Project Title: Hurricane City Parks and Recreation
4th Grade After School Program
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St George CMaP 2010 Class:

Project Description	
Map Hurricane City Parks	Students will use a map of the city of Hurricane and locate the city parks. They will determine what diameter around the park would be served by the park. Then they will calculate the population served by the parks and recreation places using maps either provided by the city or downloaded from Arc Gis. The students will evaluate if the public is being served adequately and make a presentation to the City Council concerning the data collected.
Community Issue or Problem Selected -How project evolved?	Are there sufficient recreational facilities in Hurricane City for the population residing in the city?
Community Partner(s)	City of Hurricane, specifically the recreation director of Hurricane and the City Council of Hurricane
Project Objectives	Students will identify and map all the sites in Hurricane City limits that are city parks or other places of recreation. The students will map the sites and add properties of population, equipment in the parks, and any other things the students decide need to be included. The students will create a PowerPoint to present to the Hurricane City Council showing their map and data collected, stating the conclusions drawn from the data. The students will make proposals to the City Council based on the data in the presentation.
Utah Core Standards/Objectives	Fourth Grade Standard III: 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.  Indicators:  e. Describe and model ways that citizens can participate in

	civic responsibilities (e.g. current issue analysis, recycling, volunteering with civic organizations, letter writing). Objective 3: Analyze how human actions modify the physical environment. Indicators: a. Describe how and why humans have changed the physical environment of Utah to meet their needs (e.g. reservoirs, irrigation, climate, transportation systems and cities).
Essential Question(s) -Spatial Issue	Is the population well served in Hurricane by the city parks available to them?  Do we have additional land that can be used for city parks?
Assessments (rubrics, scoring guides)	Create a rubric that measures group participation, attendance, and willingness to learn.
Project Products	Map of Hurricane with Google Earth showing the recreation sites with data attached and pictures, PowerPoint for presenting to the Community Council.
Project Timeline (include a step by step Procedures)	This project could take months to do. I am thinking that at least two months.  First Month: Week 1: Learn how to use the GPS units.  • Teach the parts of the GPS unit  • Mark Waypoints  • Show the class the waypoints on a google map  Week 2: Hurricane City map  • Locate and mark parks and recreation sites i.e. city pool, recreation center, Senior citizens center  • Determine the area that serves each one  • Calculate the population, use population topographic map for the information.  Week 3: Create a map with Arc GIS  • Create a simple map  • Show how to find topographic maps of Utah  • Have them enter preentered waypoints from their GPS

	units.  • If it is too difficult, might consider using Google Earth instead, or I would create the map with their data.  Week 3: Mark Waypoints & Gather Data  • Divide into teams  • Assign each team where to go and what to mark  Week 4: Map Waypoints  • Using Arc Map download map and enter waypoints  • Enter data from data gathered  • Data will be equipment found at parks, facilities offered at pool, recreation center, and Senior Citizen center.  • Condition as well as type of equipment and facilities.  Week 5: Collaborate and draw conclusions  Week 7 or whenever scheduled
	Present to the City Council
Resources Needed	GPS units for every two students, Arc GIS software, teacher with experience with Arc GIS software, PowerPoint, computer lab, parent volunteers or teacher volunteers
Skills Required	GPS capability, Familiar how to make a map with Arc GIS, able to work with a team
Project Team Member Roles	Teacher(s) & Parent Volunteers: Support students by teaching them how to use the GPS units, Arc GIS, and PowerPoint software. Provide transportation for students to go to the city parks and other sites in the city.
	Students: Mark the way points for the map at each site to demonstrate what was offered to the public at that site. Create the map of the sites with data from each.
	Partner(s): Give paper maps of all the parks and recreation sites within the city limits. Listen to the presentation after all information is gathered.
Celebration/Presentation	At a Parent night present to the parents and their peers what was entailed in the project and show the power point.

Project Evaluation	Observation of students engagement in the project. The product created through the project and completion of the project and celebration.
Project Bibliography	CMAP handouts, Hurricane City map, Analyzing Our World Using GIS with workbook
Plans for Future CMaP Activities	If there is a need for more parks or other needs, a project to suggest sites in Hurricane City that would be good for those endeavors.