

Letter and Number Formation

Handwriting is a fundamental skill that significantly influences a child's ability to write efficiently and comfortably throughout life. Proper letter and number formation are crucial, as they affect pencil grip and writing fluency. Emphasising correct starting and exit points, while minimising unnecessary pencil lifts, promotes natural joining of letters, enhancing speed and fluidity.

While individual handwriting styles—such as size, slant, and roundness—develop uniquely with each child, the overarching goal is to ensure that writing does not cause undue strain on the hand or body. This approach enables children to transcribe their thoughts onto paper swiftly and effortlessly.

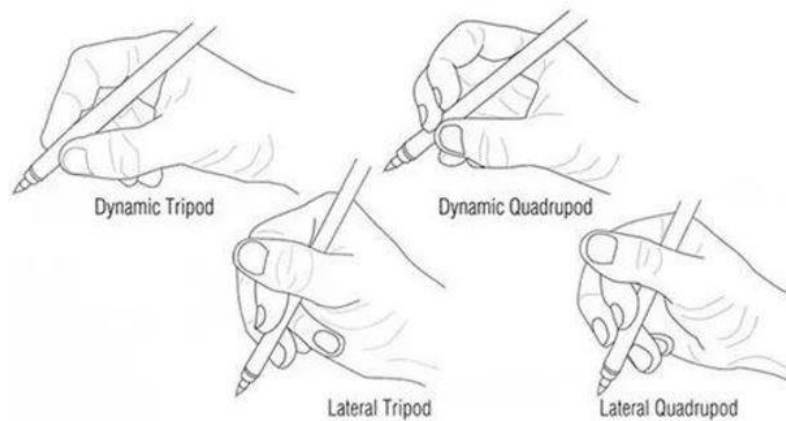
We use short triangle pencils and do lots of practise on whiteboards so they can rub off and keep practising.



Pinch – froggy legs – and the third finger underneath.



This is one of the most widely used grips to teach letter formation, but it is worth noting that there are several widely used grips, and research has shown that this one does not necessarily equate to better handwriting quality or speed.



Many children develop unique hybrid grips that don't strictly fall into these categories but are functional and comfortable for them.

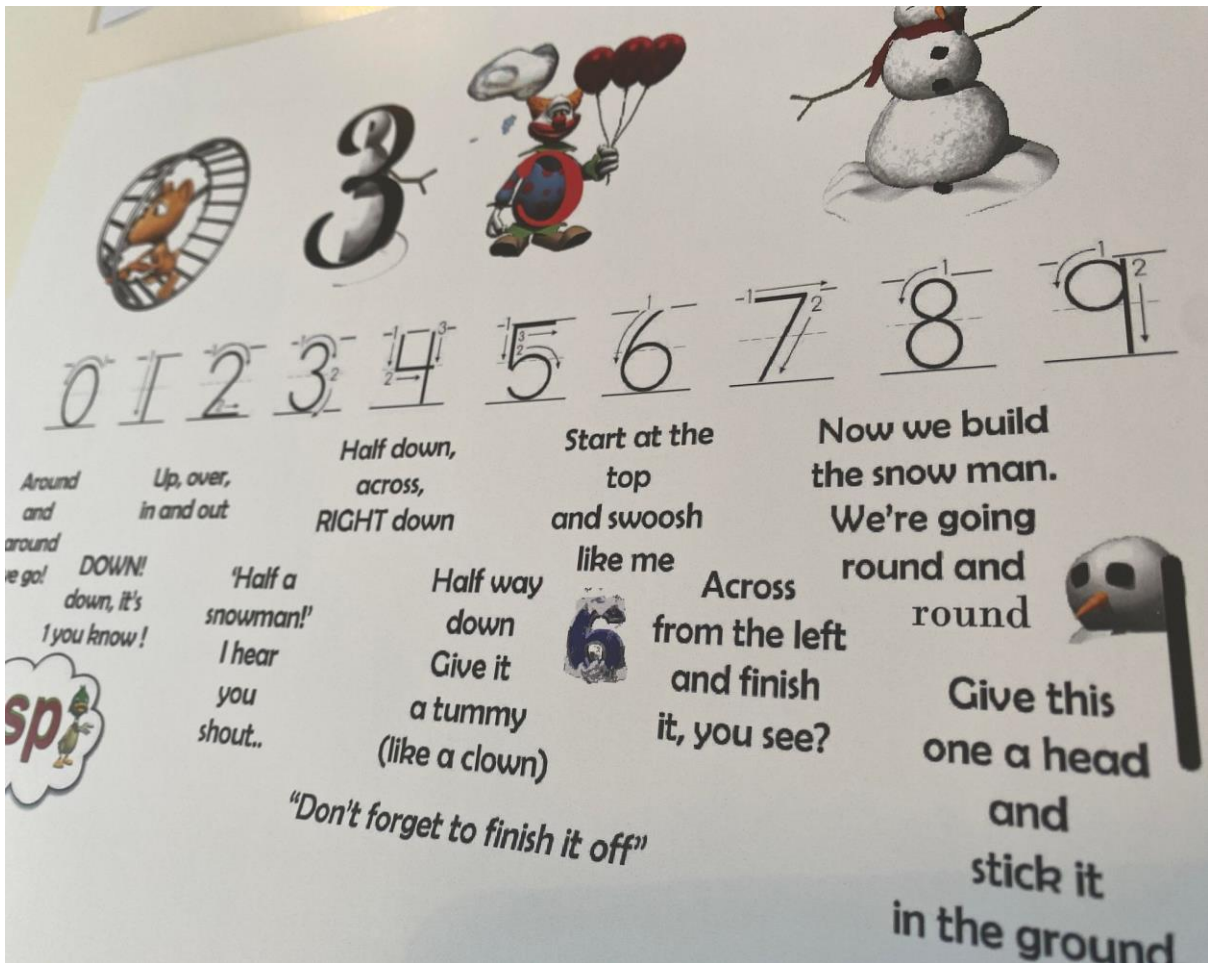
I start with this grip as I have found that whether left or right-handed, this is easy to learn using the tools and activities I have developed, along with the RWI letter formation phrases.



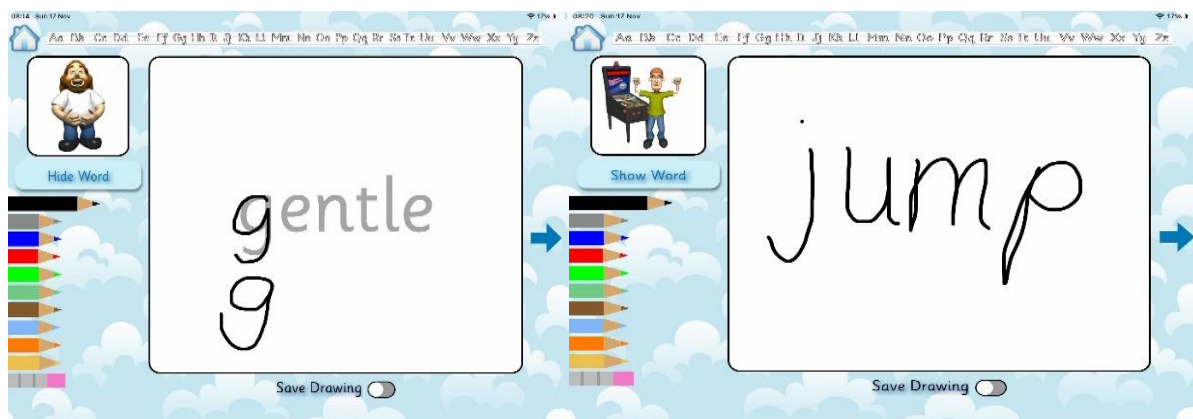
They can copy from the whiteboard or ipad screen, and form letters on the ipad in the Monster Spelling Piano app.

It is empowering to use a finger (or stylus) to trace letters on top, and with The Monster Spelling Piano app, they can then click to delete the word underneath, leaving only their own writing! They can choose colours, erase, and more.

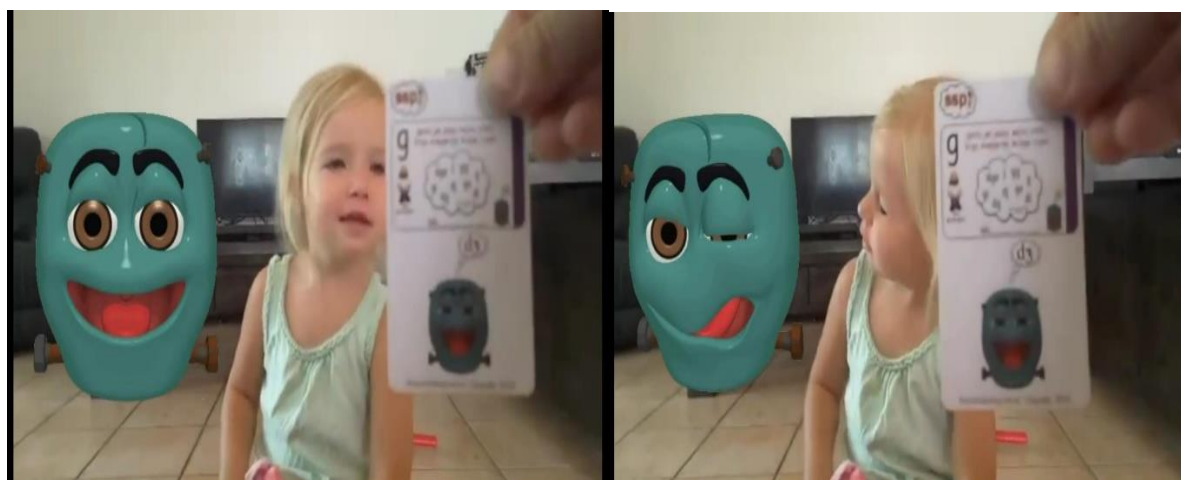
Integrate this activity with others. Research supports integrating handwriting with other composing activities to support writing fluency and literacy development in young learners (Rohloff et al., 2022).



Research consistently shows that children's ability to identify numbers at school entry is a reliable predictor of later mathematical achievement (Chard et al., 2005; Clarke & Shinn, 2004; Jordan et al., 2007; National Mathematics Advisory Panel, 2008; Tymms, 1999; Tymms et al., 2012; Watts et al., 2017; Nguyen et al., 2018). By prioritising proper letter and number formation early on, when they are ready, we equip children with the tools needed for efficient and effective writing, ensuring that it becomes a seamless part of their learning and expression.



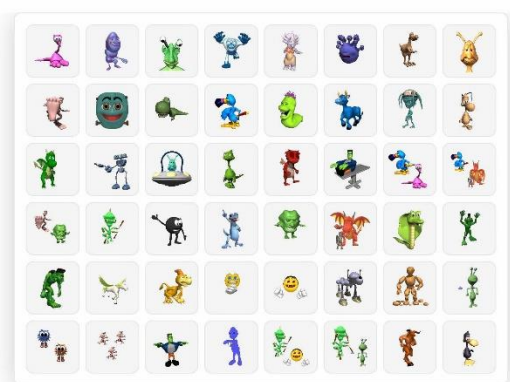
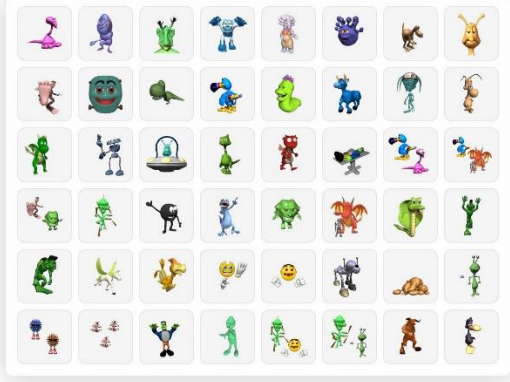
Writing is not merely a mechanical skill; it serves as a cognitive tool to reinforce ideas, organise thoughts, and deepen understanding.



This two-year-old sees the Phonemie (Speech Sound Monster) and immediately recognises the target sound. She mimics the 'monster move,' imitating the monster, and the 'monster sound' which secures the connection between the monster and its sound.

At this age, she can use her rapidly developing phonemic awareness (PA) to begin figuring out words, with the Sound Pics (graphemes) serving as secondary information. This approach enables her to develop advanced PA skills independently of phonics instruction, which is typically required for PA development in most children. By bypassing the usual reliance on graphemes, this method gives toddlers a significant advantage in early literacy development, even before they are ready to hold pencils.

These are two of the 'pictures' of the monster sound in the 4 Code Levels but all are shown within the Spelling Clouds.



Back

jam

Back

gentle

g

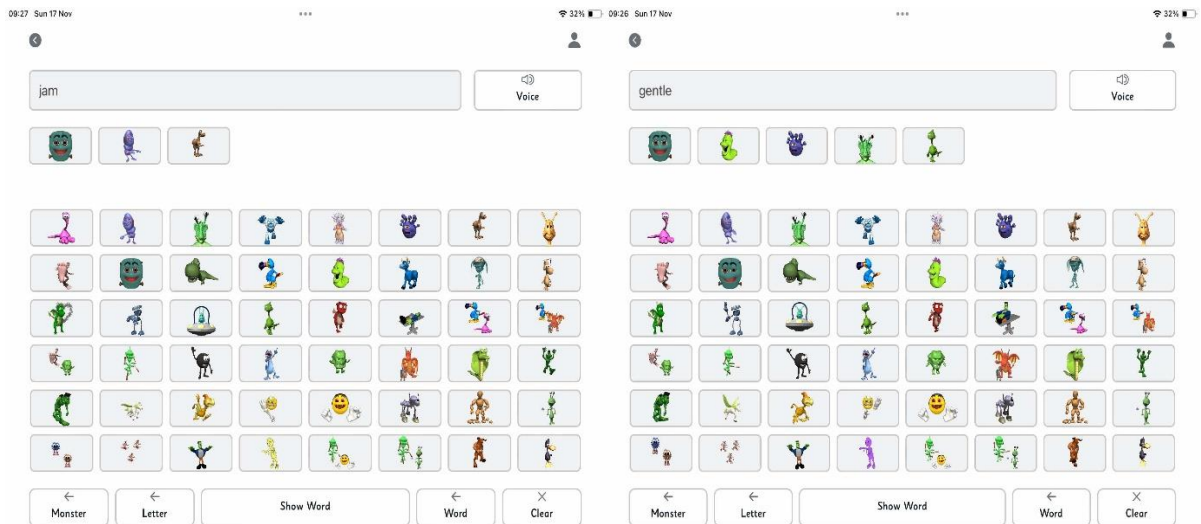
The gentle giant

gentle, jet, judge, adjust, soldier, large, exaggerate, budgie, region, procedure

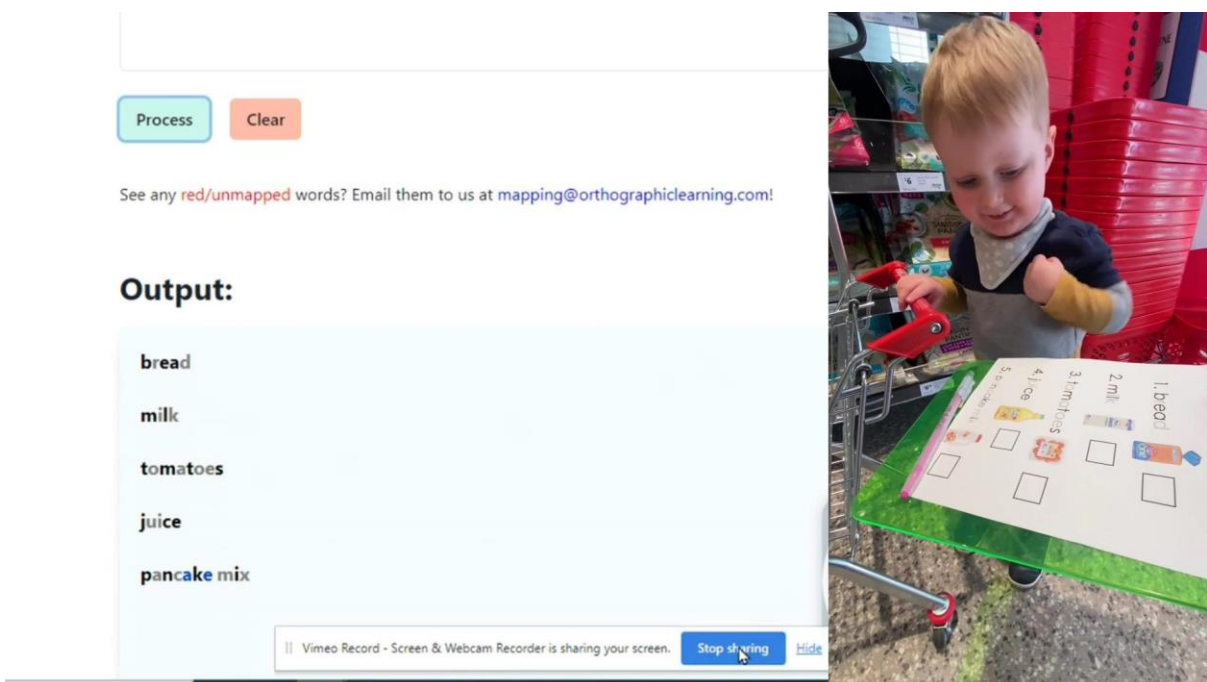
j

jelly fish in a jar

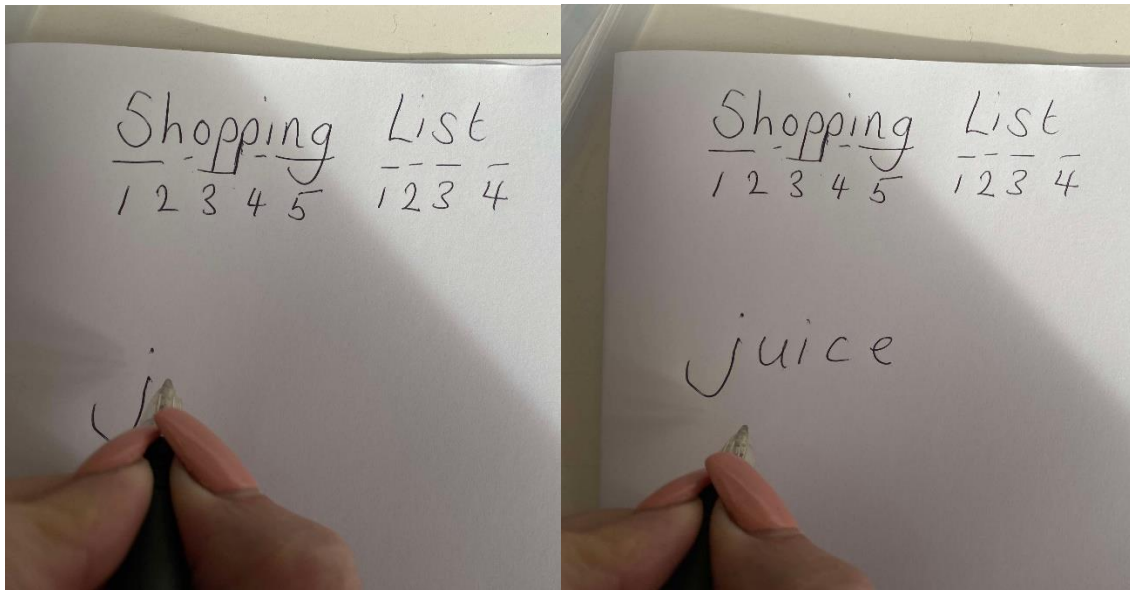
Speech Sound Pics (SSP) Approach



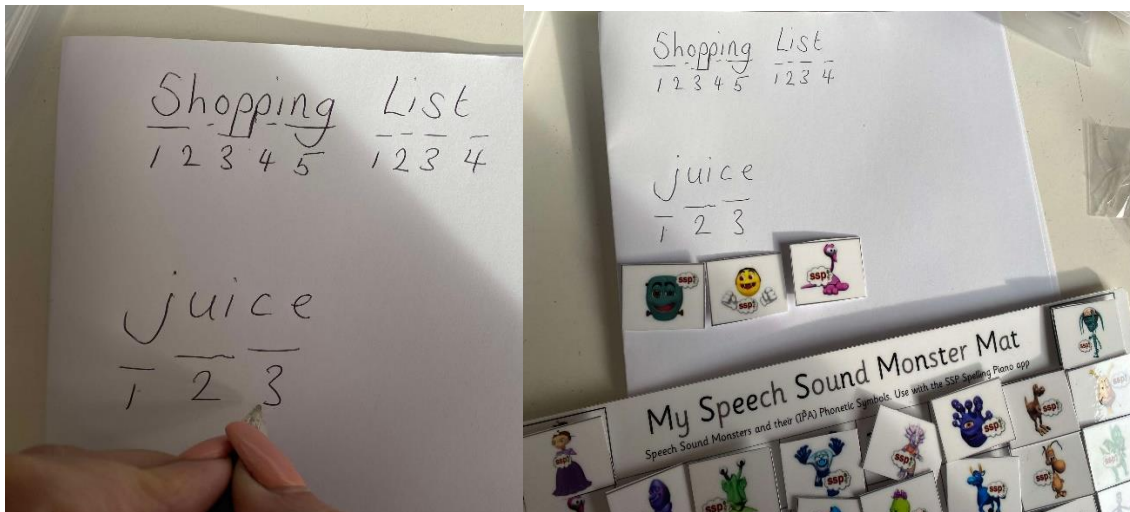
As a general guide, I encourage parents and teachers to observe children’s drawings to determine (roughly) whether they are developmentally ready to begin forming numbers and letters. For example, if their drawings of people show arms or legs coming out of heads and lack bodies, it often suggests they may not be quite ready yet. However, they can still benefit from watching the clips, observing others, and learning the accompanying phrases. We also encourage parents to incorporate these phrases into everyday tasks, such as writing a shopping list, to model and reinforce the process in a natural and engaging way.



So, show your child how you write the word, saying the letter formation phrase for each individual letter – even if they are not ready to write the letters or numbers themselves.



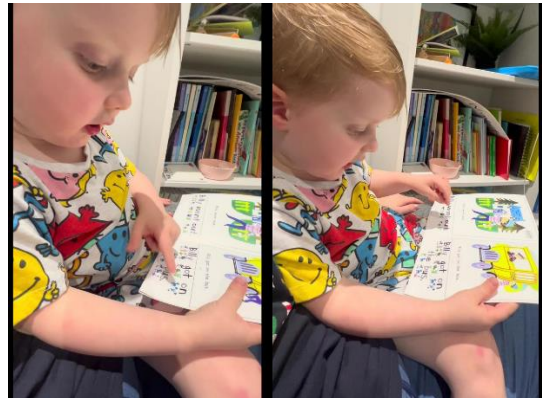
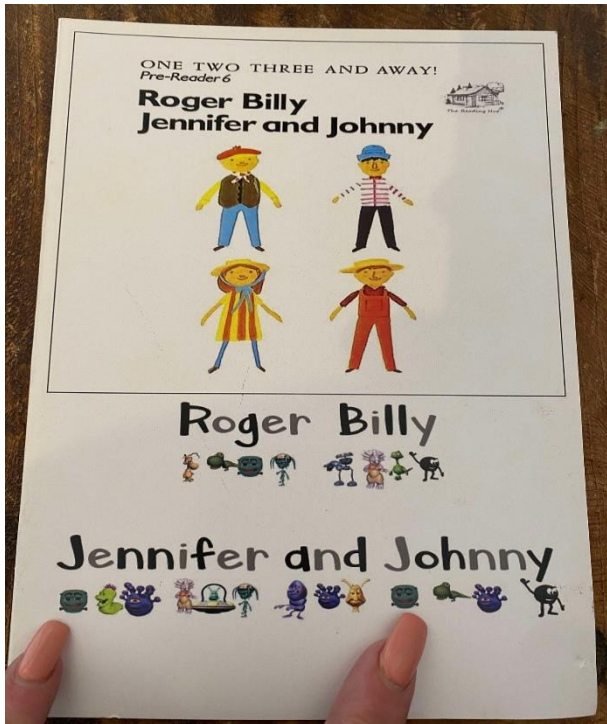
You can call each letter by its name – this is the letter ‘jay’ – down his body, curl and dot’ – but then Duck Hand® the word, saying the sounds, and word, and then underline the Sound Pics® (graphemes) – saying the sounds and word again.



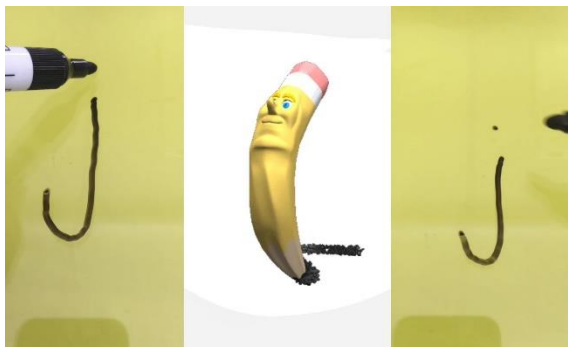
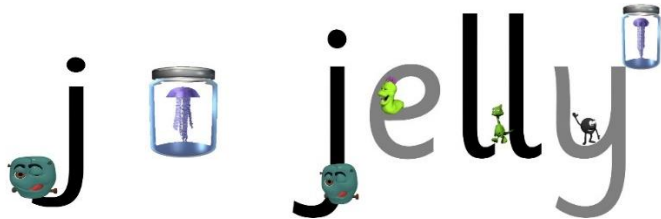
Then your child selects the Speech Sound Monsters for that word using the Monster Mat. Use the tech to create a shopping list, and let your child check off each item as it goes into the trolley!

They will also notice the Sound Pics® by the Speech Sound Monsters® when you use Mapped Words®—bringing everything together and reinforcing concepts within a meaningful context.

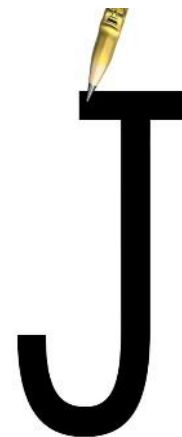
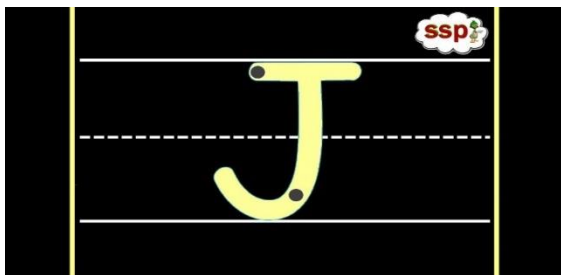
With this approach, they can explore books from speech to print, rather than waiting until they are able to decode the print themselves. It's a truly unique experience!



When using the Monster Spelling® Piano and the I Can Read Without You (ICRWY) app to practice forming symbols by hand, when developmentally ready, these concepts are seamlessly embedded into the learning experience, going beyond the mere mechanics of forming letters and numbers.

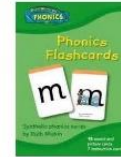


Peggy Pencil shows left and right hand movements, and capital letters. The dots shows children the direction.



RWI Letter Formation Phrases using RWI Characters (with the exception of k)

- s Slither down the snake (snake)
- a Round the apple, down the leaf (apple)
- t Down the tower, across the tower (castle tower)
- p Down his plait and around his head (pirate)
- i Down his body and dot for his head (insect)
- n Down Nobby, over his net (football net)
- m Down Maisie, over the mountain, over the mountain (Maisie and mountains)
- d Round his bottom up his tall neck and down to his feed (dinosaur)
- g Round her face down her hair and give her a curl (girl)
- o All around the orange (orange)
- c Curl around the caterpillar (caterpillar)
- k Down the pole, up and over the loop and down the slide – wheee! (slide)
- e Lift off the top and scoop out the egg (egg)
- u Down and under, up to the top and draw the puddle (umbrella)
- r Down his back, then curl over his arm (robot)
- h Down the head to the hooves and over his back (horse)
- b Down the laces to the heel, up and around the toe (boot)
- f Down the stem and draw the leaves (flower)
- l Down the long leg (leg)
- j Down his body curl and dot (jack-in-the box)
- v Down a wing, up a wing (vulture)
- w Down up, down up (worm)
- x Down the arm and leg and repeat the other side (exercise)
- y Down a horn, up a horn and under his head (yak)
- z Zig-zag-zig (zip)
- q Round her head, up past her earrings and down her hair (queen)



We recommend the RWI phrases for lower case letter formation even though they only link one grapheme to one phoneme. We use a different 'k' as we use the loop. We ask our early years teachers to get this pack. They use the cards to create resources. If laminated they can write over with a whiteboard pen.



These packs* are vital when children start reception as they learn to form **s a t p i n** really quickly

This is an eight-year-old who was referred to me due to struggles with all aspects of literacy. I quickly realised that he had not been taught how to hold a pencil. His grip resembles the static tripod grasp, which is typically seen in younger children (ages 3–5). Observations suggest delays in fine motor skills, impacting his ability to progress to a dynamic tripod grasp. The pencil is stabilised by his fingers in a way that indicates difficulty with finger isolation and coordinated control. Finger movements are less dynamic, and much of the motion seems to come from the wrist or arm rather than precise finger control.

Although he had been referred to an occupational therapist (OT), who confirmed that he does not have dysgraphia, he has still not developed the ability to confidently or independently hold a pencil to form letters and numbers. Delays in fine motor skills can contribute to an inefficient pencil grasp, which may cause limited hand strength, making it harder to progress to a dynamic tripod grasp. It can also lead to fatigue, as an inefficient grasp often causes strain during writing, affecting handwriting quality and speed.

Encouraging activities like threading beads, playing with playdough, or using tweezers can help to strengthen hand muscles. Using pencil grips designed to encourage proper finger placement, along with short triangular pencils, may also support the development of a more refined grip. While dyspraxia has already been ruled out, a follow-up consultation with an occupational therapist is recommended to develop tailored interventions.

I include this image because many assume that children in England will naturally learn the mechanics of writing as part of their education, but many may not realise how important this skill is. A cross-sectional study revealed a significant prevalence of handwriting difficulties among school-aged children, emphasising the need for early assessment and intervention (Azad et al., 2021). We need to start talking about this!



Handwriting activates more brain regions associated with memory and learning compared to typing, suggesting that it offers cognitive benefits for students (Askvik et al., 2020).

In case useful, here are the stages, but these only occur 'naturally' when the child has opportunities to develop the skills. Everyone needs to get involved – at home and in the classroom!

The development of pencil grip occurs in stages as children's motor skills, hand strength, and coordination improve. Below is an outline of the typical stages, when supported:

1. Palmar Supinate Grasp (1–2 years)

- **Description:** The child holds the pencil with their whole hand, using the palm for grip. The pencil points away from the writing surface, and movement comes from the entire arm.
- **Developmental Purpose:** This stage strengthens gross motor control and builds a foundation for fine motor skill development.

2. Digital Pronate Grasp (2–3 years)

- **Description:** The child holds the pencil with all fingers pointing toward the writing tip and the palm facing down. Movement still originates from the shoulder or elbow rather than the fingers.
- **Developmental Purpose:** This stage introduces a more controlled grasp and begins isolating the hand and wrist for movement.

3. Static Tripod or Quadrupod Grasp (3.5–4 years)

- **Description:** The pencil is held with three fingers (tripod) or four fingers (quadrupod), but the movement is controlled by the wrist and arm rather than the fingers.
- **Developmental Purpose:** This grip starts refining hand control and stabilises the pencil for more precise movements.

4. Dynamic Tripod Grasp (4.5–6 years)

- **Description:** The pencil is held between the thumb and index finger, resting on the middle finger. Movement is now controlled by the fingers, allowing for fine motor precision.
- **Developmental Purpose:** This is considered the most efficient grasp for writing and drawing, enabling fluid, controlled movement.

Research underscores the importance of handwriting in learning. A 2020 study by Askvik, Van der Weel, and Van der Meer found that handwriting activates more complex brain networks than typing, which is beneficial for learning and memory.

A 2021 meta-analysis by Araújo, Domingues, and Fernandes found that handwriting training enhances children's ability to recognise letter forms and strengthens the connections between letters and sounds. This multisensory approach appears more effective than less interactive methods, such as typing or passive visual recognition, in building the foundational skills needed for reading development.

The child is now developing orthographic knowledge through ‘Speech Sound Mapping’ at school as part of his Education & Healthcare (EHC) plan. This is great news! Studies show that enhancing orthographic knowledge through handwriting programs improves accuracy in letter formation for children with handwriting difficulties (Mathwin et al., 2022).



“Children who can hold a pencil with ease unlock a world of possibilities—not only to write their thoughts but also to bring their imagination to life through drawing, expressing both what they think and what captivates their curiosity!”

* Order RWI packs here <https://global.oup.com/education/product/read-write-inc-phonics-set-1-speed-sound-cards-small-size-9780198460350>

Reference List

1. Askvik, T., Van der Weel, F. R., & Van der Meer, A. L. (2020). The importance of cursive handwriting over typewriting for learning in the classroom: A high-density EEG study of 12-year-old children and young adults. *Frontiers in Psychology, 11*, 1810. <https://doi.org/10.3389/fpsyg.2020.01810>
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3. Araújo, L., Domingues, S., & Fernandes, P. (2021). The effect of handwriting experience on reading acquisition: A meta-analysis. *Educational Psychology Review, 33*, 1093–1110. <https://doi.org/10.1007/s10648-021-09651-4>
4. James, K. H., & Engelhardt, L. (2012). The effects of handwriting experience on functional brain development in pre-literate children. *Trends in Neuroscience and Education, 1*(1), 32–42. <https://doi.org/10.1016/j.tine.2012.08.001>
5. Mueller, P. A., & Oppenheimer, D. M. (2014). The pen is mightier than the keyboard: Advantages of longhand over laptop note-taking. *Psychological Science, 25*(6), 1159–1168. <https://doi.org/10.1177/0956797614524581>
6. Rohloff, R., Tortorelli, L., Gerde, H. K., & Bingham, G. E. (2022). Teaching early writing: Supporting early writers from preschool to elementary school. *Early Childhood Education Journal, 51*, 1227–1239. <https://doi.org/10.1007/s10643-022-01365-8>