Grade Level and Content Area 6th Grade Math

Concepts – Need to know about Number Sense & Operations

Percent of a number
- Less Than/Greater Than 100

Ratio and Proportion
- Part-to-Part/Part-to-Whole
- Models
- Comparison

Rational Numbers

Order of Operations
- Exponents
- Decimals
- Rational numbers

Fraction and Decimal Algorithms
- Model Representations

Integers
- Simple Expressions With Gain/Losses

Prime Factorizations
- Exponents→ (squared, cubed)
- GCF/LCM

Skills – Be able to	
Describe	(% of a number)
Use	(real life examples for %; models and pictures for ratio; proportion & %; fraction & decimal computations; order of operations; prime factorization for GCF/LCM; simple expressions involving integers; proportional reasoning; ratios & % for problem situations)
Relate	(concepts of ratio, proportion and % ≤ % 1 & ≥100
Explain	(why a number is "rational") (squared & cubed) (solutions w/prime factorization)
Recognize	(national expressions; GCF/LCM)
Give	(examples of ratios to compare part-to-part, part-to-whole)
Simplify	(numerical expressions)
Decompose/ Recompose	Whole numbers
Find	(prime factorization)
Apply	(prime factorization)
Solve	(prime factorization, integer & percent of a number)
Represent & Show	(x + ÷ situations w/fractions & decimals with models)
Develop	(algorithms for fractions and decimals)
Analyze	(algorithms for fractions and decimals)
Demonstrate	(fluency in use w/algorithms)
Perform	(fraction/decimal computations)
Justify	(solutions for fraction & decimal computations)
Estimate	(solutions for fraction & decimal computations)
Determine	(reason of solutions using percent, ratio and proportion; percent of a number)