

## **UNITS OF STUDY - 7th GRADE MATH**

We are learning the State of California's 7th Grade math standards (you can see the standard on the state website [www.cde.ca.gov/be/st/ss/documents/ccssmathstandardaug2013.pdf](http://www.cde.ca.gov/be/st/ss/documents/ccssmathstandardaug2013.pdf) )

### **INTRODUCTION**

The history of numbers; Defining numbering systems and the current definitions of number types; Looking for patterns in math; Basic operations with integers and rational numbers - adding, subtracting, multiplying and dividing; Understanding opposites and absolute values.

### **PROPORTIONAL RELATIONSHIPS**

The differences between ratios, rates, and unit rate; Finding unit rates with ratios of fractions; Finding equivalent fractions to understand proportions; The constant of proportionality; Graphing proportional relationships; Applying proportional reasoning to solving problems.

### **SOLVING PERCENT PROBLEMS**

Analyze percents of numbers; Connect percent and proportion; Represent and use the percent equations; Solve percent change and percent error problems; Solve markup and markdown percentage problems; Solve simple interest problems.

### **EQUIVALENT EXPRESSIONS**

Write and evaluate equivalent algebraic expressions; Generate equivalent expressions; Simplify expressions; Expand expressions; Factor expressions; Add expressions; Subtract expressions; Analyze equivalent expressions.

### **TWO-STEP EQUATIONS AND INEQUALITIES**

Writing and solving two-step equations; Solving equations using the distributive property; Solving inequalities using addition or subtraction; Solving inequalities using multiplication or division; Solving two-step inequalities; Solving multi-step inequalities.

### **SAMPLING TO DRAW INFERENCES ABOUT POPULATIONS**

Populations and samples; Drawing inferences from data; Making comparative inferences about populations.

### **PROBABILITY**

Likelihood and probability; Theoretical probability; Experimental probability; Determining the outcome of compound events; Finding the probability of compound events; Simulating compound events.

### **GEOMETRY**

Solving scale drawings problems; Drawing simple geometric figures; Drawing triangles with given conditions; Solving problems using angle relationships; Solving problems using the circumference of a circle; Solving problems using the area of a circle; Solving problems using surface area; Solving problems using volumes; Describing cross sections.