

# **Pre-Kindergarten Module 3**

## **Numerals 4-5**

### **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 1-3
- Ability to write the numerals 1-3

#### **Symbols and Concepts**

- Counting
- Numeric indicator
- Numerals 1-5
- Concepts of "before" and "after"

#### **Objectives**

The student will be able to:

- Tactually identify the numerals from 1-5
- Use the braillewriter to write the numerals 1-5
- Represent a number ranging from 1-5 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 1-5

#### **Other ECC Skills Addressed**

**Note:** ECC stands for Expanded Core Curriculum.

- Listening skills
- 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
- Unifix cubes (or other cubes that can be snapped together)
- Brightly colored construction paper
- Bin or bucket
- Glue stick
- Textured paper/material/small objects that remind student of a train
- Sorting tray with dividers
- Homemade cube labeled with Nemeth numerals 2, 3, 4, 4, 5, 5 on the 6 faces, possibly using the Nemeth Feel 'n Peel stickers
- Outline/pattern of train cars available within the curriculum
- Fruit cut up into various shapes

## Optional Materials

- 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
- Scented stickers, Wikki Stix®, buttons, or textured paper
- Blocks of various shapes instead of fruit
- Writing answers braille document

## Teaching Tips

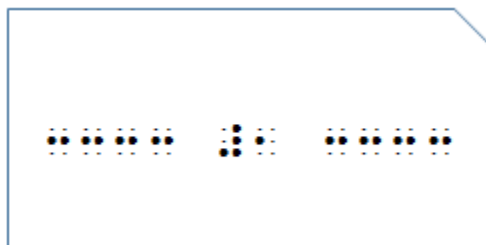
- Before opening any BRF files in Duxbury,
  - Go into the Global menu.
  - Select "**Formatted Braille Importer.**"
  - Select the box for "**Read formatted braille without interpretation**" at the top of the window. This will ensure that nothing is changed when opening the BRF files.
- All braille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

- 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 full 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 that include different textures.
- 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 from 1-5. 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 for practice of 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 1-4.

## **Activity 2**

- Create a tactual numeral page that can be displayed or taken home. The student will need a sheet of braille paper or brightly colored construction paper, a braillewriter, and four objects that remind them of a train.
- The student will write 4 in Nemeth. Then, the student will glue four objects onto the paper. The same process will also be completed for the numeral 5 later in the module.

## **Activity 3**

All information is provided in the teacher script.

## **Activity 4**

Activity 4 is the same as Activity 1. However, the student will use the numerals 1-5.

## **Activity 5**

Activity 5 is the same as Activity 2, but the student will write the numeral 5 and glue five objects onto the paper.

## **Activity 6**

- The student rolls a homemade cube with Nemeth numerals and then reads the numeral. Afterwards they 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. If you do not want to make a cube with Nemeth numerals, use flashcards. The student can draw a card, read the numeral, and then build a train using that number of Unifix cubes.
- 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 rolling the die and building a train.

## **Activity 7**

All information is provided in the teacher script.

## Activity 8

- Make a number train, beginning with 1-5. Use brightly colored construction paper or braille paper to make several railroad cars.
- Write the numerals 1-5 on small pieces of braille paper or index cards. Then have the student locate the numeral 1 and paste it onto a car. Repeat the process for the numerals 2, 3, 4, and 5. Then have the student arrange the railroad cars in order. The student may also enjoy “decorating” the railroad cars with scented stickers, Wikki Stix®, buttons, or textured paper/material. 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 much. 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. You can also paste the railroad cars in place on a large piece of construction paper when they are correctly laid out.
- 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

All information is provided in the teacher script.

## Fun Facts

Gray, L. & Graham, I. (2012). *Transportation*. DK Publishing.