

Introduction to the Pre-Kindergarten Nemeth Braille Code Curriculum

(Note: This is a Nemeth curriculum that will support math instruction, but not replace the math curriculum.)

Materials for each module include:

- Teacher reference materials
- Module content (available for download as a PDF document)
- Student braille materials
- Answer key for exercises within module
- Teacher materials for administering check-up
- Student braille materials for check-up
- Answer key for check-up
- Teacher recording sheet

Additionally, there is a posttest and cumulative checklist at the end of the last module.

Modules

- Full braille cell and numeric indicator
- Numerals 1-3
- Numerals 4-5
- Numerals 6-7
- Numerals 8-9
- Numeral 0 and 10

Math symbols and concepts, including braille knowledge, addressed across the modules:

- Counting
- Braille cell
- Dot numbers
- Numeric indicator
- Numerals 0-10
- Concepts of "before" and "after"
- Numerical order

Objectives:

The student will be able to:

- 1) Tactually identify the braille cell, numeric indicator, and numerals from 0-10

- 2) Use the Accessible Equation Editor and/or braillewriter to write a full braille cell, numeric indicator, and numerals 0-10 with assistance.
- 3) Use concrete materials and/or number cards placed in order numerically and then determine what number comes before or after a specific number from 0-10 in Nemeth Braille Code only
- 4) Match written numerals in Nemeth Braille Code with concrete representations from 0 to 10
- 5) Represent a number ranging from 0-10 by producing a set of objects with concrete materials and Nemeth Braille Code numerals, including 0 representing a count of no objects)
- 6) Place the number cards in order from 0-10

Other ECC skills addressed across the modules:

Listening skills; following directions; taking turns; concept development; tactual discrimination; left-to-right tracking; hand positioning; light touch (as opposed to scrubbing)

Teaching tips:

- Teach the student to use both hands to move across the braille line. His/her fingers should be slightly bent.
- Encourage a light touch. This will help in tactile identification and increase reading speed.
- Pay attention to the child's hand movements. Give help and model tracking if the student does not use both hands or if the student does not move both hands smoothly from left to right.
- The swing cell from the American Printing House for the Blind is used in each of the modules. It provides a concrete model of the relationship between the dots in a braille cell and the keys on a braillewriter. It would be helpful to have two swing cells when completing the modules.
- Provide frequent breaks and keep lessons short.
- Use a nonslip surface such as rubber shelf liner so braille pages and flash cards will not move as much.
- If you are using hard copy braille, the student may also underline or circle the answer with a grease marker or crayon. Placing a small sticker on top of the answer is another option.
- It is very important to use the correct finger on each key when learning new Nemeth symbols. This will help the student become accurate in their writing!

- If your student is using a refreshable braille display, explain about the additional keys on the far right and far left. If your student is using a QWERTY keyboard with the Accessible Equation Editor, it may be helpful to use tactile dots on the keys used for dot 1 and dot 4.

Planning of lessons

- It is recommended that each module be completed across multiple sessions.
- As needed, supplement with other materials.
- You may use alternative materials as needed. For example, if you do not have a swing cell, use a ½ dozen muffin tin and 6 balls. If the student has residual vision, you may want to use brightly colored balls.
- If you elect to emboss the braille materials, you will notice that the pages are numbered and contain approximately 8 lines of braille. You are welcome to bind the pages with a comb-binder if you would like.
- Most modules include follow-up activities for enrichment and/or additional practice.
- Use ½ sheets of braille paper when using the braillewriter with young students. These sheets will be easier for the student to handle.