

Second Grade Nemeth Braille Code Curriculum  
Module 4: Money and Word Problems  
Teacher Reference Materials

*Prerequisite skills:*

- Ability to skip count by 10s to 120
- Ability to tactually identify the numbers 0-120
- Ability to write the numbers 1-120

*Math symbols and concepts, including braille knowledge, addressed:*

- Tactual identification of coins
- Opening Nemeth Code indicator
- Nemeth Code terminator
- Cent sign
- Dollar sign
- Decimal point
- Monetary expressions that include a cent sign
- Monetary expressions that include a dollar sign
- Monetary expressions that include a dollar sign and decimal point
- Word problems

*Objectives:*

The student will be able to:

- 1) Tactually identify a penny, nickel, dime, and quarter
- 2) Sort pennies, nickels, dimes, and quarters
- 3) Tactually identify the Nemeth Code switch indicators
- 4) Tactually identify the cent sign
- 5) Tactually identify the dollar sign
- 6) Tactually identify the decimal point
- 7) Tactually read monetary expressions with a cent sign
- 8) Tactually read monetary expressions with a dollar sign
- 9) Tactually read monetary expressions with a dollar sign and decimal point
- 10) Tactually read grade-level word problems, including multiple choice problems, with Nemeth Code switch indicators
- 11) Identify the monetary value of a set of coins
- 12) Identify the monetary value of a set of dollar bills and coins
- 13) Use the Accessible Equation Editor and/or braillewriter to write a cent sign

- 14) Use the Accessible Equation Editor and/or braillewriter to write a dollar sign
- 15) Use the Accessible Equation Editor and/or braillewriter to write the decimal point
- 16) Use the Accessible Equation Editor and/or braillewriter to write monetary expressions that include a cent sign
- 17) Use the Accessible Equation Editor and/or braillewriter to write monetary expressions that include a decimal point and dollar sign
- 18) Solve grade-level word problems about addition and subtraction
- 19) Solve grade-level word problems that include money

*Other ECC skills addressed:*

Listening skills; concept development; following directions; organization; tactual discrimination; left-to-right tracking; top-to-bottom tracking; spatial alignment; hand positioning; light touch (as opposed to scrubbing); independent living skills, money management

*Teaching tips:*

- Before opening any BRF files in Duxbury, go into the Global menu. Select "Formatted Braille Importer" and then check 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.
- This module should be completed across multiple sessions.
- It may help to place the hard copy braille and coins on a nonslip surface such as rubber shelf liner so they will not move as the student is reading.
- Use real money throughout the module, instead of play money. Plastic play coins do not feel, weigh, or smell like actual coins. Using real money will allow students to learn how to tactually identify coins. This is an important foundational skill.
- It may be helpful to point out that braille page numbers are placed at the right margin on the last line. If needed, also point out that braille page numbers are transcribed in Unified English Braille, not Nemeth Code.
- Sorting trays often define the work space as well as assist students in determining which flash cards have already been read. If you do not have sorting trays, you can use cafeteria type trays, cookie sheets, small cake pans, and/or small storage boxes.
- It is very important to use the correct finger on each key when learning new Nemeth symbols. This will help the student continue to be accurate in their writing!

- If needed, remind the student to move his/her fingers across the braille and check his/her work during writing activities.
- Encourage the student to verbalize the process they use when solving problems.

*Materials/technology needed:*

- Accessible Equation Editor and/or braillewriter
- Braille paper
- Sorting trays
- Assortment of pennies, nickels, dimes, quarters, and dollar bills

*Optional materials for follow-up activities or adaptation of activities:*

- Wikki Stix®
- Small storage boxes
- Rubber shelf liner
- Small stickers
- Counting to 120 chart (included in the curriculum)

*Explanation of activities embedded into module:*

- 1) At the beginning of the module, the student will learn to tactually identify and sort the following coins: pennies, nickels, dimes, and quarters. It is important to use real coins so that students learn about how the different coins feel and weigh.

If the student has residual vision, share information about the color of the coins. If the student has an electronic magnifier, he/she can use it to visually look at the coins, including the pictures and words on each coin.

It is suggested that 5 pennies, 5 nickels, 5 dimes, and 5 quarters be used for the sorting activity. If needed, sort the first few coins together with the student. Talking about the salient features of each coin may be helpful, especially if students are struggling to identify a coin. After sorting the coins, count the piles of coins.

The sorting activity can also be extended by completing the activity again while using a timer to encourage the student to quickly identify each coin. The activity may also be extended by helping the student to store his/her money in a wallet/coin purse or make small purchases at a school store or lunchroom. It may also be helpful to bring a money jar, piggy bank, coin purse, or wallet for the student to explore and then discuss the advantages and disadvantages of each.

- 2) In some of the activities, the student will listen carefully and then write the braille symbols and numbers that he/she hears.

Begin each time by asking the student to listen carefully as you read the braille symbols and monetary expressions. Afterwards he/she will write what he/she hears in braille. Remind the student to check his/her work. An answer key has been provided for these activities in the document entitled "B3 Module 4\_Answer Key for Writing Activities\_2".

- 3) In another activity embedded in the Module, the student will learn how to determine the monetary value of a set of coins. Encourage the student to begin by identifying the coins and then talking aloud as he/she determines how much money he/she has.

Then have the student use his/her braillewriter or the Accessible Equation Editor to write the monetary value. At the beginning of the activity, students may also find it helpful to use a Counting to 120 chart.

Later in the module, the student will complete a similar activity with a set of coins and dollar bills.

- 4) The follow-up activity is a game called Connect Four. You will need 2 or more 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 flash cards and game cards. Materials for the game include: Connect Four cards, notecards with the monetary expressions, a two-compartment sorting tray, and markers.

Small stickers or pieces of Wikki sticks can be used for markers. If you use Wikki stick pieces, roll them into a ball with your hand so that they will stick to the braille paper more easily. Another option is using pushpins on a cork board or magnets on a cookie sheet. If you do not have a two-compartment sorting tray, use two small storage boxes.

Begin by having each student select a different Connect Four card. There are five cards available within the curriculum to select from.

Next, have the student use his/her hands to explore the game card. Explain that there are four columns below the title. In addition, each column is made up of five squares. There will be a monetary expression in each square. If needed, explain how a person wins Connect Four by having four in a row down, across, or diagonally.

Then shuffle the flash cards. Have the students take turns drawing one flash card and reading the monetary expression on the card. As each student reads the flash card, use a two-compartment sorting tray to separate which cards have been read and which cards have not been read.

Then as each monetary expression is read, have the student quickly scan his/her game card and place a marker on the monetary expression that was called. Explain that you will play until a winner calls out Connect Four.

#### *Materials Commercially Available:*

Materials that could be used from the American Printing House for the Blind ([www.aph.org](http://www.aph.org)) include

- Small Work-Play Tray with Dividers (1-03751-00, 1-03770-00) *also available within the FOCUS in Mathematics Kit*

Materials that could be used from Wikki Stix® (<https://www.wikkistix.com/>) include

- Wikki Stix

Materials that could be used from Assistive, Inclusive & Learning Technologies

(<https://www.turningpointtechnology.com/Manipulatives/PC/1018.asp>).

- Coin Abacus (PC-1018; if you use this device to reinforce newly learned skills with real money, consider adapting by gluing real coins on top of the plastic coins and asking students to pretend the plastic miniature dollar bills are dollar bills.)

#### *Fun Facts from:*

United States Mint: Kids Site

<https://www.usmint.gov/learn/kids>

Bureau of Printing and Engraving: Frequently Asked Questions

<https://www.moneyfactory.gov/resources/faqs.html>

Kiddle Encyclopedia: Coin Facts for Kids

<https://kids.kiddle.co/Coin>