

TEMPLATE FOR CMap PROJECT

Project Title: Garbage on the School Grounds.

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Project Description	<p>Have the students map out the school and then map where all of the garbage cans are. The students will then map where garbage shows up around the school. They will see where the garbage is and make a recommendation to the SCC about where to put new cans. After locating the cans they will remap the garbage and see if there is an improvement.</p>
Community Issue or Problem Selected -How project evolved?	<p>This will be a good project to improve the student's school community and become familiar with GIS technologies such as the GPS unit and ARCGIS software. We may use this initial success to encourage students to consider how else they might use these tools.</p>
Community Partner(s)	<p>For this project, the School Community Council (SCC) will be our partner.</p>
Project Objectives	<p>Students will recommend strategic placement of garbage cans based on data collected and analyzed.</p>
Utah Core Standards/Objectives	<p>Math Standard 1: Students will expand number sense to include integers and perform operations with whole numbers, simple fractions, and decimals. Objective 5: Solve problems involving one or two operations. Standard 2: Students will use patterns and relations to represent and analyze mathematical problems and number relationships using algebraic symbols.</p>

<p>Essential Question(s) -Spatial Issue</p>	<p>Where is the garbage on the school grounds in relation to the garbage cans? How much litter is there?</p>
<p>Assessments (rubrics, scoring guides)</p>	<p>Rubric for map assessing waypoints for litter and garbage cans, and labels for school ground features, compass rose, scale and student names.</p>
<p>Project Products</p>	<p>Students will create two maps: one will show locations of current litter and garbage cans, another to show a suggestion of how many and where to put new garbage cans.</p>
<p>Project Timeline (include a step by step Procedures)</p>	<p>Week 1- GPS training: Topo Bingo, Earth cacheing, Track your initials Week 2 – Collect and download data. GIS training. Week 3 – make maps Week 4 – present to peers, SCC, and SIC</p>
<p>Resources Needed</p>	<p>GPS units for two weeks Computers, ARCGIS software Digital cameras</p>
<p>Skills Required</p>	<p>GPS Use GIS Computer skills – file management Working in teams Measuring Map skills</p>
<p>Project Team Member Roles</p>	<p>Teacher(s): Shirley Sharp and Pam Fitches Students: two fifth-grade classrooms, Parkview Elementary</p>

	Partner(s): School Improvement Council, School Community Council
Celebration/Presentation	Presentation to the School Community Council Printed Maps on the hallway bulletin board Parent letter
Project Evaluation	Rubric for maps Action by SCC
Project Bibliography	Alicia Darden, Jackson Elementary "Jordan River Water Quality in the Great Salt Lake Water Shed" UEN 2007
Plans for Future CMAP Activities	After garbage cans have been placed for two months, the students will analyze litter quantity and location in the school ground.

Optional:

- Lesson Plans
- Student Artifacts
- Publicity