

Pre-Kindergarten Module 5

Numerals 8-9

Teacher Guide

Prerequisite Skills

- Ability to use rote counting number words in order
- Ability to verbally count objects
- Ability to tactually identify the numeric indicator and the numerals 1-7
- Ability to write the numerals 1-7
- Ability to put the numbers 1-7 in order

Symbols and Concepts

- Counting
- Numeric indicator
- Numerals 1-9
- Concepts of "before" and "after"
- Numerical order (introduced, but not assessed until next module)
- Circle and rectangle (introduced, but not assessed)

Objectives

The student will be able to:

- Tactually identify the numerals from 1-9
- Use the braillewriter to write the numerals 1-9
- Represent a number ranging from 1-9 by producing a set of objects with concrete materials and Nemeth numerals
- Use concrete materials (for "before" relating to one less and "after" relating to one more) and/or number cards in order and then determine what number comes before or after a specific number from 1-9

Other ECC Skills Addressed

Note: ECC stands for Expanded Core Curriculum.

- Listening skills
- Concept development
- Following directions

- Tactual discrimination
- Left-to-right tracking
- Taking turns
- Hand positioning
- Light touch (as opposed to scrubbing)

Required Materials

- Braillewriter
- Braille paper
- Student braille document
- Two swing cells and pegs
- Index cards
- Timer
- Sorting tray with dividers
- Brightly colored construction paper
- Unifix cubes (or other cubes that can be snapped together)
- Bin or bucket
- Glue stick or glue
- Textured paper/material/small objects
- Outline/pattern of train cars available within the curriculum
- Graham crackers
- Vanilla wafers (or other small circular cookies)
- Cheerios (any flavor)

Optional Materials

- Scented stickers, Wikki Stix®, buttons, or textured paper
- Two half dozen muffin tins and 12 small balls
- Nonslip surface such as rubber shelf liner
- Teddy bear manipulatives or other small objects that can be counted
- Hook and loop sticky-back strips and circles of Velcro so the circles will connect to the strips
- Writing answers braille document

Teaching Tips

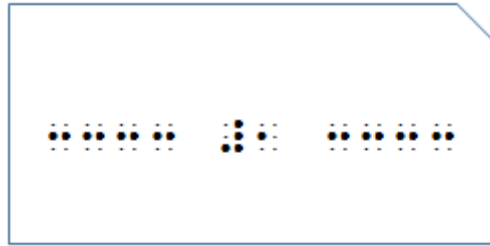
- Before opening any BRF files in Duxbury,
 - Go into the Global menu.
 - Select "**Formatted Braille Importer.**"
 - Select the box for "**Read formatted braille without interpretation**" at the top of the window. This will ensure that nothing is changed when opening the BRF files.

- All braille files in the curriculum are formatted with a 32-cell width by default.
- This module should be completed across multiple sessions.
- Note that the beginning tracking activities are emphasizing the shape of the numeral.
- It may also help to place the flashcards and hard copy braille on a nonslip surface such as rubber shelf liner so they will not move as the student is reading.
- If you are using hard copy braille, the student can also do the following:
 - Stomp a foot
 - Underline or circle the number with a grease marker or crayon
 - Place a small sticker on top of the number
- 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.
- As previously mentioned, 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.
- If you do not have two swing cells, use two half dozen muffin tins with tennis balls for an easy way for the child to "build" the Nemeth numerals. Another variation would be to use two half dozen egg cartons or a dozen egg carton cut in half with plastic eggs or golf balls.
- Using the braillewriter for some of the writing activities is encouraged as it facilitates the development of motor memory.
- 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.
- We maintain a list of [commercially available materials](#) that can be used to supplement instruction.

Activities

Activity 1

- Create flashcards with the index cards. Cut out the upper right corner for easy identification of orientation. Make five flashcards for each numeral 1-9. Use lines of dots 2-5 before and after the numeral. For example, for numeral 1, type dots 2-5, dots 2-5, dots 2-5, dots 2-5, space, dots 3-4-5-6, dot 2, space, dots 2-5, dots 2-5, dots 2-5, dots 2-5.



- The flashcards will be used to practice reading numerals at first. They will also be used to put the numbers in order in this and later modules.
- Give the student one number card at a time. Make sure that it is oriented with the cut-out corner at the upper right. For this activity, the student will use the numerals 1-8.

Activity 2

- The student will create 8 lines of full braille cells and numeral 8s for reading and writing practice. The student will need a sheet of braille paper and braillewriter. Remind the student to make some of the lines long and some of the lines short.
- This activity will also provide an opportunity for the student to check their work as they braille. This is an important work habit to build when a student is first learning to read and write. After the student checks their work, have the student find the shortest line of braille and then the longest line of braille. Also, have the student count how many numeral 8s are on each line.

Activity 3

All information is provided in the teacher script.

Activity 4

- Draw a card and then read the numeral. Afterwards have the student build a train using that number of Unifix cubes or other cubes that can be snapped together. Afterwards, if desired, the student can practice writing the numeral using the braillewriter.
- If you do not have Unifix cubes, you can also use MegaBlocks, Legos, or teddy bear manipulatives designed for preschoolers. This activity can easily be completed with the student and one of their friends (or you if no other students are present). The students should take turns drawing a number card and building a train.

Activity 5

Activity 5 is the same as Activity 1. However, the student will use the numerals 1-9.

Activity 6

- Place 9 objects in a bin or bucket. Then have students select some or all of the items. Afterwards, have the students count the items and then braille the Nemeth numeral.
- Then you or the student's friend can select some of the objects. Have the student count the items and then braille the Nemeth numeral.

Activity 7

- You will need flashcards with numerals written from 1 to 9 on them. Then have the student shuffle the flashcards. Afterwards have the student place the numbers in order from 1 to 9.
- If needed, provide the student with a hard copy of numbers in order to use as a model. It may also help to place the flashcards on a nonslip surface such as rubber shelf liner so they will not move as the student is using them. You may also use a strip of sticky back Velcro on the back side of each flashcard and then arrange the flashcards on a long strip of Velcro on the student's desk. You and/or the student can paste the flashcards in place on a large piece of construction paper when they are correctly laid out.

Activity 8

- Continue to make a number train. The student will need: railroad cars with numerals 1-7 from the last module, brightly colored construction paper or braille paper cut into train car shapes, glue stick, and braille numerals 8-9 on small cards. First, have the student find the numeral 8 and glue it onto a railroad car. Then, have the student find the numeral 9 and glue it onto another railroad car. Then have the student put the railroad cars into order from 1 to 9.
- If you would like, the student can "decorate" the railroad cars with scented stickers, Wikki Stix®, buttons, or textured paper. Feel 'n Peel Sheets: Carousel of Textures (catalog number 1-08863-00) from American Printing House for the Blind has a variety of adhesive backed and non-adhesive backed textured paper.
- It may help to place the railroad cars on a nonslip surface such as rubber shelf liner so they will not move as the student is using them. You may also use a strip of sticky back Velcro on the back side of each

railroad car and then arrange the railroad cars on a long strip of Velcro on the student's desk.

- Encourage verbalization of the names of the ordinal positions such as first and second while the children work. Use this activity to reinforce counting as well.
- Keep the railroad cars and in a later module the student will have the opportunity to build the number train to 10.

Activity 9

- Have fun making a graham cracker train snack. You will need graham crackers, vanilla wafers, and Cheerios. The first step in building a train snack is to have the student break a sheet of graham crackers into four equal parts. Then have the student count out 8 vanilla wafers and 8 Cheerios. Then they should use the graham crackers to create 4 railroad cars with two vanilla wafers for wheels on each railroad car. The Cheerios can be used to create the exhaust and steam coming from the engine.
- Once the student finishes making a train, enjoy the snack. The student can eat one of the railroad cars and its wheels, and then figure out how many railroad cars and wheels they have left. Then if the student is still hungry, they can eat another railroad car and its wheel, and then figure out how many railroad cars and wheels they have left.
- If preferred, the student can use frosting or yogurt as an edible glue to hold the components of the train together.
- Use this activity to reinforce counting as well as talk about the following shapes: circle and rectangle.

Fun Facts

Florida, R. (2016, June 2). *The relationship between subways and urban*

growth. Citylab. Retrieved June 4, 2020, from

<http://www.citylab.com/commute/2016/06/the-relationship-between-subways-and-urban-growth/485006/>

Onomatopoeia dictionary. (n.d.). Train. In *WrittenSound.com dictionary*.

Retrieved June 12, 2021, from

<http://www.writtensound.com/index.php?term=train>