In his pioneering 1959 book on Portfolio Selection, Harry Markowitz shows how to optimize the risk/return characteristics of a stock portfolio to match the risk attitude of a particular investor. The basic concepts are introduced in terms of wheels of fortune and scatter plots that can be readily understood by school children.

Starting with these simple metaphors, ProbabilityManagement.org used data from Morningstar, Inc. to create a pilot contest that teaches the concept of risk/return tradeoffs to middle school students. This was offered successfully at Horace Mann School in Beverly Hills, and Jane Lathrop Stanford School in Palo Alto.

Investment portfolios represent just a single application of the Arithmetic of Uncertainty, which also applies to such everyday problems as purchasing inventory in the face of uncertain demand, and the scheduling projects. ProbabilityManagement.org is now exploring an initiative to bring the Arithmetic of Uncertainty to the k-12 classroom commensurate with the core curriculum.