

## Project INSPIRE Course Objectives

### Course 3: Grades 2-5: Nemeth Code Symbols for Fractions and Spatial Problems, Instructional Tools, Materials, and Technology

#### Lesson 1: Fractions and Mixed Numbers

- 1.1 Participants will be able to read and write simple fractions using the Nemeth Code opening and closing simple fraction indicators.
- 1.2 Participants will be able to read and write mixed numbers using the Nemeth Code opening and closing mixed fraction indicators.
- 1.3 Participants will be able to read and write linear math problems and word problems using fractions and mixed numbers.

#### Lesson 2: Spatial Arrangements

- 2.1 Participants will be able to read and write addition, subtraction, and multiplication spatially aligned problems that include:
  - Multi-digit numbers with and without commas
  - Decimals
  - Money
  - Simple fractions
  - Mixed numbers

#### Lesson 3: Long Division

- 3.1 Participants will be able to read and write division problems that do not have a quotient
- 3.2 Participants will be able to read and write division problems with and without remainders
- 3.3 Participants will be able to set up a math page that contains numbered division problems
- 3.4 Participants will be able to read and write division problems with decimals using multiple methods for formatting the problem.

#### Lesson 4: Formatting Spatial Material and Number Lines for Students in Grades 2-5

- 4.1 Participants will be able to locate and use formatting resources
- 4.2 Participants will be able to format the following:
  - Directions
  - Transcriber's notes
  - Example problems
  - Numbered spatial problems

- Number lines

### Lesson 5: Instructional Tools and Materials

- 5.1 Participants will be able to identify materials that can be used when teaching math computation and fraction concepts to students in grades 2-5
- 5.2 Participants will be able to recognize ways they can support math instruction for students in grades 2-5 who are learning math computation and fraction concepts

### Lesson 6: Developing Students' Abacus Skills

- 6.1 Participants will be able to identify the different types of abaci available
- 6.2 Participants will be able to recognize pre-requisite skills students need prior to abacus instruction
- 6.3 Participants will be able to name the parts of the Cranmer abacus
- 6.4 Participants will be able to describe the different methods for using the abacus including the counting method, logic or partner method, and paper compatible method

### Lesson 7: Tech Skills for Math

- 7.1 Participants will be able to learn three critical screen reader tech skills which are often overlooked
- 7.2 Participants will be able to use these three tech skills to strongly support digital math concepts and skills