

# **First Grade Module 6**

## **Writing and Comparing Numbers**

### **Teacher Guide**

#### **Prerequisite Skills**

- Ability to use rote counting number words in order to 120
- Ability to tactually identify the numbers 1-120
- Ability to represent a number 1-120 with concrete materials, including base ten blocks or Digi-Blocks
- Ability to write the numbers 1-120
- Ability to read and write the numbering of math problems from 1-20, including the punctuation indicator and period
- Ability to skip count by 10s to 120

#### **Symbols and Concepts**

- Ten more
- Ten less
- Numbers 1-120 in standard form
- Numbers 1-99 in expanded form
- Greater than sign
- Less than sign
- Comparing numbers

#### **Objectives**

The student will be able to:

- Using a braille chart to 120, determine what number is ten more and ten less
- Tactually read numbers 1-120 in standard form
- Tactually read numbers 1-99 in expanded form
- Tactually identify the greater than sign
- Tactually identify the less than sign
- Tactually read inequalities in a horizontal format
- Use the braillewriter to write numbers 1-120 in standard form
- Use the braillewriter to write numbers 1-99 in expanded form
- Use the braillewriter to write the greater than sign
- Use the braillewriter to write the less than sign
- Use the braillewriter to write inequalities in a horizontal format

- Compare two one-digit numbers and record the results of comparisons with the symbols for greater than and less than
- Compare two two-digit numbers and record the results of comparisons with the symbols for greater than and less than

## **Other ECC Skills Addressed**

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

- Listening skills
- Concept development
- Following directions
- Organization
- Tactual discrimination
- Left-to-right tracking
- Scan and interpret tactile graphics used in math
- Hand positioning
- Light touch (as opposed to scrubbing)
- Recreation and leisure

## **Required Materials**

- Braillewriter
- Braille paper
- Index cards
- Braille documents available within the curriculum
  - Student braille document
  - Counting to 120 Chart (choose 1 of 2 versions)
  - Less Than, Greater Than, and Equals game cards
- Base ten blocks (or Digi-Blocks)
- Baskets, bowls, or different containers

## **Optional Materials**

- Nonslip surface such as rubber shelf liner
- Writing answers braille document
- Work and/or sorting trays

## 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. In this module, there are two 40-cell width files: Counting-to-120-Chart-40 and Counting-to-120-Chart-Alt-40.
- This module should be completed across multiple sessions.
- If the child is using a refreshable braille display, ensure that the child knows how to move to the next line of braille. Offer assistance as needed.
- Encourage the student to verbalize the process they use when solving problems and use hands-on strategies as needed.
- If a student reads the symbols or equation incorrectly, tell the student the correct way to read the symbol or equation.
- Using small storage boxes with labels can make it easier for a child to independently locate stored items such as number cards, etc.
- Base ten blocks and Digi-Blocks are often used in elementary general education classrooms. If you do not have base ten blocks or Digi-Blocks, request to borrow them from a classroom teacher.
- 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.
- Offer tips to the students about how to remember which hand to use first when writing the greater than sign and the less than sign. For example, you will use the right hand first and then the left hand when writing the greater than sign.
- We maintain a list of [commercially available materials](#) that can be used to supplement instruction.

## Activities

### Activity 1

- Your student will listen carefully and then use their Counting to 120 Chart to answer a math problem about ten more or ten less. This activity was designed to be completed orally, but the student can use the braillewriter and braille paper to answer the problems if preferred.
- Repeat saying each problem as needed. Also, assist the student in locating the numbers on the chart as needed.

### Activity 2

All information is provided in the teacher script.

### Activity 3

- In this activity, the student will listen carefully and then write the symbols that they hear, including the newly learned greater than symbol. This activity can be completed using the braillewriter and braille paper.
- Remind the student to check their work. An answer key has been provided for this activity in the braille document entitled "G1-M6-Writing-Answers.brf".
- If your student is using a refreshable braille display for this activity, explain about the additional keys on the far right and far left.

### Activity 4

Activity 4 is similar to Activity 3. Students will practice writing symbols, including the newly learned less than symbol.

### Activity 5

- The student will read several inequalities that include a long dash standing for a missing sign of comparison. They will use either a Counting to 120 Chart or base ten blocks to determine the relationship between the numbers in order to write the missing sign of comparison. Encourage the student to verbalize the process they are using.
- The student will record their answers using their braillewriter and braille paper. Remind the student to number the problems. This will be especially important as they will not be writing the problem, just the answer.

## Activity 6

Students will practice writing inequalities in a horizontal format.

## Activity 7

- The activity is a new game developed by Carolyn Mason. You will need 2-4 players for this game. It can easily be played by students (or you if no other students are present) who read print or braille. If some of the players read print, add print to each of the game cards. Materials for the game include: game cards and a way to keep track of points for each player. Suggestions for how to keep track of points include: APH Score Card Set, an abacus, craft sticks in a container, or a braillewriter.
- The first player to get 20 points wins the game. Begin by shuffling the game cards and placing them in one side of a two-compartment sorting tray. Then the players will take turns drawing a card. If the player draws a "less than" card and reads it correctly, they get one point. If the player draws a "greater than" card and reads it correctly, they get two points. If the player draws an "equals" card, they get zero points. If the player draws a "sayings" card, they should follow the directions. If a player has less points than specified by the card, they should go back to 0. Once each card has been used, it should be placed in the other side of the sorting tray. As needed, remind each student to keep track of their score.
- The game cards are available in uncontracted and contracted braille in the curriculum. If preferred, you can create your own game cards.
- Here is a list of what is included in the game cards.
  - 10 "less than" cards

9 < 12  
46 < 51  
33 < 35  
71 < 75  
17 < 23  
76 < 87  
29 < 31  
18 < 19  
81 < 99  
55 < 56

- 10 “greater than” cards

95 > 80

12 > 7

67 > 38

39 > 13

57 > 52

85 > 24

75 > 41

72 > 71

98 > 94

44 > 43

- 4 “equals” cards

7 = 7

82 = 82

5 = 5

25 = 25

- 1 each of the following “sayings” cards

Oops you fell. Go back to zero.

Give two points back.

Give three points back.

- 2 each of the following “sayings” cards

Get 5 points.

Get 6 points.

## **Fun Facts**

*Blimps, dirigibles, and Zeppelins.* (n.d.). Easy science for kids. Retrieved

June 30, 2021, from

<https://easyscienceforkids.com/all-about-blimps-dirigibles-and-zeppelins/>

Freudenrich, C. (2001, February 26). *Blimp history*. How stuff works.

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<https://science.howstuffworks.com/transport/flight/modern/blimp4.htm>

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Retrieved June 4, 2020, from [https://www.huffpost.com/entry/what-its-like-to-ride-in-a-blimp\\_b\\_7530654](https://www.huffpost.com/entry/what-its-like-to-ride-in-a-blimp_b_7530654)