

CMaP PROJECT

Project Title: Trash, trash, everywhere trash!

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Class: St. George CMaP 2010

Project Description	Collect and mark with a GPS unit, any trash on our school grounds. Along with marking where the trash is, the students will also mark what type of trash it is, i.e., paper, plastic, etc. and see how much of it could have been recycled.
Community Issue or Problem Selected -How project evolved?	<p>Our school is near a city park which is used nearly every weekend, and most week nights, for athletic events. Due to our proximity to the park, our fields are often used as overflow/practice spaces. Our school grounds are often covered in trash, and I think it may be from people using our grounds and also from the wind blowing over trash found on the park across the street.</p> <p>I would like to see if there is a correlation between the trash found across the street and the trash found here at our school grounds.</p> <p>Also, I believe a large portion of the trash found could have been recycled and maybe if that opportunity were available, people may be more inclined to be more careful to throw away their trash.</p>
Community Partner(s)	Rob Stevenson – Principal LVES City of St. George
Project Objectives	<p>Reduce the amount of trash found on our school grounds.</p> <p>Help the City clean up the park across the street.</p> <p>Raise awareness of the different types of trash found and the possibility of recycling.</p>
Utah Core Standards/Objectives	<p>Technology - Standard 3 Discuss basic issues related to responsible use of technology and information; and describe personal consequences of inappropriate use.</p> <p>Technology - Standard 8 Use technology resources (e.g., calculators, data collection probes, videos, educational software) for problem-solving, self-directed learning, and extended learning activities.</p>

Technology - Standard 9

Determine when technology is useful and select the appropriate tool(s) and technology resources to address a variety of tasks and problems.

Math - Standard 3

Students will understand attributes and properties of plane geometric objects and spatial relationships.

Objective 1

Identify and describe attributes of two-dimensional geometric shapes.

Objective 2

Specify locations using grids and maps.

Math - Standard 4

Students will describe relationships among units of measure, use appropriate measurement tools, and use formulas to find area measurements.

Objective 2

Recognize and describe area as a measurable attribute of two-dimensional shapes and calculate area measurements.

Math - Standard 5

Students will interpret and organize collected data to make predictions, answer questions, and describe basic concepts of probability.

Objective 1

Collect, organize, and display data to answer questions.

Objective 2

Describe and predict simple random outcomes.

Social Studies - Standard 3

Students will understand the roles of civic life, politics, and government in the lives of Utah citizens.

Objective 1

Describe the responsibilities and rights of individuals in a representative government as well as in the school and community.

- e. Describe and model ways that citizens can participate in civic responsibilities (e.g. current issue analysis, **recycling**, volunteering with civic organizations, letter writing).

Health - Standard 7

The students will understand the value of service and effective consumer practices.

	<p>Objective 1 Participate in service-learning that benefits Utah. c. Plan, implement, and report on service benefiting Utah.</p>
Essential Question(s) -Spatial Issue	<p>Is there a correlation between the amount of trash found on the large city park and the amount found on our school grounds?</p> <p>Will cleaning up one affect the other?</p>
Assessments (rubrics, scoring guides)	<p>Are the students effectively picking up, marking the location, and describing the trash?</p> <p>Did the students correctly upload the waypoints to the computer?</p> <p>Did everyone participate?</p> <p>Student presentations on their findings.</p>
Project Products	<p>Map with data comparing trash found at both the City Park and Little Valley Elementary School</p> <p>Student Presentations to the PTA & Community Councils and Principal</p> <p>Greater student awareness of trash and litter and its affect on a community</p>
Project Timeline (include a step by step Procedures)	<p>Week 1 – Training on Google Education Apps</p> <p>Week 2 – Training on GPS use and how to import data into a computer.</p> <p>Weeks 3-6 – Go out and collect data and trash in groups of 4 students (1 w/ GPS, 1 recording type of trash, 2 collecting trash) with the jobs rotating each week. Entering data into the computer and their Google Education Apps accounts.</p> <p>Week 7 – Finish entire class map and analyze the completed data from the whole class.</p> <p>Week 8 – Students work on and complete their group presentations on the complete information data the class has gathered.</p>

	<p>Week 9 – Each group will present their presentation to the class and we will vote on which group will present the class findings to the PTA and Community Councils and Principal.</p>
Resources Needed	<p>GPS Units – 8-10 if possible</p> <p>Computer with the ArcView loaded on it</p> <p>Person with knowledge to create the final map</p> <p>Google Education Apps for each group to create a presentation on their findings</p>
Skills Required	<p>Tutorial/lesson on the use of the GPS units</p> <p>Ability to manipulate ArcView GIS program</p> <p>Google Education Apps training</p>
Project Team Member Roles	<p>Teacher(s): Derek Larson</p> <p>Students: Mr. Larson’s 4th Grade Class</p> <p>Partner(s): Mr. Stevenson, Principal LVES City of St. George</p>
Celebration/Presentation	<p>After the findings have been presented to the PTA and Community Councils and the Principal, we will have a class party to celebrate their hard work.</p>
Project Evaluation	<p>Each group will submit their presentation to me via the “Sharing” function on the Google Education Apps and it will be graded.</p> <p>As a class, we will decide, through a class discussion, if the project was worthwhile and if they learned anything.</p> <p>Each student will write a short 3-5 paragraph response on what they gained from the experience and “share” it with me.</p>
Project Bibliography	
Plans for Future CMAP Activities	<p>Go out near the end of the year and repeat the process to see if the results will be the same.</p>