

Math 9

Type: Online

Course Description:

What if students left your Math 9 class not just knowing the *how*, but understanding the *why*? This course offers students a rich, relevant, and engaging journey through core mathematical concepts, designed to build both skills and confidence. Grounded in real-life applications, the course opens with a practical unit on personal finance, where students create budgets, calculate interest, and make informed spending decisions that connect math directly to their everyday lives.

As the course progresses, students explore exponents, polynomials, rational numbers, and linear relations, using a blend of symbolic and visual tools such as algebra tiles. They learn to simplify expressions, solve equations, and analyze patterns through graphs and tables — all within meaningful contexts like compound growth and real-world problem solving. Later units in geometry and transformations invite creative thinking, as students design scale models and explore connections between math, art, and architecture. The course concludes with an inquiry-based look at statistics, where students collect, interpret, and present data using fair and unbiased methods. With built-in supports like guided notes, interactive tools, and assessment reattempts, this Math 9 course empowers learners to reflect, explore, and take ownership of their learning — preparing them for future academic success and real-world mathematical thinking.

Major Chapters and Topics:

- Finances
- Exponents
- Polynomials
- Rational Numbers
- Linear Relations and Equations
- Geometry
- Statistics

Assessments:

- Lesson quizzes (two per chapter)
- Chapter review assignments
- Chapter Projects (four total)
- Chapter practice tests
- Chapter tests
- Note packages and practice questions



- Final exam

Learning Standards Overview:

Curricular Competency Learning Standards <i>Students are expected to be able to do the following:</i>	Chapter 1	Chapter 2	Chapter 3	Chapter 4	Chapter 5	Chapter 6	Chapter 7
Reasoning and analyzing							
Use logic and patterns to solve puzzles and play games	✓	✓	✓	✓	✓	✓	✓
Use reasoning and logic to explore, analyze, and apply mathematical ideas	✓	✓	✓	✓	✓	✓	✓
Estimate reasonably	✓						✓
Demonstrate and apply mental math strategies		✓	✓	✓	✓		
Use tools or technology to explore and create patterns and relationships, and test conjectures		✓	✓		✓	✓	
Model mathematics in contextualized experiences	✓	✓	✓	✓	✓	✓	✓
Understanding and solving							
Apply multiple strategies to solve problems in both abstract and contextualized situations	✓	✓	✓	✓	✓	✓	
Develop, demonstrate, and apply mathematical understanding through play, inquiry, and problem solving	✓	✓	✓	✓		✓	✓
Visualize to explore mathematical concepts	✓		✓	✓	✓	✓	✓



Engage in problem-solving experiences that are connected to place, story, cultural practices, and perspectives relevant to local First Peoples communities, the local community, and other cultures	✓		✓	✓	✓	✓	✓
Communicating and representing							
Use mathematical vocabulary and language to contribute to mathematical discussions	✓	✓	✓	✓	✓	✓	✓
Explain and justify mathematical ideas and decisions	✓			✓		✓	✓
Communicate mathematical thinking in many ways			✓		✓		✓
Represent mathematical ideas in concrete, pictorial, and symbolic forms			✓	✓	✓		✓
Connecting and reflecting							
Reflect on mathematical thinking	✓			✓		✓	✓
Connect mathematical concepts to each other and to other areas and personal interests	✓	✓		✓	✓	✓	✓
Use mathematical arguments to support personal choices	✓			✓		✓	✓
Incorporate First Peoples worldviews and perspectives to make connections to mathematical concepts	✓		✓	✓	✓	✓	



Content Learning Standards <i>Students are expected to know the following:</i>	Chapter 1	Chapter 2	Chapter 3	Chapter 4	Chapter 5	Chapter 6	Chapter 7
Operations with rational numbers				✓			
• addition				✓			
• subtraction				✓			
• multiplication				✓			
• division				✓			
• order of operations				✓			
Exponents and exponent laws with whole-number exponents		✓	✓	✓			
Operations with polynomials, of degree less than or equal to 2			✓				
Two-variable linear relations					✓		
• using graphing					✓		
• interpolation					✓		
• extrapolation					✓		



Multi-step one-variable linear equations					✓		
Spatial proportional reasoning						✓	
Statistics in society							✓
Financial literacy - simple budgets and transactions	✓						

