.

However, if your school age child is still swapping hands this can negatively affect their school skills. It is important they have a dominant hand that becomes specialised at doing the job of controlling the pencil.

Fine motor activities to increase strength and endurance and shoulder stability are necessary, as difficulties in these areas may lead to excessive hand swapping due to fatigue.

Activities which require the child to cross their midline (an imaginary line through the centre from head to toe separating the right and left halves of the body) are important. Midline crossing helps to develop consistent dominance and means the child will reach across their body to get a crayon i.e. not use the hand closest to the crayon/pencil.

A child who avoids crossing the midline will use both hands in equal amounts. This can contribute to delayed development of true hand dominance and fine motor skills may not be as developed as they could be.

Ask your therapist for specific activities which will assist your child develop midline crossing skills.

LEFT HAND WRITING

Teaching a child to write with his or her left hand is not just the opposite from teaching how to write right-handed.

Differences between right and left handed writers:

- The left handed child requires specific instruction because of the natural tendency to write from right to left.
- In writing from left to right, the left hander must push the pencil across the page instead of pulling it as a right handed person would do.
- The left hander's hand covers what has been written sometimes causing the finished product to look smudged.

THE MOST IMPORTANT FACTORS OF CONCERN FOR LEFT HAND WRITERS ARE:

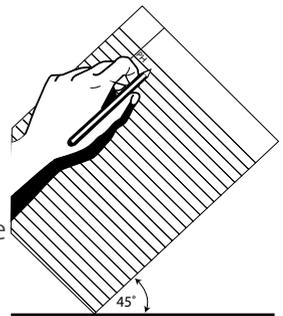
- The position of the writing paper,
- The position of the arm and wrist, and
- The grip on the writing instrument.

PAPER POSITION

TEACHING TIPS:

Teach left-handed children to remember three things as they learn to write:

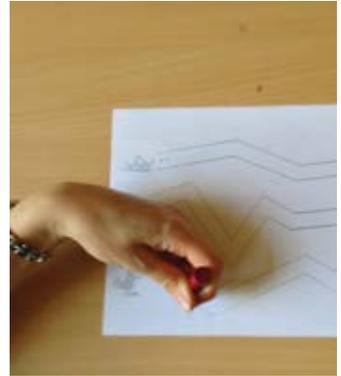
1. Tilt paper so that arm is at right-angle to bottom edge of paper / slate (and the top right corner of page is toward writer). This is the same for colouring a picture or completing pencil control mazes.
2. Grip the pencil approximately 2.5 cm to 3.5 cm from the point.
3. Ensure the child keeps their wrist straight (not hooked) and their hand below the area where they are writing.



USEFUL TIPS:

- Left-handed children should be seated on the left side of a double desk, or next to another left-hander to avoid elbow clashing.
- Place a coloured star or strip at the left hand margin to prompt the child where to start. Left handed children will tend to start at the right of the page.
- Do make allowances for clumsiness, smudging and untidiness and emphasise their achievements with lots of praise.
- Ensure that the desk and chair are at a suitable height for the child. A low table makes a child raise his shoulders, leading to the “hooked” writing style.

The “hooked” style of writing that is often seen in left-handers results from lack of proper training. This is **not** how a left-hander should write. Left-handers adopt this posture because they are trying to see what they are writing and not smudge what they have just written with their hand. These problems are best avoided by correct paper positioning and pencil grip.



ADAPTIVE PRE-WRITING EQUIPMENT

The development of a functional pencil grasp can be difficult to achieve and sometimes the use of commercially available pencil grips, weighted pencils etc may be considered. However, fitting a pencil grip may not necessarily be the solution. Alongside this approach it is important to develop stability and strength within the upper limb and hand as this is the best precursor to developing a functional pencil grip.

The following is an outline of some additional writing aids.

Triangular/other pencil grips: These are often useful to help direct an immature pencil grasp to a more mature one as the grips often guide the thumb, index and middle finger into an appropriate position.

Triangular pencils: As these pencils tend to be wider they make grasping easier as well as guiding the fingers into place around the pencil.

Weighted pencils/pens: Extra weight on pencils can be a great assistance for hands that are slightly shaky.

Slant boards: Slant boards are often useful for a child that has difficulty copying from the board as it reduces the distance they are required to visually track from the table to the board and visa versa. They often assist a child that tends to have a stooped posture over the table as it encourages a more upright position in writing. Additionally a slant board often supports the wrist and encourages the forearm to rest on the table more naturally thus giving extra stability within the hand. (P.S. you can firstly try a lever arch file sloped towards the child to identify if a slant board may work).

Pencil aids and grips are available from most well stocked stationary stores or online and it is often a matter of trying a few to identify if there is one that supports your child in developing a better grasp. If not, then continue to use short chunky crayons or short chunky pencils until they can then transfer this grasp to any pencil or pen.



TIPS:

Helper hand: If your child needs prompting to use their “helper” hand to stabilise the page it can be useful to use a visual prompt. Draw around the “helper hand”, get the child to decorate it, laminate it and cut it out. It can then be placed on the table as a visual cue for the child to place their helper hand over it thus supporting the page.

Blotting paper: If your child leans very lightly on the page, it can often be worth placing blotting paper under their page and encourage them to see if they can get their creation through to the page underneath. Additionally your child most probably needs to develop improved upper limb stability.

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