

Kindergarten Module 2

Numbers 11-15 and General Omission Symbol

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 Number 11

Section 1 Materials

- Student Braille Document: GK-M2-Student-Materials.brf
- Optional: grease marker or crayon
- Activity 1
 - Timer
 - Five flashcards for each number from 0-11 shuffled

Section 1 Teacher Notes

- If you are using a refreshable braille display, ensure that the child knows how to move to the next line of braille. Offer assistance as needed.
- If you are using hard copy braille, the student can do the following instead of making the sound of a bicycle bell or saying "bicycle" or "pedal faster":
 - Stomp a foot
 - Underline or circle the number 11
 - Place a small sticker on top of each number 11

Section 1 Teacher Script

Before we begin our bicycle ride, find the first line of braille on the page. It is at the top of the page. Softly glide your fingers across the line.

It says Module 2. Now move your hands down to the second line of braille on the page. There is just one symbol on the second line. It is on the left side of the page.

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Do you remember that this symbol is called an opening Nemeth Code indicator? It tells us that we are going to read math or science. Dots 4-5-6 are in the first cell, and dots 1-4-6 are in the second cell.

On your mark, get set, go! It's time for another cross country bicycle ride! For the first leg of the trip, let's explore the number 11. It is on the third line of braille.

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The number 11 begins with the numeric indicator in the first braille cell. It is followed by a dot 2 in the second braille cell. It ends with a dot 2 in the last braille cell. The digits in the Nemeth Code are placed in the bottom part of the cell.

Practice 1.1

Now it is your turn to find the number 11 in each line of braille. Remember to keep your hands together and curve your fingers! Move your fingers lightly across the line of braille from left to right and make the sound of a bicycle bell when you find the number 11!

[Make sure the student is viewing the five lines of braille in the middle of page 1.]

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Practice 1.4

Turn to page 3, read the number at the beginning of each line, and then find its match on the line of braille. Say “pedal faster” when you find the match!

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

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Fun Fact 2

BMX stands for bicycle motocross. BMX racing started in the 1970s in Southern California and quickly became popular throughout the world.

Practice 1.5

Let’s try a few more!

[Make sure the student is viewing the last five lines of braille on page 3.]

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Activity 1

Use your flashcards to practice reading the numbers 0-11. Once you can read all of the numbers correctly, go back and time how quickly you can read the numbers! Do you think you can read the numbers even quicker? If so, try one more time! You can do it!

Excellent reading, BMX super star!

Practice 1.6

Turn to page 4 and practice reading the numbers 0-11.

[Make sure the student is viewing the three lines of braille at the top of page 4.]

0 1 2 3 4
5 6 7 8 9
10 11 12 13

Fun Fact 3

BMX racers compete on dirt tracks with ramps and a finish line.

Section 2: Reading Number 12

Section 2 Materials

- Student Braille Document: GK-M2-Student-Materials.brf
- Optional: grease marker or crayon
- Activity 2
 - Sorting tray with a 2-section divider
 - Five flashcards for each number from 0-12 shuffled

Section 2 Teacher Notes

- If you are using a refreshable braille display, ensure that the child knows how to move to the next line of braille. Offer assistance as needed.

- If you are using hard copy braille, the student can do the following instead of making the sound of a bicycle tire or saying “wear a helmet when riding a bike”:
 - Stomp a foot
 - Underline or circle the number 12
 - Place a small sticker on top of each number 12

Section 2 Teacher Script

Reading braille numbers is lots of fun. Let's explore the number 12 at the top of page 5.

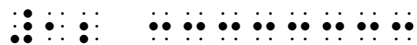
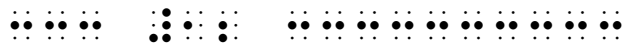


The number 12 begins with the numeric indicator in the first braille cell. It is followed by a dot 2 in the second braille cell. It ends with dots 2-3 in the last braille cell. The digits of numbers in the Nemeth Code are placed in the bottom part of the cell.

Practice 2.1

Now it is your turn to find the number 12 in each line of braille. Keep your hands together and curve your fingers! Move your fingers lightly across the line of braille from left to right and make a sound like a bicycle tire when you find the number 12!

[Make sure the student is viewing the five lines of braille in the middle of page 5.]



Practice 2.2

Sometimes a line of braille may have more than one number 12. Turn to page 6, move your fingers lightly across the lines of braille, find all of the number 12s, and continue to make a sound like a bicycle tire each time you find the number.

[Make sure the student is viewing the five lines of braille at the top of page 6.]

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Fun Fact 4

BMX freestyle bikes can be used to do tricks at parks, trails, and half-pipes.

Practice 2.3

Let's find more number 12s. Say "wear a helmet when riding a bike" when you find the number 12 in each line. Be careful to make sure it is a number 12 and not a number 5, 6, 7, 8, or 9.

[Make sure the student is viewing the five lines of braille at the bottom of page 6.]

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That was great reading, Nemeth superstar.

Practice 2.4

Let's practice reading some more numbers from 0-12 on page 7. There will be 3 numbers on each line.

[Make sure the student is viewing the six lines of braille on page 7.]

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Activity 2

Use your flashcards and find all of the number 12s. Place all of the 12s in one stack and all of the other numbers in a different stack.

Do you think you can find all the number 12s even quicker? Shuffle the flashcards and try one more time! Good luck, bicyclist!

That was super reading, math all-star!

Section 3: Reading Number 13

Section 3 Materials

- Student Braille Document: GK-M2-Student-Materials.brf
- Optional: grease marker or crayon
- Activity 3
 - Timer
 - Five flashcards for each number from 0-13 shuffled

Section 3 Teacher Note

If you are using hard copy braille, the student can do the following instead of making their favorite bicycle sound or saying “pedal faster” or “pedal up the hill”:

- Stomp a foot
- Underline or circle the number 13
- Place a small sticker on top of each number 13

Section 3 Teacher Script

For the next leg of the trip, let’s explore the number 13 in Nemeth at the top of page 8!

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Notice that the number 13 is also three braille cells in length. What is in the first braille cell? That’s right! The number 13 begins with the numeric indicator in the first braille cell just like the other numbers. What is in the second braille cell? You got it! The digit 1 is in the second cell. What is in the last braille cell? That’s right! The digit 3 is in the last cell.

Practice 3.1

Now it is your turn to find the number 13 in each line of braille. Move your fingers lightly across the line of braille and make your favorite bicycle sound when you find the number 13!

[Make sure the student is viewing the four lines of braille in the middle of page 8.]

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Fun Fact 5

There are different types of BMX bikes. BMX racing bikes are lightweight and only have back brakes. BMX freestyle bikes are slightly heavier and have both front and back brakes.

Practice 3.2

Sometimes a line of braille may have more than one number 13. Turn to page 9, move your fingers lightly across the lines of braille, find all of the number 13s, and continue to make your favorite bicycle sound each time you find the number.

[Make sure the student is viewing the five lines of braille at the top of page 9.]

Practice 3.3

Let's find more number 13s. Say "pedal faster" when you find the number 13 in each line. Be careful to make sure it is a number 13 and not another number.

[Make sure the student is viewing the five lines of braille at the bottom of page 9.]

- Place Value Chart 1 available in contracted and uncontracted braille within the curriculum (Alternative: two-compartment sorting tray with the right compartment labeled “ones” and the left compartment labeled “tens” in braille)

Section 4 Teacher Notes

- The sorting tray may assist students in easily keeping their unit blocks and rods in the correct columns.
- If needed, model placing the rods in the tens column and the unit blocks in the ones column using hand-under-hand technique.
- Activity 4: Depending on the child’s response when building the numbers 11-13, questioning and modeling can be used to assist the child in determining additional ways to build the numbers. For example:
 - Can you represent the number using only one kind of block? If not, why not? If so, which one could you use to represent the number? How many do you need? Where would you place the blocks on the place value chart?
 - Can you represent the number using a rod and unit blocks? If so, how many of each kind do you need? If not, why not?

Section 4 Teacher Script

Different type of blocks can be used to build numbers in mathematics. For the fourth leg of the bicycle trip, we will use blocks called base ten blocks (or Digi-Blocks) to help us build the numbers 11, 12, and 13.

Use your hands to explore the blocks in the two baskets.

The small blocks are called units, and the long, narrow blocks are called rods.

Now take some time and build with the blocks.

What did you notice about the units? What did you notice about the rods? Yes, the units are smaller, and the rods are longer. The unit blocks are in the shape of a cube.

The rods contain ridges. Let’s count how many squares are on each rod. That’s right. There are ten squares on each rod. It takes ten little cubes or units to make a long one.

Take a look at this place value chart. Sometimes when we use base ten blocks, we also use a place value chart. Use your hands to explore the place value chart. Now let's find the title and read it together. Where will we find the title?

That's right, BMX racer! The title will be at the top of the page. The title is Place Value Chart.

Notice that there is a line going down the middle of the page. Find the column headings toward the top of the page, and I will help you read them. The column on the right is the ones, and the column on the left is tens.

Each unit block represents one, and each rod represents ten. We place rods in the tens column and the unit blocks in the ones column.

Begin by placing and counting units, one at a time, in the ones column on the chart. Let's count to 10.

Now match your 10 units to 1 rod. You can trade those units for the rod. Where do we place the rod? That's right! You place the rod in the tens column.

Activity 4

Let's work together to use the base ten blocks and place value chart to represent 11.

There are two ways that we can build eleven. Think about how we can use the unit blocks and rods to represent the number 11. You are right. One way is to count out 11 unit blocks. Another way is to exchange 10 of the unit blocks for a rod. Then we would need one rod and one unit block to represent 11.

Great work, math superstar! Let's work together to use the base ten blocks and place value chart to represent 12. Show me two different ways to represent the number 12. Don't forget to use your place value chart!

Let's try one more. Let's work together to use the base ten blocks and place value chart to represent 13. Show me two different ways to represent the number 13. Don't forget to use your place value chart!

Fun Fact 7

Safety gear such as a helmet, gloves, elbow pads, knee pads, and closed-toe shoes is important when you are racing and doing tricks on BMX bikes.

Section 5: Writing Numbers 11-13

Section 5 Materials

- Braillewriter
- Braille paper
- Activities 5 and 6: in addition to the other materials used in the rest of Section 5,
 - Timer
 - Optional: GK-M2-Writing-Answers.brf

Section 5 Teacher Note

If needed, remind the student that dots 3-4-5-6 make the numeric indicator.

Section 5 Teacher Script

On the fifth leg of the trip, let's have fun with writing numbers on the braillewriter!

What do numbers begin with? Yes, numbers begin with a numeric indicator. Tell me which dots make the numeric indicator. That's right! Dots 3-4-5-6 make the numeric indicator. Use your ring finger on your left hand and all three fingers on your right hand to write the numeric indicator.

Practice 5.1

Let's write the number 11 together.

Begin with a numeric indicator in the first braille cell. Next, in the second braille cell, use your middle finger on your left hand and press the dot 2. To finish the number 11 in the third cell, use your middle finger on your left hand and press the dot 2 again.

Practice writing the number 11 now in the air and then on your braillewriter. Space one time between your numbers. When you finish writing your numbers several times, move your fingers across the braille and check your work!

On your mark, get set, go!

Practice 5.2

It's time to move to the number 12. Similar to the number 11, it begins with a numeric indicator. Next, in the second braille cell, use your middle finger on your left hand and press the dot 2. To finish the number 12 in the third cell, use your middle and ring fingers on your left hand and press the dots 2-3.

Practice writing the number 12 now in the air and then on your braillewriter. Space one time between your numbers. When you finish writing your numbers several times, move your fingers across the braille and check your work!

Fun Fact 8

Wearing long-sleeve shirts and long pants protects your skin from cuts and scrapes if you fall when racing a BMX bike.

Activity 5

You will need your braillewriter and braille paper for this activity. Listen as I read a number. Then write the number in braille. Space one time between the numbers.

Practice 5.3

11 4 8 12

Now move your fingers across the braille and check your work as I say the numbers again.

11 4 8 12

Press your line spacing key twice to move to the next line.

Practice 5.4

3 9 2 6 11 7

Now move your fingers across the braille and check your work as I say the numbers again.

3 9 2 6 11 7

Press your line spacing key twice to move to the next line.

Practice 5.5

5 10 12 11 0

Now move your fingers across the braille and check your work as I say the numbers again.

5 10 12 11 0

Practice 5.6

Let's learn to write the number 13. It begins with a numeric indicator. Next, in the second braille cell, use your middle finger on your left hand and press the dot 2. To finish the number 13 in the third cell, use your middle fingers on both of your hands and press the dots 2-5.

Practice writing the number 13 now in the air and then on your braillewriter. Space one time between your numbers. When you finish writing your numbers several times, move your fingers across the braille and check your work!

Activity 6

You will need your braillewriter and braille paper for this activity.

Practice 5.7

Write the numbers from 10 to 13. Space one time between the numbers.

Practice 5.8

Do you think you can write the numbers from 10 to 13 even quicker? If so, try one more time! You can do it!

That was excellent work, cyclist!

Section 6: Reading Number 14

Section 6 Materials

- Student Braille Document: GK-M2-Student-Materials.brf
- Optional: grease marker or crayon
- Activity 7
 - Timer
 - Sorting tray with 2-section divider
 - Five flashcards for each number 0-14 shuffled

Section 6 Teacher Note

If you are using hard copy braille, the student can do the following instead of making their favorite bicycle sound or saying "mountain biking":

- Stomp a foot
- Underline or circle the number 14
- Place a small sticker on top of each number 14

Section 6 Teacher Script

On the sixth leg of the trip, let's learn about the number 14. Begin by finding the number 14 on the top line of page 11.

Notice that the number 14 is also three braille cells in length. What is in the first braille cell? That's right! The number 14 begins with the numeric indicator in the first braille cell. What is in the second braille cell? You got it, bike messenger! The digit 1 is in the second cell. What is in the last braille cell? That's right! The digit 4 is in the last cell.

Practice 6.1

Now it is your turn to find the number 14 in each line of braille. Begin with the second line of braille on the page. Move your fingers lightly across each line and make your favorite bicycle sound when you find the number 14!

Way to find the number 14s, math champion!

Practice 6.2

Move your fingers lightly across the lines of braille, find all of the number 14s, and continue to make your favorite bicycle sound each time you find the number. This time there may be more than one number 14 in a line. Remember to use a light touch and keep your fingers slightly curved.

[Make sure the student is viewing the last five lines of braille on page 11.]

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Fun Fact 9

Mountain biking is a sport where people ride bikes up and down mountains on forest trails.

Practice 6.3

Let's find more number 14s. Turn to page 12 and say "mountain biking" when you find the number 14 in each line. Be careful to make sure it is a number 14 and not a number 10, 11, 12, or 13.

[Make sure the student is viewing the first five lines of braille on page 12.]

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Section 7: Reading Number 15

Section 7 Materials

- Student Braille Document: GK-M2-Student-Materials.brf
- Optional: grease marker or crayon
- Activity 8
 - Five flashcards for each number from 0-15
 - Timer
 - Braillewriter
 - Braille paper
- Activity 9
 - Base ten blocks: units and rods in different containers, baskets, or bowls (Alternative: Digi-Blocks - a different type of base ten block that nests)
 - Place Value Chart 1 available in contracted and uncontracted braille within the curriculum (Alternative: two-compartment sorting tray with the right compartment labeled "ones" and the left compartment labeled "tens" in braille)

Section 7 Teacher Notes

- If you are using hard copy braille, the student can do the following instead of making their favorite bicycle sound or saying "pedal faster":
 - Stomp a foot
 - Underline or circle the number 15
 - Place a small sticker on top of each number 15
- Activity 9: Depending on the child's response when building the numbers 14-15, questioning and modeling can be used to assist the child in determining additional ways to build the numbers. For example:
 - Can you represent the number using only one kind of block? If not, why not? If so, which one could you use to represent the number? How many do you need? Where would you place the blocks on the place value chart?
 - Can you represent the number using a rod and unit blocks? If so, how many of each kind do you need? If not, why not?

Section 7 Teacher Script

Time to learn about the number 15! Begin by finding the number 15 on the top line of page 13.



Notice that the number 15 is also three braille cells in length. What is in the first braille cell? That's right! The number 15 begins with the numeric indicator in the first braille cell like all of the other numbers we have learned about. What is in the second braille cell? You got it, BMX racer! There is a digit 1 in the second cell. What is in the last braille cell? That's right! The digit 5 is in the last cell.

Practice 7.1

Now it is your turn to find the number 15 in each line of braille. Begin with the second line of braille on the page. Move your fingers lightly across each line and make your favorite bicycle sound when you find the number 15!

The figure consists of a 3x3 grid of dot patterns. The first three columns show a progression of a 2x2 dot square being added to a 1x1 dot square. The last two columns show a 3x3 dot square with one dot missing from different positions.

Practice 7.2

Sometimes a line of braille may have more than one number 15. Move your fingers lightly across the lines of braille, find all of the number 15s, and continue to make your favorite bicycle sound each time you find the number. You can do it, BMX racer!

[Make sure the student is viewing the last five lines of braille on page 13.]

Practice 7.3

Turn to page 14, read the number at the beginning of each line, and then find its match on the line of braille. Say “pedal faster” when you find the match!

[Make sure the student is viewing the first seven lines of braille on page 14.]

The figure displays a 5x5 grid of 25 dot patterns. Each pattern is a 3x3 matrix of dots, where the presence or absence of a dot in a specific position represents a sense. The senses are mapped as follows: Sight (top-left), Hearing (top-middle), Touch (top-right), Taste (bottom-left), and Smell (bottom-right). The patterns are arranged in a grid where each row and column contains exactly one pattern for each sense, ensuring all possible combinations are represented.

Fun Fact 11

Mountain bicycling has been an Olympic sport since 1996.

Practice 7.4

Now read numbers ranging from 0-15. Good luck, cyclist!

[Make sure the student is viewing the last five lines of braille on page 14.]

Activity 8

You will need your braillewriter, braille paper, and flashcards for numbers 1-15. Shuffle your flashcards and then draw a flashcard. Once you can read all of the numbers correctly, go back and time how quickly you can read the numbers! Do you think you can read the numbers even quicker? If so, try one more time! You can do it!

Now, shuffle your flashcards again and then draw a flashcard. Read the number on each flashcard and then braille that many tally marks before pressing the line spacing key twice.

If you would like, you and a friend (or your teacher) can take turns drawing cards and brailing that many tally marks.

Great work, math superstar!

Activity 9

Let's work together to use the base ten blocks and place value chart to build 14. Show me two different ways to represent the number 14. Don't forget to use your place value chart!

Let's try one more. Let's work together to use the base ten blocks and place value chart to represent 15. Show me two different ways to represent the number 15. Don't forget to use your place value chart!

Fun Fact 12

If you are planning a long bicycle ride through the mountains, plan ahead and bring a backpack with food, drinks, a cell phone, and a bike repair kit.

Section 8: Writing Numbers 14 and 15

Section 8 Materials

- Braillewriter
- Braille paper

Section 8 Teacher Note

If needed, remind the student that dots 3-4-5-6 make the numeric indicator.

Section 8 Teacher Script

On the eighth leg of the trip, let's have fun with writing numbers 14 and 15 on the braillewriter!

Practice 8.1

It will take us three braille cells to write the number 14. Begin with a numeric indicator in the first braille cell. Next, in the second braille cell, use your middle finger on your left hand and press the dot 2. The number 14 ends with dots 2-5-6 in the third braille cell. Use the middle finger on your left hand as well as the middle and ring fingers on your right hand.

On your mark, get set, go! Practice writing the number 14 now in the air and then on your braillewriter. Space one time between your numbers. When you finish writing your numbers several times, move your fingers across the braille and check your work!

Practice 8.2

The number 15 also begins with a numeric indicator. Next, in the second braille cell, use your middle finger on your left hand and press the dot 2. To finish the number 15 in the third cell, use your middle finger on your left hand and your ring finger on your right hand and press the dots 2-6. You try it now in the air and then on your braillewriter.

Practice writing the number 15 several times. Space one time between your numbers. When you finish writing the number 15 several times, move your fingers across the braille and check your work!

That was super writing, math all-star!

Fun Fact 13

Mountain bikes have front and rear brakes and lots of gears to help you bicycle up steep mountains.

Section 9: Counting Tally Marks

Section 9 Materials

- Student Braille Document: GK-M2-Student-Materials.brf
- Braillewriter
- Braille paper
- Activity 10: in addition to the other materials used in the rest of Section 9, Optional: GK-M2-Writing-Answers.brf

Section 9 Teacher Script

Let's practice counting tally marks together when there are more than 10 tally marks. Turn to page 15 and find the first line of braille on the page.

Notice how there is a group of five tally marks followed by a space. Then there is another group of five tally marks followed by another space. Afterwards there are two more tally marks. Try counting them by yourself now.

⠠⠠⠠⠠⠠ ⠠⠠⠠⠠⠠ ⠠⠠

That's right. There are 12 tally marks.

Let's try two more. How many tally marks are on the second line?

⠠⠠⠠⠠⠠ ⠠⠠⠠⠠⠠ ⠠⠠⠠⠠⠠

That is super work, cyclist! There are 15 tally marks. How many tally marks are on the third line?

⠠⠠⠠⠠⠠ ⠠⠠⠠⠠⠠ ⠠⠠⠠⠠

You got it! There are 14 tally marks.

Fun Fact 14

Safety gear such as a helmet, gloves, elbow pads, and knee pads will help keep you safe when you ride a mountain bike. When it is cold or rainy outside, wear a waterproof jacket too.

Activity 10

Practice 9.1

Count the number of tally marks on each line. Then write the number using your braillewriter. Space one time between your answers.

[Make sure the student is viewing the four lines of braille in the middle of page 15.]

⠠⠠⠠⠠⠠⠠ ⠠⠠⠠

⠠⠠⠠⠠⠠⠠ ⠠⠠⠠⠠⠠⠠⠠ ⠠⠠⠠⠠⠠⠠

⠠⠠⠠⠠⠠⠠ ⠠⠠⠠⠠⠠⠠

⠠⠠⠠

Practice 9.2

Let's try some more. Move to the next line on your braillewriter by pressing your line spacing key twice.

[Make sure the student is viewing the last four lines of braille on page 15.]

⠠⠠⠠⠠⠠⠠ ⠠⠠⠠⠠⠠⠠ ⠠⠠

⠠⠠⠠⠠⠠⠠ ⠠⠠⠠⠠⠠⠠⠠ ⠠⠠⠠⠠

⠠⠠⠠⠠⠠

⠠⠠⠠⠠⠠⠠ ⠠⠠⠠⠠⠠⠠⠠ ⠠⠠⠠

Practice 9.3

Turn to page 16 and try some more. Move to the next line on your braillewriter by pressing your line spacing key twice.

⠠⠠⠠⠠⠠⠠ ⠠⠠⠠⠠⠠⠠ ⠠

⠠⠠⠠⠠⠠⠠ ⠠



Section 10: The General Omission Symbol

- Student Braille Document: GK-M2-Student-Materials.brf
- Optional: grease marker or crayon
- Braillewriter
- Braille paper
- Optional: Hard copy of the numbers in order, GK-M2-Writing-Answers.brf
- Activity 11: same as materials used in the rest of Section 10
- Activity 12: all materials used previously in Section 10 except the Student Braille Document: GK-M2-Student-Materials.brf

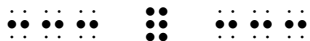
Section 10 Teacher Notes

- The general omission symbol is sometimes incorrectly called a general omission indicator.
- If you are using hard copy braille, the student can do the following instead of making their favorite bicycle racing sound:
 - Stomp a foot
 - Underline or circle the general omission symbol
 - Place a small sticker on top of each general omission symbol
- If needed, provide the student with a hard copy of numbers in order. It may help to place the number flashcards on a nonslip surface such as rubber shelf liner so they will not move as the student is reading the cards. You may also use a strip of sticky back Velcro on the back side of each number card and then arrange the number cards on a long strip of Velcro on the student's desk.

Section 10 Teacher Script

For this leg of the bicycle cross country trip, let's learn about the general omission symbol. We use this symbol when there is a missing number for you to write in math.

Softly guide your fingers across the top line of braille on page 17. In the middle of the line, you will find a general omission symbol. There is a line of dots 2-5 before and after the general omission symbol.



Great work, cyclist! Did you notice that the general omission symbol is a full braille cell with the dots 1-2-3-4-5-6?

Practice 10.1

Now it is your turn to find the general omission symbol in each line of braille. Begin with the second line of braille on the page. Move your fingers lightly across the line of braille and make your favorite bicycle racing sound when you find the general omission symbol!

⠠ ⠠⠠⠠⠠⠠⠠

⠠⠠⠠⠠⠠⠠⠠⠠ ⠠⠠ ⠠⠠⠠⠠⠠

⠠⠠⠠⠠⠠⠠⠠⠠⠠⠠⠠⠠⠠⠠⠠⠠⠠⠠⠠ ⠠⠠

⠠⠠⠠ ⠠⠠

⠠⠠⠠⠠⠠⠠⠠⠠ ⠠⠠ ⠠⠠⠠⠠⠠⠠⠠⠠

Turn to page 18. You will find a general omission symbol in the middle of the first line of braille. It is standing for a missing number in a series of numbers. There is a number 1 before the general omission symbol and a number 3 after it. What is the general omission symbol standing for?

⠠⠠ ⠠⠠ ⠠⠠

That's right! The general omission symbol is standing for the number 2. On the second line, you will find another general omission symbol. It is also standing for a missing number in a series of numbers. Read the numbers and try to figure out what number is missing.

[2 3 4 general omission symbol]

⠠⠠⠠ ⠠⠠⠠ ⠠⠠⠠ ⠠⠠

Super work, BMX racer! The missing number is 5. Let's try one more. First, find the general omission symbol, and then tell me the missing number.

[11 12 13 general omission symbol 15]

⠠⠠⠠⠠ ⠠⠠⠠⠠ ⠠⠠⠠⠠ ⠠⠠ ⠠⠠⠠⠠

That's right! The missing number is 14.

Activity 11

You will need your braillewriter and braille paper for this activity.

Practice 10.2

Find the general omission symbol in each line of braille and write the missing number it is standing for. Space one time between the numbers.

[Make sure the student is viewing the four lines of braille in the middle of page 18.]

⠠⠠⠠⠠ ⠠⠠⠠⠠ ⠠⠠ ⠠⠠⠠⠠

⠠⠠⠠⠠ ⠠⠠⠠⠠ ⠠⠠ ⠠⠠⠠⠠ ⠠⠠⠠⠠ ⠠⠠⠠⠠⠠

⠠⠠⠠⠠ ⠠⠠ ⠠⠠⠠⠠

⠠⠠⠠⠠⠠ ⠠⠠⠠⠠⠠ ⠠⠠

Practice 10.3

Let's try some more. Be careful when you get to the last line of braille. There is a special symbol after the general omission symbol on that line, and it is called a Nemeth Code terminator. It tells us that we are done reading math or science. Dots 4-5-6 are in the first cell, and dots 1-5-6 are in the second cell.

Move to the next line on your braillewriter by pressing your line spacing key twice. You can do it, Nemeth superstar!

[Make sure the student is viewing the last four lines of braille on page 18.]

⠠⠠ ⠠⠠⠠⠠ ⠠⠠⠠⠠ ⠠⠠⠠⠠

⠠⠠⠠⠠⠠ ⠠⠠⠠⠠⠠ ⠠⠠ ⠠⠠⠠⠠⠠

⠠⠠⠠⠠ ⠠⠠⠠⠠ ⠠⠠

⠠⠠⠠⠠ ⠠⠠⠠⠠ ⠠⠠⠠⠠ ⠠⠠ ⠠⠠⠠⠠

Did you notice this time the Nemeth Code terminator was on the same line with your math problem? Sometimes it will be on a line by itself and sometimes it will be on a line with other braille.

Fun Fact 15

Mountain biking started in the 1970s.

Practice 10.4

Let's learn how to write a general omission symbol in braille. Place your fingers on the correct keys on your braillewriter. Then use all three fingers on your left hand and all three fingers on your right hand to write the general omission symbol. Practice writing the general omission symbol several times.

Activity 12

You will need your braillewriter and braille paper for this activity. Listen and then braille what you hear. Space one time between the braille symbols.

Practice 10.5

11 12 general omission symbol 14 15

Now move your fingers across the braille and check your work as I say the numbers again.

11 12 general omission symbol 14 15

Press your line spacing key twice to move to the next line.

Practice 10.6

6 8 10 general omission symbol 14

Now move your fingers across the braille and check your work as I say the numbers again.

6 8 10 general omission symbol 14

That was quick work, cyclist!

Section 11: Review

Section 11 Materials

Activity 13

- Small bag of approximately 20-25 tactually distinctive buttons (Alternatives: other small objects that are tactually distinctive such as a paper clip, a coin, a pencil eraser, etc.)
- Sorting tray with 2-section divider (Alternative: two small storage boxes)
- The story "The Lost Button" from **"Frog and Toad Are Friends"** by Arnold Lobel
- One flashcards for each number from 5-15
- Two index cards on which you have brailled "One More" and "One Less"
- Braillewriter
- Braille paper

Section 11 Teacher Notes

Activity 13

- This activity is an adaptation of a lesson plan entitled "How Many Buttons?" on the Illuminations website sponsored by National Council of Teachers of Mathematics
<http://illuminations.nctm.org/Lesson.aspx?id=286>. Please note that only members of the National Council of Teachers of Mathematics can access this link.
- If needed, assist the student in placing the buttons in a row.
- Repeat this process of drawing a flashcard and making a set with that many buttons several times or until all of the number flashcards have been drawn. Then review (or teach) the meaning of the phrases "One More" and "One Less" if needed before moving to the next part of the activity.
- Repeat this process of drawing a flashcard and then write the number that is "One More" (or "One Less" depending on the flashcard that the child has) several times or until all of the number flashcards have been drawn.
- This activity can easily be completed with 2 or 3 students who read print or braille if preferred. If some of the players read print, add print to each of the flashcards and have them write their answers on paper with a pencil.

Section 11 Teacher Script

Activity 13

You will need a small bag of tactually distinctive buttons (approximately 20-25), two-compartment sorting tray, number flashcards from 5-15, two index cards on which you have brailled "One More" and "One Less", your braillewriter, and braille paper. Before we begin the activity, pick one button from the small bag of buttons and place it in your hand. Tell me about the button (or object).

Keep holding it as we read the story "The Lost Button" from **"Frog and Toad Are Friends"** by Arnold Lobel.

Do you think that the button (or object) in your hand could be the lost button? Why or why not?

Now shuffle the flashcards with the numbers 5-15. Draw one flashcard and read the number. As you read each number card, use a two-compartment sorting tray to separate which cards you have read and which cards you have not read.

Make a set with that many buttons. It will make it easier to count the buttons if you place them in a line.

Let's count the buttons together and see if you are right! Now place the buttons back in the bag and draw another flashcard.

Here is a new set of buttons for you to count. Write how many are in the set. Then write how many will be in a set with one more. Then write how many will be in a set with one less.

Let's preview two new cards. The first card reads "One More" and the other card reads "One Less". Keep one of the cards and hand me the other one. Which card did you keep?

Shuffle the number flashcards again and then draw a flashcard. As you read each number card, use a sorting tray to separate which cards you have read and which cards you have not read. Then write the number that is "One More" [or "One Less" depending on the flashcard that the child has].

Let's trade index cards with the words "One More" and "One Less". Shuffle the number flashcards again and then draw a flashcard. As you read each number card, use a sorting tray to separate which cards you have read and which cards you have not read. Then write the number that is "One More" [or "One Less" depending on the flashcard that the child now has].

Now you are ready for a pit stop: module 2 check-up! Thank you for all of your hard work! You are a Nemeth all-star!