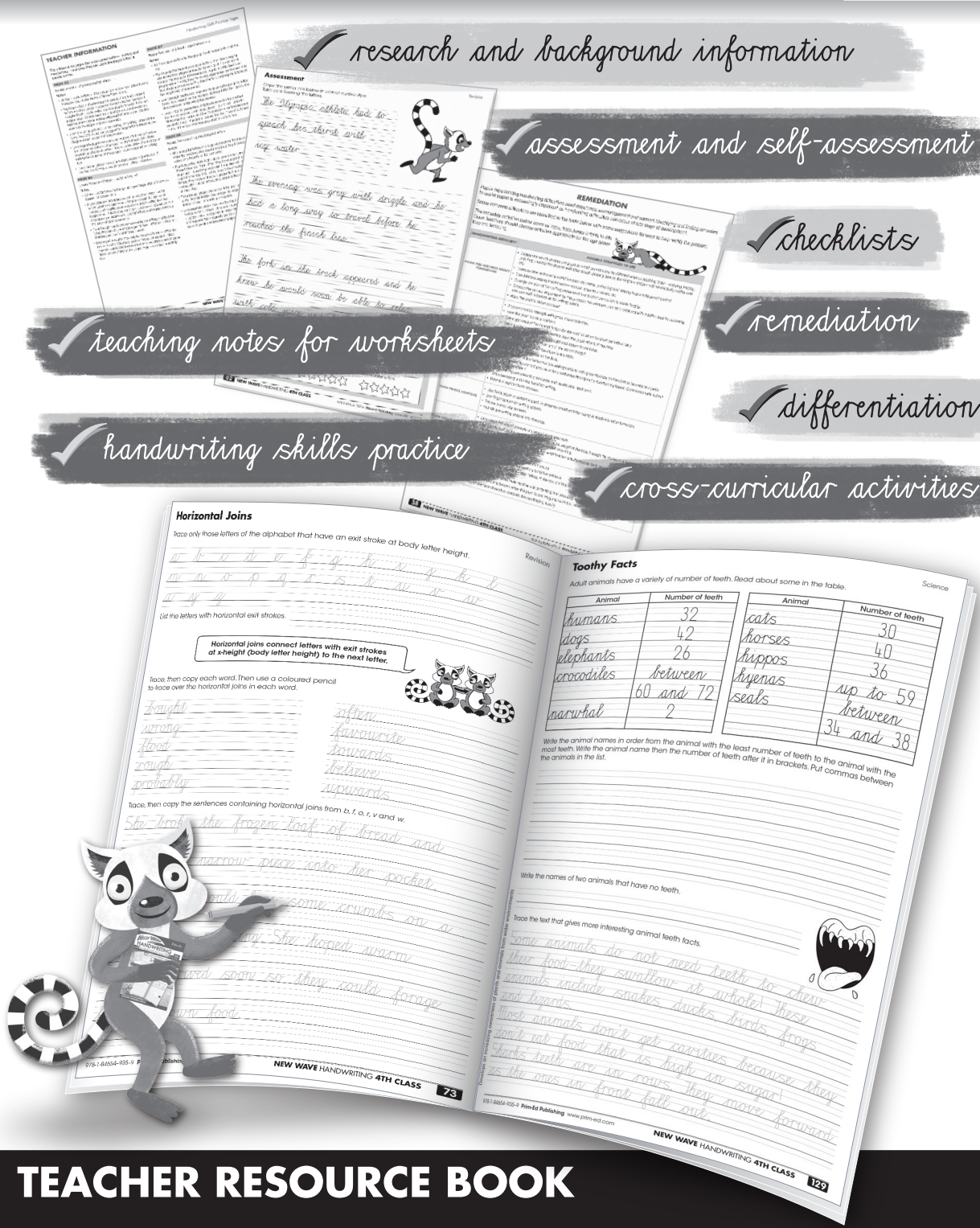
New Wave HANDWRITING

Prim-Ed Publishing

A Cursive Handwriting Programme for Irish Schools

4th Class

- research and background information
- assessment and self-assessment
- checklists
- remediation
- differentiation
- teaching notes for worksheets
- handwriting skills practice
- cross-curricular activities



TEACHER RESOURCE BOOK

SAMPLE - NOT FOR SALE

FOREWORD

New Wave Handwriting for 4th, 5th and 6th Class is a series of three teacher resource books to support the teaching of handwriting in Irish schools.

The books contain comprehensive background information and supporting resources and activities.

Pupil photocopiable pages have two main focuses. Handwriting skills pages focus on practising and revising all previously-taught lower- and upper-case letters and joins. There is a continued emphasis on letter formation—size, shape, spacing between letters and words, slope and an increasing awareness of the need to develop fluency and legibility. The second focus places an emphasis on cross-curricular activities so that pupils can see how handwriting styles are applied within contexts encountered at school and in daily life.

Self-assessments encourage pupils to think about their own handwriting skills.

Assessments are included at the end of each section.

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MECHANICS OF HANDWRITING

PENCIL GRIP, PRESSURE AND CONTROL

Writing with correct pencil grip, pressure and control is important for maintaining fluency and speed, without fatiguing, while writing for increasing periods of time. If pupils use an incorrect pencil grip, push too hard or too softly on their pencil, or use a tight or loose grip on their pencil, their fingers, hand or arm may fatigue early or develop aches and pains.

Research shows the most flexible and comfortable pencil grip is a three-fingered grip known as the dynamic tripod grip. This grip allows for maximum finger and wrist movements to control their pencil while forming individual letters and joining letters together, using continuous movements. It also allows pupils to grip their pencil with the correct pressure to write legibly, without developing cramps or becoming fatigued.

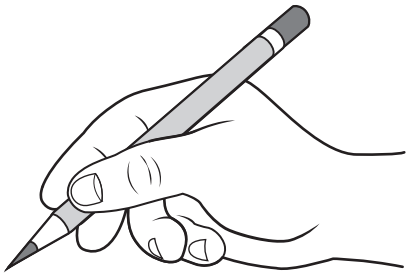
CORRECT DYNAMIC TRIPOD GRIP

To demonstrate the dynamic tripod grip correctly, pupils:

- tuck their ring finger and their little finger into the palm of their hand and rest the side of their little finger on the desk.
- rest the pencil against their middle finger and hold it in place using the tips of their thumb and index finger, which bend to form a circular gap, allowing the fingers and the pencil to move freely.
- hold their pencil approximately 2–2.5 cm from the tip of the pencil for right-handers and 3–3.5 cm from the tip of the pencil for left-handers. This will allow pupils to see their writing while maintaining continuous writing with legibility, fluency and speed.

See pages 16 and 36 for more information about the differences between pencil grips for left- and right-handers.

LEFT HANDED



RIGHT HANDED

CORRECT PENCIL PRESSURE

Pencil pressure refers to how heavily or how lightly a writer presses their pencil to the page while writing. A pupil who holds their pencil too tightly often presses heavily while forming letters, causing dark pencil lines. Pupils who press heavily on their pencil will write slowly and fatigue quickly, and may experience hand and finger cramps. A pupil who holds their pencil too gently may not be able to write with enough pressure for the writing to be legible and may have difficulty controlling their pencil while forming letters and joins. *See page 46 for hand and finger strength, and page 48 for object manipulation and control activities, to develop correct pencil pressure.*

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MECHANICS OF HANDWRITING

HAND DOMINANCE

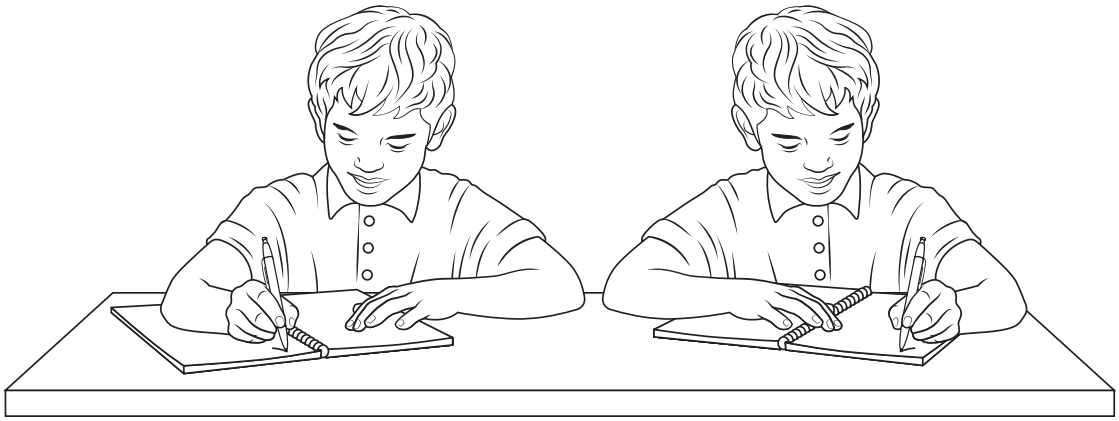
Hand dominance is where one hand has more control and influence than the other. A right-hand dominant person prefers to use their right hand to perform everyday tasks and is often referred to as a right-hander. A left-hand dominant person prefers to use their left hand to perform everyday tasks and is often referred to as a left-hander.

From a young age, children begin to perform tasks using both hands. Over time, one hand starts to feel more comfortable and so this hand is used more regularly to perform tasks. This allows the brain to be trained in everyday movements, such as lifting or holding objects, or pushing or pulling toys. The muscles in the hand and arm that are used when performing these tasks develop at a faster rate than those of the non-dominant, or non-preferred hand.

Mixed dominance occurs when pupils change which hand is used, depending on the task at hand. Pupils may feel more comfortable using their right hand for handwriting and cutting tasks but may feel more comfortable using their left hand for throwing or catching tasks. These preferences occur when one hand or arm has had more practice at performing that particular task.

Ambidexterity occurs when pupils are able to use both hands individually to perform the same task, with equal skill and proficiency. Only a very small percentage of the population are naturally ambidextrous. Some people practise using their non-dominant hand to perform everyday tasks that their dominant hand would normally perform, such as handwriting. This can be a useful skill; however, if pupils swap hands midway through tasks due to fatigue, it is likely that there are underlying fine and/or gross motor development issues that need addressing. *See pages 38–41 for remediation activity ideas.*

Natural hand dominance is not likely to affect a pupil's academic performance if they are provided with an environment that supports their handedness and taught the skills needed to perform tasks with their preferred hand, while their non-preferred hand acts as a supporting hand.



LEFT-HANDERS VS RIGHT-HANDERS

When creating **seating arrangements**, ensure that both left- and right-handers have adequate space to move their dominant arm across the table without interference. If pupils are required to sit next to each other while performing writing tasks, encourage left-handers to sit on the left side of the table and the right-handers to sit on the right side. This will avoid pupils' arms bumping into each other while they write.

The **posture** of a left- and right-hander will be very similar while writing; however, a left-hander may be encouraged to keep their elbow tucked in to avoid developing a hooked wrist.

The **paper positioning** for a left-hander is the mirror image of that of a right-hander. A left-hander's page should be positioned to the left of the midline of their body and a right-hander's page positioned to the right of the midline of their body. The top half of a left-hander's page should be tilted slightly to the right and a vice versa for a right-hander's page. The tilt of the page should reflect the slope of the font being taught or the slope of a developed writer's handwriting style.

The **pencil grip, pressure and control** varies slightly between left- and right-handers. A left-hander may be encouraged to rest their pencil in the webbing between the thumb and the index finger in order to keep their hand below the writing line. This will avoid pupils developing a hooked wrist. A left-hander should also hold their pencil approximately 3–3.5 cm from the tip of the pencil to allow them to see their writing. A right-hander should hold their pencil 2–2.5 cm from the tip of the pencil to increase control of the pencil while using the dynamic tripod grip.

Refer to pages 36–37 for additional information about, and ways to assist left-handed writers.

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HANDWRITING LINES

USING LINED HANDWRITING PAPER

Lined handwriting paper is used to show pupils the proportional sizing of letters. It can be purchased in a variety of sizes to aid pupils' handwriting development. As pupils refine their handwriting skills, the space between the lines on the paper should be reduced to encourage pupils to make their writing smaller.

Teachers should refer to the specific names of lines when teaching letter formation, sizing and positioning, and use the letter formation verbal cues on pages 49–58.

When using the *New Wave Handwriting* series, the lines presented on a page will appear as follows:

TOP LINE

MIDDLE LINE

BASELINE

BOTTOM LINE

RECOMMENDED HANDWRITING LINE SIZING

JUNIOR INFANTS

RECOMMENDED SPACE BETWEEN THE BASELINE AND THE TOP LINE

SENIOR INFANTS

RECOMMENDED SPACE BETWEEN THE BASELINE AND THE TOP LINE

1ST CLASS

RECOMMENDED SPACE BETWEEN THE BASELINE AND THE TOP LINE

2ND AND 3RD CLASS

RECOMMENDED SPACE BETWEEN THE BASELINE AND THE TOP LINE

4TH CLASS

RECOMMENDED SPACE BETWEEN THE BASELINE AND THE TOP LINE

5TH AND 6TH CLASS

RECOMMENDED SPACE BETWEEN THE BASELINE AND THE TOP LINE

For 5th and 6th Class there is a gradual progression from using handwriting lines to lined paper without divisions such as those in notepads or exercise books.

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THE HANDWRITING FONT

FONT INTRODUCTION

The handwriting font was designed to facilitate a smooth transition for pupils switching between print and cursive handwriting. The two styles used in the *New Wave Handwriting* series connect to each other smoothly since they have similarities. The 1st Class book, which is the first to move from print to cursive style, links both scripts.

OVERVIEW OF THE FONT STYLES

The **print script** is designed to teach pupils to write using unjoined writing with basic letter formation. *See page 19 for the print script character set.*

The **cursive script** is designed to teach pupils to write with joined handwriting. The letters are written with a different formation to the print script, with letters joined by connecting, and overlapping, the exit of one letter to the entry of another. Letters are joined using diagonal and horizontal joins, with some capital letters left unjoined because of the way they are formed and finish. *See page 19 for the cursive script character set.*

USING FONT STYLES

Research shows that pupils who learn to form letters using a print script in their foundational years often revert back to this method when writing under pressure in later years.

Print script is useful for learning the basic formation and shape of each letter, but does not allow pupils to write effectively with fluency and speed, which is often required during writing tasks. Based on this research, the *New Wave Handwriting* series contains the print and cursive script; and introduces cursive script early in the pupils' education so that cursive style is firmly entrenched by the time pupils need to write extensive blocks of text in later years.

NEW WAVE HANDWRITING SERIES

Junior Infants—introduces Print script

Senior Infants—reinforces Print script

1st Class—introduces Cursive script

2nd Class—reinforces Cursive script

3rd Class—reinforces Cursive script

4th Class—revises Cursive script

5th Class—revises Cursive script

6th Class—revises Cursive script

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THE HANDWRITING FONT

PRINT SCRIPT

UPPER-CASE LETTERS

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

LOWER-CASE LETTERS

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

CURSIVE SCRIPT

UPPER-CASE LETTERS

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

LOWER-CASE LETTERS

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

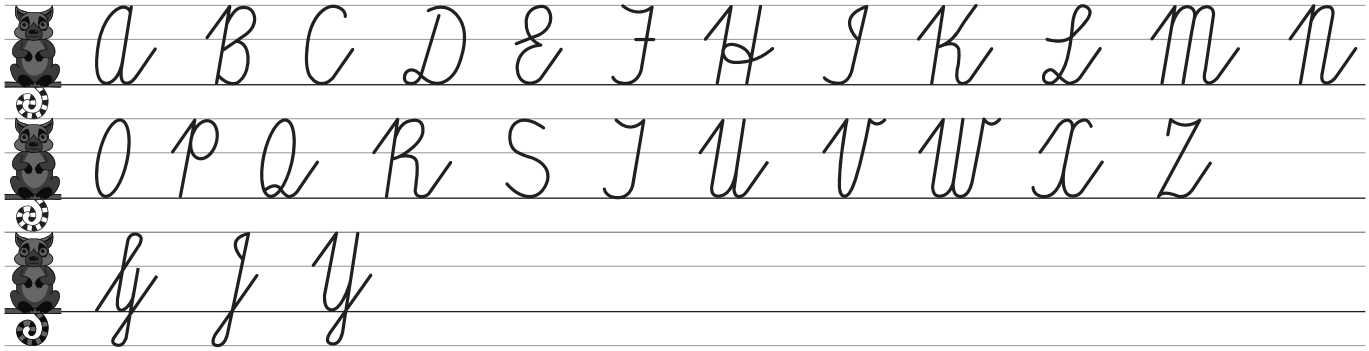
SAMPLE - NOT FOR SALE

THE HANDWRITING FONT

UPPER-CASE LETTERS

Upper case is one of two letter cases used in the written representation of a language. The use of upper-case letters in a piece of writing depends on the grammatical conventions of the language. In the English language, the first letter of a word is written in upper case if that word marks the beginning of a sentence or if the word is a proper noun. Upper-case letters are also used when writing acronyms, such as NASA (National Aeronautics and Space Administration) or RSVP (Répondez s'il vous plaît, French for 'respond, if you please'); when referring to oneself as 'I' in a piece of writing; when writing abbreviated units of measurement, such as litres (L); or at the beginning of lines of poetry.

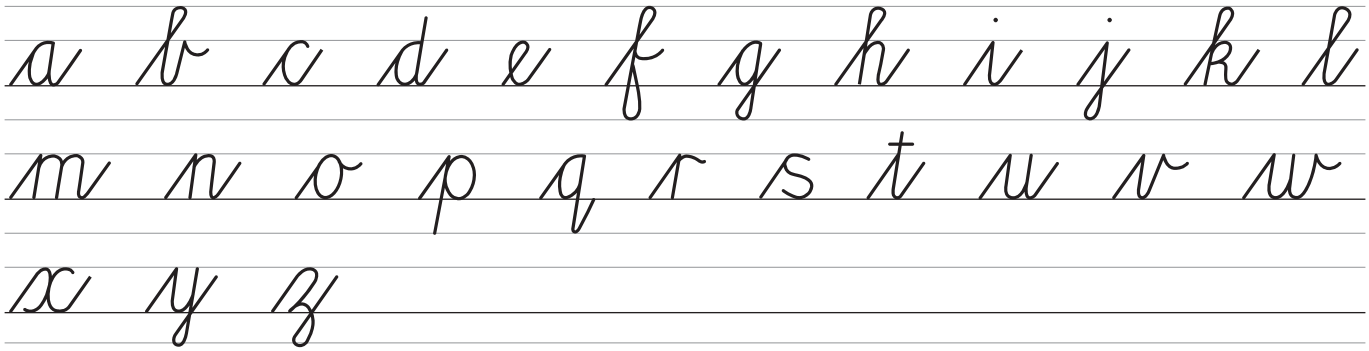
Most upper-case letters are written using equal sizing. They sit on the baseline and extend up to the top line. The head and body of the character will be coloured to show the size of an upper-case letter and its position on the line. Others extend below the baseline with a speed loop tail.



LOWER-CASE LETTERS

Lower case is the most commonly used letter case in the written representation of the English language. It is used to write every letter that does not require capitalisation, in every word. Some lower-case letters are smaller versions of the upper-case letter, such as *uU* or *wW*, and some lower-case letters look very different to the corresponding upper-case letter, such as *fF* or *rR*. Some lower-case letters have different representations of the same letter depending on the font of the writing. It is important to teach pupils how to recognise different versions of a letter, regardless of the font being taught, so they are better equipped to read texts written in different fonts.

Lower-case letters in the English language are written using different sizing and directional movements. All lower-case letters can be classified into four groups of similar-sized letters—body letters; head and body letters; body and tail letters; and head, body and tail letters. These sizes allow for easier recognition of letters and words when reading and are important when writing on single-lined or blank paper. They can also be classified into three groups based on the initial direction or main movement used when forming the letter, such as anticlockwise, clockwise or downstroke letters.



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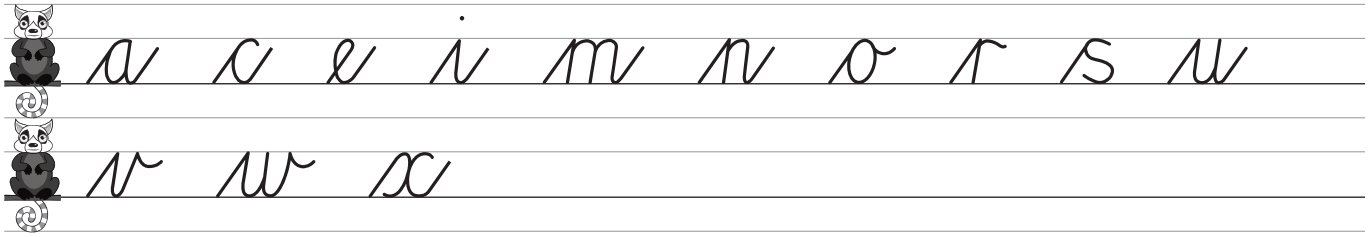
THE HANDWRITING FONT

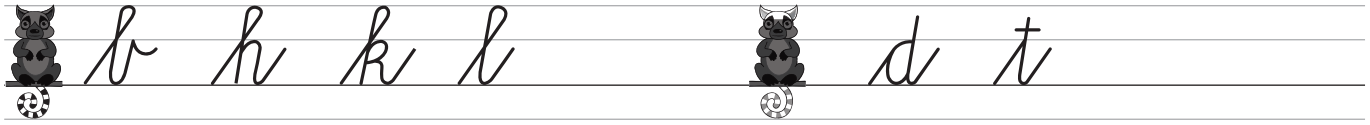
BODY LETTERS

Body letters are lower-case letters that sit on the baseline and do not extend beyond the middle line. The body of the character in the *New Wave Handwriting* pupil workbooks is coloured to show the size of a body letter and where it is positioned on the line. Body letters may also be referred to as 'x-height' letters.



HEAD AND BODY LETTERS

Head and body letters are lower-case letters that sit on the baseline and extend up to the top line. The head and body of the character will be coloured to show the size of a head and body letter and where it is positioned on the line. Lower-case *d* and *t* are the only head and body letters that do not extend up to the top line, but instead extend halfway between the middle line and top line. The letters *b, d, h, k, l* and *t* are also referred to as ascenders.

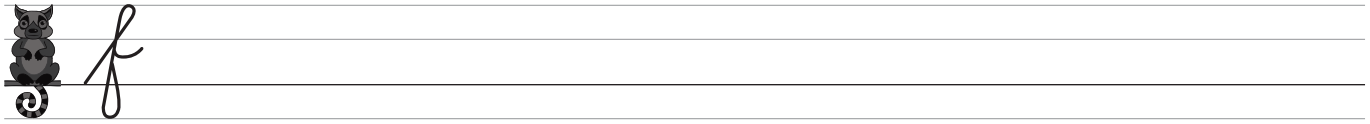


BODY AND TAIL LETTERS

Body and tail letters are lower-case letters that sit on the baseline with a tail that extends down to the bottom line. The body and tail of the character will be coloured to show the size of a body and tail letter and where it is positioned on the line. The letters *g, j, p, q, y* and *z* are also referred to as descenders.

HEAD, BODY AND TAIL LETTER

Lower-case *f* is the only letter that is a head, body and tail letter. It extends from the top line to the bottom line. The head, body and tail of the character will be coloured to show the size of the lower-case *f* and where it is positioned on the line. The letter *f* fits into both the ascender and descender groups.



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THE HANDWRITING FONT

LETTER FORMATION GROUPINGS

When writing all letters, common movements are used. These include anticlockwise and clockwise curved lines and vertical, horizontal and diagonal straight lines. Letter formation groupings are based on lower-case letters; however, it is important to use the same letter formation terminology when writing upper-case letters, so pupils can see patterns between letters with similar movements. *See 49–58 for verbal cues for letter formation.*

Note: Because letters are written using more than one movement; i.e. anticlockwise, clockwise and downstroke movements, letters may be grouped in a number of different ways, by initial movement or dominant movement used. ***Different letter groupings do not affect the way pupils are taught to form letters.***

ANTICLOCKWISE LETTER FORMATION

Anticlockwise letters are a group of lower-case letters that are formed using similar anticlockwise movements. In the *New Wave Handwriting* series, anticlockwise letters have been classified as those letters formed with an anticlockwise movement as the initial movement. Anticlockwise letters may also include other movements.

a c d e g o q s

ANTICLOCKWISE WITH DOWNSTROKE LETTER FORMATION

This group of letters has a predominant movement in an anticlockwise direction following a downstroke after the entry stroke.

u v w y

CLOCKWISE LETTER FORMATION

Clockwise letters are a group of lower-case letters that are formed using a similar clockwise movement. In the *New Wave Handwriting* series, clockwise letters have been classified as those letters whose formation follows a clockwise movement after the entry stroke. This group includes only the letters *z* and *x*. The letter *z* utilises predominantly clockwise movements, while the letter *x* has a clockwise movement followed by an anticlockwise movement.

z x

DOWNSTROKE LETTER FORMATION

Downstroke letters are a group of lower-case letters that are formed using a similar downstroke movement. In the *New Wave Handwriting* series, downstroke letters have been classified as those letters formed with a downstroke movement as the initial movement after the entry stroke. Downstroke letters may also include other movements.

i j l t

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THE HANDWRITING FONT

LETTER FORMATION GROUPINGS

DOWNSTROKE WITH CLOCKWISE LETTER FORMATION

This group of letters utilises downstroke and clockwise movements as the predominant movements after the entry stroke.

m n p r h k

DOWNSTROKE WITH ANTICLOCKWISE LETTER FORMATION

Letters in this group utilise downstroke and anticlockwise movements after the entry stroke. The letters *b* and *f* are the only letters that belong in this group.

b f

ENTRY AND EXIT STROKES

Entries are short, left-to-right, diagonal lines that start from the baseline and move upward, leading into the letter.

Diagonal exit strokes are left-to-right diagonal lines that extend from the baseline up towards the middle line.

All letters except *b*, *f*, *o*, *r*, *v* and *w* have a diagonal exit stroke. The letters *p* and *s* have diagonal exit strokes within words.

Horizontal exit strokes are short horizontal, curved lines that extend slightly beneath the middle line. The letters *b*, *f*, *o*, *r*, *v* and *w* have horizontal exit strokes.

Entries and exits are used for cursive handwriting to connect one letter's exit to another letter's entry.

ENTRY STROKE → m ← DIAGONAL EXIT STROKE

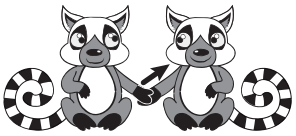
ENTRY STROKE → o ← HORIZONTAL EXIT STROKE

JOINS

Connections linking two or more letters are called joins. The two types of joins are diagonal and horizontal. In the 1st Class workbook, where joined letters are introduced, joins are presented by a visual representation to aid recognition. These are incorporated into the books for the other year levels.

DIAGONAL JOINS

Diagonal joins are used in cursive handwriting to connect a letter that has a diagonal exit stroke to another letter. All letters except *b*, *f*, *o*, *r*, *v* and *w* utilise diagonal joins within words.



ai co du ef go hi

HORIZONTAL JOINS

The letters *b*, *f*, *o*, *r*, *v* and *w* connect to other letters using a horizontal join.

bu fa ot re va wi

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HANDWRITING SKILLS

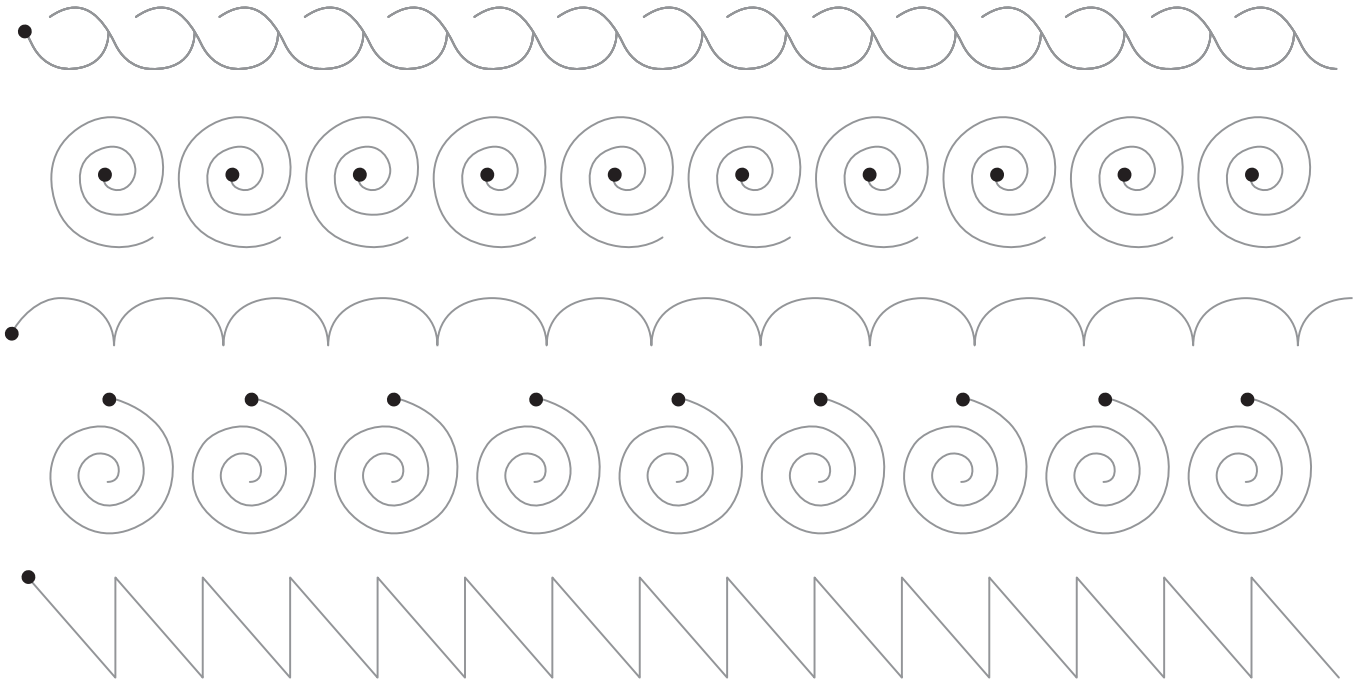
PATTERNING

Patterning is a vital skill that allows pupils to learn the common movements used when forming letters, including anticlockwise, clockwise and downstroke movements.

From a young age, children experiment with writing by making a series of dots, dashes and directional lines. Pupils learn to push and pull their pencil to form vertical, horizontal and diagonal straight lines, and clockwise and anticlockwise curved lines of varying sizes. When pupils develop their fine and gross motor skills, their ability to trace patterns that require greater dexterity will increase, allowing them to form letters of developmentally correct sizing.

Before pupils begin handwriting, they should be given regular opportunities to practise pre-writing patterns. As pupils learn to write, constant revision of pre-writing patterns should be used to rehearse the movements that will be used within the lesson.

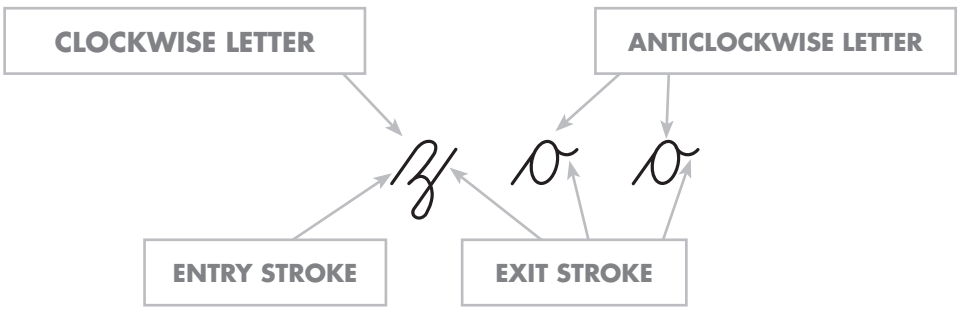
A number of patterning practice pages are included in the teachers guides for Junior and Senior Infants, and 1st, 2nd and 3rd Class.



LETTER FORMATION

Learning to write letters with correct formation is an important handwriting skill. It allows the writer to write with fluency and speed, while limiting the amount of strain on their hand, fingers and brain. Continuously writing letters with the same formation, whether correct or incorrect, creates neural pathways in the brain, that allow us to remember movement paths. When correct formation is taught from a young age, pupils are able to build and strengthen these neural pathways. Writing with correct formation is vital to the legibility of the text, so the reader does not have to focus their attention on deciphering each word. *See pages 49–58 for letter formation verbal cues.*

When teaching pupils about letter formation, it is important to use consistent terminology to help pupils identify similarities and differences between letters. Letter groupings should be used to show letters with similar formations, such as those formed starting with anticlockwise, clockwise and downstroke movements. *See pages 22–23 for more information about letter formation groupings, using this font.*



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