Common Core Math 7 Curriculum Guide

Unit 1: Integers
- Order of Operations (review of exponents may be needed)
- Real numbers (identifying real/non-real, rational, irrational, integers, whole, natural)
- Square roots, cube roots and approximating rationals
- Integers and absolute value
- Adding, subtracting, multiplying & dividing integers

Unit 2: Real Numbers
- Adding, subtracting, multiplying & dividing rational numbers

Unit 3: Expressions, Equations & Inequalities
- Properties
- Algebraic expressions
- Adding & subtracting linear expressions
- Factoring expressions
- Solving one-step, two-step and multi-step equations including with variables on both sides
- Write equations (include word problems involving 2 step equations or equations with distribution)
- Writing & graphing inequalities
- Solving and graphing one-step and two-step inequalities

Unit 4: Ratio, Proportion & Percent:
- Ratio, rate & unite rate (constant of proportionality)
- Writing and solving proportions
- Graphing proportional relationships
- Similar figures and scale drawings
- Comparing & ordering fractions, decimals & percents
- Percent proportion & percent equation
- Percent change, percent error
- Discount, markup, sales tax, simple interest

Unit 5: Probability & Statistics
- Outcomes & events
- Probability
- Experimental & theoretical probability
- Compound events
- Independent and dependent events
- Samples & populations
- Measures of central tendency
- Interpreting graphs
- Stem and leaf plot
- Scatterplot

Unit 6: Plane Geometry
- Angles – adjacent, vertical, complementary, supplementary
- Parallel lines & transversals
- Triangles (include angle sum and exterior angle theorems)
- Quadrilaterals
- Polygons

Unit 7: Perimeter, Area, Surface Area & Volume
- Perimeter & circumference including composite figures
- Area including composite figures
- Surface area of prisms, pyramids and cylinders
- Volume of prisms, pyramids, cylinders

Optional Unit 8: Graphing Linear Equations
- The coordinate plane
- Graphing linear equations using a chart