This Action Research Study used qualitative research methods to investigate teaching strategies that could increase student engagement in mathematics. Strategies analyzed were different task structures, (single ability vs. multiple ability tasks), and the utilization of Systems Thinking tools in cooperative learning groups. Data collected included student surveys, teacher observation, and assessment of student work. The study group consisted of approximately 125 students in the principal investigator’s seventh grade mathematics classes over a period of twelve weeks beginning in August 2009. The school was a middle class neighborhood school which housed approximately 700 sixth, seventh and eighth grade students. Students participated in a variety of mathematics tasks while the principal investigator observed them for level of engagement and on-task behavior. Students also self-reported their level of engagement at the conclusion of each task. Data collected was triangulated to uncover patterns and trends that could help teachers of mathematics become more effective with their students.