# Blumenfeld's Alpha-Phonics Self-Tutor 

## Phonogram Cards

## Created by Donald L. Potter

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# The Blumenfeld's Alpha-Phonics Phonograms 

Key Words

Prepared by Donald Potter<br>10/26/1999 - revised 12/27/2003 and 7/5/2021

The Alpha-Phonics Phonograms teach the variable symbol-to-sound correspondences of the English alphabetic writing system. The Phonograms are numbered according the order in which they are introduced in Alpha-Phonics. The underlined letters give the sound or sounds of the phonograms. Say the sounds in isolation in the order given as you practice drilling the phonograms with the students. The key words are for the instructor only. Simply reciting the sounds of each phonogram in the order indicated is all the teacher needs to do. The sounds are in order of frequency.

| 1. a at ate father ball 2 | 21. ck back | 41. eigh eight | 61. ew threw |
| :---: | :---: | :---: | :---: |
| 2. m mom | 22. qu quack | 42. au haul | 62. eu feud |
| 3. n noon 2 | 23. k kid | 43. aw paw | 63. ir first |
| 4. $\mathbf{s}$ sat as 2 | 24. e pet he | 44. ar car | 64. ur nurse |
| 5. $\mathbf{t}$ tot 2 | 25. i it kite taxi | 45. ee bee | 65. wor work |
| 6. $\mathbf{x}$ ax 2 | 26. o pot go love do | 46. ea bead head bear | 66. ear early |
| 7. h hat 2 | 27. u cut use music put | 47. ie field pie | 67. our courage |
| 8. d dad 2 | 28. ph phone | 48. igh light | 68. sc conscience |
| 9. w wax 2 | 29. th the thin | 49. ough ought though through | 69. ci special |
| 10. 1 lap 3 | 30. sh ship | 50. augh caught | 70. si mission vision |
| 11. b Bob 3 | 31. ch church school machine | 51. gh rough | 71. ti nation |
| 12. c cat city 3 | 32. wh wheel | 52. oa boat | 72. xi anxious |
| 13. g gum gem 3 | 33. ng sing | 53. ow cow snow | 73. su sure treasure |
| 14. j jet 3 | 34. er her | 54. oe toe | 74. tu picture |
| 15. f fan 3 | 35. tch catch | 55. oo food good door blood | 75. kn knee |
| 16. p pop 3 | 36. dge edge | 56. ou loud our soup should | 76. mb comb |
| 17. r roar 3 | 37. ai mail | 57. oy toy | 77. wr write |
| 18. v van 3 | 38. ay day | 58. oi oil | 78. st listen |
| 19. y yes gym baby by 3 | 39. ey key they | 59. ue glue | 79. ps psyche |
| 20. z zebra 4 | 40. ei protein reign | 60. ui fruit | 80. ed acted called |

# Blumenfeld's Alpha-Phonics <br> Phonograms Practice Chart 



Step 2. $e^{2} i^{2} o^{4} u^{4} p h t h^{2}$

Step 3. sh $\mathrm{ch}^{3}$ wh

Step 4. No new Phonograms

Step 5. ng er

Step 6. tch dge

Step 7. [ay ai] ey $^{2}$ ei ${ }^{2}$ eigh [au aw] ar

Step 8. ee $\mathrm{ea}^{3} \mathrm{ie}^{2} \mathrm{igh}$

Step 9. ough ${ }^{3}$ augh gh oa $o w^{2} \mathrm{oo}^{4} \mathrm{ou}^{4}$ [oy oi] ue ui ew eu

Step 10. ir ur wor ear ${ }^{2}$ our sc ci si ${ }^{2}$ ti xi su ${ }^{2}$ tu kn mb wr st $\mathrm{ps} \mathrm{ed}^{3}$

## Blumenfeld

## Alpha-Phonics Self-Tutor

Phonogram Flashcards

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## Note from Internet Publisher: Donald L. Potter

These Phonogram cards are based on those published by Romalda Spalding in her 1957 Writing Road to Reading. The order of presentation follows the phonics sequence in my Blumenfeld's Alpha-Phonics Self-Tutor, which aims to make reading instruction self-tutor via Online audio instruction.

The Phonograms teach the various sounds represented by English letters and letter combinations. The sounds associated with the letters that have multiple sounds are in order of frequency in written English. It is very helpful conceptually and practically for student to understand these two fundamental realities of written English: (1) some letters and letter combinations represent more than one sound. (2) Sounds can be represented by more than one letter or combination of letters. Information on Zaner-Bloser manuscript letter strokes can be found on the final pages of this document.

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## 4 Sounds


a: $\underline{a} t$, ate, father, ball. /ă/ /̄a/ /ŏ/ /ä/
Alpha-Phonics Phonogram Card 1 (Step 1) Copyright © 2009 by Donald L. Potter

## M m

m: mom
Alpha-Phonics Phonogram Card 2 (Step 1) Copyright © 2009 by Donald L. Potter

n: noon
Alpha-Phonics Phonogram Card 3 (Step 1) Copyright © 2009 by Donald L. Potter
2 Sounds

s: $\underline{\text { sat as }}$ /s//z/
Alpha-Phonics Phonogram Card 4 (Step 1) Copyright © 2009 by Donald L. Potter

t: tot $/ \mathrm{t} /$
Alpha-Phonics Phonogram Card 5 (Step 1) Copyright © 2009 by Donald L. Potter

x: ax: /ks/
Alpha-Phonics Phonogram Card 6 (Step 1) Copyright © 2009 by Donald L. Potter

h: hat /h/
Alpha-Phonics Phonogram Card 7 (Step 1) Copyright © 2009 by Donald L. Potter

d: dad /d/
Alpha-Phonics Phonogram Card 8 (Step 1) Copyright © 2009 by Donald L. Potter

## W <br> 

w: wax $/ \mathrm{w} /$
Alpha-Phonics Phonogram Card 9 (Step 1) Copyright © 2009 by Donald L. Potter


I: lap /l/
Alpha-Phonics Phonogram Card 10 (Step 1) Copyright © 2009 by Donald L. Potter

b: Bob $/ \mathrm{b} /$
Alpha-Phonics Phonogram Card 11 (Step 1) Copyright © 2009 by Donald L. Potter

## 2 Sounds


c: cat, city /k/ /s/ C says /s/ with e, i, or y.
Alpha-Phonics Phonogram Card 12 (Step 1) Copyright © 2009 by Donald L. Potter
2 Sounds

g: gum gem $/ \mathrm{g} / / \mathrm{j} / \quad$ G usually says $/ \mathrm{j} /$ with $\mathrm{e}, \mathrm{i}$, or y .
Alpha-Phonics Phonogram Card 13 (Step 1) Copyright © 2009 by Donald L. Potter

j: jet /j/
Alpha-Phonics Phonogram Card 14 (Step 1) Copyright © 2009 by Donald L. Potter

f: $\operatorname{fan} / \mathrm{f} /$
Alpha-Phonics Phonogram Card 15 (Step 1) Copyright © 2009 by Donald L. Potter

Alpha-Phonics Phonogram Card 16 (Step 1) Copyright © 2009 by Donald L. Potter


z: zebra
Alpha-Phonics Phonogram Card 20 (Step 1) Copyright © 2009 by Donald L. Potter

ck: back Two-letter /k/ that we use after a short vowel.
Alpha-Phonics Phonogram Card 21 (Step 1) Copyright © 2009 by Donald L. Potter
qu
qu: quack Two-letter /kw/
Alpha-Phonics Phonogram Card 22 (Step 1) Copyright © 2009 by Donald L. Potter

$$
K k
$$

k: kid

## 2 Sounds


e: pet he /ě/ /ē E is silent at the end of words.
Alpha-Phonics Phonogram Card 24 (Step 2) Copyright © 2009 by Donald L. Potter
2 Sounds

$\mathbf{i}: \underline{i t}$, kite The letter " $i$ " cannot be used at the end of English words.
Alpha-Phonics Phonogram Card 25 (Step 2) Copyright © 2009 by Donald L. Potter

## 4 Sounds

## ?

o: pot go love do $/ \bar{o} / \bar{o} / / \mathrm{u} / / \overline{\mathrm{o}} /$
Alpha-Phonics Phonogram Card 26 (Step 2) Copyright © 2009 by Donald L. Potter
4 Sounds

## U

u
u: cut use music put $/ \overline{\mathrm{u}} / / \overline{\mathrm{u}} / / \overline{\mathrm{OO}} / / \breve{\mathrm{OO}} / \mathrm{U}$ cannot be used at the end of words. Alpha-Phonics Phonogram Card 27 (Step 2) Copyright © 2009 by Donald L. Potter

$$
\mathrm{ph}
$$

ph: phone Two-letter /f/ that is a Greek Phonogram.
Alpha-Phonics Phonogram Card 28 (Step 2) Copyright © 2009 by Donald L. Potter

## 2 Sounds

## th

th: the thin
Alpha-Phonics Phonogram Card 29 (Step 2) Copyright © 2009 by Donald L. Potter

## sh

sh: ship Two-letter /sh/ that we do use at the beginning and end of words. Alpha-Phonics Phonogram Card 30 (Step 3) Copyright © 2009 by Donald L. Potter

## 3 Sounds

ch
ch: church school machine
Alpha-Phonics Phonogram Card 31 (Step 3) Copyright © 2009 by Donald L. Potter

## wh

wh: wheel
Alpha-Phonics Phonogram Card 32 (Step 3) Copyright © 2009 by Donald L. Potter

ng: sing/ng/ Two-letter /ng/.
Alpha-Phonics Phonogram Card 33 (Step 5) Copyright © 2009 by Donald L. Potter

er: her /ûr/ The /ûr/ of her.
Alpha-Phonics Phonogram Card 34 (Step 5) Copyright © 2009 by Donald L. Potter
tch
tch: catch Three-letter /ch/ Alpha-Phonics Phonogram Card 35 (Step 6) Copyright © 2009 by Donald L. Potter

## dge

dge: catch Three-letter /j/
Alpha-Phonics Phonogram Card 36 (Step 6) Copyright © 2009 by Donald L. Potter

ai: Two-letter /a/ that we do not use at the end of the words.
Alpha-Phonics Phonogram Card 37 (Step 7) Copyright © 2009 by Donald L. Potter

## ay

ai: Two-letter $/ \overline{\mathrm{a}} /$ that we do use at the end of the words.
Alpha-Phonics Phonogram Card 38 (Step 7) Copyright © 2009 by Donald L. Potter

## 2 Sounds


ey: key they
Alpha-Phonics Phonogram Card 39 (Step 7) Copyright © 2009 by Donald L. Potter
2 Sounds

ei: protein reign
Alpha-Phonics Phonogram Card 40 (Step 7) Copyright © 2009 by Donald L. Potter
eigh
eigh: eight Four-letter /a/
Alpha-Phonics Phonogram Card 41 (Step 7) Copyright © 2009 by Donald L. Potter

## au

au: haul
Alpha-Phonics Phonogram Card 42 (Step 7) Copyright © 2009 by Donald L. Potter
aw
aw: paw
Alpha-Phonics Phonogram Card 43 (Step 7) Copyright © 2009 by Donald L. Potter

## ar

ar: car
Alpha-Phonics Phonogram Card 44 (Step 7) Copyright © 2009 by Donald L. Potter

ee: bee
Alpha-Phonics Phonogram Card 45 (Step 8) Copyright © 2009 by Donald L. Potter
3 Sounds

ea: bead head bear
Alpha-Phonics Phonogram Card 46 (Step 8) Copyright © 2009 by Donald L. Potter

## 2 Sounds


ie: field pie
Alpha-Phonics Phonogram Card 47 (Step 8) Copyright © 2009 by Donald L. Potter

## igh

igh: light Three-letter /i/
Alpha-Phonics Phonogram Card 48 (Step 8) Copyright © 2009 by Donald L. Potter
3 Sounds

ough: ought though thought $/ \overline{\mathrm{o}} / / \overline{\mathrm{o}} / / \overline{\mathrm{OO}} /$
Alpha-Phonics Phonogram Card 49 (Step 9) Copyright © 2009 by Donald L. Potter

## augh

augh: caught
Alpha-Phonics Phonogram Card 50 (Step 9) Copyright © 2009 by Donald L. Potter

$$
g h
$$

gh: rough Two-letter /f/.
Alpha-Phonics Phonogram Card 51 (Step 9) Copyright © 2009 by Donald L. Potter

## Oa

oa: boat Two-letter / $\overline{\mathrm{o}} /$. The $/ \overline{\mathrm{o}} /$ of boat.
Alpha-Phonics Phonogram Card 52 (Step 9) Copyright © 2009 by Donald L. Potter

## 2 Sounds

## ow

ow: cow snow
Alpha-Phonics Phonogram Card 53 (Step 9) Copyright © 2009 by Donald L. Potter

oe: toe. Two-letter / $\bar{o} /$. The $/ \overline{\mathrm{o}} /$ of toe.
Alpha-Phonics Phonogram Card 54 (Step 9) Copyright © 2009 by Donald L. Potter
4 Sounds


00: food good door blood $/ \overline{\mathrm{OO}} / / \breve{\mathrm{OO}} / / \overline{\mathrm{o}} / / \overline{\mathrm{u}} /$
Alpha-Phonics Phonogram Card 55 (Step 9) Copyright © 2009 by Donald L. Potter

## 4 Sounds

## OU

ou: loud four soup should $/ \mathrm{ou} / / \overline{\bar{o}} / / \overline{\mathrm{oo}} / / \mathrm{Co} /$
Alpha-Phonics Phonogram Card 56 (Step 9) Copyright © 2009 by Donald L. Potter

oy: toy /oi/ Two-letter/oi/ that we do use at the end of words.
Alpha-Phonics Phonogram Card 57 (Step 9) Copyright © 2009 by Donald L. Potter
oi: oil /oi/ Two-letter/oi/ that we do not use at the end of words.
Alpha-Phonics Phonogram Card 58 (Step 9) Copyright © 2009 by Donald L. Potter

## ue

ue: glue $/ \overline{\mathrm{OO}} /$
Alpha-Phonics Phonogram Card 59 (Step 9) Copyright © 2009 by Donald L. Potter
ui
ui: fruit / $\overline{\mathrm{OO}} /$
Alpha-Phonics Phonogram Card 60 (Step 9) Copyright © 2009 by Donald L. Potter

ew: threw
Alpha-Phonics Phonogram Card 61 (Step 9) Copyright © 2009 by Donald L. Potter

## eu

eu: feud $/ \overline{\mathrm{OO}} /$
Alpha-Phonics Phonogram Card 62 (Step 9) Copyright © 2009 by Donald L. Potter
eu
ir: The /ûr/ of first.
Alpha-Phonics Phonogram Card 63 (Step 10) Copyright © 2009 by Donald L. Potter

## ur

ur: The /ûr/ of nurse
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## Wor

wor: The /ûr/ of work
Alpha-Phonics Phonogram Card 65 (Step 10) Copyright © 2009 by Donald L. Potter
2 Sounds

## ear

ear: ear The /ûr/ of early
Alpha-Phonics Phonogram Card 66 (Step 10) Copyright © 2009 by Donald L. Potter

our: The /ûr/ of courage.
Alpha-Phonics Phonogram Card 67 (Step 10) Copyright © 2009 by Donald L. Potter

## SC

sc: conscience /sh/
Alpha-Phonics Phonogram Card 68 (Step 10) Copyright © 2009 by Donald L. Potter
ci: conscience /sh/
Alpha-Phonics Phonogram Card 69 (Step 10) Copyright © 2009 by Donald L. Potter
2 Sounds
Si
si: mission vision /sh/ /zh/
Alpha-Phonics Phonogram Card 70 (Step 10) Copyright © 2009 by Donald L. Potter

## ti

ti: nation $/ \mathrm{sh} /$
Alpha-Phonics Phonogram Card 71 (Step 10) Copyright © 2009 by Donald L. Potter

xi: anxious /sh/
Alpha-Phonics Phonogram Card 72 (Step 10) Copyright © 2009 by Donald L. Potter
2 Sounds

## SU

su: sure treasure /sh/ /zh/
Alpha-Phonics Phonogram Card 73 (Step 10) Copyright © 2009 by Donald L. Potter

## tu

tu: picture_/ch/
Alpha-Phonics Phonogram Card 74 (Step 10) Copyright © 2009 by Donald L. Potter

kn: knee Two-letter /n/
Alpha-Phonics Phonogram Card 75 (Step 10) Copyright © 2009 by Donald L. Potter

mb: comb $/ \mathrm{m} /$
Alpha-Phonics Phonogram Card 76 (Step 10) Copyright © 2009 by Donald L. Potter
wr: write /r/ Two-letter /r/
Alpha-Phonics Phonogram Card 77 (Step 10) Copyright © 2009 by Donald L. Potter

st: listen /s/
Alpha-Phonics Phonogram Card 78 (Step 10) Copyright © 2009 by Donald L. Potter

ps: psyche /s/
Alpha-Phonics Phonogram Card 79 (Step 10) Copyright © 2009 by Donald L. Potter

## 3 Sounds

ed
ed: acted called baked /ěd/ /d/ /t/
Alpha-Phonics Phonogram Card 80 (Step 10) Copyright © 2009 by Donald L. Potter

## Note from Mr. Potter

June 6, 2021
These phonograms were last revised on June 12, 2021. They help student to develop an automatic response to the sound represented by the letters. The phonograms were based a list which Samuel Orton's students created for teaching reading. Romalda Spalding adapted them for her WRTR program in 1957. Dr. David Hickerson incorporated them in his Phonics Tutor, which was a brilliant computer program designed to teach Samuel L. Blumenfeld 's 1983 Alpha-Phonics. I taught them in 1999-2000 to a class of bilingual $2^{\text {nd }}$ grade students. These cards have been updated to the 1997 edition, which was Sam Blumenfeld's final revision. For more information see my "Tutoring Resources" page on my website: www.donpotter.net

It is good to teach the phonograms in a fun game format such as Go-Fish. It is essential for the kid to be able to write the phonograms from dictation.

The Phonograms are perfect for developing phonemic awareness. They are doubly powerful because they couple both the phonemic side of language with the written side simultaneously.

Aim for an automatic response through spaced repetition.

## For Teaching Blumenfeld’s Alpha-Phonics Self-Tutor

## Phonetic Order for Teaching the Individual Letters

A a, Mm, Nn, S s, Tt, Xx, Hh, D d, Ll, Ww, B b, C c, Ff, Gg, Jj, Rr, V v, P p, Yy, Z z, Ee, I i, O o, U u, Q q, K k.

## Zaner-Bloser Strokes for teaching manuscript letters (Motor Patterns)

A: 1. Slant left, lift. 2. Slant right, lift. 3. Slide right.
a: 1. Circle back all the way around, push up straight. Pull down straight.
M: 1. Pull down straight, lift. 2. Slant right. Slant up. Pull down straight.
m: 1. Pull down straight. Push up; curve forward; pull down straight. Push up; curve forward; pull down straight.

N: 1. Pull down straight, lift. 2. Slant right. Push up straight.
n: 1. Pull down straight. Push up; curve forward; pull down straight.
S: 1. Curve back; curve forward.
s: 1. Curve back; curve forward.
T: 1 Pull down straight. Lift. 2. Slide right.
t: 1 Pull down straight. Lift. 2. Slide right.
X: 1. Slant right. Lift. 2. Slant left.
x: 1. Slant right. Lift. 2. Slant left.
H: 1. Pull down straight. Lift. 2 Pull down straight, Lift. 3. Slide right.
h: 1. Pull down straight. Push up; curve forward; pull down straight.
D: 1. Pull down straight. Lift. 2. Slide right; curve forward; slide left.
d. 1. Circle back all the way around; push up straight. Pull down straight.

L: 1. Pull down straight. Slide right.
l: 1. Pull down straight.
W: 1. Slant right. Slant up. Slant right. Slant up.
w: 1. Slant right. Slant up. Slant right. Slant up.
B: 1. Pull down straight. Lift. 2. Slide right; curve forward; slide left. Slide right; curve forward; slide left.
b: 1. Pull down straight. Push up; circle forward.
C: 1. Circle back.
c: 1. Circle back.

F: 1. Pull down straight. Lift. 2. Slide right. Lift. 3. Slide right; stop short.
f: 1. Curve back; pull down straight. Lift. 2. Slide right.
G: 1. Circle back. Slide left.
g: 1. Circle back all the way around; push up straight. Pull down straight; curve back.
J: 1. Pull down straight; curve back. Lift. 2. Slide right.
j: 1. Pull down straight; curve back. Lift. 2. Dot.
R. 1. Pull down straight. Lift. 2. Side right; curve forward; slide left. Slant right.
r: 1. Pull down straight. Push up curve forward.
V: 1. Slant right. Slant up.
v: 1. Slant right. Slant up.
P: 1. Pull down straight. Lift. 2. Slide right; curve forward; slide left.
p: 1. Pull down straight. Push up; circle forward.
Y: 1. Slant right. Lift. 2. Slant left. Pull straight down.
$\mathbf{y}:$ 1. Slant right. Lift. 2. Slant left.
Z: 1. Slide right. Slant left. Slide right.
z: 1. Slide right. Slant left. Slide right.
E: 1. Pull down straight. Lift. 2. Slide right. Lift. 3. Slide right; stop short. Lift. 4. Side right. e: 1. Slide right. Circle back.

O: 1. Circle back all the way around.
o: 1. Circle back all the way around.
U: 1. Pull down straight; curve forward; push up.
u: 1. Pull down straight; curve forward; push up. Pull down straight.
Q: 1. Circle back all the way around. Lift. 2. Slant right.
q: 1. Circle back all the way around; push up straight. Pull down straight; curve forward.
K: 1. Pull down straight. Lift. 2. Slant left. Slant right.
k: 1. Pull down straight. Lift. 2. Slant left. Slant right.
?: Curve forward; pull down straight. Dot.
!: Pull down straight. Lift. Dot.

## Zaner-Bloser Detailed Manuscript Stroke Descriptions

## For Teaching Blumenfeld’s Alpha-Phonics Self-Tutor

A: Touch the headline; slant left to the baseline. Lift. Touch the headline; slant right to the baseline. Lift. Touch the midline; slide right.
a: Touch below the midline; circle back (left) all the way around. Push up straight to the midline. Pull down straight to the baseline.
M: Touch the headline; pull down straight to the baseline. Lift. Touch the headline; slant right to the baseline. Slant up (right) to the head- line. Pull down straight to the baseline.
m: Touch the midline; pull down straight to the baseline. Push up; curve forward (right); pull down straight to the baseline. Push up; curve forward (right); pull down straight to the baseline.
$\mathbf{N}$ : Touch the headline; pull down straight to the baseline. Lift. Touch the headline; slant right to the baseline. Push up straight to the headline.
n: Touch the midline; pull down straight to the baseline. Push up; curve forward (right); pull down straight to the baseline.

S: Touch below the headline; curve back (left); curve forward (right), ending above the baseline.
s: Touch below the midline; curve back (left); curve forward (right), ending above the baseline.

T: Touch the headline; pull down straight to the baseline. Lift. Touch the headline; slide right.
t: Touch the headline; pull down straight to the baseline. Lift. Touch the midline; slide right.

X: Touch the headline; slant right to the base- line. Lift. Move to the right and touch the headline; slant left to the baseline.
$\mathbf{x}$ : Touch the midline; slant right to the baseline. Lift. Move to the right and touch the midline; slant left to the baseline.

H: Touch the headline; pull down straight to the baseline. Lift. Move to the right and touch the headline; pull down straight to the baseline. Lift. Move to the left and touch the midline; slide right.
h: Touch the headline; pull down straight to the baseline. Push up; curve forward (right); pull down straight to the baseline.

D: Touch the headline; pull down straight to the baseline. Lift. Touch the headline; slide right; curve forward (right) to the baseline; slide left.
d. Touch below the midline; circle back (left) all the way around. Push up straight to the headline. Pull down straight to the baseline

L: Touch the headline; pull down straight to the baseline. Slide right.
l: Touch the headline; pull down straight to the baseline.
W: Touch the headline; slant right to the baseline. Slant up (right) to the headline. Slant right to the baseline. Slant up (right) to the headline.
$\mathbf{w}$ : Touch the midline; slant right to the baseline. Slant up (right) to the midline. Slant right to the baseline. Slant up (right) to the midline.

B: Touch the headline; pull down straight to the baseline. Lift. Touch the headline; slide right; curve forward (right) to the midline; slide left. Slide right; curve forward (right) to the base- line. Slide left.
b: Touch the headline; pull down straight to the baseline. Push up; circle forward (right) all the way around.

C: Touch below the headline; circle back (left), ending above the baseline.
c: Touch below the midline; circle back (left), ending above the baseline.
F: Touch the headline; pull down straight to the baseline. Lift. Touch the headline; slide right. Lift. Touch the midline; slide right. Stop short. Lift. Touch the baseline; slide right.
f: Touch below the midline; circle back (left) all the way around. Push up straight to the midline. Pull down straight through the base- line to the next guideline; curve back (left).

G: Touch below the headline; circle back (left), ending at the midline. Slide left.
g: Touch below the midline; circle back (left) all the way around. Push up straight to the midline. Pull down straight through the base- line to the next guideline; curve back (left)

J: Touch the headline; pull down straight; curve back (left). Lift. Touch the headline; slide right.
j: Touch the midline; pull down straight through the baseline to the next guideline; curve back (left). Lift. Dot.
R. Touch the headline; pull down straight to the baseline. Lift. Touch the headline; slide right; curve forward (right) to the midline; slide left. Slant right to the baseline.
r: Touch the midline; pull down straight to the baseline. Push up; curve forward (right).

V: Touch the headline; slant right to the base- line. Slant up (right) to the headline.
$\mathbf{v}$ : Touch the midline; slant right to the baseline. Slant up (right) to the headline.

P: Touch the headline; pull down straight to the baseline. Lift. Touch the headline; slide right; curve forward (right) to the midline; slide left.
p: Touch the midline; pull down straight through the baseline to the next guideline. Push up; circle forward (right) all the way around.

Y: Touch the headline; slant right to the mid- line. Lift. Move to the right and touch the headline; slant left to the midline. Pull down straight to the baseline.
$\mathbf{y}$ : Touch the midline; slant right to the baseline. Lift. Move to the right and touch the midline; slant left through the baseline to the next guideline.

Z: Touch the headline; slide right. Slant left to the baseline. Slide right.
z: Touch the midline; slide right. Slant left to the baseline. Slide right.
E: Touch the headline; pull down straight to the baseline. Lift. Touch the headline; slide right. Lift. Touch the midline; slide right. Stop short. Lift. Touch the baseline; slide right.
e: Touch halfway between the midline and baseline; slide right; circle back (left), ending above the baseline.

O: Touch below the headline; circle back (left) all the way around.
o: Touch below the midline; circle back (left) all the way around.
U: Touch the headline; pull down straight; curve forward (right); push up to the headline.
u: Touch the midline; pull down straight; curve forward (right); push up to the midline. Pull down straight to the baseline.

Q: Touch below the headline; circle back (left) all the way around. Lift. Slant right to the baseline.
q: Touch below the midline; circle back (left) all the way around. Push up straight to the midline. Pull down straight through the baseline to the next guideline; curve forward (right).

K: Touch the headline; pull down straight to the baseline. Lift. Move to the right and touch the headline; slant left to the midline. Slant right to the baseline.
k: Touch the headline; pull down straight to the baseline. Lift. Move to the right and touch the midline; slant left. Slant right to the baseline.
?: Curve forward; pull down straight. Dot.
!: Pull down straight. Lift. Dot.

Detailed Stroke Description accompanied by pictures with numbers are included in the document below.
https://www.tesd.net/cms/lib/PA01001259/Centricity/Domain/1367/Zaner\ Bloser\ Handwriting\%2 OStroke\%20Information.pdf

Note: The numbers with the abbreviated Stroke Descriptions indicate where the strokes start. The numbers are not needed with the Detailed Manuscript Stroke Descriptions because the verbal descriptions indicate the starting positions.

I plan to do a video demonstrating the construction of the letters following the detailed description.
This document was last edited by Mr. Donald Potter on July 23, 2021.
www.donpotter.net

