Pre-Kindergarten – 1st Grade Students: Nemeth Code within UEB Contexts and Strategies for Supporting the Student in Building Math Skills

Lesson 6: Supporting the Student in Learning Nemeth Code and Math Concepts

University of South Carolina Upstate, Spring 2020
Lesson 6 Objectives

Participants will be able to:

1. Describe the importance of pre-teaching Nemeth symbols
2. Locate and use resources for teaching math concepts
3. Identify and use hands-on materials and manipulatives to support student learning
Pre-Teach Nemeth Code Symbols and Formatting

• New Nemeth symbols for example:
  - General omission symbol
  - Tally marks
  - Signs of comparison

• New formats for example:
  - Spatially aligned problems
  - Centered headings
  - Format of multiple choice problems
Teaching New Symbols

• Use a 3-cell line of dots 2-5 and a space before and after the symbol.

• This method identifies the position of the symbol in the braille cell.
Consistency with Switch Indicators

• Be consistent in formatting materials, regardless of grade level

• For PK-1 students:
  • Opening Nemeth Code indicator = “start” or “begin math”
  • Nemeth Code terminator = “stop” or “end math”
Correct Finger Placement

• Teach correct finger positioning.
• Have students use the thumb for spacing.
• Develop individual memory cues.
Brailling the Equals Sign (=) 🧧

• Begin brailling using two fingers of the right hand.
• Then follow with two fingers of the left hand.
• Memory cues:
  • Two fingers are “equal to” two fingers.
  • Two dots are “equal to” two dots.
Brailling the Greater Than Sign (>)

• Begin with two fingers of your right hand.

• Follow with one finger of your left hand.

• Memory cues:
  • Two fingers are “greater than” one finger.
  • Two dots are “greater than” one dot.
Brailling the Less Than Sign (<):

• Begin with one finger of the right hand.
• Follow with two fingers of the left hand.
• Memory cues:
  • One finger is “less than” two fingers.
  • One dot is “less than” two dots.
Pre-Teach Abstract Concepts and Use of Manipulatives – APH Products

DRAFTSMAN: Tactile Drawing Board

Tactile Doodle

Five and Ten Frames

Individual Calendar Kit
Teach Organization

• Sorting trays
• Storage boxes
• Baskets
• Labels
• Nonslip surface such as rubber shelf liner
Building Understanding of Number Relationships

APH Hundreds chart  Base 10 blocks  Counting to 120 chart
HANDS ON Kit: Functional Activities for Visually Impaired Preschoolers (APH)

• Montessori based activities
• Guidebook for teachers

“Helps children develop skills such as concentration, hand and visual coordination, ability to complete a cycle of activity, and socialization skills. Also helps develop a sense of order and a positive self-image.”
FOCUS in Mathematics Kit, Second Edition (APH)

Topics:
- Numbers and Operations
- Geometry
- Algebra
- Measurement
- Data Analysis

Includes:
- Small Work-Play Tray with Dividers
- Base Ten Blocks: Units
- Base Ten Blocks: Rods
- Base Ten Blocks: Flats
- Teacher materials
Numbers and Algebraic Reasoning Products from APH

• Feel 'n Peel Stickers: Nemeth Braille-Print Numbers 0-100
• Hundreds Boards and Manipulatives Kit
• Consumable Hundreds Chart
• MathBuilders Unit 1: Matching, Sorting, and Patterning
Geometry and Graphing Products from APH

- MathBuilders, Unit 6: Geometry Kit
- Feel 'n Peel Point Symbols or Stars
- Feel 'n Peel Sheets: Carousel of Textures
- Shape Board
- Textured Sorting Circles and Shapes
- Embossed Graph Sheets: 1 inch Squares, 10 x 10 Grid
- Picture Maker Wheatley Tactile Diagramming Kit
Addition and Subtraction Products from APH

- Math Drill Cards in Braille and Large Print: Addition Cards
- Math Drill Cards in Braille and Large Print: Subtraction Cards
- Quick Pick Math: Addition
- Quick Pick Math: Subtraction
- Addition and Subtraction Table
More APH Products

• Game Kit: Materials Bag with 4 Dice, 6 Game Tokens
• Graphic Art Tape
• Puzzle Form Board Kit
• Fractional Parts of Wholes: Circles
• Tactile Tangrams Kit
Even More APH Products

• MathBuilders, Unit 7: Fractions, Mixed Numbers, and Decimals Kit
Hands-on Materials and Manipulatives for Math and Science

• Wikki Stix®
  https://www.wikkistix.com/

• Digi-Block Store
  https://www.digiblock.com
  o Classic Block-of-100
  o Power Block-of-100
Hands-on Materials and Manipulatives for Math and Science (continued)

- Math Window  
  [https://mathwindow.com/](https://mathwindow.com/)
  - Math Window Braille Basic Math Kit in Nemeth

  - Teddy Bear Counters
  - Unifix cubes

- E.A.S.Y. LLC.  
  [www.easytactilegraphics.com/intact-products/](http://www.easytactilegraphics.com/intact-products/)
  - inTACT Sketchpad
Pearson Nemeth Braille Code Curriculum
http://accessibility.pearson.com/nemeth/

• Teaches students to read and write Nemeth Code within UEB Contexts

• Pre-K, kindergarten, first grade, and second grade materials

• Aligned with the Common Core State Standards (CCSS Initiative, 2010)

• Hands-on games and activities

• Includes teacher scripts, braille ready files for student worksheets, answer keys, data recording sheets, review activities, and assessments
More Hands-on Materials and Manipulatives for Math and Science

The Nemeth Braille Code Curriculum
http://accessibility.pearson.com/nemeth/

- Place Value Charts
- Templates for BINGO cards
- Template for Five Frame
- Template for Ten Frame
- Mazes
- Connect Four Game Cards and Problem Sets
- Flash Cards
- Find the Path Activity
- Roll and Race Game Cards
- Shapes Activity
- What Am I Activity
- Counting to 120 Chart
Pre-Kindergarten – Building a Train

Materials
- Foam stickers
- Craft sticks
- Flash cards labeled 1-7

Steps
- Student shuffles flash cards
- Student draws a card and reads the numeral on the card
- Student uses stickers to “build” the train

If you add print numbers to the flash cards, your student can do the activity with a friend.
Kindergarten – Tens and Ones
Kindergarten – Maze
Kindergarten - Rebuild a Hundreds Chart
First Grade – Find the Path Activity and Help the Pilot Get to the Airplane!
First Grade – Determine the Shape and Then Write the Missing Numbers