

CMaP PROJECT

Project Title: Water Canyon Land Use Study

Created by: David Mackey

Class: 9th Grade Geography

Project Description	<p>Hildale, Utah is nestled between a beautiful sandstone formation on the southeast side of Zion National Park and the border town of Colorado City, Arizona. A year-round stream descends down a channel called Water Canyon, a flow that is the natural lifeblood of the community.</p> <p>There is ample evidence of human interaction and/or occupation in the area going back thousands of years. This Project Based Learning activity will introduce high school students to fundamentals in Geography, shedding light on how land in their community has been used by humans from hunting and gathering peoples and early civilizations, to ranching, agriculture and historic settlement up to the present time.</p>
Community Issue or Problem Selected -How project evolved?	<p>The community of Hildale, Utah has undergone dramatic social change in recent years and part of the upheaval has involved considerable in-and out-migration. Many youth and their families have led very transient and unsettled lives, not feeling well connected to their community, and lacking an awareness and sense of place within the physical setting.</p>

Community Partner(s)	John Barlow, Hildale City Manager Nancy Wickan, Water Canyon High School librarian UEP Board Members Hildale Historical Society
Project Objectives	To introduce students to the Geographic Inquiry process through a meaningful exploration of their community over time utilizing various maps, mapping techniques, GIS methodologies, demographic and historical research and analysis.
Utah Core Standards/Objectives	World Geography 2.3; 3.5; 3.7; 4.3 and 5.3.
Essential Question(s) -Spatial Issue	How can we better understand how humans have impacted the land and landscape at Water Canyon and Hildale, Utah over the past centuries through applying GIS principles and methodologies?
Assessments (rubrics, scoring guides)	Land Use Survey Prep Worksheet Project Calendar Utah AGRC rubric ArcGIS map rubric

	<p>Google drive rubric</p> <p>Geocaching activity rubric</p> <p>Data collection activity rubric</p> <p>Project collaboration rubric</p>
Project Products	<p>Completion of a comprehensive Land Use Survey</p> <p>Map Overlays reflecting and comparing historic and present-day imagery</p> <p>Presentation to Community Partners and Stakeholders</p>
<p>Project Timeline</p> <p>(include a step by step Procedures)</p>	<p>-Give students project calendar/overview, rubric and instructions</p> <p>-Assign student groups with individual/group pledges</p> <p>-Give Land Use Survey Prep Worksheet</p> <p>-Periodic class and group meetings</p> <p>-Show media segments that demonstrate Land Use surveys</p> <p>-Guide students through the waypoint creation process</p> <p>-Explain/Review Google Drive</p> <p>-Do Geocaching activity in Water Canyon's Maxwell Park</p> <p>-Present ArcGIS activity with chromebooks</p> <p>-Student presentations to partners/stakeholders</p> <p>-Class celebration</p>
Resources Needed	<p>-chromebooks</p> <p>-physical and digital maps</p> <p>- garmins or Geocaching Ap on cell phones</p>
Skills Required	<p>Understanding of arcGIS, Utah AGRC, Google Drive and Google Maps; ability to ask and devise/refine key questions; understanding of and application of Land Use principles and methodology; skills in communication, creativity, cooperation and effective teamwork.</p>
Project Team Member	Teacher(s):

Roles	<p>Instruction; Mentor; Facilitator; progress monitor; equipment acquisition/provider; community partner liaison</p> <p>Students: Committed team member; experts in GIS and Land Use principles and methodology, demographic and historical analysis; problem solvers</p> <p>Partner(s): Data/Information providers; context and purpose</p>
Celebration/Presentation	Presentation to community partners and stakeholders; class party
Project Evaluation	<p>Activity rubrics</p> <p>Student Reflection and feedback</p> <p>Teacher Reflection</p> <p>Written feedback from Community partners</p>
Project Bibliography	arcGIS; Utah AGRC; BLM; written histories; oral interviews
Plans for Future CMAP Activities	None presently planned

Optional:

-Lesson Plans

-Student Artifacts

-Publicity