The author will present his ideas for teaching an upper level history of mathematics course required for all middle and high school level pre-service mathematics teachers at SUNY Fredonia. This course focuses on the development of algebraic symbolism to solve classic word problems. By comparing classical techniques to modern symbolic methods, it is intended that these pre-service teachers gain an appreciation for how their future students might develop their own understanding of symbolism and problem solving. (Received September 16, 2013)