

Brain Gym®

Teacher's Edition

Revised

The companion guide to the *Brain Gym* book, for parents,
educators, and all others interested in the relationship
between movement and whole-brain learning

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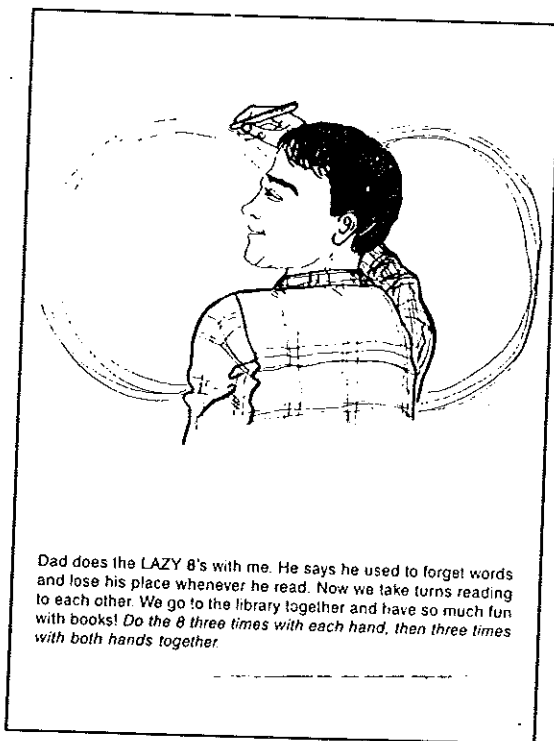
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Ventura, California

LAZY 8s

Drawing the Lazy 8 or infinity symbol enables the reader to cross the visual midline without interruption activating both right and left eyes and integrating the right and left visual fields. The 8 is drawn on its side includes a definite midpoint and separate left and right areas, joined by a continuous line.

TEACHING TIPS

- The student aligns his body with a point at eye level. This will be the midpoint of the 8.
- The student chooses a comfortable position for drawing the Lazy 8, adjusting the width and height to needs. (It's best to involve one's full visual field and the full extension of both arms.)
- The student may use the left hand first, to activate the right hemisphere immediately.
- He starts on the midline and moves counterclockwise first: up, over, and around. Then from his waist moves clockwise: up, over, around, and back to the beginning midpoint.
- As the eyes follow the Lazy 8, the head moves slightly and the neck remains relaxed.
- Three repetitions with each hand separately, then with both together, are recommended. Two colors of chalk or ink may be used.



VARIATIONS

- Involve auditory processing and teach left and right by saying "Up to the left and around. Cross the middle and up. Around down, and back to the middle."
- The student may do the movement with eyes closed to increase his kinesthetic sense of the Lazy 8.
- Humming while doing the Lazy 8 may increase relaxation.
- Draw the Lazy 8 in the air, with streamers, or against different tactile surfaces, like sand, the paper, or chalkboard.
- Graduate the 8 from larger to smaller sizes, drawn first on a large surface parallel to the face, and later at a desk, so the movement is connected to writing.
- Energy 8's: Swing both arms simultaneously down, across each other, then up and over. Move arms slowly, being aware of both left and right visual fields, and quickly, soft-focusing on afterimage of the arms.

ACTIVATE THE BRAIN FOR

- crossing the visual midline for increased hemispheric integration
- enhanced binocular and peripheral vision
- improved eye-muscle coordination (especially for tracking)

ACADEMIC SKILLS

- the mechanics of reading (left-to-right eye movement)
- symbol recognition for the decoding of written language
- reading comprehension (long-term associative memory)

BEHAVIORAL/POSTURAL CORRELATES

- relaxation of eyes, neck, and shoulders while focusing
- improved depth perception
- improved centering, balance, and coordination

RELATED MOVEMENTS

Brain Buttons, p. 25

Cross Crawl, p. 4

Double Doodle, p. 6

HISTORY OF THE MOVEMENT

Tracing or feeling movement along a small infinity sign or "Lazy 8" has been used in educational therapy to develop kinesthetic and tactile awareness in students with severe learning problems. These students are not yet ready neurologically to cross the visual midline. The movement results in the elimination of reversals and transpositions in reading and writing. Dr. Dennison adapted the Lazy 8 as part of his vision-training work in 1971 by having students use their large muscles to draw Lazy 8s on the chalkboard, the eyes following the hand movement. His students showed immediate improvement in the ability to discriminate symbols and to know the left from their right sides.

DOUBLE DOODLE

Double Doodle is a bilateral drawing activity which is done in the midfield to establish direction and orientation in space relative to the body. When the learner has developed a sense of left-and-right discrimination, as she draws and writes she experiences herself in the center, and movement toward, away from, up, and down is interpreted in relationship to that center. Prior to developing this sense, the child fumbles to recreate a shape from memory.

The Double Doodle is best experienced with the large muscles of the arms and shoulders. Stand behind the student and guide her arms and hands through a few simple movements. Teach the student to refer to her physical midline for directional reference. Say "Out, up, in, and down" as you guide the student to draw squares with both hands simultaneously. Set the student free when both hands are able to move together, mirroring each other easily.

TEACHING TIPS

- Begin by allowing the student to freeform "scribble" with both hands together (as in fingerpainting).
- The student starts with large arm movements, neck and eyes relaxed, working at a large board.
- Emphasize the process, not the product. Avoid making either positive or negative judgments.
- Encourage relaxed head and eye movements.
- Have samples of Double Doodle shapes that others have done.
- Encourage innovation and experimentation.
- Double Doodling of actual shapes, like circles, triangles, stars, hearts, trees, or faces, is most fun when done spontaneously.

VARIATIONS

- Progress from the large board to a smaller piece of paper taped to the desk or floor.
- Offer different tools for doing Double Doodle (e.g., chalk, paint, markers, crayons.)
- Double Doodle in the air as a group activity.
- Double Doodle touching different fingers to the thumbs (releasing thumb/index finger tensions).
- Doodle in the air with shoulders, elbows, wrists, or feet (relaxes tensions).
- Quadroodle Doodle: Doodle with hands and feet at the same time.

ACTIVATES THE BRAIN FOR

- hand-eye coordination in different visual fields
- crossing the kinesthetic midline
- spatial awareness and visual discrimination

ACADEMIC SKILLS

- following directions
- decoding and encoding of written symbols
- writing; spelling; math

BEHAVIORAL/POSTURAL CORRELATES

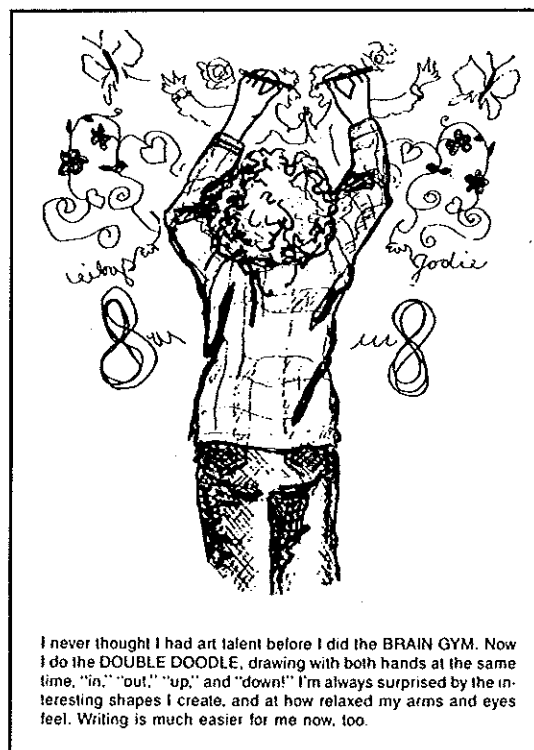
- left and right awareness
- improved peripheral vision
- body awareness, coordination, and specialization of hands and eyes
- improved sports abilities and movement skills

RELATED MOVEMENTS

Lazy 8s, p. 5 Alphabet 8s, p. 7 The Elephant, p. 8

HISTORY OF THE MOVEMENT

Dr. Gettman, an optometrist specializing in developmental vision, described bilateral drawing in his first book, *How to Improve Your Child's Intelligence*. Dr. Dennison adapted this activity for his learning-center students, encouraging creativity, play, and innovation. Double Doodle helps develop eye-teaming skills, eye-hand coordination, handedness, visual convergence, and use of the midfield. When vision improves, academic performance often shows a parallel improvement.



I never thought I had art talent before I did the BRAIN GYM. Now I do the DOUBLE DOODLE, drawing with both hands at the same time. "in," "out," "up," and "down!" I'm always surprised by the interesting shapes I create, and at how relaxed my arms and eyes feel. Writing is much easier for me now, too.

ALPHABET 8s

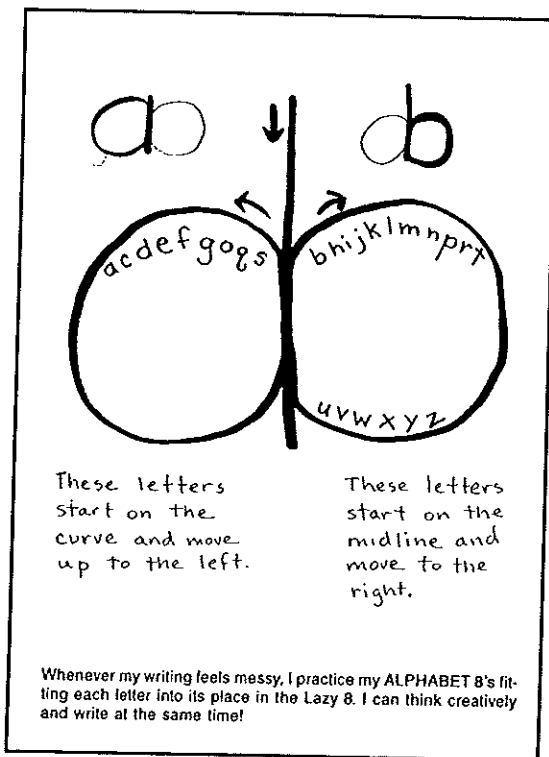
Alphabet 8s adapt the Lazy 8 form to the printing of lower-case letters from *a* through *t* (these letters evolve from the Arabic system; letters *u* through *z* come from the Roman alphabet). This activity integrates the movement involved in the formation of these letters, enabling the writer to cross the visual midline without confusion. Each letter is clearly superimposed on either one side or the other (see illustration). A downstroke either ends the letter or begins another letter. For most students, when the printing of the lower-case letters improves, handwriting also becomes easier.

TEACHING TIPS

- The student does Lazy 8s (see page 5) before beginning this activity.
- This activity is performed on a large scale first, drawn on the board or in the air with hands clasped together to activate the large muscles in the arms, shoulders, and chest.
- Note that letters in the left visual field begin on the midline and move "up, around, and down."
- Note that letters in the right visual field begin on the midline or move "down, up, and around."
- Help students discover the structural similarities between letters (e.g., "see the *r* in the *m* and the *n*").

VARIATIONS

- Face student to teach the Alphabet 8s. Clasp her hands in yours, bend your knees, and move with the description and rhythm of each letter (you trace the mirror image).



- Involve auditory/visual/kinesthetic/tactile integration by saying for each letter, "up, around, and down" or "down, up, and around."
- Trace the letters in sand or against different tactile surface to feel the flow.
- Do the movement with eyes closed; add humming.
- Alphabet 8s may be done smaller (in handwriting size) when sufficient practice and integration of the large muscles has been experienced.
- Write the letters of spelling words in the Alphabet 8 form.

ACTIVATE THE BRAIN FOR

- crossing the kinesthetic/tactile midline for bihemispheric writing on the midline
- increased peripheral awareness
- eye-hand coordination
- symbol recognition and discrimination

ACADEMIC SKILLS

- fine-motor skills
- penmanship
- cursive writing
- spelling
- creative writing

BEHAVIORAL/POSTURAL CORRELATES

- relaxation of eyes, neck, shoulders, and wrists while writing
- improved concentration while writing
- greater skill in activities involving eye-hand coordination

RELATED MOVEMENTS

Arm Activation, p. 18

Neck Rolls, p. 9

Double Doodle, p. 6

HISTORY OF THE MOVEMENT

The figure 8 has been used for many years in Special Education and perception training to help students with severe "dyslexia" and "dysgraphia." Dr. Dennison was introduced to figure 8s for writing in 1974 as part of an in-service program at his learning centers in California, and immediately began including them, in a larger size, in his own program, to develop eye-hand coordination and other visual skills. Repatterning students for the alphabet via the Alphabet 8s is one of Dr. Dennison's unique adaptations of the movement.