

1145-H5-2874 **Jeneva Clark*** (dr.jenevaclark@utk.edu). *Learning How Our World Works: STEM Activities in a Mathematical Reasoning Course*. Preliminary report.

For a Mathematical Reasoning course re-design, I created activities motivated by science and engineering. Students found the radius of a golf ball using water displacement. They found the indices of refraction for jello, water, and oil. The eclipse and the Hubble telescope were used for problem solving tasks. Students used Newton's Laws of Motion and the continuity principle to design PVC Marshmallow shooters. Photos of autopsied cochlea were examined by students to investigate Golden Ratio patterns, and students engineered their own hearing aids from recycled materials such as party-hats and paper cups. For this general-education course for non-STEM majors, students' majors are often political science, sociology, speech pathology, and the arts. STEM-related anchor problems provided a shared relevance for this student population, relating mathematics to how our world works. In this session, the activities will be briefly shared, and course evaluation results that pertain to the STEM-mification of this course will be shared. (Received September 25, 2018)