

**Project INSPIRE Course Objectives Course 5: Grades 2-5:
Nemeth Code Symbols Used in the Middle Grades and Strategies for
Supporting Math Learning**

Lesson 1: Nemeth Code Symbols Used in the Middle Grades, Part 1

- 1.1 Read and write problems containing variables.
- 1.2 Read and write problems containing grouping symbols, including parentheses, brackets, and braces.
- 1.3 Read and write problems containing negative numbers.
- 1.4 Read and write ordered pairs.
- 1.5 Read and write math word problems that require use of the opening Nemeth Code indicator and Nemeth Code terminator.

Lesson 2: Nemeth Code Symbols Used in the Middle Grades, Part 2

- 2.1 Read and write problems containing
 1. absolute values
 2. inequality signs (less than or equal to, greater than or equal to, and not equal to)
 3. the Greek letter pi (lowercase)
 4. the approximately equal to sign
 5. superscripts
 6. subscripts without indicators
 7. square roots
- 2.2 Read and write math word problems that require use of the opening Nemeth Code indicator, the Nemeth Code terminator, and the single-word switch indicator.

Lesson 3: Formatting Materials and Number Lines for Students in Grades 5-8

- 3.1 Locate and use formatting resources
- 3.2 Transcribe and/or prepare the following:
 1. Word problems
 2. Number lines that include inequalities
 3. Ordered pairs on a coordinate plane
- 3.3 Format the following:
 1. Headings

2. Directions
3. Numbered problems
4. x/y data tables

Lesson 4: Materials and Strategies for the Middle Grades

- 4.1 Understand what math concepts can be approached using a braillewriter, braille notetaker, or abacus.
- 4.2 Understand how APH products can be used by a student to increase concept development.
- 4.3 Recognize the importance of having knowledge about the use of braille notetakers for math class and when students might find it efficient to use them.

Lesson 5: Creating Materials for Students to Use in Middle School Math Classes and Preparing Them for High School

- 5.1 Recognize different types of graphs used at the middle school level and the concepts and terminology students must know.
- 5.2 Describe the ways in which students can construct different types of graphics used in middle school.
- 5.3 Explain how a graphing calculator is used by a student.
- 5.4 Recognize the role of adults and students at the middle school level.
- 5.5 Describe ways to organize materials and workspaces.

Lesson 6: Connecting Middle School Literature to Math Concepts and Symbols

- 6.1 Select trade books to support students' learning of math.
- 6.2 Implement approaches and strategies to make books meaningful to our students.
- 6.3 Generate ideas for using trade books with individual students.

Lesson 7: Teaching Math Skills to Students with Visual Impairments and Additional Disabilities

- 7.1 Understand considerations for selecting and adapting materials to support learning and engagement of students with visual impairments and additional disabilities.

- 7.2 Design instruction that supports student learning in areas of the expanded core curriculum.
- 7.3 Describe strategies TVIs can utilize when collaborating with other members of the students' educational team to promote generalization of skills.
- 7.4 Explain ways in which families can support their child's learning of math concepts at home and in the community.