Offered for the first time in summer 2011, this intensive one-week team-taught course engaged current and prospective teachers in developing a deeper understanding of middle school mathematical content through cooperative problem solving activities. Content included most of those listed in the CCSS standards such as operations on whole numbers, rational numbers, integers, and algebraic expressions, as well as measurement, geometric formulas and relationships, proportional reasoning, rational number representations, indeterminates, sequences, functions, quantitative literacy, percents, and probability. While the content itself was a review for the participants, the experience of rediscovering and further uncovering these concepts through active learning and problem solving was a rich, enlightening experience for all participants. They made sense of problems, developed conjectures, observed the different approaches that others took, discussed the importance of moving from concrete to abstract understanding, and critiqued and taught each other. Participants regularly expressed that they had not only gained a better understanding of the mathematics they might teach, but also that they developed an appreciation for cultivating mathematical habits of mind in their students. (Received August 25, 2011)