



Bridging for Math Strength Resources

[Standards of Learning Curriculum Framework\(SOL\)](#)

Standard of Learning (SOL) K.5 Investigate fractions by representing and solving practical problems involving equal sharing with two sharers



Student Strengths	Bridging Concepts	Standard of Learning
<p>Children understand that fair shares happen in equal parts.</p> <p>Intuitively and visually combines regions that are a part of a whole, showing initial foundations for addition.</p>	<p>Share a whole equally with two sharers, when given a practical (real life) situation.</p> <p>Represent fair shares concretely or pictorially, when given a practical situation.</p> <p>Describe shares as equal pieces or parts of the whole (e.g., halves), when given a practical situation.</p>	<p>Students can Investigate fractions by representing and solving practical problems involving equal sharing with two sharers.</p>

Understanding the Learning Trajectory

Big Ideas:

- Teachers should be using language like “half” and “halves” to describe two equal shares of an object or set.
- Fair shares are equal. Equal means the same.
- Shapes can be proportioned in different ways. You can divide a rectangle horizontally OR vertically and still maintain halves.

Formative Assessment:

- VDOE Just in time [Quick Check SOL K.5 PDF](#) / [Google Slides](#)

Important Assessment Look Fors:

- Use concrete representation if necessary.

- Equal parts are the same.
- Describe the equal part as “one half”.

Purposeful Questions:

- Are these pieces the same size? How do you know?
- How much of the whole brownie do we each get?
- (When using the set of “cookies”) What is a fair way to make sure we both get the same number of cookies?

Bridging Activity to Support Standard	Instructional Tips
Routine Would You Rather? Math Same or Different?	<p>Scroll down to Gingerbread Man example. Students share and justify their opinion about which plate they would rather share. There is no right answer!</p> <p>Similarly, children share reasons that the two images are the same. They might also share how they are different.</p>
Rich Tasks Family Members - Half Sharing a PB Sandwich	<p>This task is incredibly open ended. Student may draw two people in the family, one girl and one boy. They may also draw 4 people with two boys and two girls. Misconceptions would be to draw an uneven number of people, or more of one gender than another.</p> <p>The challenge in this is to draw how many different ways they can split the sandwich. It may help to give students more than one square to fold and practice with. Encourage students to look at a clean square to try to figure out another way to split it.</p>
Games Fill in the Hexagons	<p>While this is an extension from the halves discovered in the K standard, students can have the chance to play with other variations of breaking up the hexagon into equal parts. You can tie it back to two equal sharers by creating sets – if the student uses 6 triangles, you can ask how many each sharer would get?</p> <p>This can easily be done with blocks on a mat instead of virtually.</p>

Supporting Resources:

- VDOE Mathematics Instructional Plans (MIPS)
 - [K.5 - Sharing Snacks](#) (Word) / [PDF Version](#)
 - [K.5 - Sharing Oranges](#) (Word) / [PDF Version](#)
- VDOE Word Wall Cards: Kindergarten ([Word](#)) | ([PDF](#))

Fair Share

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)