## CMaP PROJECT

Project Title: Santa Clara Recycling Project Author: Angela Fishel Class: St. George CMaP 2010

Project Description	Community Recycling Survey Project
	We will survey the use of recycling in Santa Clara and plot the use on an ArcMap to determine if proximity to community recycling drop off locations increases usage. Further, we will determine possible locations for more public drop-offs by asking how close non-recyclers would need to be in order to be enticed into their use and use this information to suggest to the city where binnies can be placed to increase overall recycling in our area. Finally, through this project community awareness of recycling options will increase and this education may in itself increase the use of recycling drop off locations and/or the use of home recycling.
Community Issue or Problem Selected -How project evolved?	The availability of recycling in Santa Clara is very new. The general public may not be aware of the current options that are available and the city may not be aware of the people that would use its program if it was more convenient.
Community Partner(s)	City of Santa Clara Santa Clara Elementary Staff and Community Council Recycling Company
Project Objectives	The objectives of this project are to increase the use of recycling in our area and to impact our community by improving its recycling habits.
Utah Core Standards/Objectives	Social Studies Core Standard 1 Objective 3 Analyze ways cultures use, maintain, and preserve the physical environment. Describe ways to conserve and protect natural resources (e.g. reduce, reuse, recycle). Standard 3 Objective 1 Students will understand the principles of civic

	responsibility in classroom, community, and country. Objective 3 Engage in meaningful dialogue about the community and current events within the classroom, school, and local community.  Health Core  Standard 7 The students will understand the value of service and effective consumer practices.  Objective 1 Participate in service-learning that assists the community.  a. Identify the needs of a community. b. Examine situations when people or groups assist communities. c. Plan, implement, and report on community service.
Essential Question(s) -Spatial Issue	How can humans reuse their resources without destroying the Environment? How has the technology of today allowed us to collect and analyze the data for the trash problem we have at our school What are the benefits, for us personally and for the community in which we live, to recycling?
Assessments (rubrics, scoring guides)	Assessments will be given for the proper use and handling of GPS units.
Project Products	We will produce a ArcMap that shows the neighborhood surrounding Santa Clara Elementary and pinpoints homes that use curbside recycling, recycle using the binnies and do not recycle. We will also compile information on the distance that non recyclers are willing to travel and will use this information to suggest locations for binnies in our area.
Project Timeline (include a step by step Procedures)	<ol> <li>Produce a survey about recycling habits and distribute it to all Santa Clara Students in both paper and electronic format on the school website in August to gather data.</li> <li>Train students in the use of GPS and mark waypoints for all binnies in the Santa Clara area.</li> </ol>

	<ol> <li>Map waypoints and survey results on ArcMap to determine usage and proximity.</li> <li>Buffer homes that say they would recycle if they were within a certain distance of a bin.</li> <li>Calculate best areas for new bins to be placed.</li> <li>Write up our conclusion and recommendations.</li> <li>Present to the City of Santa Clara for further study.</li> </ol>
Resources Needed	GPS Unit ArcMap program Google Doc Survey tool
Skills Required	Knowledge of GPS, Google Survey, and ArcMap programs
Project Team Member Roles	Teacher(s): Angela Fishel, Third Grade Teacher  Students: Third Grade Class  Partner(s): City of Santa Clara, Recycling Company, Santa Clara Elementary Students, Parents, Staff and Community Council
Celebration/Presentation	We will present our findings to the Santa Clara City Council for their review. We will also invite the local news to cover our project, it's goals and outcomes.
Project Evaluation	We will evaluate the project by giving a second survey in May to see if our project affected the recycling habits of the community. We will also get data from the recycling company to determine if there was an increase in overall recycling following our project.
Project Bibliography	Past CMAP recycling projects, Utah Core Curriculum
Plans for Future CMaP Activities	Future students will follow up to influence & promote Recycling