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Motivated by the goals of (1) improving the success of intended STEM majors in College Algebra and (2) introducing first year students to the geosciences to increase the number and diversity of students who choose a geoscience major, our small team of mathematicians and geoscientists are modifying the curriculum of College Algebra by integrating current geoscience research. For each College Algebra learning objective (five total), our geoscientists chose a corresponding geoscience theme and a geoscientist who does research related to that theme. We developed videos featuring each geoscientist describing how the mathematical skill the students are learning is essential for his/her scientific research. These videos are incorporated in weekly lab meetings in College Algebra. A portion of student homework exercises are cast in the context of that geoscience research, followed by problem-solving activities that synthesize and apply mathematical concepts with problems related to geoscience content. We present pre- and post-course survey results that assess student interest and self-efficacy in science and math as well as career perceptions of geoscience and related sciences. We highlight curricular examples from implementation of each of the geoscience themes. (Received September 17, 2019)