

Handwriting Fluency For Literacy

***A Physical Intervention
For Improving Reading Skills
Using Print Handwriting***

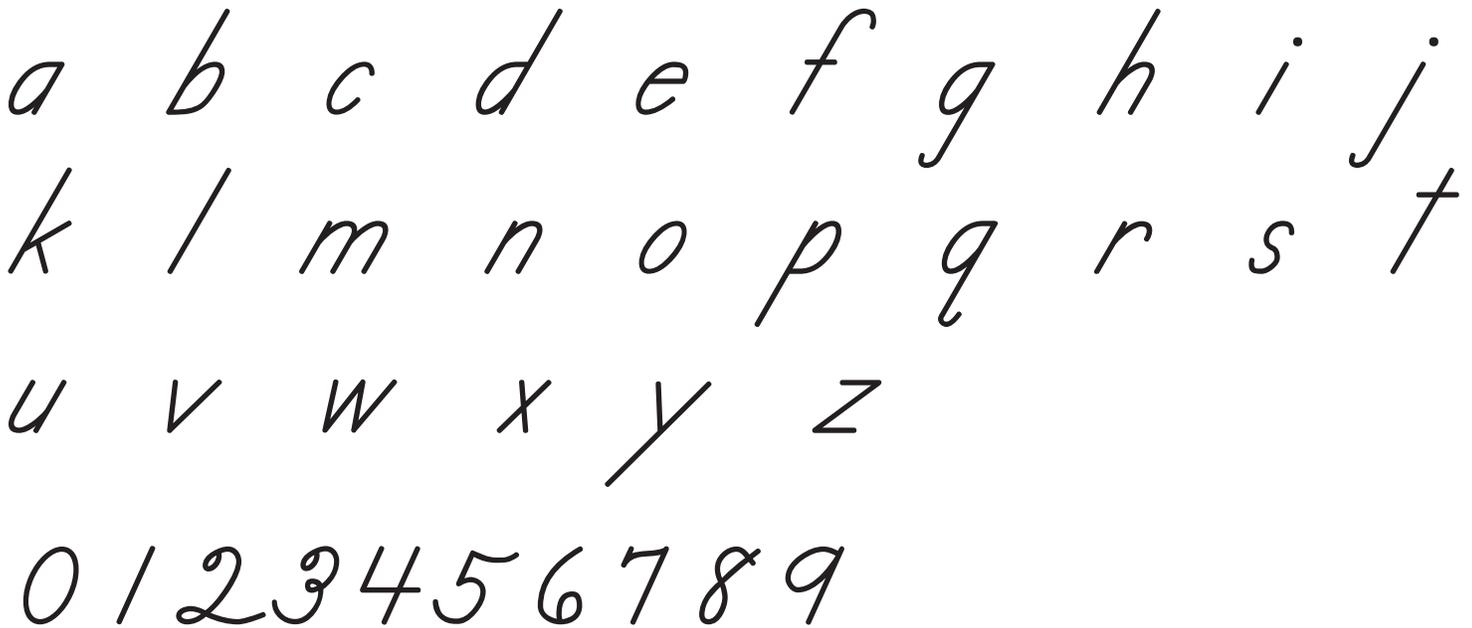


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Goal # 1 Write the alphabet in order at the minimum rate of 40 LPM.

A connection between handwriting fluency and reading has been demonstrated repeatedly by teachers working in kindergarten and grade one classrooms. All students who were able to write the alphabet at the rate of 40 legible letters per minute were responding to reading instruction and rated by the teacher at or above grade level. Conversely, students that were not writing at that rate, were considered to be lagging in reading skill development. That means the pupil should be able to write the lowercase alphabet, including the 10 numerals (36 symbols), once in slightly less than one minute at a minimum.



The lowercase letters are most important for reading. You may find that many students mix capital letters initially, or skip letters in the sequence. The student needs to learn how to write all of the lowercase forms and use them in the daily practice routine. The student should be able to write the alphabet from memory without any visible model for reference. The student should be able to write recognizable letters as randomly named by the coach, even with his or her eyes closed. We will focus upon lowercase fluency to maximize the Rate of Reading Improvement, but the word lists provided do use a few capital letters. You may want to add more words using capitals after mastering the words provided in this tool.

Goal # 2 Write words at the minimum rate of 40 letters per minute.

Some students need a bit of help learning how to use the motor system and the rhythmic, fluent kind of movement it can guide. This tool is designed to provide opportunity for this learning to happen. You will do this by leading word practice exercises during which the student will count aloud for the strokes as the letters are written. The goal is to create a pattern in muscle memory for each of the words shown on the lists that follow. The counting elicits rhythmic movement providing opportunity for the child to learn how to use it. The muscle pattern will enable a process that also assists during reading. The student will be able to recognize the words more fluently because that pattern exists. The rate of recognition will increase relative to rate of handwriting fluency exhibited in timed word-writing exercises.

Charts showing all of the letters are included in this document. The letters are shown in the Peterson color/rhythm format. The colors show the strokes needed and the stroke order. Use this chart to establish the count for any word. A green stroke is made first, brown second, and red third. A few letters require a fourth stroke. They are shown in pink.

Color Rhythm

In 1972 Peterson Handwriting introduced a new way to present letters. It is called a color/rhythm alphabet. The colors make it easier for a child to learn how to use smooth, fluent movement and also quickly learn to count aloud as they write the letters.



Use the color rhythm charts (see pages 7 and 8) to figure out the counting sequence for each target word. One-color letters need one count, two-color letters need two counts, three-color letters need three counts and four-color letters need four counts. Note that the count for a word is progressive. We are working to establish a rhythmic pattern for the whole word.

target

*Use the color rhythm chart on page 4 to figure out the count for the word above.
You should find 12 counts.*

The Training Process - Learning Rhythmic Movement

The fastest way to train a student to use the Count & Write process is to have the student finger-trace a model while counting for the strokes first. Then move to practice page for Count & Write practice.

The goal is to keep the voices working. If the student stops counting aloud, the patterning has stopped. Repeat the Finger-trace and Count & Write process until the student is able to write the target word while counting aloud for every stroke needed. The student should be able to write the word with eyes closed when the pattern is established.

An evidence-based process will help to build student confidence in the exercises. With this in mind, we have broken the two word lists down into smaller groups of six or eight so that the pupil will be able to see signs of progress sooner.

We have used two lists of words to create the worksheets. The first list contains holistic words, the second list contains phonetic words.

Please recognize that a teacher/coach is needed to make this process effective. If students practice writing the words independently, the activity will not achieve the rapid patterning we seek. Any possible effect on reading will likely be greatly reduced. The challenge to write with rhythmic movement is discarded when students simply copy the letters and words. That rhythmic-movement challenge is the stimulator that can change how the brain is processing the symbols.

The Color Rhythm Alphabet - Lowercase

Build letters from left to right. Write in color order; green, brown, red then pink. There is only one lowercase letter that needs four strokes. Do you know which letter it is without looking at the colors?

Learn to Count & Write by finger-tracing these models. Count aloud, one count for each color as you trace the strokes. Then count & write on practice paper.

a b c d e f g

h i j k l m n

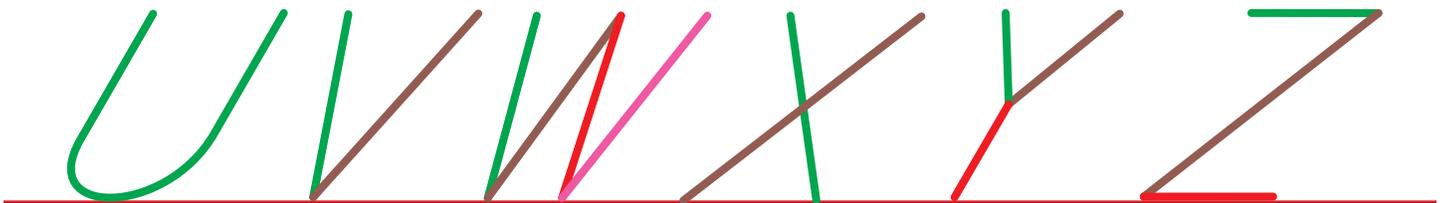
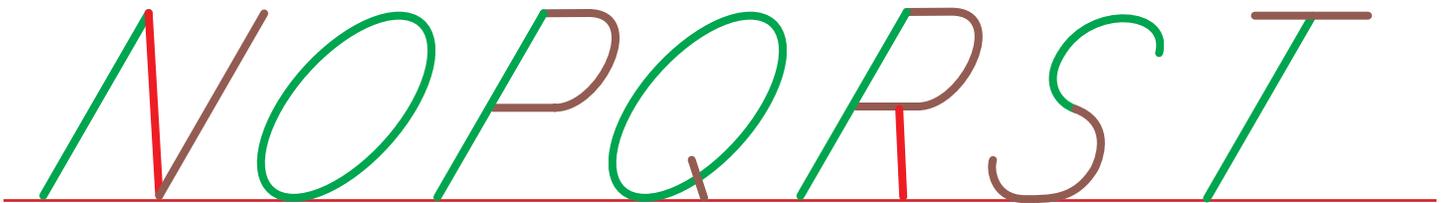
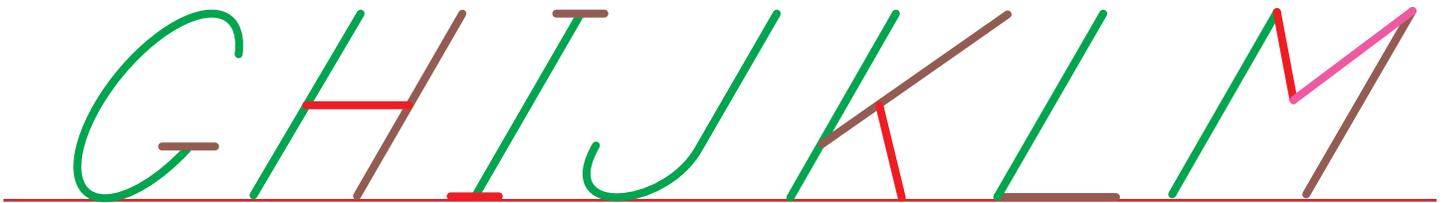
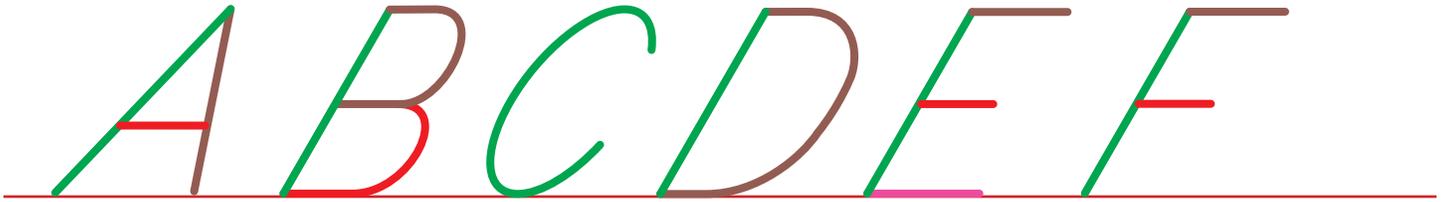
o p q r s t u

v w x y z

The Color Rhythm Alphabet - Capitals (Uppercase)

Build letters from left to right. Write in color order; green, brown, red then pink. Three capital letters need four strokes. Do you know which letters they are without looking at the colors?

Learn to Count & Write by finger-tracing these models. Count aloud, one count for each color. Then count & write on practice paper. Practice until you can make nice letters while counting aloud.



Step One - Measure a baseline rate of production for the lowercase alphabet.

Use a clock with a second hand to control the writing exercise. Explain that the task is simply to write the lowercase letters of the alphabet, as many as possible in order, during the time allowed.

Students will begin to write when you give the start command and stop when that command is given. At the stop command, the student may finish writing the current letter. If time permits, the student will begin to write the lowercase alphabet again and continue until stop is called.

Ask students to first write their name and the date on the page. Then start the exercise. Allow one minute for the writing.

Collect the papers and count the number of different, legible letters on the page. Make sure the student name and date have been written on the page. Save the paper to compare it to the next exercise.

You now have a baseline handwriting fluency score. The score is expressed as Letters Per Minute (LPM). You and the student will use the score to see change over time.

It is highly likely that any student with a fluency score below 40 LPM is having trouble with reading. We believe that a lack of handwriting fluency has created a blockade that is preventing the student from progressing with reading despite all of the interventions employed to help. Our goal is to eliminate that blockade so that the student can take advantage of all efforts to improve reading skills.

Step Two - Discover unknown letters and teach the correct production process.

Review the test paper and make a list of missing letters or errors like substitution of a capital or another letter (b instead of d), and form reversals. A “random naming assessment” would be a good idea at this point. If you record the time and errors, a comparison to a later score would build confidence.

Use the Color Rhythm Alphabet Chart for finger-tracing exercises to train the correct production process for missing letters and errors. Finger-trace the model while chanting colors or counting. Write & Count at least a dozen copies. Then write & count with the eyes closed to test the muscle memory.

Step 3 - Practice the alphabet to enhance mastery.

Direct the student to write the alphabet at least once each day until the student becomes proficient. The minimum LPM score for proficiency is considered to be 40. Once that level is attained, it is expected that scores will increase rapidly to a level between 70 and 100 LPM. A second “random naming assessment” should reveal a rate that is now very close to the LPM score.

Step 4 - Timed Reading Assessment Pretest

A timed reading of the word lists is recommended to establish a baseline reading fluency score. We recognize the time commitment involved to individually test each student, but there is no better way to directly overcome the negative self-esteem and attitude created by past experience. We have to show the pupil that he or she is making progress. This can be done with one word group at a time to spread out assessment time and afford more rapid feedback. The word groups are presented in columns on the pages. Fold the page top-to-bottom so that only one group of words is revealed to the child for the timed reading exercise. Make a copy of the page to use for recording results.

On your copy of the worksheet, write the student name and date. Underline the words that are read wrong as the student reads down the list. If the student self-corrects after a miscue circle the word. Record the time needed to read the list of words and the number of miscues. If a student is unable to respond at all to a word, you might want to mark it differently from miscues. Write a U (for unknown) or P (for pass) above that word. This will be most valuable if you are dealing with a primary population that is struggling to read. You can explain that there will be words on the list that they don't know, and that is fine. Tell the child to say "pass" if they don't know the word.

Step 5 - Use the material and procedure to establish word writing patterns.

The student will "finger-trace & count" to establish the rhythmic movement sequence and then "write & count" the target word at least twice with eyes open and once more with eyes closed to indicate mastery. When all words for the group have been mastered, you can do another reading assessment for the word group.

Step 6 - Timed reading assessment, post-test.

Repeat the reading test marking miscues and record the time. With the student, compare the post-test results with the pre-test to show the progress achieved. The time required for reading should reduce as will the number of mistakes or passes.

We need to build student confidence in this training process. For that reason, we recommend a Word Group approach. Assess the reading time and errors, work to program those words, and then assess the reading time again. Error and time reduction from pre-to-post tests will have a positive effect on the student attitude and motivation.

Note: The word-group approach should show progress quickly, but the rate of progress will be enhanced as more groups are mastered. The student has likely been guessing at words on many of the lists so confusions may not be eliminated for some words until more groups have been mastered. Please don't give up on the process if assessment on the first list shows there are still some errors. It will take a while to overcome the guessing habit.

Why Are The Letters In The Word Models Leaning Forward?

Paper holding skills are very important. The position of the arm on the table determines the direction of easy arm movement relative to the page. Rotating the page so the natural arm movement travels in alignment with the image area prescribed by the lines on the practice page greatly enhances fluency and legibility of the writing. The student who holds the page in good writing position, will be able to produce legible forms at a higher rate of production.

These exercises are all about exercising fluent movement for words. That means lateral arm movement is a big part of the process. When you get the student moving fluently, good ergonomics and arm movement should cause the print letters to slant. We are working to learn how to use print writing fluently. That process is very different from visual lettering. The letter-building process is the same, but making the movements fluently tends to cause forward slant quite naturally. It isn't an imperative product goal, nor is the degree of slant important beyond consistency. The word models are movement models and the goal is fluent movement. It makes sense to provide movement models that will enhance fluency when used to train the muscles.

am

5

do

3

and

6

dark

9

are

6

eggs

8

Sam

7

eat

6

anywhere

18

fox

5

box

5

green

10

be

4

goat

7

boat

7

good

6

could

7

ham

7

car

5

here

8

house

I

in

if

like

let

mouse

me

may

not

on

or

rain

say

see

so

that

them

there

they

tree

train

the

try

thank

would

will

with

you

Ben

nip

map

tag

job

met

sip

mix

pad

lock

wig

pass

hot

rack

jet

kid

pack

Tom

luck

neck

pick

cut

deck

kick

duck

fuzz

mud

hack

sick

men

hunt

rash

pest

land

tank

rush

mash

rest

tent

food

bulk

dust

desk

wax

ask

gulps

ponds

hump

lamp

belt

Moving Forward

This “directed exercise” strategy should now be very easy to employ within language, phonics or spelling programs, any program that is steadily presenting new words to be learned. Word pattern internalization isn’t usually mentioned by reading or language programs, certainly not in social studies or science programs. But, the ability to use the vocabulary fluently in composition is always the goal.

Please consider carefully the concept of “Instant Words.” The motor system communicates with muscles in a marvelous way. It is much like a huge hard drive that can store the movement dynamics for all of the words we learn if given the opportunity to capture good recordings.

When the student is engaged in text generation for a writing assignment, the system can call up a pattern for a word and send it in a batch to the muscles. The muscles can then execute the movement pattern automatically with little need for cognitive attention. That is happening when you dash off a grocery list. You are thinking about the items in your refrigerator and cupboards, perhaps the location of items in the grocery store, but you are not thinking about the handwriting (transcription) process at all.

When a subject matter report is needed, the student needs to apply specific words related to the subject. If those words are stored as instant words as they are learned, the composition effort will go smoothly, a big advantage when sitting for exams like the SAT or your state proficiency exams.

Students who wind up scoring below basic proficiency on exams don’t have the instant words they need to easily and effectively show what they know. Directed handwriting exercise is the best possible way to create instant words in the database. Once established the positive effect on text generation is accomplished.

The composition is going to be easier to write, and more effective no matter what tool is used for transcription. That is precisely why studies have shown that improvement of handwriting skills has a positive effect on keyboarding.

We have seen a steady decline in priority for instruction of handwriting skills for decades, and strongly believe the omission is a grave error that is a major contributor to illiteracy and learning problems. If you have found this process effective in improving written language function, please talk about it. The only way to overcome the incredible apathy that leaves teachers without knowledge of the value of physical language instruction, is to become a vocal advocate. Please generate some discussion about your experience with other teachers in your school and community.

And, please invest a minute or two to let the folks at Peterson Handwriting know that the process is helping your students. Email: Rand Nelson <mrpencil@peterson-handwriting.com>