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

Lesson 3: Multiple Choice Problems and Spatial Problems

University of South Carolina Upstate, Spring 2020
Lesson 3

Participants will be able to:
1. Read and write tally marks
2. Read and write problems with multiple choice answers
3. Read and write spatial problems
Tally Marks

• Tally marks ‖ are written with dots 4-5-6.
• Put a space after each group of 5 tally marks in Nemeth Code.

‖‖‖‖‖ 7
‖‖‖ 3
‖‖‖‖‖‖‖‖ 14
Multiple Choice Answers Using the English Letter Indicator

• The English letter indicator is :: (dots 5-6) and, like the Grade 1 indicator in UEB, it lets the braille reader know that what follows is a letter and not a contraction.

• In Nemeth Code when using letters for problem choices, place an English letter indicator in front of each letter (including a, i, and o).

• Follow the print for capitalization and punctuation of letters for multiple choice answers.

• Format multiple choice questions by beginning the question in cell 1 with runover in cell 5.

• Answer choices begin in cell 3 with runover in cell 5.
Capitalized Answer Choices

1. $52 - ___ = 34$

A. 16
B. 18
C. 20
D. 28
2. Which problem has the largest sum?

a. $24 - 2$

b. $18 + 3$

c. $26 - 5$

d. $19 + 6$
Activity 3A

Interline the multiple choice problem below:

Multiple Choice

1. A
2. B
3. C
4. D

Select the correct answer:

A. 7
B. 12
C. 19
D. 24
Activity 3A: Answer Key

1. $7 + ____ = 12$

a. 6
b. 7
c. 5
d. 9
Activity 3B

Braille the multiple choice problem below.

4. My cousins made cupcakes. Maria made 6 cupcakes, and Jorge made 3. Which equation shows how many cupcakes they made altogether?
   a. 6+3 = 8
   b. 3+8 = 11
   c. 6+3 = 10
   d. 6+3 = 9
Activity 3B: Answer Key

- Mia made 9 cupcakes. She made 97 cupcakes. Jorge made 3 cupcakes.
- Mia and Jorge made equal numbers of cupcakes.
- Mia made 97 cupcakes.
Spatial Problems

• Numbers must align in vertical (spatial) problems.
• The addition or subtraction sign goes one cell to the left of the widest number above the separation line.
• The separation line •••••• (series of dots 2-5) is one cell longer on either side of the widest part of the problem.
• You must have a blank line above and below a spatial problem.
Spatial Problems Across a Line

• You must have at least 1 cell between the separation lines of multiple problems on the same line.

• Some students may find it easier if there are 2 blank cells between the separation lines.
Activity 3C

Interline the spatially aligned problems.
Activity 3C: Answer Key

1  
   +1

2  
   +2

3  
   +3

4  
   +4
Activity 3C: Answer Key (continued)

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\begin{array}{ccc}
6 & 20 & 14 \\
-3 & -10 & -7 \\
\end{array}
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