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*Therapi Galwedigaethol Plant  
Canolfan Iechyd Plant Wrexham  
Ffordd Croesnewydd, Wrexham LL13 7TD*

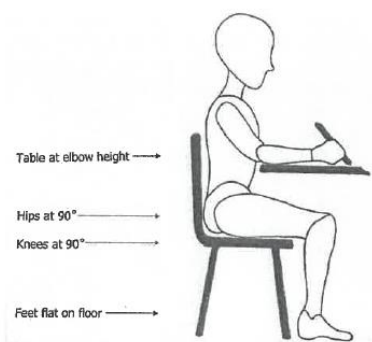
Children's Occupational Therapy  
Wrexham Child Health Centre,  
Croesnewydd Road, Wrexham LL13 7TD

## Handwriting

Handwriting is a very complex perceptual-motor skill which takes up a large proportion of the child's school day. In order to be able to write, a child needs to have appropriate core skills: good postural stability to sit/stand to make marks on the page and fine motor skills to manipulate a pen/pencil.

This pack can help you to check through each aspect of handwriting to find the area of difficulty for the child. Activities are included for you to try with the child to help to improve their area of difficulty. Children should be given time to master each skill required and time to consolidate their learning.

### Posture



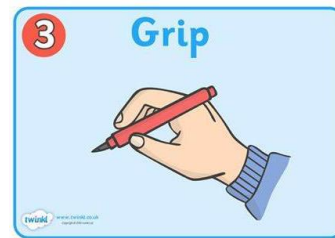
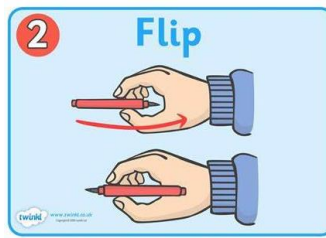
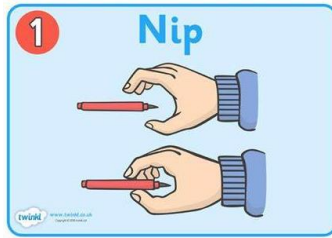
It is important for all children to sit properly when writing. Being seated properly gives a child good stable posture from which they can develop their handwriting. The children who have difficulty with their movement can find it very difficult to sit comfortably or with stability. It is even more important for these children to get their posture right to help them develop handwriting.

- The chair should allow the child to sit comfortably, with feet flat on the floor and bottom well back on the seat.
- If the chair is too high (and no smaller one is available), and the child's feet are not touching the floor, then a phone book, wooden step or footstool should be used to support the feet.
- If the chair is too low, cushions or pieces of foam can be used to raise the child.
- Slanted desk tops or writing slopes can help to correct a poor writing position by encouraging the child to sit more upright. Try using a lever arch file to alter the angle of the paper.

### Pencil Grip

Before children are ready for writing, they need to develop hand skills and they need to develop strength and control in their arms and shoulders so that they can steady themselves. Children must be able to understand where their hands are during a task, what the movements feel like and how they move. Complete the activities in the pre-writing activities sheet to help the child develop these skills.

Once the child has completed these and has good shoulder and hand strength, it is important that they are taught how they should hold the pencil correctly and how to get their hand in position.



### **Activity 1 – Pencil Pick-ups (Page 8)**

Once the child is able to hold their pencil in the correct position, pencil pick-ups are a good way to practice. This can be done by making small marks or drawings or by colouring small sections of a picture. Encouraging the child to put the pencil down and pick it back up multiple times.

### **Activity 2 – Self Checks (Page 9)**

Encourage the child to get back into the correct grip each time and to self-check and correct where needed. The self-check prompt cards can be used to encourage this either during the pencil pick-ups or during other writing tasks. Using one of the cards, the child can tick when they have checked and are holding the pencil in the correct grip. These can also be laminated and used multiple times.

Ideas to encourage good pencil grip;



Use a short pencil/crayon to encourage the child to use only their thumb, pointer and middle finger



Put an elastic band or stickers around the pencil/crayon to reinforce finger positioning (approx 2cm from the lead)



Use chunky triangular pencil/crayons to encourage a tripod grasp

- An inefficient grasp can be the cause of discomfort when writing.
- If the child is holding a pencil too tightly this can be a sign of instability of the fingers or hand and cause slower writing, increase fatigue and frequent need to stop. In this instance a soft cushioned pencil grip can help to adjust the level of pressure being put through the pencil and can help to decrease the strain on the finger joints
- There are a range of pencil grips available commercially which can be used to help the child achieve a tripod grip, these should be considered if the child has been unable to achieve a functional grip having completed the activities above.

## **Letter Formation**

Learning to form letters is important for fluency and speed of written work but can be extremely difficult for some children to master.

- It is important that children learn to form letters in one fluid stroke rather than forming letters in fragments. Discourage the child from lifting their pencil from the page.



- A multi-sensory approach to learning is a great approach for all children. See activity ideas on page 10
- Go slowly do not rush the child; handwriting can quickly become a source of anxiety and frustration to children. Practice a little and often to maximise results, for example, 10-15 minutes sessions 5 days a week with as many multi-sensory activities as possible.
- Developing bad habits are difficult to break, especially in older children
- Free hand letter formation has been found to be more useful than tracing as it relies more on motor memory rather than vision
- As new letter groups are learned continue to consolidate those already learnt to reinforce them.
- Practice forming the letters with closed eyes to reinforce the motor memory of that letter
- It can be helpful to group letters with similar motor movements:
  - The C family – c a o d g q
  - Letters starting from the top – j p y b f h k l t y
  - The diagonal family – v w x z
  - The small letters – i m n r s u e
- Introduce letters in groups and add new groups slowly, at a correct pace for the child. Focus on three letters at a time ensuring the child can imitate, copy and write the letter independently from memory before moving on.
- Think of new ways to describe the letters that are visually meaningful to the child.
- Having the child stand upright for vertical writing and lying down on their fronts for horizontal writing allows for more trunk stability, crossing of midline and hand /arm dissociation. (Lying down for only very short periods as not easy to maintain).
- Cursive writing can be important in improving fluency and speed of writing but if a child is already experiencing difficulties in forming letters then learning cursive writing might be an even bigger challenge for them

Aa Bb Cc Dd Ee Ff Gg Hh Ii Jj Kk Ll Mm  
Nn Oo Pp Qq Rr Ss Tt Uu Vv Ww Xx Yy Zz

## Writing on the Line/ Letter placement

Children at times may find it difficult to get the letter sizing correct when writing and this can make the child's work look untidy, ensure that the child is able to form their letters correctly before completing these activities. Highlighters can provide strong visual cues about letter sizing and help the child monitor their own progress. Standard highlighter pens are about a good width for the size of the small letters.

### Activity 3 – Letter Sorting (page 11)

Complete the activity sheet, encouraging the child to recognise the different types of letters and which group they may belong to. Encourage the child to write the letters in the correct group using correct placement

- The child is encouraged to form their letters within the highlighted area, starting the small letters at the top of the colour.
- Once the child has mastered this consistently, you can introduce the tall letters.

c o a e i m r a w  
t h d b f

## Activity 4 – Highlighted lines (page 12)

Use the highlighted lines on page 12 to practice pieces of writing using correct letter placement. Highlighted lines can be used in the child's book using a highlighter to highlight the lower part of the line to indicate the size of the letter.



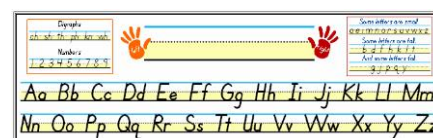
- If the child has difficulty with this, then introduce a second colour to show where the tall letters should be.
- When letters float above or drop below the line it is often because the child does not place their pencil at the

correct spot to start the letter.

- Darken the lines to increase awareness; sometimes copying paper on the darkest setting will make the lines easier to see.
- Once this has been mastered introduce the descender letters with tails. A third coloured highlighter can be used. If you use the colours brown, green and blue, corresponding with ground, grass and sky, it helps the child understand where tall, small and letters with tails should be placed.
  - The small letters should stay in the middle ground section
  - The tall letters should reach to the sky blue area
  - The divers should reach down into the bottom earth section
- Experiment with different lined paper
- Some children can find it challenging to form letters correctly because they become confused on the start point. Help the child to separate the letters of the alphabet by start point on the line.
- Raised lined paper can be used to encourage writing on the line by encouraging the child to 'bump' their letters off the line
- An alphabet strip attached to the child's desk to prompt can help. These can be downloaded online or the child could make their own.
- Try, on lined paper, in the left margin draw a simple house: the roof (a triangle) is within the top half of the line, the house is a square within the bottom half, below the house is the basement. Remind the child to start letters in the attic or roof for capitals, tall lower case letters and numbers. Small letters stay in the house and start at the top of the box. Descending letters also start at the top of the box and live in the basement.



Wide



## Finger Spacing

- Teach the child to "finger space": place his/her index finger of helper hand after each word they write
- It may be better for some, particularly left hand writers to use coloured pens, straws or a lollypop stick rather than their finger, try getting the child to decorate their own finger spacer.
- Fun spacers can also be found online and laminated.
- Have the child place a dot with a stamp marker or highlighter after each word as a spacer, or to make a small dot with the pencil; they can erase the dots later.
- Initially encourage exaggerated spaces, especially for young writers. Using 2 fingers per space may be a good way to start.



### Activity 5 – Graph Paper (page 13)

Graph paper can be used to practice spacing, encourage the child to use a box for each letter leaving a blank box for the space. Enlarge the boxes if necessary on a copy machine.

### Activity 6 – Create the Space (page 14)

- To increase awareness and also for fun, challenge your child to read sentences that don't have spaces in between words. Have him/her rewrite the sentences correctly.

- Teach student to review their own work to determine if there are spaces between the words. If they don't have spaces, they can use a highlighter to add them.
- Some students respond better to concrete instruction such as, "Move your pencil over before you start the next word."
- Highlight right margin if student crams words on right side of paper rather than dropping down to next line.



## Too light or too dark

Excessive pressure can increase the level of discomfort when writing, and too little can be a sign of reduced strength and fine motor coordination, try:

- Using carbon paper get the child to either only go through one copy or go through to the back to encourage the right amount of pressure. Instruct the child to use hard and soft strokes and discuss the difference.
- Fine motor control and hand strengthening exercises
- Experiment with different types of lead strength in pencils or pens with different nib styles. Some styles of nib's like roller-ball and ball point pens help to promote fluid pen movement across the page



## Paper positioning

Placing the paper correctly will facilitate a functional position of the arm, wrist and fingers will help to reduce fatigue and tension. There are alternative strategies for left handed writers.



- The paper should follow the direction of the arm with a slight slant, an angle of 35-40° is usually the most efficient but experiment with what feels the most comfortable for the child
- The use of the supporting hand to stabilise the paper is very important and often something that is overlooked
- If paper positing is a particular area of concern, try taping the page to the table

## Alphabet knowledge

In order to be able to write and put letters together to make meaningful words a child needs to have an understanding of what the letters of the alphabet are. If they struggle with this try an alphabet strip on their desk to reinforce the letters, this can also help to prevent reversals. If the child does not yet know the alphabet, then this will need to be taught first.



- For letter recognition, have child read through a story at his/her reading level and circle all of the a's or b's, etc.



## Reversals

- It is not uncommon for a novice writer to get certain letters the wrong way around, the most common are b and d and p and q
- If an older child is still struggling with a high degree of reversals this could be due to visual perception (ability to analyse and interpret what we see) problems or visual-motor integration skills (ability to transfer what they see into motor movement), if you feel this is a problem speak with an Occupational Therapist



- Having problems identifying left from right can also increase the volume of reversals in work, try encouraging them to use their hands to make a bridge and the left hand shape is the letter L
- They might also have problems with understanding directional language, up, down, around, under, over. Activities can be completed to help with this.
- Get the child to check their work for reversals, are they able to identify and make corrections
- Cursive writing can help to reduce reversals
- Visual reminders can also help, try alphabet strips or pictures



## Alternatives to Handwriting

Handwriting is a tool for expressing, communicating and recording ideas but if a child's handwriting does not reflect their academic abilities and becomes a barrier to overcome then it is a good idea to explore alternatives. Using alternative methods does not mean failure it just provides an alternative flexible approach to communicating ideas.

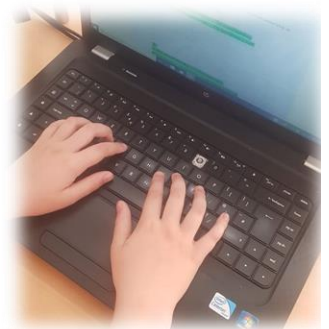
Learning to type is an important skill for all children to learn but can be particularly beneficial for children with motor co-ordination difficulties. Typing requires less input than handwriting and therefore can make writing tasks easier for some children. Typing should not replace handwriting skills as this is still important for the child, but where there are large pieces of written work required, a child may benefit from using a keyboard to type their work to ensure that their work represents their ability.

There are lots of free websites which offer programs to teach children to learn how to touch type. We use the BBC Dance Mat;  
(<https://www.bbc.co.uk/bitesize/topics/zf2f9j6/articles/z3c6tfr>).

This breaks down the skill into different levels and allows the child to practice their typing skills.

Other alternatives are using Dictaphones or voice recording software to record work verbally, using Mind Maps to structure work into small chunks, multiple choice questions with tick box answers, photocopied notes rather than copying from the board.

Allow the child to present their work in different formats – electronically, oral presentations



## Helpful ideas

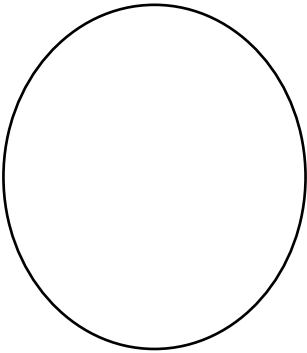
- If the work being produced in class does not reflect the academic ability of the child it could be because they are needing to concentrate too much on the aspect of writing to the detriment of the quality of content. Try encouraging the child to brainstorm ideas to focus on what they want to say. Consider using alternative ways to assess and grade the child.

- Try using mnemonic's like COPS or SWAG to help children to check their work:

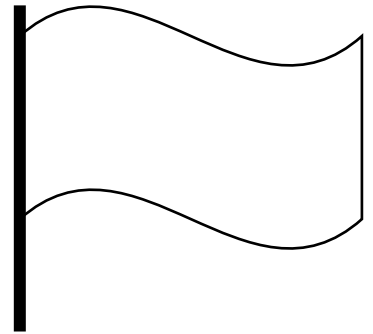
<b>C</b> apitals	<b>S</b> TART'S WITH A CAPITAL LETTER
<b>O</b> verall appearance	<b>W</b> ritten neatly?
<b>P</b> unctuation	<b>A</b> space between each word
<b>S</b> pelling	<b>G</b> iven punctuation at the end . , ! ?

## Activity 1 - Pick-ups

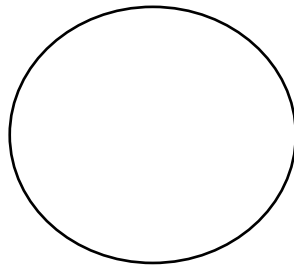
Draw a face.



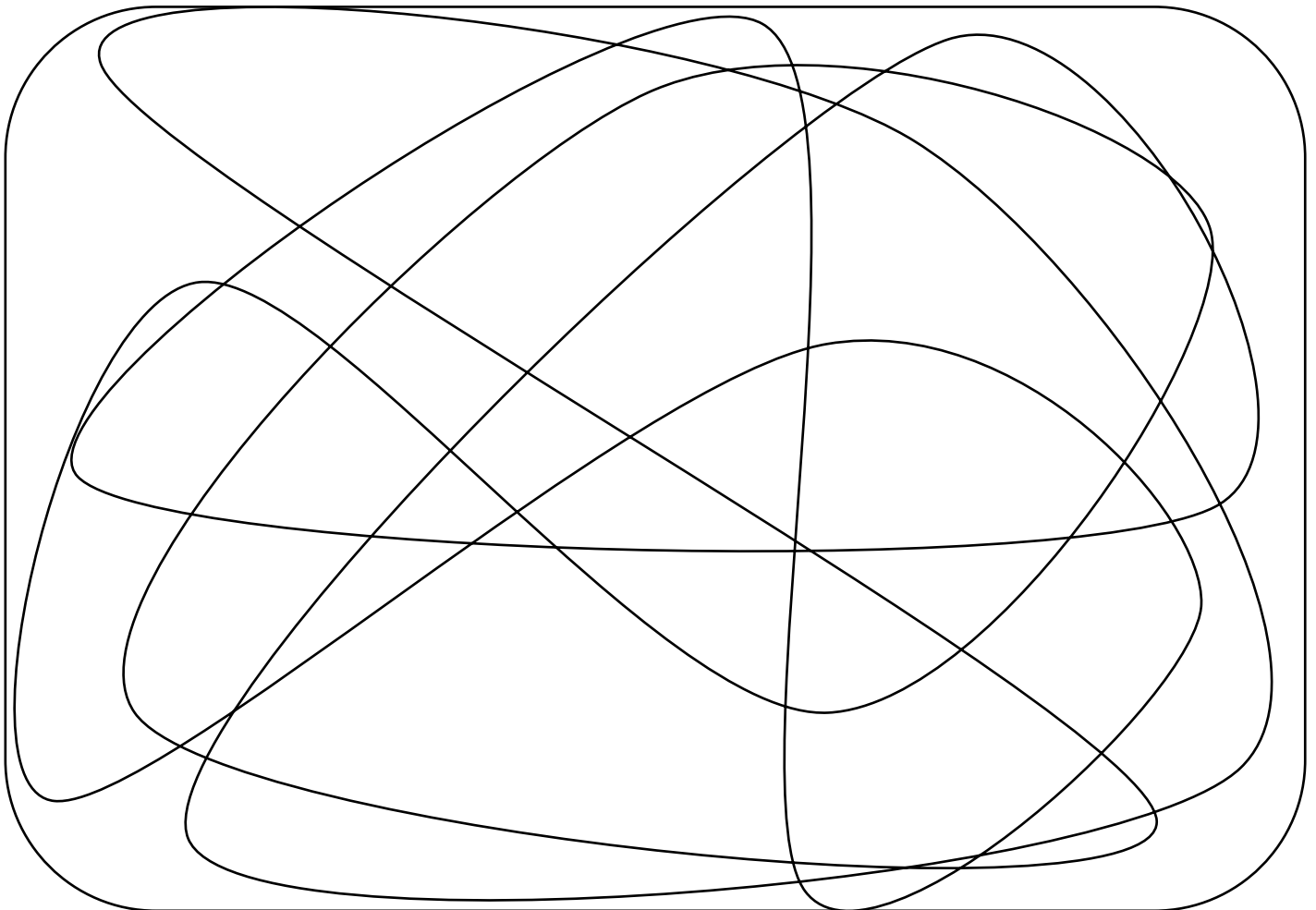
Design a flag



Add lines to make a sun.



Colour in each of the different sections in a different colour.





I have checked my grip....



I have checked my grip....



I have checked my grip....



I have checked my grip....



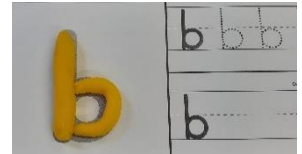
# Multi-sensory Activity Ideas for Letter Formation

Here are some activity ideas:



- Make raised letters on index cards to use for tracing with the index finger. Here's how to make them: use glue to form the letter, then cover it with sand, glitter, bird seed or puffy fabric paint. Make sure to trace letters and numbers from top to bottom and from left to right.

- Pre-write letters on paper and have the child trace over them with glitter glue.
- Form letters by gluing beans, rice, seeds, etc. on paper.
- Form letters with putty, play dough, clay, etc.
- For letter recognition, have child read through a story at his/her reading level and circle all of the a's or b's, etc.
- Write letters on your child's back and see if he/she can guess what letter it is. Write on each other's palms.
- Cut simple letters out of cardboard or textured material such as sand paper and encourage children to feel or use as stencils
- Have the child draw in a tray of sand/ rice/lentils/shaving foam with finger.
- Use Scratch art paper and scraper to form letters.
- Use steamed up windows on cold days to allow the child to write on.
- Use chalk on an old roofing slate – if a very short piece of chalk is used then this will help with pincer grip.
- Write a letter in chalk on a black board or dry marker on a whiteboard and ask the child to rub it out in the same direction in which it was formed.
- On a large chalk board or dry erase board, write large letters, always starting at the top. Turn them into "rainbow" letters by going over them with different colours.
- Write letters on paper that is placed over a textured surface, such as sandpaper, plastic craft canvas or rubbing plates. The tactile feedback from the bumpy surface will enhance the child's memory for correct letter formation.
- Use pipe cleaners, wickysticks, wire or cut up drinking straws to form letters.



- Use an interactive whiteboard to demonstrate letter formation – this can be traced over by a child.
- Write letters with a vibrating pen; this additional sensory input will enhance the child's memory for letter formation.

## Letter Sorting

Using the highlighted lines arrange the letters of the alphabet into their correct groups. Cross them out as you place each letter.

a b c d e f g h i j k l m n o p q r s t u v w x y z

### Tall letters

(Letters touch the top and bottom lines)

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### Mid-zone letters

(letters sit in highlighted area)

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### Descender letters

(The tails of the letters come below the line)

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## Highlighted Lines Practice

Handwriting practice lines with highlighted yellow bands for tracing or copying.

Each row consists of a top line, a highlighted yellow band, and a bottom line.

There are 10 rows of practice lines.





# Create the Space



Write the sentences putting the spaces  
in the correct places.

Iliketoplaywithmyfriends

1. \_\_\_\_\_

Ilikegoingtoschool

2. \_\_\_\_\_

Iliketoplayoutside

3. \_\_\_\_\_

FormylunchIlikeschooldinners

4. \_\_\_\_\_