

# **Pre-Kindergarten Module 3**

## **Numerals 4 and 5**

### **Teacher Script**

## **Introduction**

- All bracketed text should not be read aloud and is for reference only.
- The questions are not numbered in the student document. However, the questions have been numbered in this document to aid teachers and parents.
- Throughout the script, it is assumed that the student is correct. The teacher may need to go off script if the student does not answer a question correctly.

## **Section 1: Reading Numeral 4**

### **Section 1 Materials**

- Two swing cells (or two muffin tins and balls if you don't have access to swing cells)
- Student Braille Document: GPK-M3-Student-Materials.brf
- Activity 1
  - Timer
  - Five flashcards for each numeral from 1-4 shuffled

### **Section 1 Teacher Note**

If you are using hard copy braille, the student can do the following instead of making sounds whenever they find a numeral 4:

- Stomp a foot
- Underline or circle the numeral 4 with a grease marker or crayon
- Place a small sticker on top of each numeral 4

### **Section 1 Teacher Script**

All board the Nemeth train to learn about the numeral 4!

Just like the numerals 1-3 that you have learned, 4 begins with the numeric indicator in the first braille cell! It ends with dots 2-5-6 in the second braille cell.

[Make sure the student is viewing the numeral 4 at the top of page 1.]

4



Let's use the swing cells to build the numeral 4. Tell me the dots that make a numeric indicator. That's right! Dots 3-4-5-6 make the numeric indicator! Way to go, train conductor!

Begin by using the pegs to make the numeric indicator in the first braille cell. Then move to the second braille cell and place pegs in dots 2-5-6.

### Practice 1.1

Now it is your turn to find the numeral 4 in each line. Move your fingers across each line of braille and say "all aboard" like a train conductor whenever you find the numeral 4! Remember to use a light touch and keep your fingers curved.

[Six lines of dots 2-5 on page 1 with a numeral 4 inserted in each line.]



Good job, train conductor! You found the numeral 4 in each line.

### Practice 1.2

Now find the numeral 4 hidden in a line of railroad cars, which are really full braille cells.

[Six lines of full braille cells on page 2 with a numeral 4 inserted in each line.]

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### Practice 1.3

Sometimes a line of braille may have more than one numeral 4. Move your fingers lightly across the next two lines of braille and find the numeral 4s.

[Make sure the student is viewing the first two lines of braille on page 3.]

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### Fun Fact 1

Some trains travel slightly above the track on powered magnets.

Way to go, train conductor!

### Practice 1.4

Continue to the next six lines of braille on the page and find the numeral 4s. Say "tickets please" when you find the numeral 4.

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The figure consists of 12 diagrams arranged in a single row, each showing a pattern of black dots on a grid. The patterns are as follows:

- Diagram 1: A small cluster of 5 dots.
- Diagram 2: A horizontal line of 4 dots.
- Diagram 3: A horizontal line of 5 dots.
- Diagram 4: A horizontal line of 6 dots.
- Diagram 5: A horizontal line of 7 dots.
- Diagram 6: A horizontal line of 8 dots.
- Diagram 7: A horizontal line of 9 dots.
- Diagram 8: A horizontal line of 10 dots.
- Diagram 9: A horizontal line of 11 dots.
- Diagram 10: A horizontal line of 12 dots.
- Diagram 11: A horizontal line of 13 dots.
- Diagram 12: A horizontal line of 14 dots.

## Practice 1.5

Chug-chug-chug-chug! Let's move our fingers lightly over the braille and find the numeral 4s that are hiding in the line of magnet railroad cars, which are really full braille cells.

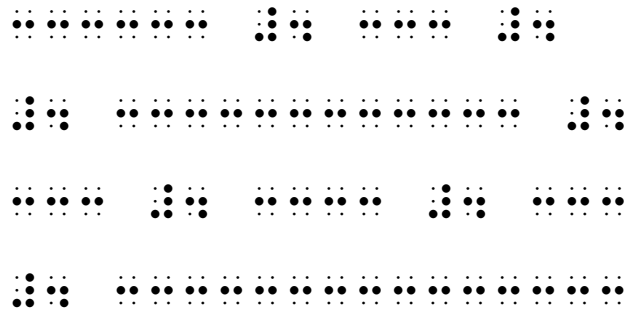
[Six lines of full braille cells on page 4 with two numeral 4s inserted in each line.]

The sequence consists of eight 3x3 dot patterns. The first seven patterns are variations of a 3x3 grid with some dots missing, and the eighth pattern is a 3x3 grid with all dots present.

## Practice 1.6

Let's find the numeral 4 again! This time say "wwwwooo" like the train whistle when you find the numeral 4! On some lines you find only 1 numeral 4 and on other lines you may find lots of numeral 4s.

[Seven lines of dots 2-5 on page 5 with one or more numeral 4s inserted in each line.]



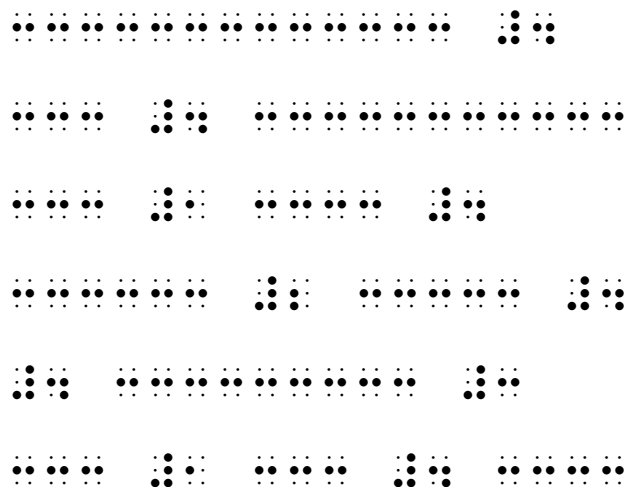
## Fun Fact 2

The world's fastest train today is in China.

## Practice 1.7

Sometimes a line will have more than one numeral. Find the numeral 4 in each line. Say "next stop" like a conductor when you find the numeral 4 in each line. Be careful to make sure it is a numeral 4 and not 1, 2, or 3.

[Six lines of dots 2-5 on page 6 with one or more numerals inserted in each line.]



Super job! Did you know that magnet trains do not have wheels?

## Practice 1.8

Move your fingers lightly over the braille lines and find some more numeral 4s that are hiding in a line of magnet railroad cars and other numerals.

[Six lines of full braille cells on page 7 with one or more numerals inserted in each line.]

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That was great reading, train conductor!

### Practice 1.9

Next, read the numeral at the beginning of each line and find its match on the line of braille. Make a sound like a train when you find the match! Chug-chug-chug!

[Make sure the student is viewing the six lines of braille on page 8.]

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## **Activity 1**

Use your flashcards to practice reading the numerals 1-4. Once you can read all of the numerals correctly, go back and time how quickly you can read the numerals! Do you think you can read the numerals even quicker? If so, try one more time!

## **Section 2: Writing Numeral 4**

### **Section 2 Materials**

- Braillewriter
- Braille paper
- Two swing cells (or two muffin tins and balls if you don't have access to swing cells)
- Activity 2: in addition to the other materials used in Section 2,
  - Four objects that remind the student of a train and can be glued or stuck onto the paper
  - Glue stick (Alternatives: double-sided tape, sticky tack, glue)

### **Section 2 Teacher Script**

Time for writing! Let's go back to the swing cells. First, use the pegs and make a numeric indicator again. Which dots make the numeric indicator? That's right! Dots 3-4-5-6 make the numeric indicator. Afterwards, open the swing cell. This will help you know where your fingers will go when you are writing!

#### **Practice 2.1**

Use your ring finger on the left and all three fingers on the right to write the numeric indicator on your braillewriter.

Now let's finish the numeral 4. With your second swing cell, place the pegs in dots 2-5-6. Now open the swing cell.

#### **Practice 2.2**

Use the middle finger on your left hand as well as the middle and ring fingers on your right hand. You try it now in the air and then on your braillewriter.

### Practice 2.3

Let's put the two cells together and practice writing the numeral 4 in Nemeth using your braillewriter. Space one time between your numerals.

When you finish writing your numerals several times, move your fingers across the braille and check your work!

### Activity 2

You will need a sheet of braille paper, your braillewriter, and four objects that remind you of a train!

Write the numeral 4 in Nemeth. Then, glue your four trains onto the paper!

That was great counting and writing, train conductor.

## Section 3: Reading Numeral 5

### Section 3 Materials

- Two swing cells (or two muffin tins and balls if you don't have access to swing cells)
- Student Braille Document: GPK-M3-Student-Materials.brf
- Activity 3
  - Sorting tray with dividers
  - Five flashcards for each numeral from 1-4 shuffled
- Activity 4
  - Timer
  - Five flashcards for each numeral from 1-5 shuffled

### Section 3 Teacher Script

#### Practice 3.1

Let's practice reading the numerals 1 to 4 before learning the numeral 5.

[Make sure the student is viewing the two lines of braille on page 9.]

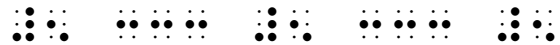
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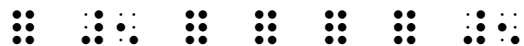
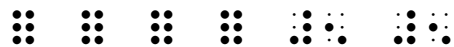




### Practice 3.5

Let's keep going! Now move your fingers like a train on train tracks across the line of braille and find all of the numeral 5s. They are hidden in a line of railroad cars, which are really full braille cells. Make a sound like a train each time you find the numeral 5!

[Six lines of full braille cells on page 13 with two numeral 5s inserted in each line.]



### Fun Fact 3

Many major cities in the Northeast region of the United States are linked by train.

### Practice 3.6

Let's find more numeral 5s. Say "choo" when you find the numeral 5 in each line. Be careful to make sure it is a numeral 5 and not a numeral 1 or 2.

[Six lines of dots 2-5 on page 14 with two or three numerals inserted in each line.]



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Way to go, math superstar!

### Practice 3.7

Let's find some more numeral 5s that are hiding in a line of railroad cars and numerals 1, 2, 3, and 4. Remember to find only the numeral 5s.

[Six lines of full braille cells on page 15 with one or more numerals inserted in each line.]

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### Fun Fact 4

Some trains can pull more than 4,000 tons of freight at a time!

### Practice 3.8

Now let's practice reading numerals 1, 2, 3, 4, and 5.

[Make sure the student is viewing the two lines of braille on page 16.]

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## **Activity 4**

Use your flashcards to practice reading the numerals 1-5. Once you can read all of the numerals correctly, go back and time how quickly you can read the numerals! Do you think you can read the numerals even quicker? If so, try one more time! Good luck, train conductor!

## **Section 4: Writing Numeral 5**

### **Section 4 Materials**

- Braillewriter
- Braille paper
- Two swing cells (or two muffin tins and balls if you don't have access to swing cells)
- Activity 5: in addition to the other materials used in Section 4,
  - Five objects that remind the student of a train and can be glued or stuck onto the paper
  - Glue stick (Alternatives: double-sided tape, sticky tack, glue)

### **Section 4 Teacher Script**

Time for writing! Let's go back to the swing cell and use the pegs to make a numeric indicator. Which dots make the numeric indicator? That's right! Dots 3-4-5-6 make the numeric indicator. Since the swing cell is closed, open the swing cell. This will help you know where your fingers will go!

#### **Practice 4.1**

Use your ring finger on the left and all three fingers on the right to write the numeric indicator on your braillewriter.

#### **Practice 4.2**

Now let's finish the numeral 5. On the second swing cell, place the pegs in dots 2-6. Use your middle finger on your left hand and your ring finger on your right hand. Since the swing cell is closed, open the swing cell. This will help you know where your fingers will go for the second part of the numeral! You try it now in the air and then on your braillewriter.

#### **Practice 4.3**

Let's put the two cells together and practice writing the numeral 5 in Nemeth using your braillewriter. Space one time between your numerals.

When you finish writing your numerals several times, move your fingers across the braille and check your work!

## **Activity 5**

You will need a sheet of braille paper, your braillewriter, and five objects that remind you of a train!

Write the numeral 5 in Nemeth. Then, glue your five trains onto the paper!

That was great counting and writing!

## **Section 5: Review**

### **Section 5 Materials**

- Braillewriter
- Braille paper
- Student Braille Document: GPK-M3-Student-Materials.brf
- Optional: one flashcard for each numeral from 1-5 in order on a nonslip surface, GPK-M3-Writing-Answers.brf
- Activity 6
  - Homemade cube labeled with Nemeth numerals 2, 3, 4, 4, 5, 5 on the 6 faces, possibly using the Nemeth Feel 'n Peel stickers
  - Unifix or snap cubes (Alternatives: MegaBlocks, Legos, teddy bear manipulatives, flashcards)
- Activity 7
  - Bin or bucket
  - Five objects
- Activity 8
  - Brightly colored construction paper or braille paper cut into train car shapes – shapes available in the curriculum
  - Glue stick
  - Braille numerals 1-5 on small cards
  - Optional: scented stickers, Wikki Stix®, buttons, or textured paper
- Activity 9
  - Cut up fruit such as banana slices, strawberries, chunks of watermelon, grapes
  - Optional: blocks of various shapes instead of fruit

### **Section 5 Teacher Script**

Let's practice with another activity.

## Activity 6

You will need a homemade cube with Nemeth numerals and Unifix cubes or other cubes that can be snapped together. If you do not have the Unifix or snap 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.

Roll the homemade cube and then read the numeral. Then build a train using that number of Unifix or snap cubes. Afterwards, write the numeral using a braillewriter.

If you would like, you and a friend (or your teacher) can take turns rolling the homemade cube and building a train!

If you are using flashcards instead of the homemade cube, draw a card, read the numeral, and then build a train using that number of cubes.

## Activity 7

Place 5 objects in a bin or bucket. Select some of the objects. Then count the items and braille the Nemeth numeral. Afterwards place the objects back in the bin or bucket. Now have a teacher or a friend select some objects. Then count the items and braille the Nemeth numeral!

All aboard the Nemeth train!

### Practice 5.1

Read the numbers that are in order from 1 to 5.

[Make sure the student is viewing the top line of braille on page 17.]

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### Practice 5.2

Go to the next line of braille and read the numbers from 1 to 5 again.

[Make sure the student is viewing the second line of braille on page 17.]

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Using the numbers in braille or your flashcards in order, tell me what number comes after 3. That's right! 4 comes after 3. Now tell me what number comes after 1. That's right! 2 comes after 1. Now tell me what number comes after 4. You got it now! 5 comes after 4.

Using the numbers in braille, tell me what number comes before 3. Way to go! 2 comes before 3. Let's try another one. Tell me what number comes before 5. That's right. 4 comes before 5.

### **Practice 5.3**

Now practice writing your numerals 1 to 5 using your braillewriter. Space one time between your numerals. When you finish writing, move your fingers across the braille and read the numerals that you wrote!

### **Activity 8**

Let's build a number train. You will need: brightly colored construction paper or braille paper cut into train car shapes, glue stick, and braille numerals 1-5 on small cards.

First, find the numeral 1 and glue it onto a railroad car. Then, find the numeral 2 and glue it onto another railroad car. Then, find the numeral 3 and glue it onto another railroad car. Then, find the numeral 4 and glue it onto another railroad car. Last, find the numeral 5 and glue it onto another railroad car. Then put the railroad cars into order from 1 to 5. If you would like, you can "decorate" with scented stickers, Wikki Stix®, buttons, or textured paper.

### **Activity 9**

Let's go wash our hands before starting this activity.

Fruit train: Use cut up fruit (such as 5 banana slices, 5 strawberries and 5 chunks of watermelon) and grapes to make a fun train snack. Count and then braille how many pieces of each fruit you use! If you would prefer, you can use blocks of various shapes to build your train.

Once you finish making your train, enjoy your fruit snack! Eat part of your fruit train, and then figure out how many train cars you have left.

Now you are ready for the next train stop: module 3 check-up! Thank you for all of your hard work!