

Teaching Letter formation

DE (2025: p80) advises that *'When teaching handwriting in the Foundation Stage, schools will want to use a phonics first letter introduction, where pupils learn and practise letters using the phonics sequence, building strong visual–aural–motor connections. This supports direct retrieval of letter sound correspondences, reinforcing phonemic awareness and decoding.'*

Systematic synthetic phonics (SSP) programmes teach the letters SATPIN first and schools are being advised to *'learn and practise letters using the phonics sequence, building strong visual–aural–motor connections'*. The SATPIN letters belong to four different letter formation groups. These letter formation groups are based on the similarity in the motor plan for the letters within the group. Whilst teachers may be diligent and rigorous in attempting to teach the correct letter formation for the SATPIN sequence, there are too many different letter formation motor plans for 6 letters. Therefore, there is insufficient overlearning opportunity to enable children to consolidate each motor plan to an automatic level. There is no research evidence to support teaching letter sounds before letter names and evidence of the negative impact of this is reported in McMurray, Morrow and Bower (2026).

Letter formation should be taught with the letter name and not a sound as a label for the letter. This teaching should not be incorporated with phonics teaching but should precede it, and commence on school entry before children attempt to write and form letters.

4-5 year old children need to engage in muscle strengthening (Play-Doh), fine motor (threading beads, peg boards) and pencil control activities, in advance of, and alongside teaching letter formation. Karlsdottir & Stefansson (2002) found that 27% of the children were classified as having dysfunctional handwriting. According to the authors *'Dysfunction of quality can be traced to insufficient individualization in the primary instruction in handwriting which leads to a mismatch between the time allocated to teach certain letters to certain children and the time required for these children to learn the form of these letters.'*

Teachers themselves can assess whether children in their school have handwriting difficulties which may be the result of incorrectly learned letter formations. Letter formation should be secure by the end of year 1 (4-5 years of age) but children in year 1 will vary in the level of input and overlearning needed.

Teaching letter formation needs to start on entry to year 1 (4-5 years of age) before children attempt to write letters in

whatever way they can. Very quickly repeated attempts can become overlearned and permanent.

Letter formation can be taught with activities children enjoy and get great satisfaction from. However, this teaching requires intensive guidance, monitoring and intervention.

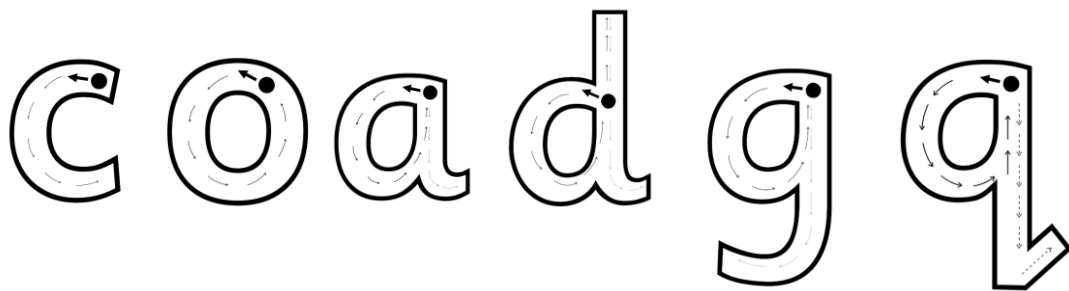
DE (2025) goes on to advise that *'Once pupils have learned enough letters, teachers can group letters by letter formation patterns, such as long letters, curly letters, bouncing letters, or zigzag letters, to build muscle memory and fluency through repetition'*. However, the preceding paragraph advises teacher to build *'strong visual–aural–motor connections'*. Motor plans for correct letter formation once established are permanent and resistant to change, therefore it is important to consider whether any incorrect motor plans have been established for letters in the phonics sequence. Grouping by motor pattern does indeed support children in mastering handwriting movement reducing reversals and promoting smooth, automatic formation. However, practice using letter formation groups may be too late if incorrectly formed motor plans have been established. The letter pattern groups that are advised in DE (2025:p 80) listed below are problematic:

- i. Long letters: l, t, i, u, j, y.
- ii. Curly letters: c, a, g, q, o, e, f, s.
- iii. Bouncing ball letters: r, n, m, p, h, b, d.
- iv. Zigzag letters: v, w, x, k, z.

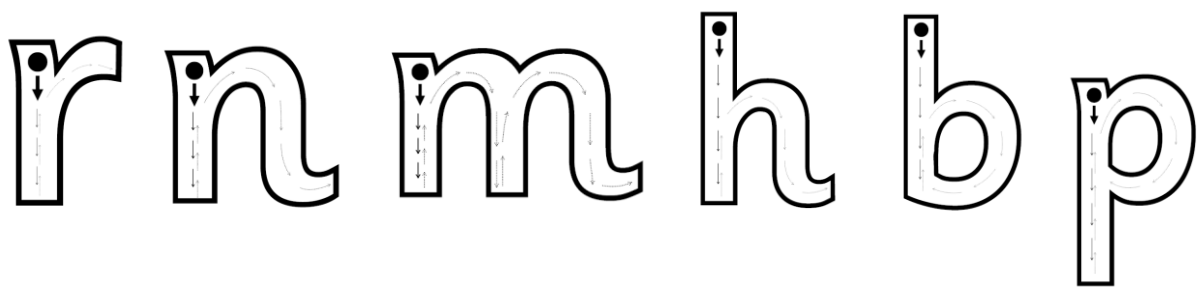
- 1. U is not a 'long letter',
- 2. f is not well placed with the other curly letters because it does not follow one continuous movement
- 3. e does not have the same starting point as c,o,a,g,d and q
- 4. The letter S is a more complex movement
- 5. The 'bouncing ball' letters here include the letter d which should be in the c, o, a, d, g, q group that start with the same basic motor plan and direction of movement
- 6. V, W and Z are made with straight lines in a continuous movement
- 7. X is standalone given its unique formation pattern
- 8. K can be formed as one continuous movement (Sassoon primary infant k) or two movements for the traditional k

Please find below six groupings based on consistency of the motor plan needed to form letters in the group. For each letter formation group, start with one large letter on the page, then 4, then 12, reducing the size of the letter to the appropriate size for writing. Then children can trace and copy words and sentences using the letters they are secure in forming correctly. Children can use different coloured pencils to track the letter so that there is multicoloured tracking on each letter when finished. When the formation of each letter is being taught the teacher should highlight the starting point (the dot and arrow) and verbalise the movement drawing attention to the tracking arrows to be followed to write each letter correctly. It is important to be aware that some children may not be familiar with the directional language needed within this context. So, teachers should ensure that language such as up, down, round, back, across, above, is understood.

1. Group 1: c, o, a, d, g, q. The formation and direction of these letters should be taught first because the starting point and the direction needs to be firmly established to avoid the incorrect formation of these letters, particularly the letters 'o' and 'a'. Teachers should draw attention to the need to go over the stroke they have already done when doing the downward stroke for the letters a, d, g and q. All of these letters have the same starting point and the same direction for the circular movement. Teaching should start with the letter c, then o, then a and so on. For each formation group the starting point on each letter should be clearly marked and there should be arrows for children to follow to ensure error free learning.

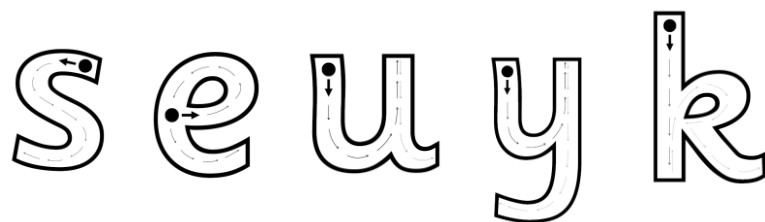


2. Group 2: r, n, m, h, b, p. The downward stroke is the starting point for the continuous movement needed to establish the motor plan for these letters. Teachers should draw attention to the need to go back up over the downward stroke to form these letters correctly.



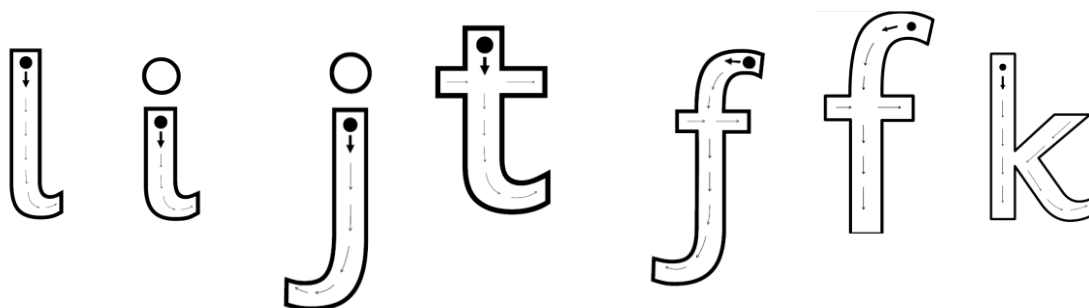
Establishing the motor plans for these two groups of letters is very important to avoid letter formation difficulties that impact joined handwriting, legibility, and speed of handwriting. The impact of incorrect letter formation and poor writing speed remains a factor in performance in examinations at GSCE level and beyond, see the leaflet summarising McMurray, Drysdale and Jordan (2009).

3. Group 3: s, e, u and y. These letters are made in one continuous movement that has curved lines. Schools teaching the Sassoon Primary Infant K, which has one continuous movement, would include k in this group. Teachers should draw attention to how they have to go back up over the downward stroke to complete the continuous movement for this k.



4. Group 4: l, i, j, t, f, k. The lower case l is the starting point for this group and the letters that follow involve a second movement that it not continuous.

Lower case i, j, t, f, k consist of two strokes that are not continuous (the letters below include the Sassoon CR infant k, and the Sassoon Primary and the Sassoon CR infant Fs)



5. Group 5: v, w, z. The letters v, w, z are made with one continuous movement that consists of straight lines



6. X is made with two downward strokes, the black dot indicates the starting point for the first stroke.



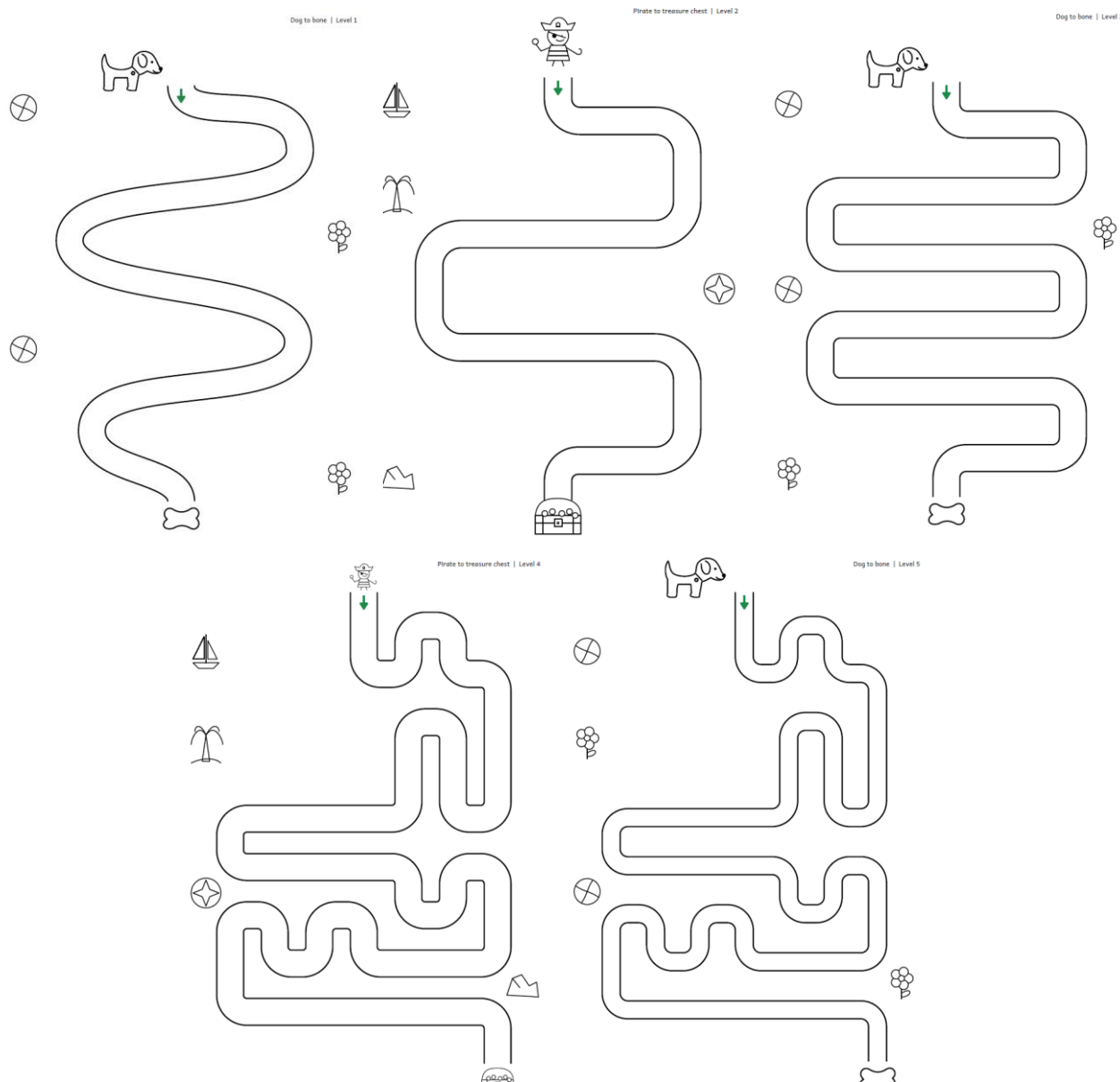
You can provide activities at a whole class level or you can divide your class into three groups for activities to develop:-

1. muscle strength, fine motor control and pencil grip (unsupervised- can be done independently if three groups are moving round three activities on a 10-15 minutes basis)

For example muscle building activities such as Play-Doh, or fine motor control activities such as threading beads and use of thick crayons working towards using pencils with secure tripod grip.

2. Pencil control should be supervised by the learning assistant who can guide the group on what to do and assist where necessary. Tracking activities at increasing levels of difficulty where the child tracks between two lines from the dog to the bone, the pirate to the treasure or the cat to the mouse. A different coloured pencil can be used on the same track so that the tracking is done for example 5 times with multi-coloured tracks that haven't touched the lines on either side of the track. The aim is that each time the child draws a line from the dog to the bone it is one continuous movement and the learning assistant can monitor this. Please see examples of 5 levels of tracking. These samples start at the top of the page but starting points at the left and right are also important.

Five levels of tracking activities increasing in difficulty



3. Letter formation should be closely monitored by the teacher and tracking letters should include the starting point with arrows to ensure error free learning. Directionality is very difficult for young children and whilst making large movements in the air to develop larger motor movements are important, and kinaesthetic activities like using sandpaper or sand trays provide multisensory activities, vigilant monitoring is needed to ensure movements are correct.

DE (2025) Strong foundations: A Literacy Framework for Primary Schools.

Karlsdottir R, Stefansson T. Problems in developing functional handwriting. *Perceptual and Motor Skills*. (2002) 94(2):623-62. doi: 10.2466/pms.2002.94.2.623.

McMurray, S., Drysdale, J. and Jordan, G. (2009) Motor processing difficulties: guidance for teachers in mainstream classrooms. *Support for Learning*. Vol 24, No.3, 119-125