

Pre-Kindergarten Nemeth Braille Code Curriculum  
Module 1: Full Braille Cell and Numeric Indicator  
Teacher Reference Materials

*Prerequisite skills:*

- Ability to verbally count objects

*Math symbols and concepts, including braille knowledge, addressed:*

- Counting
- Braille dot numbers
- Braille cell
- Numeric indicator

*Objectives:*

The student will be able to:

- 1) Move finger pads lightly across the braille line from left to right
- 2) Use both hands with index fingers touching when reading a line of braille
- 3) Curve fingers when reading braille
- 4) Tactually detect beginning of a braille line
- 5) Tactually detect end of braille lines
- 6) Tactually identify the braille cell and numeric indicator
- 7) Write the braille cell and numeric indicator

*Other ECC skills addressed:*

Listening skills; following directions; tactual discrimination; concept development

*Teaching tips:*

- Encourage a light touch. This will help in tactile identification and increase reading speed.
- Provide frequent breaks and complete the module across multiple sessions.
- The swing cell from the American Printing House for the Blind provides a concrete model of the relationship between the dots in a braille cell and the keys on a braillewriter.
- Ensure that your student knows how to push the line spacing key twice to move to the next line of braille. It is recommended that young students double space their lines so they can easily read their work.

- Use ½ sheets of braille paper when using the braillewriter with young students. These sheets will be easier for the student to handle.
- 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!

*Materials/technology needed:*

- Braillewriter
- Swing cell
- Index cards

*Optional materials for follow-up activities or adaptation of activities:*

- ½ dozen muffin tin and 6 small balls
- Braillewriter and braille paper

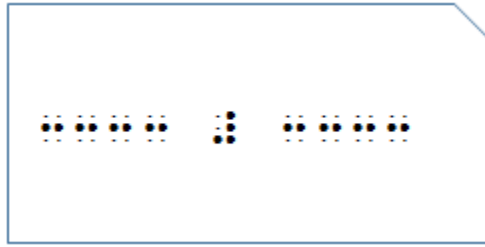
*Explanation of activities embedded into module:*

- 1) If you do not have a swing cell, use a ½ dozen muffin tin with tennis balls for an easy way for the child to “build” the braille cell and numeric indicator. Another variation would be to use a ½ dozen egg carton or a dozen egg carton cut in half with plastic eggs or golf balls.



- 2) Have the student take the pegs out of the holes on the swing cell. Then have him/her place a peg in each hole and tell you the dot number! Another variation would be to have the student find the dot as you call the dot numbers in random order.
- 3) Create flash cards with the index cards. Cut out the upper right corner for easy identification of orientation. Make five flash cards for the full braille cell and five flash cards for the numeric indicator. Use lines of

dots 2-5 for leading in and away from the symbol. See below for an example.



Give the student one symbol card at a time. Make sure that it is oriented with the cut out corner at the upper right.

*Materials Commercially Available:*

American Printing House for the Blind ([www.aph.org](http://www.aph.org)) sells the swing cell as well as a sorting tray with two sections. The catalog number for the swing cell is 6-78041-00, and there are different options for sorting trays (for defining the workspace and containing the piles of sorted objects) and kits listed below:

- HANDS ON Kit: Functional Activities for Visually Impaired Preschoolers(1-03260-00)
- FOCUS in Mathematics Kit, Second Edition (with print Teacher's Guide 1-08280-01, with braille Teacher's Guide 1-08281-01)
- Sorting Tray, Two-Section (61-128-004) *also available within the HANDS ON Kit: Functional Activities for Visually Impaired Preschoolers*
- Small Work-Play Tray with Dividers (1-03751-00, 1-03770-00) *also available within the FOCUS in Mathematics Kit*

*Fun Facts from:*

Science Kids <http://www.sciencekids.co.nz/sciencefacts/vehicles/trains.html>

DK <http://www.dkfindout.com/uk/transport/history-trains/>