Osama Taani* (otaani@plymouth.edu), Plymouth State University, Mathematics Department, 17 High Street, MSC 29, Plymouth, NH 03264. Using Original Historical Sources in Teaching Mathematics for Preservice Elementary and Middle School Teachers.

120 pre-service teachers participated in an experiment about using original sources in teaching mathematics for preservice elementary and middle school students. Several excerpts from Al-Kashi’s 1427 Key to Arithmetic have been translated from Arabic and used in this study. These excerpts present multiple algorithms for multiplication, multiple mensuration formulas, and multiple problem solving methods. Several important findings will be discussed such as creating networks of ideas, providing flexibility of thinking, providing opportunities for comparison, and improving creativity. (Received September 23, 2012)