

The Art of Beautiful Handwriting

Handwriting Made Easy

6 Steps to Better Handwriting



1. Proper Position Includes Feet flat Proper desk and chair height Slanted work surface

2. Pencil Grip Includes Pointer and thumb pinching pencil Soft grasp



Brenda

3. Up and Over Make letters round Move pencil up and over

4. Breathing In through the nose Out through the mouth No holding the breath while writing





5. Feather Touch Don't push hard Write as lightly as possible No broken pencil tips

6. Eyes Guide Hand Look ahead of pencil tip Grasp pencil so you can see tip





www.BrendaMontecalvo.com www.NovaVisionCare.com

V SUALSEHIES Brenda Montecalvo, OD



Save June, Learn Faster The Art of Beautiful Handwriting Learn to Spell Well The Art of Writing Spelling Made Easy Composition Made Easy Handwriting Made Easy 6 Steps to Better Spelling 6 Steps to Better Composition 6 Steps to Better Handwriting 1. Stop Correcting...! Grammer 1. Proper position includes 1. Vowels aeiou Feet flat a e i o u sometimes y Proper desk and chair height Slanted work surface Spelling At least one per syllable sometimes Penmanship y or th 2. Proper pencil grip includes 2. Syllabls 2. Telling Stories 2. Numberline Mon-te-cal-vo Pointer and thumb pinching pencil Each one has a vowel Pointer and thumb pinching pencil At bedtime Soft grasp Have child add to story Soft grasp How many in word? 1234 How many letters in each Be creative 3. Letters in Word run 3. Up and Over 3. Define... How many total letters? Brenda Make letters round street Verb 10 Move pencil up and over Nours fast Adjectives Adverbs dangerous 4. Breathing 4. Assign Number to Letters 4. Fun Writing Materials 4. Fractions Do 33 In through the nose What is first letter? In through the nose Journal Out through the mouth Last letter? Montecalvo Paper Out through the mouth No holding the breath while writing What is #4? Desk No holding the breath while writing What is #2? etc. 1 2 3 4 5 6 7 8 9 10 5. Feather touch 5. Describe.. 5. Spell Word Montecalvo What an apple looks like. ----Don't push hard Forward Write as light as How do you set the table? Backward With no hesitation ovlacetnoM possible No broken pencil tips S MICH 6. Eyes Guide Hand 6. Timed Tests 6. Practice Test -6. Writing Space Look ahead of pencil tip 1-1 Give test like done in class Look ahead of pencil tip Where is your favorite spot to sit? Grasp pencil so can see tip Relearn ones not in right sequence. 11 Grasp pencil so can see tip Make the space creative and relaxing. -



First Impressions and Handwriting

UNIVERSITY OF ARIZONA PROFESSOR GRADED TWO SETS OF PAPERS

How do you judge this handwriting?

It was the most tiresome kite in the world, always wagging its tail, shaking its ears, breaking its string, sitting down on the tops of houses, getting stuck in trees, entangled in hedges, flopping do on ponds, or lying flat on the grass and refusing to rise higher than a y

Set The Stage for Good Handwriting WRITING TOO YOUNG CREATES HABITS THAT INTERFERE

Development of fine motor skills are important for learning to manipulate a writing utensil comfortably and with ease.





J Neurosci. 2014 Sep 17; 34 (38): **Spatial and Temporal Eye–Hand Coordination Relies on the Parietal Reach Region** Eun Jung Hwang, Markus Hauschild, Melanie Wilke, Richard A. Andersen

EYE MOVEMENTS

Coordinated eye movements are crucial for precise control of our hands

PARIETAL REACH REGION

Spatial information processing influences how hand and eye are stimulated

TEMPORAL COUPLING

Temporal coupling requires intact parietal reach region



Learn to read more quickly Generate ideas more easily Retain information more efficiently

Cursive

Helps students...





Cursive

A neurocircuit is created when writing in cursive, which allows for a unique way of word recognition.



3 areas of the brain are stimulated during cursive writing.

Cursive

- Cursive Univ. of Washington noted: **Cursive writing stimulates brain** synapses and the synchronicity between both sides of the brain, unlike printing or typing.
 - May 30, 2019

Cursive William Klemm, "Cursive dynamically engages widespread areas of both cerebral hemispheres." Brain scans taken during handwriting show activation of extensive regions of the brain involved in thinking, language, and working memory.

Cursive **University of Washington**

Virginia Berninger, professor at the Children in grades 2, 4, and 6 revealed they wrote more words, faster, and expressed more ideas when writing essays by hand versus with a keyboard.



Cursive There was significantly more neural activation after printing than typing in the left inferior frontal gyrus (pars orbitalis), also known as Broca's area.

Printing experience recruited the left anterior cingulate cortex more than typing experience.

There were no areas more active after typing experience than after printing experience.

Whole Brain Analysis Results

- 1. Only after practicing printing letters does the brain respond differently during letter versus shape perception
- 2. Free-form printing experience recruits posterior parietal regions and the precentral gyrus more than tracing experience during letter perception
- 3. Typing experience does not recruit any brain regions more than other sensorimotor conditions during letter perception

Trends Neurosci Educ. 2012 Dec; 1(1): 32–42.doi: 1The effects of handwriting experience on functional brain development in pre-literate children Karin H. Jamesa, and Laura Engelhardt



Visual Skills for Handwriting

- \bullet PURSUITS
- ACCOMMODATION
- SINGLE VISION
- PERIPHERAL VISION
- HAND/EYE COORDINATION







Pursuits When a student has problems with pursuits, he will not be able to keep the tip of the pencil on the correct line while writing.





Accommodation Important for seeing which line the pencil tip should be touching when writing. Eventually, this will become automatic.

Single Vision Diplopia makes it difficult to consistently place the letters and they can end up in the wrong place.



Peripheral Vision Helps for writing straight lines on the page with good spacing. The eyes should guide the hand; if peripheral vision is compressed it will be difficult for the eyes to anticipate where the pencil should go. Holding one's breath while writing, or being overly stressed, can create temporarily constricted peripheral vision.

When the eyes misjudge where objects are, then the hand can miss the object being viewed.

Hand/Eye Coordination

Materials Needed

- Special wide-lined paper with dashed centerline
- Pencil
- Chair so feet can be flat on floor
- Table so eyes can be 16" from tabletop
- Slanted work surface (20 degrees)
- Highlighter
- 8"x11" paper
- Hard clay
- Baton
- Deck of playing cards
- Bright non-fluorescent lighting



Desk & Chair Harmon's Distance

COMFORT IS INVALUABLE WHEN LEARNING NEW SKILLS

Darrel Boyd Harmon, PhD...

...studied the process of growth and development in school children, emphasizing the psycho-physiological and visuallycentered aspects of learning, and the effect of the environment on those processes. He published work about improvement of ergonomic conditions in the classroom. He determined that improved ergonomics develops better handwriting, cognition, and performance.



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Desk & Chair

STUDY AREA

Modifying the Study Area

Select the correct table and chair height. When uncomfortable, it's difficult to pay attention and concentrate. A correct chair height allows the feet to be flat on the floor with the knees bent at a 90-degree angle. Dangling feet do not allow for proper position, which interferes with the eye-brain process.

PROPER POSTURE ALLOWS FOR ...

- BETTER BODY TONICITY
- GOOD CIRCULATION
- IMPROVED ALERTNESS
- INCREASED CONCENTRATION
- MORE COMFORT



Lighting

BEST LIGHT SOURCE: SUNLIGHT OR CANDLELIGHT

The next best is full-spectrum incandescent.

Fluorescent light, common in schools, is the most difficult under which to study and can be very disruptive to a reader's eyes and visual process. It can affect physiological systems and eye-brain processing.

STUDY AREA

Modifying the Study Area

If the study area does not have natural light, use fullspectrum lights. Reduce shiny surfaces and glare.



Flourescent Lighting

- Eye pain
- Blurred vision
- Difficulty reading or focusing
- Vertigo or dizziness
- Lightheadedness
- Shortness of breath
- Nausea
- Lethargy
- Anxiety
- Feelings of depression
- Disrupted sleep



Body Position Summary

- Feet are flat on the floor with the knees bent at a 90-degree angle.
- The student's back is straight without leaning on the back of the chair.
- The only body parts touching a surface should be the bottoms of each foot and the student's bottom on the edge of the chair. This creates a tripod effect.
- The non-dominant hand's palm holds the paper, and the dominant hand holds the pencil resting softly on the paper.
- The head and body should always be centered with the paper.
- There should be no head tilt or body shifted to one side.
- The paper must be at a distance equal to the distance from the knuckles to the elbow. (Harmon's Distance)







Lined Paper

The paper needed for the exercise is the type that is used in kindergarten. It has wide lines and a dashed line in the middle of it. You can find these at school supply stores or online, or you can create your own.



Pencil Grip

Use a standard No. 2 pencil. With a permanent marker, draw a line on the pencil about 2.5 inches from the pencil tip. This line will be used to position the fingers so the tip will not be obstructed from view while writing. The goal is for all students to be able to write well with or without a pencil grip. Pencil grips can feel quite comfortable if one needs to write for a long time, but for building this skill we do not use the grips. They can be added, if desired, once penmanship is mastered. After mastering the Visual Secrets needed for good penmanship, the student will be able to pick up any writing utensil at any time and use it to create beautiful handwritten materials.



Pencil Grip

Pinch the pencil just above the marked line with the pointer finger and the thumb. Rest the pencil gently on the middle finger. Many times students learn handwriting before their fingers are ready to grip properly and naturally. As a result, they develop an improper pencil grip that significantly interferes with good handwriting. It will take lots of positive coaching to help change a poor pencil grip to the correct one. This is critical, though, to achieve proper placement of letters and effortless penmanship.



Breathing

Breathing is very important because lack of oxygen decreases quality of performance. One of the first signs of reduced oxygen can be tunnel vision, which occurs because the blood vessels furthest from the central vision are smaller in diameter, and the blood must travel farther to provide oxygen to surrounding tissue. These vessels are often the first affected by decreased oxygen levels, thus halting vision processing.

Holding one's breath to perform a task can result in temporary tunnel vision, which affects performance.

Monitor the student's natural, regular breathing while the student performs the handwriting tasks.



Soft Touch

How often does a pencil break right after sharpening it in the sharpener? Why does this occur? The pencil breaks due to an improper grip. When using the wrong fingers to grip a writing utensil, the writer has to push hard to manipulate the pencil, gets sore fingers, and breaks the tip. So, while participating in these handwriting activities, the student must write with a "soft touch." This means the mark on the paper is very light, not dark. I refer to this as "feather writing," which implies a soft, light touch.



Eyes Lead the Hand

Writing students often grip the pencil so close to the point that their eyes cannot see where the pencil is going. The student is then writing blindly, with no regard to letter placement on the line. Thus it is critical that the pencil is gripped far enough from the tip so the eyes can see the tip of the pencil and the line on the paper.



Eyes Lead the Hand

This is why a black line is drawn on the pencil: to guide the fingers not to get too close to the tip. If you sharpen the pencil, you will need to redraw the line so it is approximately 2.5 inches from the tip of the pencil.



Eyes Lead the Hand

Try writing your name while looking only at the tip of the pencil. Then try writing your name looking ahead of the tip, where the pencil will be going. Notice how much easier it is to place the letters properly when looking ahead. Coaches should note when the letter is not properly positioned. The observation of the eyes and how efficient they are in keeping fixation ahead of the pencil can be easily accomplished by placing a mirror next to the paper being used.



Up and Over

This part of the penmanship procedure involves noting how the letters are formed. When the hand is tired and writing is difficult, the student takes shortcuts and only moves the fingers up and down instead of making large round motions with the arm and wrist. This creates penmanship that has many pointytopped letters. Practicing with full arm movement and making large round clockwise and counterclockwise circles should be a precursor to cursive writing. Many times this exercise is skipped to save time and the student does not develop correct hand motions to create nicely formed letters. While writing the letters, ask the student to make round letters with an up and over type of motion.



Building Handwriting Skills



Getting the fingers ready to write. This is a developed skill, and activities will help increase the neural connection between eyes, fingers, hands, and brain. The more you do activities that require precise fine motor control, the easier good penmanship is to learn.



Paper Crunch

Step 1: Take one piece of 8''x11'' paper and fold in half so the size of the paper is $8'' \times 5.5''$. Pinch the fold with the fingernail to make the fold more complete.

Step 2: Tear along the fold.

Step 3: After the paper is torn in half, hold each piece of paper in each hand above the head. The arms and hands do not touch any part of the body.

Step 4: Crunch the paper in each hand so that the fist covers the entire piece into a small ball of paper. Do not let the elbow, or any part of the arm touch the body while crunching the paper.

Step 5: Now, keeping hands in the air, un-crunch the ball of paper in each hand and return it to its original size.





Step 1: Place hands palm-down on table. Without touching other fingers. Repeat with each finger. Step 2: The coach points to the pointer finger of each hand the other fingers.

- Step 3: Repeat with thumbs and middle, ring, and pinky fingers.
- Step 4: Next the coach points to two different fingers (for example, right pointer and left ring finger). The student should raise their fingers at the same time without moving the other fingers. Repeat with different finger combinations.
- Step 5: Next, indicate three fingers to be raised, and repeat. Indicate four fingers, and repeat.

Finger Play

- the student's fingers, the coach points to one finger and asks student to raise it off the table without moving the
- and has student raise it at the same time, without moving



Materials: Paper, Highlighter marker Step 1: Make a mark with the highlighter at the edge of the paper, perpendicular to the edge of the paper. The mark should be about one quarter inch thick by five inches long, and fairly straight. Step 2: The student grasps the paper with the pointer and thumb finger of each hand in a pinch configuration at the beginning of the mark Step 3: The student rips the paper so there is an equal part of the mark on each side of the torn pieces.

Note: Do not use other fingers—only the pointer and thumb. To increase difficulty, make the mark more irregular with curves and sharp turns. To decrease difficulty, make the mark fatter and straighter.

Paper Tear

Clay Finger Roll

Material: Hard clay

thumb into a perfect, small ball. ring finger, then thumb and pinky.

the same time.

- Step 1: Take a small amount of clay, about a quarter of a
 - teaspoon. The student rolls the clay between the
 - dominant hand pointer finger and the dominant hand
- Step 2: Repeat with thumb and middle finger, then thumb and
- To increase difficulty, use the non-dominant hand instead. To further increase difficulty, complete task with both hands at



Material: Baton

Step 1: The student places the baton in dominant hand and twirls it between thumb, pointer, middle, ring, and pinky finger, then back from pinky to ring to middle to pointer to thumb.

Step 2: Repeat with non-dominant hand. Then try using a baton in each hand. Students really enjoy this activity; they are all eager to try it when it is demonstrated at workshops.

Baton Twirl



Material: Deck of playing cards Procedure:

Step 1: Student splits the card deck in half using only one hand. This is very difficult for small hands. To shuffle cards, split deck and weave them together by placing thumb on end, pointer finger bent in middle, and the rest of fingers holding the other end of the deck halves.

Step 2: To back-shuffle, make a bridge with hands around cards. For this, the thumbs are on top. There are several online videos on how to shuffle cards. If the student's hands are too small, use fewer cards or smaller sized cards.

Card Shuffle





At the end of each session have student connect all the letters that have been learned thus far. Check proper letter position with the highlighter. If no corrections are needed, you're finished. If there are highlighted areas, ask the student try to write all of the learned letters once again.

Getting Started

Each night, teach 3 letters in cursive, until all the letters of the alphabet are learned.

Getting Students Ready to Learn



HARMON'S DISTANCE

the student to write or read the distance known as the Harmon eaual to the distance from "a' to "b", which is the distance the will be too close to the material

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Montecalvo VISUAL SECRETS

DESK & CHAIR

COMFORT IS INVALUABLE WHEN LEARNING NEW SKILLS

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POSSIBLE SIDE EFFECTS OF **FLUORESCENT** LIGHTING

- Eye pain
- Blurred vision
- Difficulty reading or focusing
- Vertigo or dizziness

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VISUAL SECRETS

LIGHTING

BEST LIGHT SOURCE: SUNLIGHT OR CANDLELIGHT

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DYNAMIC LIGHTING

POSITIVE EFFECTS ON LEARNING

Improves visual comfort

A study done in a first-arade classroom showed that dynamic light had a positive effect on oral reading fluency. Dynamic light is defined as the change in the quality of illumination and color temperature of the light based on the activity being performed.

Dynamic light changes depending on the student's needs throughout the day. For example, one type of lighting should be used for quiet time, and a different type used for times when the student needs to be more glert

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- Shortness of breath

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VISUAL SECRETS

TEMPERATURE



STUDY BY CORNELL UNIVERSITY:

Productivity and Happiness

Reducing the room temperature to 68 degrees Fahrenheit or colder resulted in employees making 44 percent more errors. The optimal room temperature was 77 degrees Fahrenheit. The study stated that when a person is cold, energy is diverted to keep warm and takes away from the ability to concentrate. The study also noted that being warmer also made people happier.

STUDY AREA

Modifying the Study Area

If the study area is difficult to heat without making the entire house too warm, you can use a blanket or small room heater during study times. Have a thermometer nearby to keep track of the temperature.

BENEFITS OF UNDERSTANDING TEMPERATURE

OPPORTUNITY TO RELATE TO MATH

Associate reading temperature with a numberline.

- Keeping the room at the correct temperature teaches the student how to read a thermometer
- Teaches the difference between Fahrenheit and Celsius

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HYDRATION

becomes dehydrated, the eye-

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Grammer Spelling Penmanship 3. Define.. Verbs Nouns Adjectives Adverbs 5. Describe...





aeiou sometimes y, th, sm

2. Syllables Each one has a vowel. How many in word? How many letters in each?

Mon-te-cal-vo 2 3 4

1. Vowels

a e i o u sometimes y

At least one per syllable

10

3. Letters in Word How many total letters?

4. Assign Number to Letters

What is first lette	r?									
Last letter?	м	ο	n	t	е	с	а	L	v o	
What is #4? What is #2? etc.	1	2	3	4	5	6	7	8	9 10	

Montecalvo ovlacetnoM

5. Spell Word Forward Backward With no hesitation

6. Practice Test Give test like it's done in class Relearn ones not in right sequence



Reading Can Take You Anywhere

Reading Made Easy

6 Steps to Enjoying Reading

1. Comfortable reading posture

Center reading material at a slight slant

Keep reading material about 16" from eyes

2. Interesting Material Student's favorite area of interest Sports? Horses? Hunting? Friends?



3. Build Vocabulary

Use new word in a sentence.

Then show the written word.

Define words prior to seeing them



volcano, eruption lava, devastating

4. Silent Reading Avoid lip reading Ask questions after first paragrap Watch eyes move along print.

DVILY NEWS



5. Upside Down Minimizes the habit of sounding out each word

6. Describe... Characters in detail What might happen next.



Thanks for being here!

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