

Math Topics	STEM	SOC. SCI	EDU	NURS	Textbook: Using & Understanding Mathematics
Estimation			✓		Unit 3B: Putting Numbers in Perspective
Order of operations		✓	✓	✓	Unit 4B: The Power of Compounding
Sets		✓			Unit 1C: Sets and Venn diagrams
Fractions (ordering) & Mixed Numbers		✓	✓	✓	Unit 2A: Working with Units
Metric system, unit conversions	✓	✓	✓	✓	Unit 2A: Working with Units
Decimals (ordering) & Rounding		✓	✓	✓	Unit 2A: Working with Units
Significant figures	✓				Unit 3C: Significant digits
Scientific notation	✓				Unit 3B: Putting Numbers in Perspective
Nominal, ordinal, interval/ratio		✓			
Ratios, Rate	✓	✓	✓	✓	Unit 3A: Brief review, What is a Ratio?
Percentages	✓	✓	✓	✓	Unit 3A: Uses and Abuses of Percentages
Conversions between fractions, decimals, percent		✓			Unit 2A: Working with Units
Exponents		✓	✓		
Dilutions ($M_1V_1 = M_2V_2$) Proportions	✓	✓	✓	✓	
Cartesian coordinates, Independent & dependent variables		✓	✓	✓	Unit 9A: Functions
Relations & Functions		✓	✓		Unit 9A: Functions
Rate of change, Slope	✓	✓			Unit 9B: Linear Modeling
Fitting points to $y = mx+b$	✓	✓			
Rearranging equations (Solving for a variable)	✓				Unit 9B: Linear Modeling Units 4B, 4C, 4D: Managing Money
Solving linear equations	✓	✓	✓	✓	Unit 9B: Linear Modeling
Linear Inequalities		✓	✓		

Interpreting graphs and charts	✓	✓	✓	✓	Unit 5C: Statistical Tables and Graphs Unit 5D: Graphics in the Media
Solving simultaneous equations	✓	✓			
Calculating probabilities	✓		✓		Unit 7A: Fundamentals of Probability Unit 7B: Combining Probabilities
Summation notation	✓				
Measures of central tendency	✓	✓	✓		Unit 6A: Characterizing Data
Percentiles	✓	✓			Unit 6C: The Normal Distribution
Interpreting basic statistics in a text		✓		✓	Unit 6A: Characterizing Data
Convert irrational numbers to approximate decimal form			✓	✓	
Operations with Polynomial terms			✓	✓	
Expressions, equations, inequalities			✓	✓	
Absolute value equations & inequalities				✓	
Measurements (appropriate units), through scaling				✓	Unit 3B: Putting Numbers in Perspective
Factors, primes, & divisibility			✓		
Inductive reasoning (patterns)			✓		
Geometry: Perimeter, area, volume			✓		Unit 10A: Fundamentals of Geometry
Geometry: points, lines, angles, parallel lines, transversals, triangles, similarity, quadrilaterals			✓		Unit 10A: Fundamentals of Geometry
Using angles				✓	Unit 10A: Fundamentals of Geometry

Pre-calculus

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Functions (linear)		✓		
Measuring angles	✓			✓
Logarithms	✓			
Manipulating exponents/logs	✓			
Quadratic equations	✓			
Natural log	✓			

Calculus

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Derivatives, derivative as slope	✓			
Integrals, integration as area	✓			
Integrating functions such as $1/x$ and $1/x^2$	✓			

Statistics

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Organizing data				✓
Measures of variance		✓		
Confidence intervals		✓		
Margin of error		✓		
Bell curve		✓		
Correlation		✓		
Pearson's r		✓		
P value and independent t -tests	✓	✓		

Other topics

Energy level diagrams

Linear operators

Squaring numbers

Alpha & significance testing (obtained vs. critical values)

ANOVAs

Techniques of Mathematical Proofs

Conversion between Roman and Arabic numerals