

SOLVING LINEAR EQUATIONS WITH A TEETER TOTTER

CHUCK TRADER, SAINT MARYS MIDDLE SCHOOL

GRADE LEVEL AND CONTENT: 8th Grade Mathematics

OVERVIEW

This lesson uses hands-on application activities to help students understand how to solve linear equations in one variable and to interpret, determine and create various equations that have one solution, no solution, or infinite many solutions. Students first work collaboratively to complete a self-directed Learn Zillion activity and practice problems. Then, students move on to a teeter totter activity where they experience the algebra involved in building and balancing a teeter totter – gaining applied algebra knowledge, and a connection to the science and engineering concepts of fulcrum, force, resistance, and leverage. At the end of the lesson, students further apply these concepts by using moving dollies, shovels, and wheelbarrows.

STANDARDS ADDRESSED

M.8.EE.7; M.8.EE.7a; M.8.F.1; M.8.F.4; M.9-12G.GPE6

AVAILABLE MATERIALS

- Video of Lesson
- Lesson Overview
- Learn Zillion Activity Sheet
- Solutions of Equations Practice Problems
- Teeter Totter Task Activity and Data Sheet
- Teeter Totter Activity Summary Report Questions
- Summary Report Rubric



ABOUT THE TEACHER

Chuck Trader is currently a 6th grade teacher at St. Marys Middle School in St. Marys, GA. Mr. Trader has a Bachelor of Science in Business from Indiana University and a Master's Degree in Secondary Education from Grand Canyon University. Prior to becoming a teacher, Mr. Trader spent 25 years as a corporate banking and finance professional and entrepreneur. His best piece of teaching advice is to get the students engaged into applying what you are teaching in a way students can directly relate.