



Bridging for Math Strength Resources

[Standards of Learning Curriculum Framework](#)

Standard of Learning (SOL) 3.6b Compare the value of two sets of coins or two sets of coins and bills



Student Strengths	Bridging Concepts	Standard of Learning
Students can correctly identify the value of individual bills and coins.	Students can determine the value of a collection of bills and coins.	Students can compare the value of two sets of coins or two sets of coins and bills.

Understanding the Learning Trajectory

Big Ideas:

- The value of coins and/or bills determine the value of the collection, not the number of coins and/or bills.
- When counting collections of coins and bills, students extend matching strategies used to compare collections of objects in earlier elementary grades.
- The terms *is greater than*, *is less than*, and *is equal to* are used to describe the relation of sets of coins/bills.

Formative Assessment:

- VDOE [Just in Time Mathematics Quick Check 3.6b PDF](#)
- VDOE [Just in Time Mathematics Quick Check 3.6b Desmos](#)

Important Assessment Look Fors:

- Student identifies coins/bills and their respective values.
- Student determines the value of each set of coins/bills.
- Student compares their total value OR uses a matching strategy to compare the value of the sets.
- Student provides reasoning for their selection of the term *is greater than*, *is less than*, or *is equal to*.

Purposeful Questions:

- What strategy did you use to find the value of the collection(s)?
- What does “*is greater than, is less than, or is equal to*” mean? What symbol is used to show “*is greater than, is less than, or is equal to*?”
- Did you find any equivalent values with the coins and bills? If so, which?
- Can you create a set of coins/bills that has a value “greater than” or “less than” this set?

Bridging Activity to Support Standard	Instructional Tips
Routine Would you Rather? 3rd grade powerpoint, slide 7 from Henrico County Public Schools Would You Rather... be given: 800 pennies OR three \$1 bills, 10 quarters, 12 dimes, and 22 nickels? 	Encourage students to work together and/or explain their thinking. Accept logical reasoning as well, such as why someone may not want all pennies, and again review the meaning of “value” or “worth” in terms of mathematics (it may help to connect to the base 10 system). More from Would You Rather Math: 
Rich Tasks Who has more money?	
Games “Heads or Tails” from Henrico County Public Schools Ordering Money - Balloon Pop - Early Math Game - Math Game	This could also be played with a deck of cards that has money amounts on them. From https://www.sheppardsoftware.com/math Game asks players to pop by least to greatest amount in value. Rigor increases at each level.
Other Resources: • Comparing Money Collections from Chelsea Queen MathStrength.org. Three routine activities with answers in the speaker's notes. • Money Pieces (virtual manipulatives) • Interactive Hundreds Chart • VDOE Mathematics Instructional Plans (MIPS): ◦ 3.6abc - Money Counts (Word) / PDF Version • VDOE Word Wall Cards: Grade 3 (Word) (PDF) ◦ Penny ◦ Nickel ◦ Dime ◦ Quarter	

- Dollar

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 \(SOL\)](#)