Cluster 8: Problem Solving with Money

Duration: 1-2 weeks

Content Standards:
This list includes standards addressed in this cluster, but not necessarily mastered, since all standards are benchmarks for the end of the year. Note strikethroughs and recommendations in the Important Considerations section for more information.

NC.2.MD.8
Solve word problems involving:
- Quarters, dimes, nickels, and pennies within 99¢, using ¢ symbols appropriately.
- Whole dollar amounts, using the $ symbol appropriately

NC.2.OA.1
Represent and solve addition and subtraction word problems, within 100, with
unknowns in all positions, by using representations and equations with a symbol for the unknown
number to represent the problem, when solving:
- One-Step problems:
  - Add to/Take from - Start Unknown
  - Compare - Bigger Unknown
  - Compare - Smaller Unknown
- Two-Step problems involving single digits:
  - Add to/Take from - Change Unknown
  - Add to/Take From - Result Unknown

Mathematical Practices:
1. Make Sense of Problems and Persevere in Solving Them
2. Reason Abstractly and Quantitatively
3. Construct Viable Arguments and Critique the Reasoning of Others
4. Model with Mathematics
5. Use Appropriate Tools Strategically
6. Attend to Precision
7. Look for and make use of structure
8. Look for and express regularity in repeated reasoning

What is the Mathematics?
In first grade, students identify quarters, dimes, and nickels and relate their values to pennies. Cluster 8 builds upon this knowledge as students solve real-world problems involving money.
- While students were initially introduced to coin values in first grade, a few days of this cluster will need to be spent on the reviewing coin names and values, and introducing conversions between and among coins. (ex: 5 dimes = 50¢ = 2 quarters)
- All problem types, including two-step problems should be incorporated into this work.

Important Considerations
- Since coin sizes are not proportional to their value, they should not be used as a model for place value. This cluster was separated from place value to minimize possible confusion for students.
- Draw on students' prior knowledge of skip counting of 5s and 10s.
- Students are expected to properly use money symbols (¢ and $)