

**REDBANK VALLEY SCHOOL DISTRICT
MATHEMATICS CURRICULUM MAP**

CALCULUS

Chapter 1	Chapter 2	Chapter 3	Chapter 3	Chapter 4	Chapter 4	Chapter 5	Chapter 6-7	Chapter 6-7
SEPTEMBER	OCTOBER	NOVEMBER	DECEMBER	JANUARY	FEBRUARY	MARCH	APRIL	MAY
Review of Prerequisites; Forms of Equations of Lines; Basic Functions & Graphs; Exponential Functions; Parametric Equations; (Use Graphing Calculators); Logarithmic Functions; Trig Functions	Examine Rate of Change as Criteria for Comparing Functions; Review Limit Concept; Connect Graph Features with Limits; Use Limits to Define Continuity; Re-Examine Rates of Change; Find Instantaneous Rate of Change; Write Equations of Tangent Lines and Normal Lines	Derivatives- Definition of Derivative; Finding Derivatives by Definition; Basic Derivative Rules; Quotient Rule; Chain Rule; Implicit Differentiation	Implicit Differentiation; Derivatives of Exponential & Logarithmic Functions; Using Derivatives for Finding Velocity and Acceleration	Applications of Derivatives- Connecting Derivatives & Graphs; Modeling with Functions; Optimization Problems	Related Rate Problems; Linearization using Newton's Method; Mean Value Theorem for Derivatives	The Definite Integral- Estimating Areas by Rectangles & Trapezoids; Defining Integrals; The Fundamental Theorem of Calculus; Basic Rules for Integrals	Integration Techniques and Applications - Slope Fields; Integration by Substitution; Integration by Parts; Numerical Methods; Areas in the Plane; Volumes of Solids of Rotation	Volumes of Solids of Rotation; Lengths of Curves; Statistics Applications; L'Hopital's Rule; (If time, Infinite Series)