

Online Curriculum and Database for Teaching Students the Nemeth Braille Code CSUN 2018

Sara Larkin

Iowa Educational Services for the Blind and Visually
Impaired

Susan Osterhaus

Texas School for the Blind and Visually Impaired

Tina Herzberg

University of South Carolina Upstate

Background

- Needed a comprehensive Nemeth curriculum for students
- Wanted to make it fun for students, parents, and teachers
- Wanted it to be easy to use and accessible for all, regardless of background and previous experience with Nemeth code
- Wanted to introduce math concepts that go along with the Nemeth symbols being taught
- Sought input from students, teachers, and parents and continue to do so

Overview

- Grade level specific
- Aligned with the Common Core State Standards
- Early grade levels follow a scripted curriculum
 - Incorporates fun facts about transportation
 - Other ECC skills addressed
- Higher grade levels use a searchable database
 - Numerous examples
 - Based on input from students

Early Grade Level Organization

- Introduction
- Six Modules
- Cumulative Review and Posttest

Samples

Let's Look at Parts of a Module

Examples of Making Connections to Math Concepts

- Count and skip count
- Read and write numbers
- Before, after, one more, and one less
- Numerical order
- Tally marks
- Concept of "0"
- Patterns that incorporate the general omission symbol

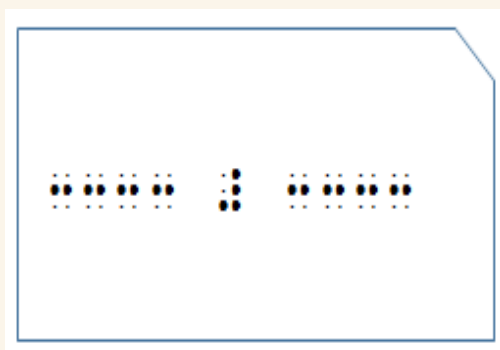
More Examples of Making Connections to Math Concepts

- Represent numbers with concrete materials, including base ten blocks or Digi-Blocks
- Mathematical comma for lists
- How to number math problems
- Place Value Chart and Hundreds Chart
- Read, write, and solve grade level equations
- Five-frame and Ten-frame

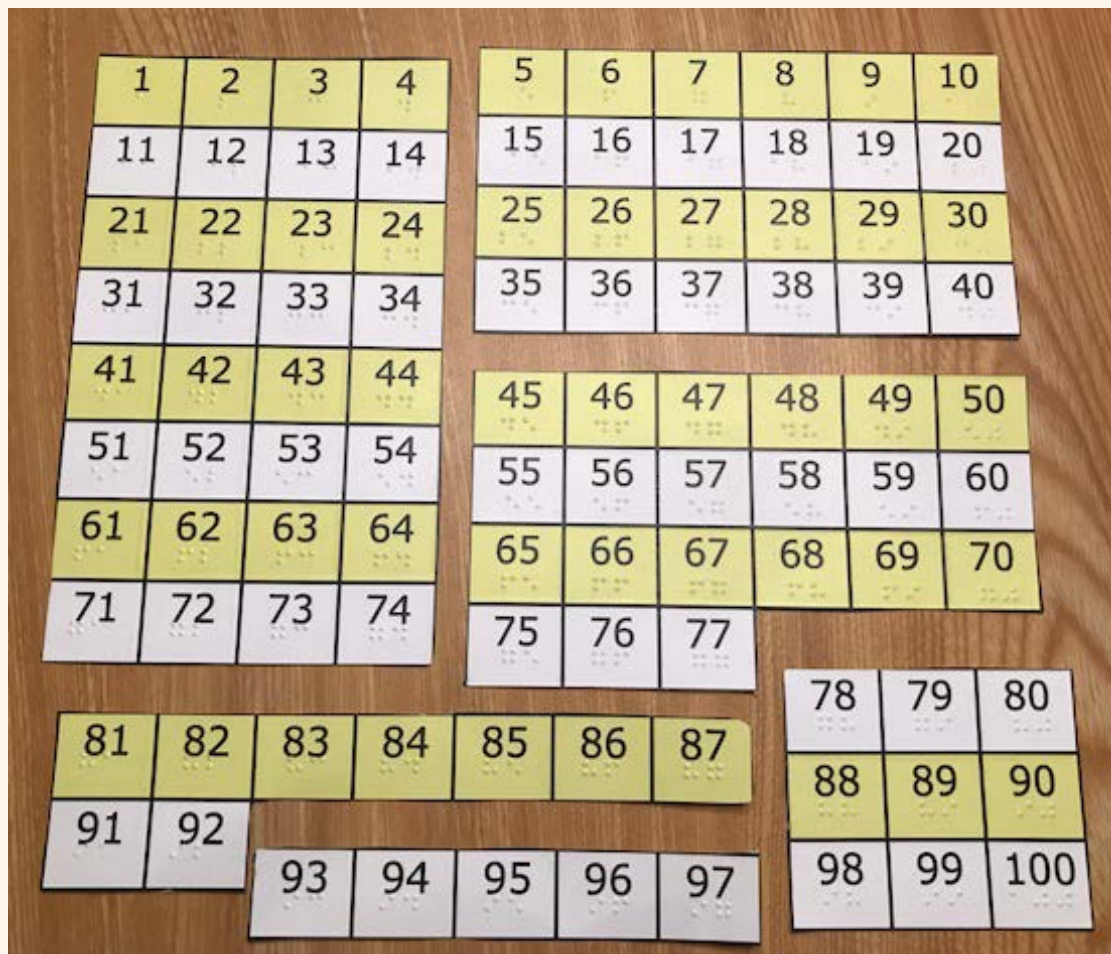
Sample Activities



Let's Look at Sample Activities



Rebuild a Hundreds Chart



Searchable Database

- Glossary of terms used in math which are linked to a description of how to write each in Nemeth code related to that content.
- Several terms land you on the same description so if your terminology is slightly different, you still get the same description.
- Lots of examples from easy first to more complex later in the file.

Searchable Database Samples

Includes the following:

- Samples in Nemeth code with SimBraille for teachers
- Samples in Nemeth within EBAE as a brf file for students
- Samples in Nemeth within UEB contexts as a brf file for students

Searchable Database Contents

- Absolute Value
- Alpha (lowercase)
- Angle brackets
- |
- Exponent
- Exponent of an exponent
- Fahrenheit
- |
- Vertical Bar
- Vector Notation
- Whole numbers

Searchable Database in Action

Let's Look at
a Sample

Try it out!

- What term or symbol would you like to look up?
Think algebra and geometry.
- Other ideas?

What's Next ...

- Additional grade levels
- More math content areas, such as statistics
- More examples

Let's hear from you!

Thank you for
your attention.
Now it's time for
questions.