

# Handwriting Program for Print and Numerals

INSTRUCTIONS



a **PAF** program

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# INTRODUCTION

Handwriting is a basic skill that needs to be systematically taught so that children can learn to use written language to communicate their knowledge and express their ideas. It must be automatized so that children can concentrate on what they want to say rather than on how to transcribe it. Handwriting must be sufficiently legible to enable the reader to understand the ideas expressed. Similarly, children must be able to write the numerals with sufficient automaticity and legibility in order to compute and express mathematical concepts. Although this particular handwriting program was designed to be used in conjunction with PAF\*, an Orton-Gillingham–based reading program, it can be used as part of any language arts program.

There are four basic principles for teaching both print and numerals.

- **Handwriting is taught and practiced under the direct supervision of the teacher**, who provides immediate feedback and models the correct letter and numeral formation. Handwriting is never assigned as independent work or homework.
- **The instructional sequence for teaching handwriting is trace, copy, and write from memory.** Children trace the letter or numeral, copy it, and, to complete the lesson, write it from memory, all under the direction of the teacher.
- **Motor patterns are always introduced through the large muscles of the arm and shoulder** rather than through the small muscles of the hand. Using large muscles helps children feel the changes in direction necessary to form each letter or numeral. Also, using large muscles helps children remember the formations because large muscle memory is extremely powerful. You never forget how to ride a bike or swim.
- **Language is used to teach and reinforce handwriting** by having the teacher verbalize instructions for forming each letter or numeral. Children are told how to move their hands to produce the forms. Because many children cannot learn the motor patterns for writing by simply copying, they must also receive verbal instructions.

In order to give verbal instructions, you will have to establish certain reference points in your classroom. First, try to have the desks face forward. Next, using cloth tape, place a green line on the side of the board and on every desk. In classrooms with group tables rather than individual desks, give each student a 12-by-18-inch oaktag mat and place a green line on the left side. When giving verbal instructions, you will be able to tell your students to move their hands toward or away from the green, rather than to the left or right.

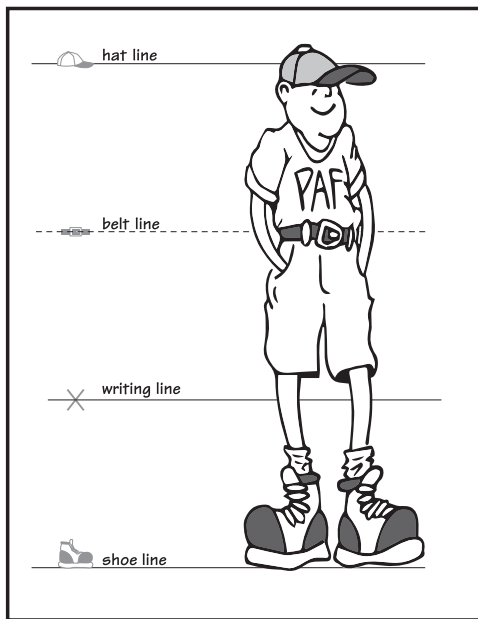
\* *Preventing Academic Failure* (PAF) by Phyllis Bertin and Eileen Perlman, Educators Publishing Service, PO Box 9031, Cambridge, MA 02139.

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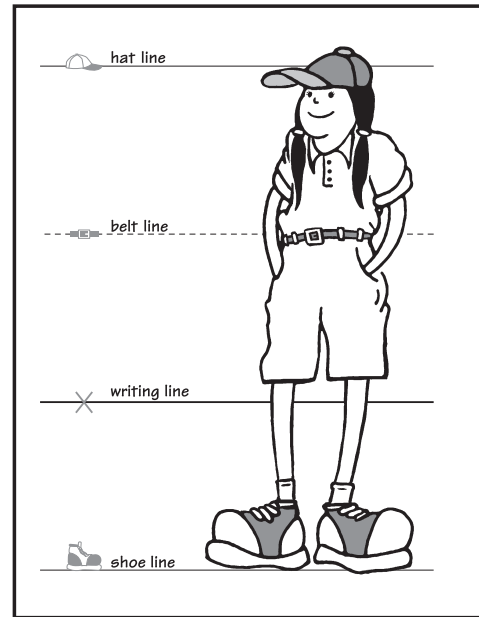
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Also, to help give verbal instructions, you will need a way to refer to each of the writing lines. In the handwriting books, the four writing lines have been given names: hat line, belt line, writing line, and shoe line. By teaching these names to your students and referring to them in your verbal instructions, you will help the children form letters and numerals with proper size and placement. For example, you may instruct the students to place their pencils on the belt line and pull down to the writing line. Be sure that your classroom board is marked with the same four writing lines and with a green line to the left.

Before you teach your class to form the letters or numerals, you should teach the names of the four lines using the first page in each book.



Handwriting Program for Print



Handwriting Program for Numerals

By using the names of the lines and the green line as reference points, you will be able to describe your hand movements as you demonstrate how to write each letter or numeral. For example, when teaching the letter *v*, you might say: *Put your pencil on the belt line, slant down and away from the green and up.* For the numeral 6 you might say: *Put your pencil on the hat line, curve to the green, and close the circle.*

Although the exact wording of the verbal instructions may vary from teacher to teacher, it is important that your own instructions remain consistent. As your students begin to form letters and numerals accurately and automatically, you can give less detailed instructions. Eventually, stop giving instructions altogether.

If you would like examples of the verbal instructions, you can download them at [PAFprogram.com](http://PAFprogram.com).

## Instructional Sequence

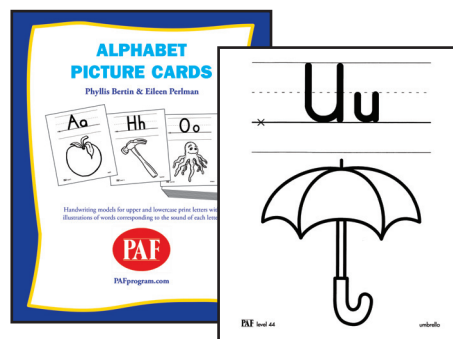
The letters are not taught in alphabetical order. The instructional sequence was determined by a number of factors. For example, letters that are most often reversed are those that begin with a counterclockwise stroke, such as *c*, *a*, *d*, *g*, *s*, and *f*. Many children, especially left-handed children, reverse these letters because they start writing them clockwise. In order to establish the correct starting stroke as soon as possible, these letters are taught first. In addition, letters that are easily confused (*b/d*, *p/q*) are separated in the sequence so that children learn to automatically write one of each pair before the introduction of the second letter.

As part of an Orton-Gillingham–based program, the sequence of letters was also chosen to facilitate spelling. When the children have learned the first four letters, *c*, *a*, *t*, and *d*, you can ask them to sound out and spell *at*, *cat*, and *dad*. Lower case forms are taught first, because these are the ones needed for spelling, with capital letters interspersed so that the children can begin to write names and sentences.

## Teaching the Lesson

Be sure the children are facing forward and sitting up straight. Stress that writing requires two hands: one to hold the pencil and one to hold the paper. The pencil should be held about an inch from the point at an angle of 45 degrees with the desk. The proper three-finger grip is to hold the pencil between the thumb and index finger and support it with the third finger. Pencil grips can help establish correct finger positions.

Each letter is practiced with its sound rather than its letter name. Research has shown that having children say the sounds as they write the letters improves phonemic awareness, spelling, word recognition, and reading comprehension. It is recommended that each letter be introduced using the appropriate card from the PAF Alphabet Picture Cards (#5133, available from Educators Publishing Service). These cards reinforce the correct motor patterns and letters.



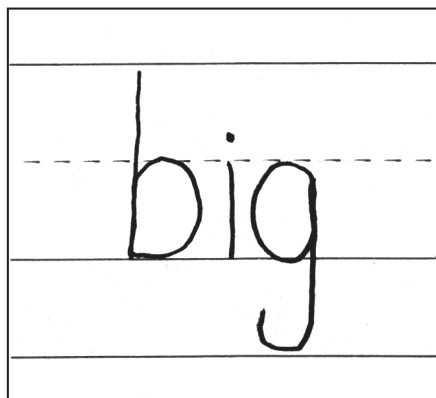
Draw a large letter on a board on which the writing lines have been drawn and labeled with the appropriate symbols: a hat, a belt, an X for the writing line, and a shoe. Demonstrate how to form the letter and introduce the verbalization to accompany the movement. *This is the letter c and one way to write the sound /k/. Start at two o'clock, up to the belt line, to the green, and sit it on the writing line.*

Have the children turn to the large model on page 2 in their books. Tell them to write the sound, *Write /k/*. They say the sound as they “write” it by tracing the model with their index finger as you repeat the instructions. Observe the children to make sure they are tracing correctly and provide feedback as needed. Have them trace the letter several times using their fingers and then again with pencils. The purpose of tracing is to imprint the correct movement into muscle memory, and to develop an automatic response between the sound of the letter and its motor pattern.

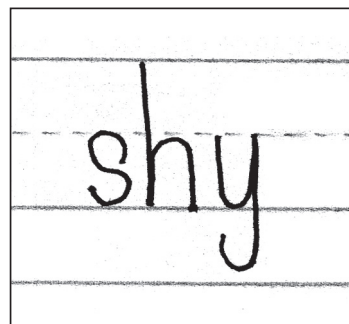
After tracing the large model, children trace the smaller letters with pencils on the following page under your supervision. Finally, move down to the blank set of writing lines and have the children make one *c*. If the *c* is made correctly, they continue their practice by making a few more letters. If the first attempt was unsatisfactory, have the children watch as you draw a model on their paper and explain how to improve their work. For example, *Be sure you sit the c on the writing line* or *Make sure the c goes **to** the green*. You do not want the children practicing poorly formed letters.

Once the children have learned additional letters, they will practice writing them in words. After each initial attempt to write, check each child’s work. If the attempt was good, the child can finish the line in their book independently while you help other children. Feedback is provided during the entire lesson in order to ensure constant improvement in the children’s work.

You can provide additional handwriting practice by using ½-inch-ruled paper or copies of the blank practice sheet on page 112. Upon completion of the book, reduce the letter size by using ⅜-inch-ruled paper. Each time you introduce a new paper, provide models for tracing or copying before the children use it independently.



½" Ruled



⅜" Ruled

## Lower Case Letter Groups

Print letters are always taught in one stroke to help children compensate for visual-motor and directional weaknesses, and each letter is learned in one fluid movement. Teaching print letters in one stroke also facilitates cursive instruction. For example, a child who learns to form a **d** using one stroke and practices this motor pattern in the primary grades will have no problem learning to form a cursive *d*, as the motor patterns are nearly identical. The only printed letters that cannot be taught in one stroke are **t**, **f**, **x**, and **k**.

### Two O'Clock Letters

The two o'clock letters are the only printed letters that do not begin on a line. Have students imagine where the 2 would be on a clock drawn between the belt and shoe lines. Tell students that whenever you say *two o'clock*, they should put their pencils slightly below the belt line and go up and over to the green. The *f* is a *tall* two o'clock letter that begins under the hat line.



### Tall Letters

Tell students that when you say *tall letter*, they should put their pencils on the hat line and pull down to the writing line. The *t* is a *teenage* letter.



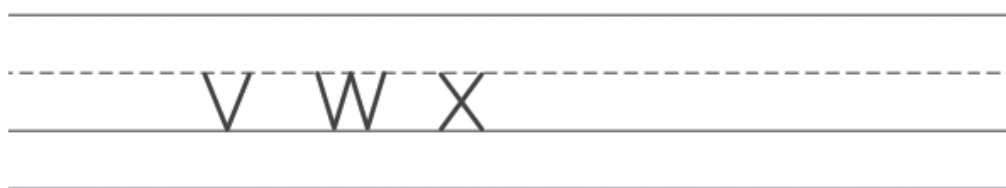
### Short Letters

Tell students that when they hear *short letter*, they should put their pencils on the belt line and pull straight down.



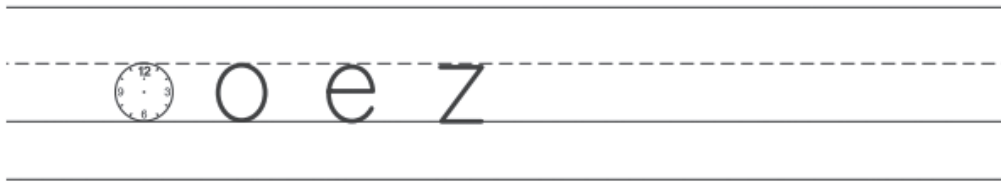
### Slanty Letters

Tell students that when they hear *slanty letter*, they should put their pencils at the belt line and slant down and away from the green.



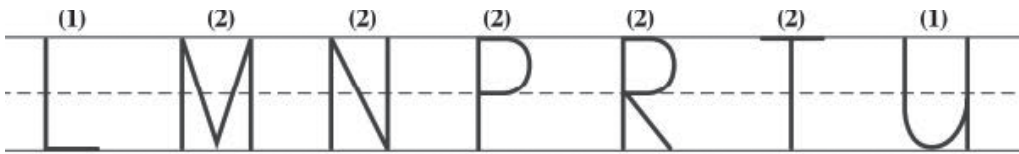
## Letters That Are Not in a Group

The letter *o* is taught as a twelve o'clock letter in order to form it the way the letter is written in cursive. The letters *e* and *z* begin with a line that goes away from the green.



## Capital Print Letter Groups

Most capital letters begin with a straight line down from the hat line. The number of strokes is indicated in parentheses over each letter.



## Capital Two O'Clock Letters

Tell children to put their pencils slightly under the hat line when they hear *two o'clock* for a capital letter.



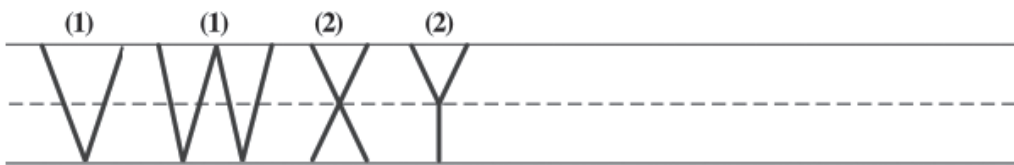
## Capital Twelve O'Clock Letters

Tell children to put their pencils on the hat line when they hear *twelve o'clock* for a capital letter.



## Capital Slanty Letters

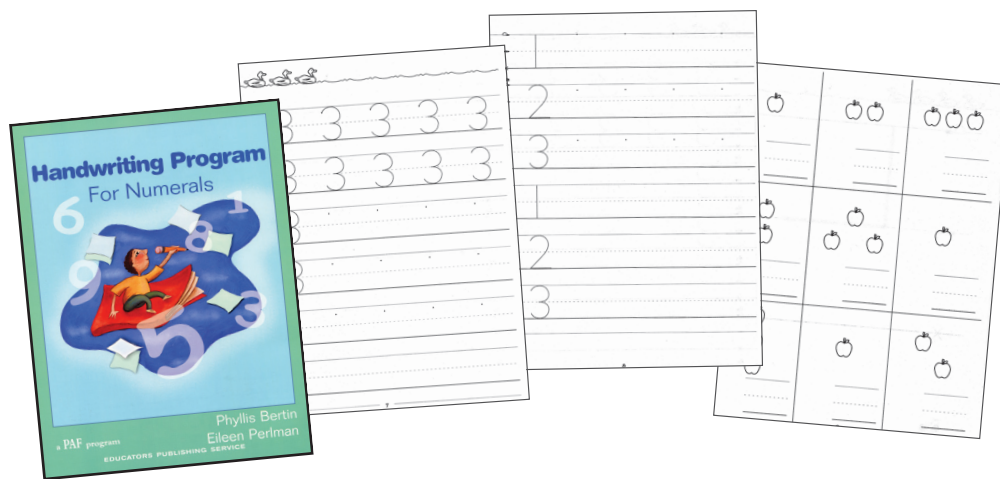
Tell children to put their pencils on the hat line and slant away from the green when they hear *slanty letter* for a capital.



## Letters Not Taught in a Group



While you are teaching your students to write printed letters, you may choose to teach them to write numerals as well. The PAF Handwriting Program for Numerals (#5136) contains pages for tracing, copying, and writing numerals from memory, along with basic mathematical concepts.



**For a full description of the PAF reading program, visit [PAFprogram.com](http://PAFprogram.com).**



## PAF HANDWRITING PROGRAM FOR NUMERALS

One of the fundamentals of mathematics is the ability to write the numerals automatically, legibly, and with proper spacing. This ability is important for calculations and for expressing mathematical concepts in written form.

In addition to teaching the formation of the ten numerals 0–9, this program includes activities for developing number sense, such as counting, one-to-one correspondence, and identifying missing numbers in a sequence.

The format of the lesson is similar to the one discussed in the Introduction. You should:

- Provide writing mats marked with a green line.
- Teach the names of the writing lines using the first page in the book.
- Model the formation of the numeral on a lined board using the verbal instructions. To avoid reversals, you need to get your students to start the numerals in the correct direction, either *to the green* (0, 6, 8, 9) or *away from the green* (2, 3, 7). The remaining numerals (1, 4, 5) begin with a straight line down.
- Have children trace and copy both the large and small models.
- Always provide an oral prompt before children write. You say, *Write 6*. Students say *six* as they trace or write the numeral.
- Give immediate feedback to ensure constant improvement.