

OCTOBER 2016 - Wednesdays and Thursdays, 5 PM-7:15 PM.
Earth Science Outside: Tooele County Geology and Heritage
OnTrack # 59028 Section 81264



Taught by Genevieve Atwood, PhD, former State Geologist, presently with Earth Science Education.

Open to all Utah school districts. One relicensure-hour credit per session up to a maximum of four. Teachers may attend additional sessions for no additional credit. Okay to attend them all!

No homework. Generally one in-class assignment.

Logistics subject to change including times and location. See <http://www.earthscienceeducation.org> for details including updated schedule with dates, times, and meeting places.

Safety first! Wear sensible clothes and shoes. Meeting outside involves inherent risks including weather, footing, insects, etc.

Open to responsible public meaning, at minimum, adults interested in Tooele's geology; children under 18 only when supervised by an adult other than the teacher-participant. Must sign waiver.

TENTATIVE schedule – see following page. Final arrangements will be posted at: <http://www.earthscienceeducation.org> Look along the left margin for “TOOELE.” Updated schedules will be emailed to teacher participants via OnTrack.

LEARNING OBJECTIVES: *Gain confidence to go outside and teach what you see.* Specifically:

- Landmarks can be a pathway to a sense of place: Be able to identify 5 – 8 physical landmarks of eastern Tooele County and share something of geologic interest about each.
- All of Tooele's landforms (mountains, valleys, hills, and even Great Salt Lake) result from tectonics and erosion / deposition: Be able to explain the presence of Great Salt Lake, the Oquirrh Mountains, and other ranges of the Basin and Range and wonder about earthquakes.
- Sediments tell the story of the present whereas bedrock tells the story of the past: Be able to explain why Lake Bonneville and Great Salt Lake are considered The Best Historians of Climate Change of North America from Ice Ages to the present... and perhaps into the future.
- Earth systems interact: Be able to give examples of how geology influenced Tooele County's heritage from early peoples, through the pioneers, through mining and military activities. Relate Tooele's physical environment to students' lives.

Come with bright eyes and curiosity. Let Dr Atwood share some of what's special about places in Tooele District. (genevieveatwood@comcast.net)

TENTATIVE SCHEDULE –Check <http://www.earthscienceeducation.org> for updates. Finalized schedule will be emailed to registrants.

We meet outside. Just show up! Be sensible (clothes, preventive pit stop, etc). Be curious. Instructor’s cell is 801:647.8155.

Wednesday, October 5 How to read a Tooele landscape.	Meet: Tooele School District headquarters 92 S. Lodestone Way, Tooele, UT 84074	Tooele’s awesome geology! Bedrock versus sediment; Evidence of Ice Age climate; Interpret relative age of geologic features.	
Thursday, October 6 Ophir Canyon – Tectonics past	Meet: at intersection of Highway 73 and Ophir Canyon Rd. Then carpool with stops to Ophir.	Ophir Canyon’s magnificent anticline! Architecture of the Earth. Mountain building during dinosaur time scrunched the bedrock of Tooele County.	
Wednesday, October 12 Tooele Valley – Tectonics today!	Meet: Grantsville Elementary 50 S Park Street, Grantsville, UT 84029	Extensional tectonics mean earthquakes! Dance of tectonic plates; Evolution of the Basin and Range; Tooele’s evidence.	
Thursday, October 13 Landforms and Tooele history	Meet: Settlement Canyon Elementary 935 W Timpie Rd, Tooele, UT 84074	This is the place? Landforms and pioneer heritage. Erosion and deposition. Canyons, alluvial fans and deltas. Landscape evolution and heritage.	
Wednesday, October 19 TENTATIVE!!! Fossils, minerals, rocks and heritage	Meet: Stockton Town Hall parking area, 18 N Johnson St, Stockton, UT 84071 Carpool and drive to fossil locale	What made Colonel Connor look for riches? Minerals are the building blocks of rocks, and of society. Fossils tell about Utah long ago.	
No session Thursday October 20 (UEA)	--	--	
Wednesday, October 26 What’s there to see?	Meet: Vernon Elementary Vernon, UT 84080	Every Tooele place has deep history! Tie landforms and features to a sense of place. Sheepcreek Mountains. Lake Bonneville.	
Thursday, October 27 Water and Tooele geology	Meet: Rose Springs Elementary 5349 Insbrook Pl, Stansbury Park, 84074	Glimpse what we don’t see... why springs? Earth systems interact: geology and hydrology; Tooele’s valley sediments, groundwater, and springs.	