

Tina McMullin

TEMPLATE FOR CMAP PROJECT

Each participant who participated in the CMAP workshop signed an agreement to conduct a CMAP project and write up. This template is provided to you as a guide for the CMAP project you agreed to conduct with your students.

Please complete a detailed write-up of your CMAP project using this template. Use the kind of language and detail so other teachers can take your project to conduct in their classrooms. An archive of CMAP projects will be made available for Utah educators.

Send to: Jared Covili, Utah Education Network, 1705 E. Campus Center Dr, MBH 205, Salt Lake City, Utah 84112. jared@uen.org.

Project Title:

Created by:

Class:

Project Description	This project involves the determination of road conditions within Beaver City to help ensure the safety of our students as they travel to and from school. This information will then be presented to Beaver City so that they can allocate resources in the areas with the highest population and the most bus students, and minimize costs to Beaver City.
Community Issue or Problem Selected -How project evolved?	This problem evolved by observing the road conditions through Beaver City and realizing that some roads are in excellent condition while others are bone-jarring. I then questioned if city resources were being allocated to maintain the roads that are the most highly travelled and have the largest population or the highest number of school students who rely on bus transportation to and from school. I live in a rural part of the community on a very rough road. I know that maintenance costs on our bus are very high compared to the busses on the other routes due to road quality. The poor road quality of the road directly affects student safety in inclement weather.
Community Partner(s)	Beaver City
Project Objectives	

Utah Core Standards/Objectives	Standard 1 Objective 1, 3 Standard 3 Objective 1 Standard 6 Objective 1, 2
Essential Question(s) -Spatial Issue	Which roads in Beaver City are part of a bus route? Which roads in Beaver City are not part of a bus route? How many students live on each city block or road segment? How many potholes are on each city block or road segment? What is the overall road condition of each city block or road segment?
Assessments (rubrics, scoring guides)	Final map indicating potholes and student evaluations of the City, collected data that is submitted by the students, and written analysis of the assignment. See attached rubric.
Project Products	Each class will create a map indicating the road conditions of Beaver City. Collected data will compare the quality of roads with bus routes to roads without bus routes. Data collected will indicate potholes, general road conditions, and the numbers of students that live on each street or section of road.
Project Timeline (include a step by step Procedures)	Elements of mapping lesson – 1 day Downloading and manipulation of data, creation of map lesson – 1 day Explain road assessment project and assign community sections – ½ day THE FOLLOWING WEEK – Downloading and manipulation of data, creation of maps and creation of final assessments – 2 days.
Resources Needed	Computer lab (instead of chromebooks), GPS units to mark waypoints or smartphones with mapping technology to identify lat long coordinates. Digital camera / cell phones
Skills Required	Understanding of lat/long and mapping technology Understanding of how to use a GPS unit Basic computer skills The willingness to try new things

Project Team Member Roles	<p>Teacher(s): Advisor, cheerleader, facilitator, sarcastic evaluator</p> <p>Students: =</p> <p>Partner(s): Recorder, picture taker, 2 students for data collection</p>
Celebration/Presentation	Class representatives will go to a Beaver City Council meeting and present their findings to the City Council.
Project Evaluation	Attached rubric
Project Bibliography	I honestly can't remember if I got this idea from another source; the link from the agenda to other projects was broken. Sorry.
Plans for Future CMAP Activities	Our Freshmen have a watershed day every spring where they cut thistles and juniper trees which use a disproportionate amount of water. I would like to implement some sort of water collection data activity of the Beaver River.

Optional:

- Lesson Plans
- Student Artifacts
- Publicity