

**2019 Earth Science Week KUNM Radio Presentation: Cynthia Connolly**

Welcome to Earth Matters - field notes on the geology of New Mexico's Enchanting Landscapes.

Celebrating Earth Science week, I'm Cynthia Connolly.

As Education Outreach Manager at the New Mexico Bureau of Geology, I work with scientists and bureau staff to convey the importance of geology to students, educators, and the public. The focus for this year's Earth Science Week is "Geoscience for all" which is fitting because we are all tied to the Earth.

The Earth formed over 4.5 billion years ago. Earth's atmosphere and oceans are in part, the result of volcanism and outgassing, with additional water provided by comets, asteroids, and protoplanets. About 4.1 billion years ago life began in the oceans and developed a means to harness the Sun's energy-- photosynthesis, resulting in molecules of oxygen that accumulated in the atmosphere to become the ozone layer. This protection from harmful UV radiation allowed life to populate Earth's crust.

Geology determines water accessibility and best land-use practices. Soil chemistry and water resources control what crops can be grown in a specific region. The availability or scarcity of water supplies have led to the rise and fall of civilizations. Scientists have used observation and modeling to describe processes that have allowed life to flourish on Earth and study the dangers of natural and man-made disasters--such as earthquakes, landslides, and global warming--which threaten our survival.

Understanding the geoscience is the key to understanding life--all life.

Celebrating Earth Science week, I'm Cynthia Connolly, Education Outreach Manager at the New Mexico Bureau of Geology and Mineral Resources.