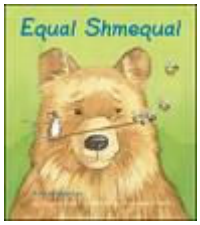

Book Title: Equal Shmequal byVirginia Kroll

Grade Levels: 5 to 7

Learning Outcomes:

Grade 5

B2 Solve problems involving single-variable, one-step equations with whole number coefficients and whole number solutions.

Grade 6

B3 Represent generalizations arising from number relationships using equations with letter variables.

B4 Demonstrate and explain the meaning of preservation of equality concretely, pictorially and symbolically.

Grade 7

B3 Demonstrate and explain the meaning of preservation of equality by:

(a) modeling preservation of equality concretely, pictorially, and symbolically

(b) applying preservation of equality to solve equations.

B4 Explain the difference between an expression and an equation.

B5 Evaluate an expression given the value of the variable(s).

Materials:

- Number Balance
- Problem sheet
- Equal Journal
- Tilt or Balance Sheets - VandeWalle
- Book Equal Shmequal by Virginia Kroll

Lesson Ideas:

Day 1

1. Have students brainstorm the meaning of 'equals', encouraging symbols, examples, when it might be used. Record on the journal sheet. As the lesson continues, they may add to their journal in a second colour as they learn about new ideas
2. Have students predict the value of the ? on the following equation 5 + 7 = ? + 8. List the possibilities the class came up with and then demonstrate on the number balance, each solution. Refer back to their journals at this point and have them add to them.
3. Read the book, Equal Shmequal – for older grades I just give a quick story summary that takes the animals to the point of attempting to balance on the teeter toter.
4. Assign abbreviations and values for each animal – the bee = 1, mouse = 2 etc.
5. Have children attempt to solve the problem of balancing the animals. Once they have recorded an equation to match their predictions, they can test them on the balance. Reinforce math language of balance, equal, equality, equation and expression.
6. Further 'challenge' with a mass assigned to each animal.
7. Return to the equals brainstorming and ask the class if anything else can be added to their journals.

C. VanderRee SD71

Day 2

1. Discussion about results from last class – balancing of masses of animals
2. Tilt or Balance? Sheet – discuss with lots of turn and talk as students justify their choices
3. Assign pairs of students to solve the second sheet: Tilt or Balance Challenge. Most students use a guess and test strategy. Encourage them to record their guesses and the value on each side of the equation.
4. Have students create their own Tilt or Balance Challenges. Have them record the equations on one side of the sheet with solutions and hints on the other.

Review: What is equality?