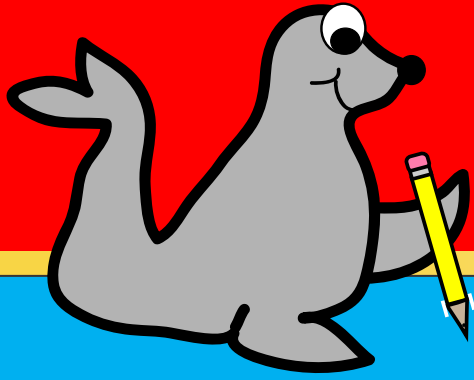


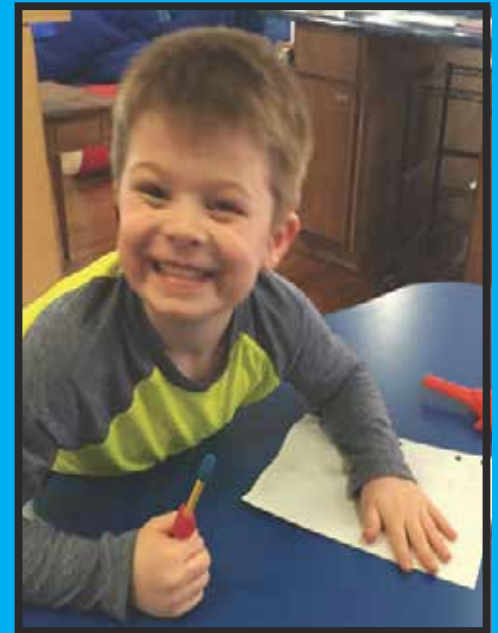
# First Strokes<sup>®</sup> Multi-sensory Handwriting Programs



***Explicit instruction!***

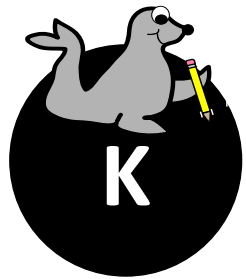
## ***Introduction to the Programs***

Extremely affordable for schools –  
Building license only \$225 for an ENTIRE program!





**First Strokes<sup>®</sup> Preschool or Special Needs  
Handwriting Program**



**First Strokes<sup>®</sup> Multi-sensory  
Handwriting Program**



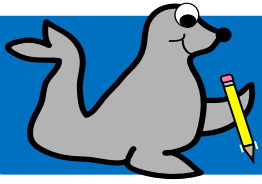
**First Strokes<sup>®</sup> Advanced Print  
Handwriting Program**



**First Strokes<sup>®</sup> Print Legibility  
Handwriting Program**



**First Strokes<sup>®</sup> Cursive  
Handwriting Program**



## Building Licenses/Individual Licenses

An **individual license** allows one user to access files for their own students. A **building license** allows multiple users within one building to access program files for their students. A district would need to purchase a building license for each building.

**Extremely affordable for schools - \$225 for an ENTIRE program!**

Licenses (both individual and building licenses) available from:



Available on **USB drive** from the First Strokes catalog. We take purchase orders:

[www.TheHandwritingClinic.com](http://www.TheHandwritingClinic.com)



As a **digital download**:

[www.TeachersPayTeachers.com](http://www.TeachersPayTeachers.com)

(Search for **The Fine Motor Store**, then “First Strokes”)

All files are digital products and include workbooks, training manuals, introduction modules, grading rubrics, and much more! (See next pages for description.)



**First Strokes® Preschool or Special Needs Handwriting Program**

**Individual license:**  
USB or TPT download

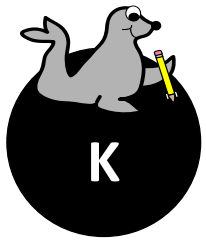
**Building license:**  
TPT download

**Building license:**  
on USB (purchase from [catalog](#))

\$45.00

\$150.00

\$175.00



**First Strokes® Multi-sensory Handwriting Program**

\$90.00

\$200.00

\$225.00



**First Strokes® Advanced Print Handwriting Program**

\$90.00

\$200.00

\$225.00



**First Strokes® Print Legibility Handwriting Program (remedial print)**

\$30.00

\$100.00

\$125.00



**First Strokes® Cursive Handwriting Program**

\$40.00

\$200.00

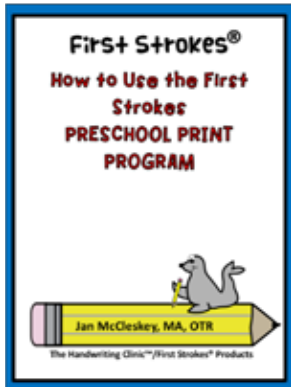
\$225.00

# First Strokes Preschool or Special Needs Handwriting Program

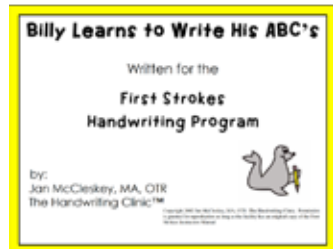


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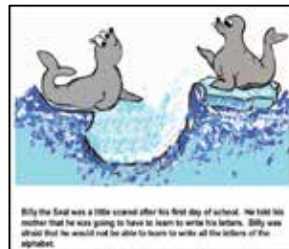
**Pre-K or  
Special Needs  
Curriculum**



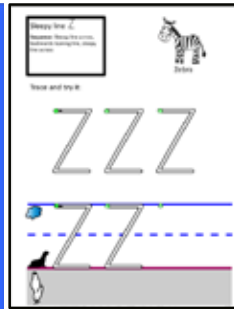
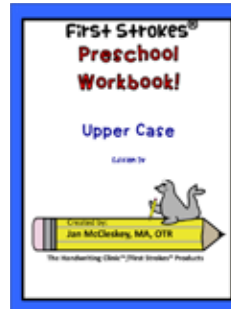
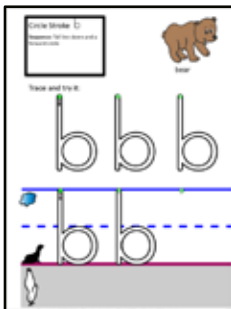
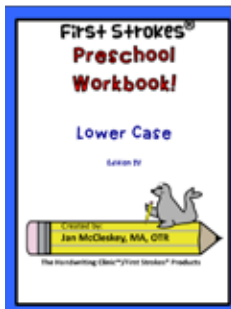
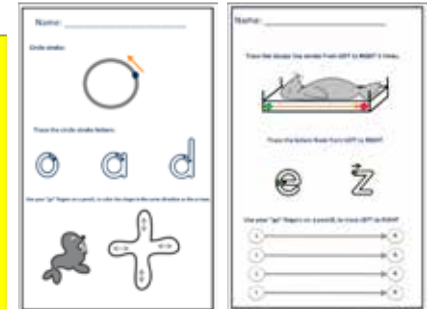
Instructors manual



Billy Learns His ABC's Storybook



Letter introduction modules



Lowercase and uppercase workbooks

See next page for more activities in this program

# First Strokes Preschool or Special Needs Handwriting Program



**INCLUDES:**

Pre-K or  
Special Needs  
Curriculum

Name: \_\_\_\_\_ Date: \_\_\_\_\_


Copyright © 2011 by McLeskey, MA, OTR Teacher for Teachers/OTR Handwriting for Preschool and Special Needs

Simple, printable worksheets for preschoolers or students with special needs. Has a dot for the starting point, and an arrow.

## Large Tracing Letters

Trace It!

Sponge paint it!

Punch It!

Decorate it!

Q-tip It!

Play-dough it!

Use as wall posters!

Jan McCleskey, MA, OTR

**Preschool  
Multi-sensory  
Activities!**

## Fun!

The preschool files include large printable letters for general multi-sensory practice!

Form letters with:

- Tracing
- Sponge paint
- Q-tip tracing
- Play-dough
- Punch out

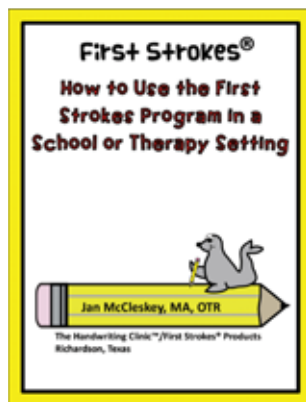
Use as wall posters too!

# First Strokes Multi-sensory Handwriting Program

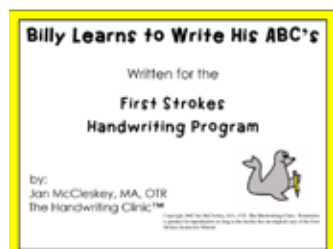


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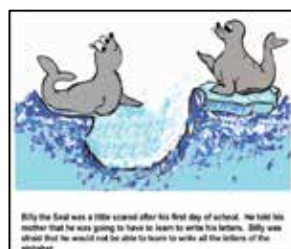
Kindergarten Curriculum



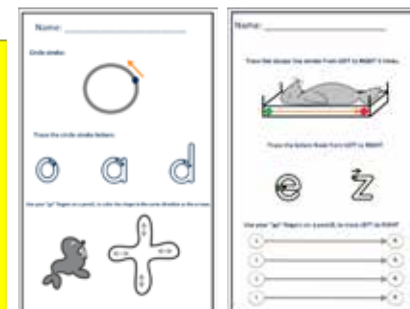
Instructors manual



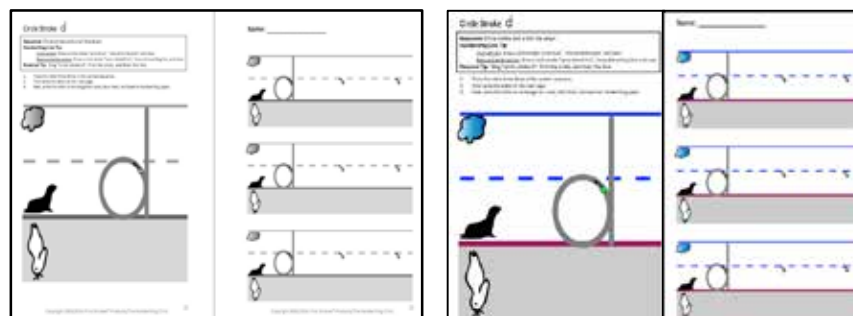
Billy Learns His ABC's Storybook



Letter introduction modules



Lowercase and uppercase workbooks



Digital copies may be printed in black and white or color.

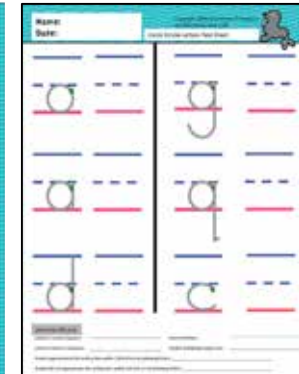
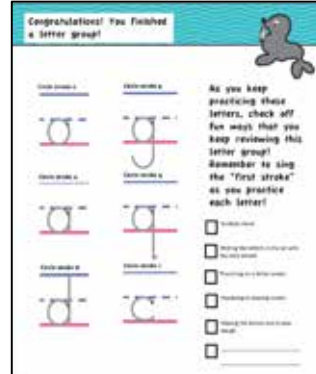
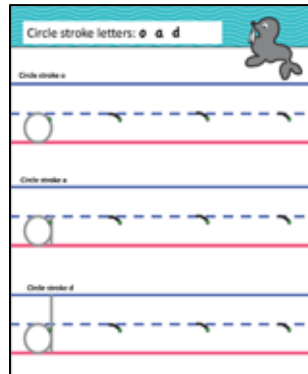
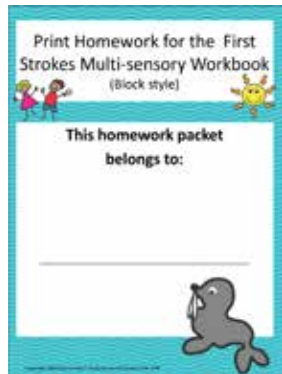
See next page for more activities in this program

# First Strokes Multi-sensory Handwriting Program



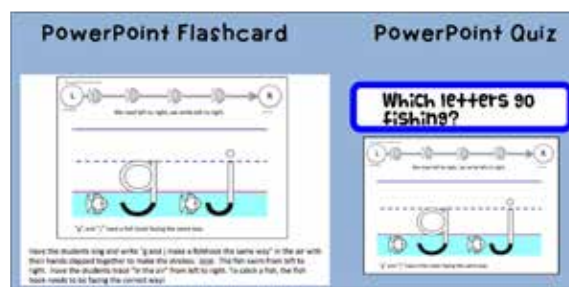
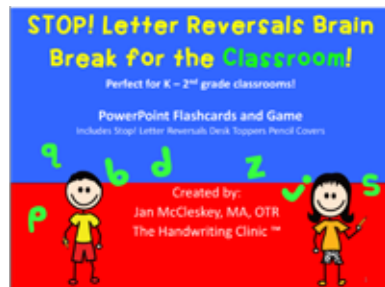
INCLUDES:

Kindergarten Curriculum



Homework – printable workbook or worksheets

Kindergarten Grading or Assessment Rubrics



PowerPoint (.pdf) flashcards with a printable quiz (writing letters in the air) – Students practice writing commonly reversed letters **in the air** as they go through flashcards and quiz. Recommend using 1x week (3 – 5 minutes). Also includes printable desk toppers and pencil toppers for commonly reversed letters!

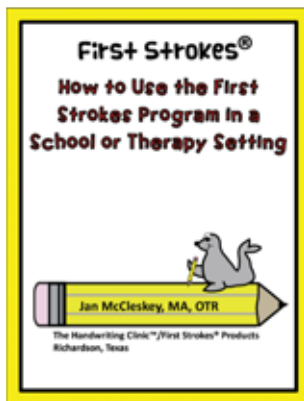


# First Strokes Advanced Print Handwriting Program

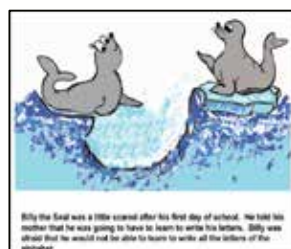
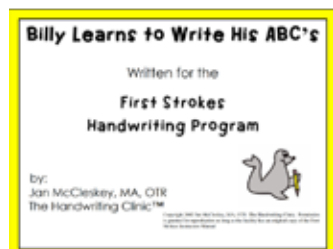


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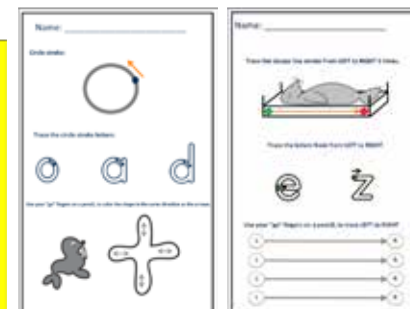
First Grade Curriculum



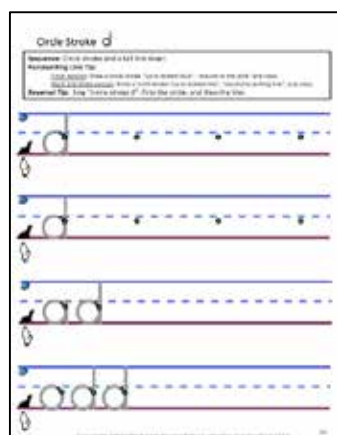
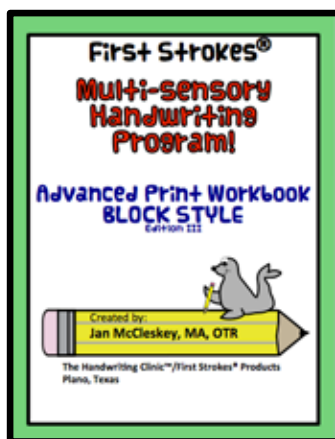
Instructors manual



Billy Learns His ABC's Storybook



Letter introduction modules



Workbook – includes upper and lower case worksheets

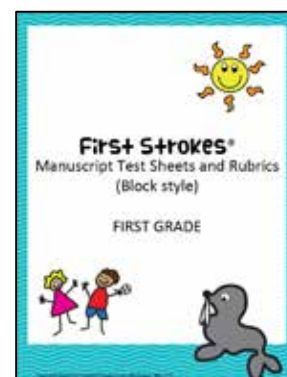
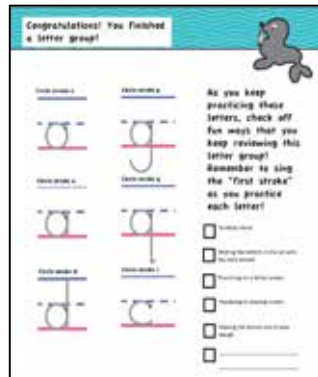
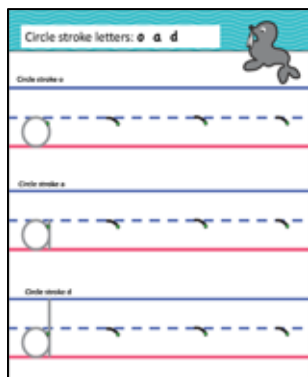
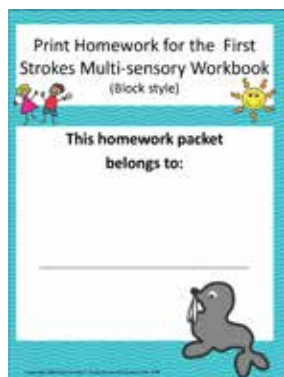
See next page for more activities in this program

# First Strokes Advanced Print Handwriting Program



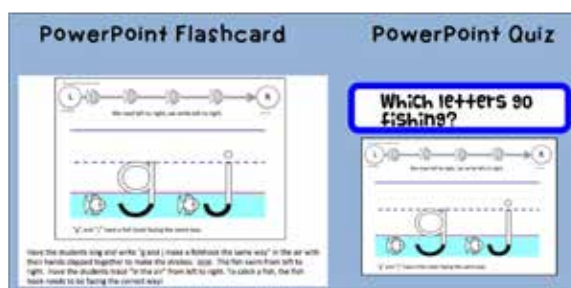
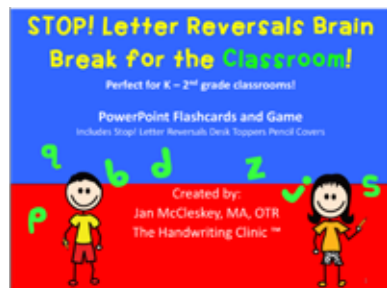
INCLUDES:

First Grade Curriculum



Homework – printable workbook or worksheets

First Grade Grading or Assessment Rubrics



PowerPoint (.pdf) flashcards with a printable quiz (writing letters in the air) – Students practice writing commonly reversed letters **in the air** as they go through flashcards and quiz. Recommend using 1x week (3 – 5 minutes). Also includes printable desk toppers and pencil toppers for commonly reversed letters!

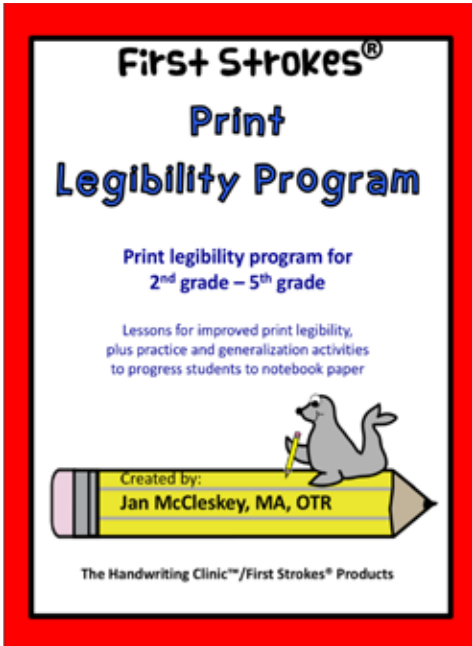
# First Strokes Print Legibility Program



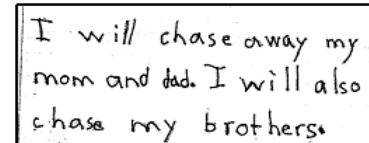
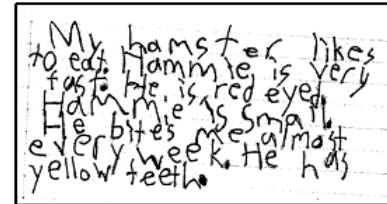
## Program

INCLUDES:

2<sup>nd</sup> grade and above

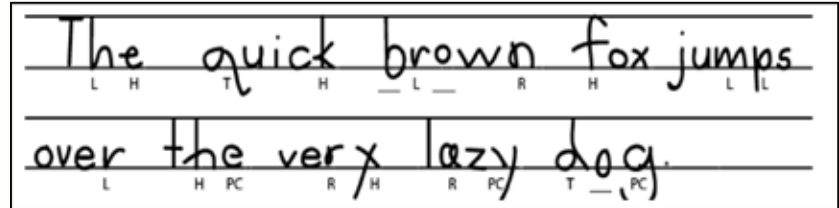


Most students with an inconsistent size of handwriting, can make quick changes to a more consistent height and size of letter formation. Ex. This student changed his handwriting from the top example to the bottom example, in less than an hour.

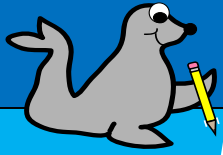


Students work on legibility activities on the **adaptive notebook** paper, then progress to keeping sizing and legibility on **regular ruled notebook** paper, and fill **in the blank** worksheets. Includes practice pages and legibility training for number legibility too! Paper is available from the School Specialty Catalog – “Cursive Ruled Paper” is the product name, and does not come with the digital download.

Identify and grade “speed” handwriting errors!



# First Strokes Cursive Program



**INCLUDES:**

2<sup>nd</sup> grade and above

**Comprehensive Cursive Workbook** – 100 pages!

**Lower Case Instruction and Practice Pages** – grouped by the “First Stroke”, students are provided cognitive cues for letter formation.

**Speed and Visual Memory Practice** after each letter group.

**Capital Letter Instruction Pages** - categorized by the “First Stroke”.

**Bridging letters section** – practice bridging b, o, v, and w to other letters within words.

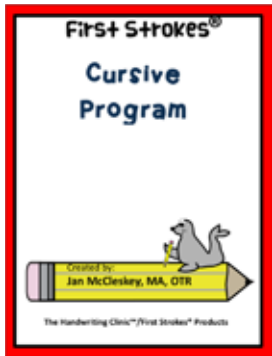
**Generalization section** – strategies and tips for how to generalize handwriting to notebook paper, worksheets, etc

**Zany Writing Topic section** – FUN classroom activities to generalize handwriting to sentences and paragraphs

**Certification for Achievement** – for the 40 second club: (writing the alphabet bridged together in 40 seconds, without handwriting errors.

**Ream of adaptive ruled notebook paper** for practice – the student will use this paper for all practice of letters worked on in the workbook. It is recommended that the student use this paper for a period of 6 weeks to mature the size of handwriting to 1/3 space for the body of the letters.

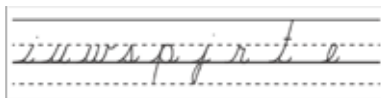
**Giant handwriting lines for multi-sensory practice** – sheet protector with a cardstock sheet inside with giant handwriting lines. Use individually or with an entire classroom. Students can use a dry erase marker to practice letter formation before working in the workbook.



**Skateboard Ramp Letters**

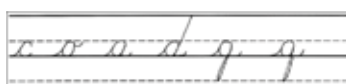
Trace writing line, then climb up the skateboard ramp by curving up, then shoot a straight, slanted line up.

Skateboard ramp = 3 strokes



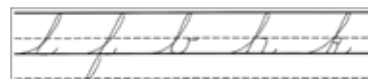
**Wave Runner “C” Letters**

1. Curve up and over the wave
2. Retrace backwards to make a “c”
3. Touchpoint writing line



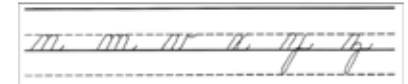
**Tall and Thin Loop Letters**

1. Swoosh up to the top line.
2. Make a thin “hook” (looks like the end of a paperclip).
3. Slant straight towards the writing line (this is a STRAIGHT LINE).



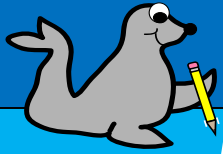
**Finger Tip Letters**

1. Slanted line up, round, slanted line down to writing line. Looks like a “finger tip”.



In the First Strokes Cursive Program, letters are grouped by their “first stroke”. There are 4 “first stroke” letter groups for lower case: Skateboard ramp letters, wave runner “c” letters, tall and thin loop letters and fingertip letters.

# First Strokes Cursive



## Program

**INCLUDES:**

2<sup>nd</sup> grade and above

Each page has a section on recognizing common errors in handwriting (shows correct way, and incorrect mistakes – teepees, lakes, poor closure, sizing errors, touch point and bridging errors etc.).

Stroke section visually teaches students the strokes for letter formation.

Letter practice session: Note – the bottom space is approximately 1/3 space. Student practices on workbook page, then on adaptive ruled notebook paper (comes in kit), and eventually on standard notebook paper. This helps the student progress to a mature size of handwriting! Separate section for word practice after each category of letters.

### Visual Memory Practice and Speed Test – after each letter group

Speed tests section after every category! As students complete each section, practice the letters through speed tests. First complete trial 1. Then practice writing the words in the air with eyes closed as fast as possible. Work through multi-sensory activities for speed. Then try trial 2 speed tests to see progress!



**Letter u:** *DIRECTIONS: Practice writing the letter on this page, then practice writing the letter on the lined notebook paper included in this kit to work on developing consistency of size and form of the letter. The goal is to always write without handwriting errors, with the body of the letters within the bottom 1/3 space.*

Correct:	Retracing Error:	Backslant Error:	
Teepees:		String Error:	Touchpoint/Bridging Error:

Remember to make TOUCHPOINTS when the letter should touch the handwriting lines!  
ALWAYS make a touchpoint on the writing line before making a finishing stroke (unless it is a bridging letter)!

1. Climb up the skateboard ramp by curving up, then shooting a straight, slanted stroke up.      2. Retrace down to the writing line and trace the writing line.      3. Climb up the skateboard ramp by curving up, then shooting a straight, slanted stroke up.      4. Retrace down to the writing line and touch and trace the writing line before bridging to the next letter.

*x u u u u*

*x u u u u*

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# First Strokes Cursive Program



**INCLUDES:**

2<sup>nd</sup> grade and above

## First Strokes® Cursive Modules and Extra Practice Pages



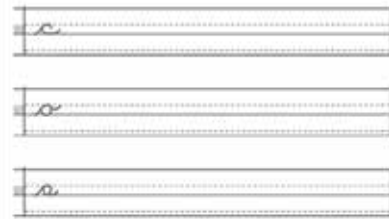
### Modules 3 and 4 – Extra Practice

- Work on writing the letters and the words from memory, in the air, with eyes closed.
- Do the attached homework pages
- Most importantly, do the scribble sheet.

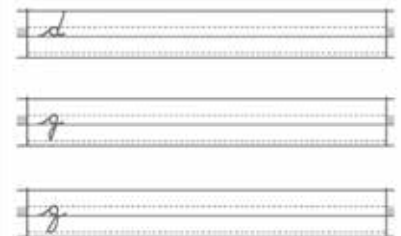


- Wave runner "c" stroke
1. Curve under and over the wave.
  2. Retrace backwards to the bottom of the "c".

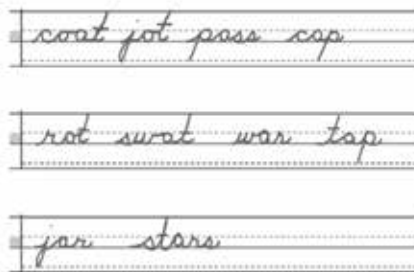
Name: \_\_\_\_\_  
Copy the letters here, and on the adaptive notebook paper.



Name: \_\_\_\_\_  
Copy the letters here, and on the adaptive notebook paper.



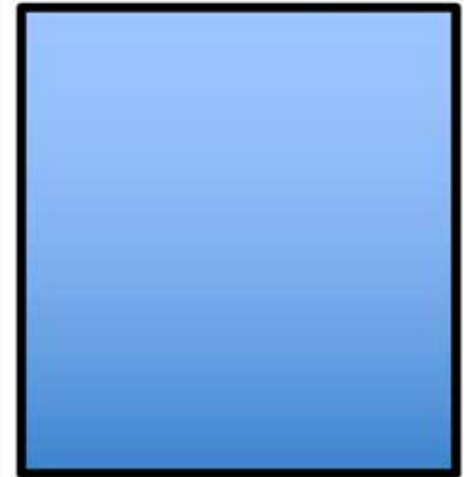
Name: \_\_\_\_\_  
Copy the words on to the adaptive notebook paper.



Scribble all over this square with a crayon. Then look at each letter or word, and write with the crayon in the square with eyes closed in cursive.

o a d g q c    cat   cot   cap   tap   jot   act  
dog   good   quit   quad   ad   ag

Review: skateboard ramp letters i u s t j p e r



Program comes with the workbook, as well as extra practice pages (homework or extra generalization practice for each module.

Students work on legibility activities on the **adaptive notebook** paper, then progress to keeping sizing and legibility on **regular ruled notebook** paper. Paper is available from the School Specialty Catalog – “Cursive Ruled Paper” is the product name, and does not come with the digital download.

# Research – First Strokes vs. Handwriting Without Tears



## The Effectiveness of Two Handwriting Programs in First Grade Students

Sarah Graham, OTS - Mary Kramme, OTS - Brieanah Reid, OTS - Julia Paruch, OTS - Jamie Welker, OTS  
Robyn Otty, OTD, OTR/L, BCPR

### Introduction & Background

Writing has been identified as students' predominant fine motor task in the classroom.<sup>1</sup> It is a performance skill children use to fulfill many of the required school based activities they experience during their roles as students. With multiple studies identifying up to 27% of students in primary schools as having difficulty writing, this is a major area of concern in the school system and the most common reason for referral to school-based occupational therapy.<sup>2,4</sup>

To address the internal mechanisms, handwriting programs have been developed using different approaches as methods of implementation. The literature identifies these approaches as: perceptual motor, sensory integrative, task-oriented, cognitive behavioral, and multisensory-based.<sup>6,7,9</sup> Results from show 92.1% of occupational therapists use a multisensory approach, signifying a study that found multisensory-based approaches to be most commonly practiced among occupational therapists addressing handwriting.<sup>6,9</sup> However, the literature available on multisensory approaches shows inconsistent and contradictory results regarding their effectiveness.<sup>10,9</sup>

There is a lack of evidence, which supports the implementation of handwriting remediation programs in a setting outside the traditional school day. Only one study was found to apply a handwriting remediation program during the summer months which aided the student in carrying over the skills they had learned during the school year.<sup>11</sup> This study aims to compare the effectiveness of two multisensory-based handwriting programs used in an afterschool setting with students who have handwriting difficulties, but have not been formally identified with a disability.

### Hypothesis

The use of handwriting programs, Handwriting Without Tears (HWT) and First Strokes (FS) will improve:

- Legibility
- Formation
- Proportion
- Spacing

### Results

#### Effect of First Strokes Intervention on Handwriting

FS participants revealed significant improvements in letter legibility and proportion ( $Z = -2.077, p = 0.027$ ).

Table 2. Pretest, Posttest, and Within-Group Differences After 6 Weeks of Handwriting Intervention

Variable	First Strokes (n=6)				Handwriting Without Tears (n=7)			
	Pretest Mean (SD)	Posttest Mean (SD)	Difference	p*	Pretest Mean (SD)	Posttest Mean (SD)	Difference	p*
Word Legibility	67.5 (22.1)	74.5 (14.8)	7	0.345	65.5 (9.6)	84.2 (12.4)	18.7	0.043*
Letter Legibility	67.5 (10.1)	82.3 (5.7)	14.8	0.027*	82.2 (10.2)	88.5 (4.6)	6.3	0.108
Formation	42.8 (6.5)	45.3 (2.8)	2.5	0.206	47.2 (3.4)	48.0 (2.3)	0.8	0.609
Proportion	37.5 (6.4)	45.6 (5.4)	8.1	0.027*	42.2 (5.2)	45.8 (5.0)	3.6	0.061
Spacing	52.0 (0.0)	51.1 (2.0)	-0.9	0.317	52.0 (0.0)	51.8 (0.3)	-0.2	0.317

Note. SD = standard deviation; \*All ps statistically significant at  $p < .05$ .  
\*Significance level: one star (\*) for 0.05

### Methods & Materials

**Design:** Pretest/Posttest, two group design.

**Participants:** Participants consisted of 13 students (9 girls, 4 boys;  $M$  age = 84 months) 1<sup>st</sup> grade students from two schools who attended an afterschool program in the St. Louis area. All participants were recruited following Maryville University's Institutional Review Board (IRB) approved procedures. Participants were screened for handwriting difficulties using the Evaluation Tool of Children's Handwriting (ETCH). Participants who scored 85% or below were included in this study.

**Procedure:** Prior to data collection, student researchers participated in training sessions for each handwriting program conducted by the research advisor. Two afterschool programs were randomly assigned a handwriting program: Handwriting Without Tears® (HWT) or First Strokes® (FS). Both intervention programs were performed in small groups one day a week for a total of six weeks with each session lasting 30-45 minutes. After completing six weeks of intervention, the student researchers re-administered the ETCH to all participants (posttest).

**Data Analysis:** To compare the results between pre and posttest data, the Wilcoxon Signed-Ranks test was used. The Mann-Whitney U Test was performed to measure the impact between both groups.

### Results

#### Effect of HWT Intervention on Handwriting

HWT participants revealed significantly improved word legibility ( $Z = -2.028, p = .043$ ).



### Conclusion

Both handwriting programs showed improved handwriting legibility, letter formation, and proportion. However, students receiving the First Strokes® handwriting program improved significantly more in letter legibility and proportion than students participating in the Handwriting Without Tears® program. In addition, First Strokes® recorded a greater mean improvement for letter legibility, formation and proportion as compared to Handwriting Without Tears®.

The results of this study indicate the efficacy of two handwriting programs widely used by occupational therapists. Furthermore, this study warrants further investigation to guide the therapist in making informed and evidence based decisions when selecting handwriting programs.

### Discussion

This study focused on typically developing students in grades one, who had not been identified as having physical impairments, cognitive impairments, psychological diagnoses, and were not receiving any special services or supplementary handwriting instruction. Essentially, these students had handwriting difficulties, but lacked the diagnosis to warrant an IEP/504. It was believed they could benefit from a handwriting intervention program that encouraged development of skills.

While both handwriting programs are designed to influence handwriting performance, neither program showed significant improvement within all five variables. Despite this finding, both programs did improve components of handwriting. Furthermore, the results from HWT® echo previous studies of handwriting intervention that reported an improvement in legibility and proportion using the multi-sensory structured handwriting program.<sup>12,13</sup> No prior research has been conducted to assess the effectiveness of FS®, therefore further research is needed to confirm the outcomes of our study.

Strengths of the study include: the use of a standardized outcome measure with high reliability and validity, and the use of a blinded independent assessor to score handwriting samples. In addition, since the study was conducted within an after-school setting, a new opportunity of service delivery for occupational therapy was observed.



### Acknowledgments

We would like to acknowledge Dr. Peter Green, OT faculty, Adventure Club – staff, parents, and students.

References available upon request

# Research – a two week handwriting camp using First Strokes



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School of Occupational Therapy

## EFFECTIVENESS OF THE FIRST STROKES MULTI-SENSORY HANDWRITING PROGRAM ON HANDWRITING PERFORMANCE

Charlena Rodez, MOTS & Mayra Esquivel, MOTS Research Advisors: Catherine Candler, Ph.D., OTR, BCP & Jan McCleskey, OTR, MA

### ABSTRACT

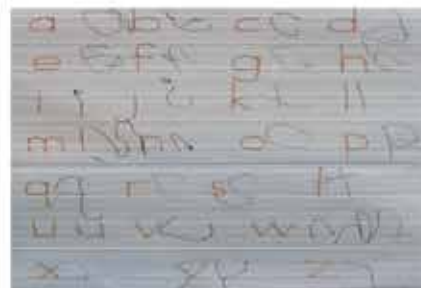
The First Strokes Multi-Sensory Handwriting Program at The Handwriting Clinic was developed by Jan McCleskey, OTR. The program emphasizes grasp development and letter formation using lined paper with a focus on letter spacing, consistency of letter size, and prevention of letter reversals. Using a repeated measures design, this study analyzed the program's efficacy on improving the quality of handwriting amongst kindergartners and first graders.



### INTRODUCTION

Handwriting has been linked to achievement with reading, spelling, and math and is fundamental in completing homework, accomplishing assignments, and academic placement tests (Feder & Majnemer, 2007). Children spend a significant time of their day in school working on and completing handwriting assignments during their first years of school (McHale & Cermak, 1992). With an estimated 10% to 30% of children experiencing handwriting difficulties, it is necessary to address factors affecting legibility (Feder & Majnemer, 2007). Typically, handwriting is introduced in kindergarten and written assignments intensify as they move up grade levels and into the school's curriculum. Therefore, acquisition of motor and sequencing skills needed for handwriting must be achieved early.

#### Before



### PURPOSE

The purpose of this study was to assess the effectiveness of the First Strokes Multi-sensory Handwriting Program on improving the quality of handwriting as demonstrated by legibility, touch point accuracy, and letter sequencing.

### METHODS

#### Participants

A sample of 25 students between the ages of 4 and 6 entering kindergarten or first grade in fall 2011.

#### Setting

The Handwriting Clinic in Plano, TX.

#### Design

Utilizing a repeated measures design, handwriting samples of the lowercase alphabet were obtained at three time points: before instruction (pre), after completion of the program (post), and at a follow up review session before the start of school.

#### Measurements

Stroke sequence, legibility, and touch point accuracy were examined in the pre-, post-, and follow up samples. Kindergartners used lined paper and were provided with a visual of the letter. First graders used lined paper, but had to write the alphabet from memory. If they forgot a letter, they were then provided with a visual. All samples were video recorded.

Stroke sequencing criteria was based upon the clinic's First Strokes Multisensory Hand Writing Program curriculum, and the correct or incorrect sequence was manually recorded by the researcher while observing the participant during the handwriting sample. Scores ranged from 0-26 with higher scores indicating better performance.

Legibility was scored using the standardized Minnesota Handwriting Assessment. Scores ranged from 0-26 with a higher score indicating more errors.

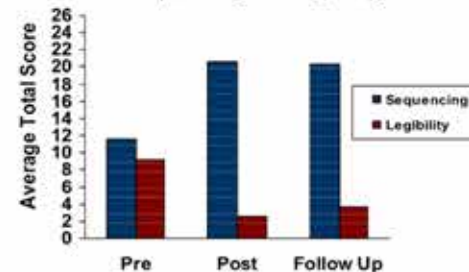
Objective criterion was established for touch points by using a ruler to determine if the letter was within 1/16" from the intended touch point line. The total number of touch points was different for each letter. Scores ranged from 0-90 with a higher score indicating better performance.

#### Analysis

Using SPSS, a paired samples t-test was used to describe changes in performance from Pre- to Post-, Pre- to follow up, and Post- to Follow up.

### RESULTS

#### Sequencing and Legibility



#### Touch Point Accuracy

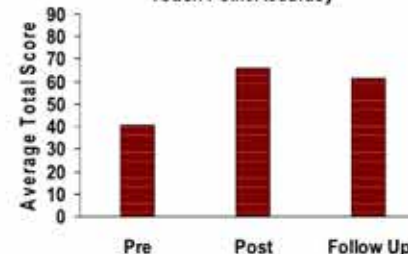


Table 1. Repeated Measures Analysis of Handwriting Performance

Measure	Pre	Post	FU	Pre-Post	Pre-FU	Post-FU
	M	M	M	p	p	p
Legibility	9.16	2.52	3.72	<.001	<.001	.04
Sequencing	11.54	20.69	20.38	<.001	<.001	.61
Touch Points	40.38	65.65	61.73	<.001	<.006	.09

### DISCUSSION

The First Strokes Multi-sensory Program was effective in improving handwriting performance in this population as demonstrated by significant improvements in legibility, sequencing, and touch points. As a result, children became more interested in handwriting and coloring.

#### Limitations

Evaluators were not blinded to whether they were scoring pre-test, post-test, or follow up test, which could have led to grading bias.

Kindergartners and first-graders completed handwriting samples using different formats. Therefore, the analysis may have been different if the results were evaluated for each cohort.

The time that elapsed from post to follow up potentially influenced outcomes.

#### Recommendations for Future Study

Participants had the option of using the "tip grip protocol" used to enhance motor skills. Further analysis is needed to evaluate its potential impact on handwriting performance.

#### After



### CONCLUSIONS

The KBP class curriculum may be one to follow during intervention when assisting school age children improve the quality of their handwriting skills. Students who participated made noteworthy gains in handwriting legibility, touch points, and sequencing. Further research is warranted to assess the effectiveness of the program with students with diagnosed learning disabilities and the effectiveness of the program during the academic year.