



Mathematics Grade 7 Curriculum

Based on Indiana Department of Education Academic Standards

Week 1

+ Number Sense

- Factoring
 - Prime numbers and prime factorization
 - Factor trees
 - Composite numbers
- Square Roots
 - Perfect squares
- Rational and irrational numbers
 - Estimating and rounding

Week 2

+ Computation

- Review of addition, subtraction, multiplication and division
- Absolute value
- Additive inverse
- Problems with rational numbers
 - Word/story problems
 - Equations in the form of $x + p = q$ and $x - p = q$ for cases in which p , q , and x are all nonnegative rational numbers
 - Inequalities in the form of $x > c$, $x < c$, $x > c$, $x < c$ where c is a rational number

Week 3

+ Algebra and Functions

- Identity property
- Inverse property
- Commutative property
- Associative property
- Distributive property
- Equivalent Expressions
- Like terms

Week 4

+ Algebra and Functions (continued)

- Slope
 - Graphing
 - Origin
 - Coordinates
 - x and y axis
 - Constant rate of Change
 - Varying rate of change (horizontal and vertical)
 - Linear function
- Constant of proportionality
- Proportional relationships

Week 5

+ Geometry

- Triangles
- Polygons
- Angles
 - Angle-angle similarity
 - Vertical angles
 - Adjacent angles
 - Complementary angles
 - Supplementary angles
- Scale drawings
- Proportional reasoning

Week 6

+ Geometry (continued)

- Circumference
- Volume
 - Cylinder, rectangular prism, etc
- Surface area
 - Cylinder, rectangular prism, etc

Week 7

+ Data Analysis

- Mean
- Median
- Mode
- Range

- Outlier
- Interquartile range
- Mean absolute deviation
- Line plot
- Box plot

Week 8

+ Statistics and Probability

- Chance
- Population
- Sample
- Random sampling
- Representative sample
- Inference
- Variation
- Relative frequency
- Probability model
- Theoretical probability
- Sample space
- Outcome
- Simple event



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