

Relevant 7<sup>th</sup> grade California SCORE Standards  
“Math: Batter Up”

## Number Sense

**1.0 Students know the properties of, and compute with, rational numbers expressed in a variety of forms:**

- 1.1 Read, write, and compare rational numbers in scientific notation (positive and negative powers of 10) with approximate numbers using scientific notation.
- 1.2 Add, subtract, multiply, and divide rational numbers (integers, fractions, and terminating decimals) and take positive rational numbers to whole-number powers.
- 1.3 Convert fractions to decimals and percents and use these representations in estimation, computation, and applications.
- 1.4 Differentiate between rational and irrational numbers.
- 1.5 Know that every rational number is either a terminating or repeating decimal and be able to convert terminating decimals into reduced fractions.
- 1.6 Calculate the percentage of increases and decreases of a quantity.

**2.0 Students use exponents, powers, and roots and use exponents in working with fractions:**

- 2.2 Add and subtract fractions by using factoring to find common denominators.

## Algebra and Functions

**1.0 Students express quantitative relationships using algebraic terminology, expressions, equations, inequalities and graphs:**

- 1.1 Use variables and appropriate operations to write an expression, an equation, an inequality, or a system of equations or inequalities that represent a verbal description.

## **Mathematical Reasoning**

### **1.0 Students make decisions about how to approach problems:**

- 1.1 Analyze problems by identifying relationships, discriminating relevant from irrelevant information, identifying missing information, sequencing and prioritizing information, and observing patterns.
- 1.2 Formulate and justify mathematical conjectures based upon a general description of the mathematical question or problem posed.
- 1.3 Determine when and how to break a problem into simpler parts.

### **2.0 Students use strategies, skills, and concepts in finding solutions:**

- 2.1 Use estimation to verify the reasonableness of calculated results.
- 2.2 Apply strategies and results from simpler problems to more complex problems.
- 2.3 Estimate unknown quantities graphically and solve for them by using logical reasoning and arithmetic and algebraic techniques.
- 2.4 Make and test conjectures by using both inductive and deductive reasoning.
- 2.5 Use a variety of methods, such as words, numbers, symbols, charts, graphs, tables, diagrams, and models, to explain mathematical reasoning.
- 2.6 Express the solution clearly and logically by using appropriate mathematical notation and terms and clear language; support solutions with evidence in both verbal and symbolic work.
- 2.7 Indicate the relative advantages of exact and approximate solutions to problems and give answers to a specified degree of accuracy.
- 2.8 Make precise calculations and check the validity of the results from the context of the problem.

### **3.0 Students determine a solution is complete and move beyond a particular problem by generalizing to other situations:**

- 3.1 Evaluate the reasonableness of the solution in the context of the original situation.
- 3.2 Note the method of deriving the solution and demonstrate a conceptual understanding of the derivation by solving similar problems.
- 3.3 Develop generalizations of the results obtained and the strategies used and apply them to new problem situations.