Helena Public Schools
High School Mathematics
Calculus - Teacher Resource

Over-riding practices:
- *Graphical, Analytical and Numerical relationship*
- *Word Problems/Problem Solving*
- *Comfort with "Unfriendly" answers*

	Focal Points
Limits	• Graphical, Numerical and Algebraic solutions • One-Sided Limits • Continuity
Derivatives	• Derivative as a rate of change • Definition of a derivative • Derivation rules • Maximum and Minimum values • Concavity • Implicit Differentiation • Related Rates • Optimization • Position/Velocity/Acceleration • Mean Value Theorem
Integration	• Reimann Sums and limits • Integration from graphs, and tables • Trapezoid Rule/Simpson's Rule • Fundamental Theorem of Calculus • Integration Rules • Areas of non-polygonal regions • Volumes of Rotational Solids • Volumes of solids with known cross sections

Maintenance Topics