Bridging for Math Strength Resources

Standards of Learning Curriculum Framework(SOL)

Standard of Learning (SOL) K.7 Recognize the attributes of a penny, nickel, dime, and quarter and identify the number of pennies equivalent to a nickel, a dime, and a quarter



Student Strengths	Bridging Concepts	Standard of Learning
Student can count up to 25 objects with one-to-one correspondence. Student can group objects into 5s and 10s. Student can describe attributes like shape, size, color, and thickness.	Student can identify the different coins based off of attributes (size, shape, thickness, color, and imagery). Coins are worth different values.	Students can recognize the attributes of a penny, nickel, dime, and quarter and identify the number of pennies equivalent to a nickel, a dime, and a quarter.

Understanding the Learning Trajectory

Big Ideas:

- The value of a coin changes what it is worth. One dime has the value of ten cents. It is the equivalent of ten pennies.
- The value of a coin can make it worth more than another coin. One dime is worth more than one nickel.
- Coins have different attributes. That's how you can tell them apart.

Formative Assessment:

- VDOE Just in time Quick Check SOL K.7 PDF / Google Slides

Important Assessment Look Fors:

- Pennies are easily differentiated from the rest of the coins.
- Both nickels and quarters look like "big" coins. Notice how student differentiates them based on other characteristics.
- Student identifies the coin and creates a correct collection of pennies to match the value of the coin.

Purposeful Questions:

- What clues tell you that that coin is a (penny/nickel/dime/quarter)?
- How can you tell the difference between (nickel & quarter / penny & dime)?

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Bridging Activity to Support Standard	Instructional Tips
Routine **Count Around**	A twist on a classic: Students each hold a penny. Teacher holds up (or projects) a visual of a nickel, dime, or quarter. Students count around by ones until they reach the value of that coin. Then, teacher holds up a different coin. Students start back at 1 counting up to the value of that coin. Eg: Teacher is showing a dime 1-2-3-4-5-6-7-8-9-10 Teacher flashes to a nickel 1-2-3-4-5 Teacher flashes to a quarter. etc.
Rich Tasks **What's In My Pocket?**	Can be done with virtual manipulatives or easily done in a classroom with handheld manipulatives. This can take students who are ready to the next level by combining values (eg: 8 cents can be 8 pennies or a nickel and 3 pennies).
Games/Tech Desmos K.7 Coins and Their Values Desmos K.7 Counting Coins	 Students will match the names of coins to their image and match coins to their equivalent values in pennies. Students count by ones to determine value of 100 or fewer pennies, group 100 or fewer pennies by 5s or 10s (skip count for value), count by 5s for a value of 20 or fewer nickels, and count by 10s for a valuoe of 10 or fewer dimes.

Supporting Resources:

- VDOE Mathematics Instructional Plans (MIPS)
  - K.7 - Coins and Socks (Word) / PDF Version
  - K.7 - Coin Values (Word) / PDF Version
- VDOE Word Wall Cards: Kindergarten (Word) | (PDF)

Learning Trajectory Resources:

Charles, R. (2005). Big ideas and understandings as the foundation for elementary and middle school mathematics. *Journal of Mathematics Education Leadership*, *7*(3), NCSM.

Clements, D. H., & Sarama, J. (2019). Learning and teaching with learning trajectories [LT]2. Marsico Institute, Morgridge College of Education, University of Denver. https://www.learningtrajectories.org/

Common Core Standards Writing Team. (2019). Progressions for the Common Core State Standards for Mathematics. Tucson, AZ: Institute for Mathematics and Education, University of Arizona.

Richardson, K. (2012). How Children Learn Number Concepts: A Guide to Critical Learning Phases. Bellingham: Math Perspectives Teacher Development Center.

Van De Walle, J., Karp, K. S., & Bay-Williams, J. M. (2018). *Elementary and Middle School Mathematics: Teaching Developmentally.* (10th edition) New York: Pearson (2019:9780134802084)

VDOE Curriculum Framework for All Grades - Standard of Learning Curriculum Framework (SOL)