Pam Hyer 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	Students will learn to make their environment better by assessing the usage of the school playground. Where do kids play? Are there areas that are unused? Are some areas too crowded? What could be added to the playground to make it better for students? Students will learn to use GPS devices and ArcGIS software to collect data and map their environment.
Community Issue or Problem Selected -How project evolved?	There is only one area of the school playground with equipment (slides/etc). When the Kindergarten is out for recess, no older kids are allowed to be out on the playground because of "territory disputes" The school property has a lot of geographic space, but little equipment/useful space. Many students just sit on the asphalt in the shade of the building, and scheduling is complicated because older and younger students have conflicts when trying to share the space.
Community Partner(s)	PTA Community Council School Custodian
Project Objectives	Students will demonstrate a basic proficiency with and understanding of GPS/GIS technology to create a map of the playground and show plyaground usage.

	1. Learn to use GPS units 2. Learn to use ArcMap software 3. Gather and interpret data 4. Produce a map that represents playground usage
Utah Core Standards/Objectives	Educational Technology 6-8 Standard 4 - Use technology resources (e.g., calculators, data collection probes, videos, educational software) for problem-solving, self-directed learning, and extended learning activities. Standard 5 - Use technology resources (e.g., calculators, data collection probes, videos, educational software) for problem-solving, self-directed learning, and extended learning activities. Standard 6 -Design, develop, publish and present products (e.g., Web pages, videotapes) using technology resources that demonstrate and communicate curriculum concepts to audiences inside and outside the classroom.. Standard 7 - Collaborate with peers, experts, and others using telecommunications and collaborative tools to investigate curriculum-related problems, issues, and information, and to develop solutions or products for audiences inside and outside the classroom.
Essential Question(s) -Spatial Issue (mapping aspect)	How could the playground be used more effectively? Are there enough places for kids to play?
Assessments (rubrics, scoring guides)	Class participation Demonstrate ability to create way points and record data Each student group will collect data at assigned location and time Students will contribute data to help create a collaborative map Students will evaluate data and make a recommendation for improvements to the playground
Project Products	Students will collect data about playground usage (tracked with GPS points) Students will map data and produce a map of their assigned area.

Project Timeline (include a step by step Procedures)	Week 1 - Learn GPS device basics. What is GPS (watch video "The Truth about GPS" http://gmapk12.wikispaces.com/Instructional+Videos-GPS Look at various online maps of their environment. Week 2 - Learn to record a way point (drop ball) - trade devices (find ball) Week 3 - Collaborate as a class to create a data collection sheet with relevant categories to assess. Create/Record way points to mark significant areas (sections) of the playground. (Homework to complete data sheets during recesses) Week 4 - Bring back data and record information on a spreadsheet. Week 5 - Transfer data to ArcGIS map. Discuss what map reveals. Have student write recommendation of what they would like to see added to the playground. Create an individual map locating points to enhance the playground items to add (i.e. benches, shade, equipments, etc.) http://edcommunity.esri.com/Resources/ArcLessons/Lessons/T/Table_Time
Resources Needed	http://uplan.maps.arcgis.com/home/ https://www.youtube.com/watch?v=5s5EvhHy7eQ http://edcommunity.esri.com/Resources/ArcLessons/Lessons/T/Table_Time
Skills Required	• GPS basics - Create a way point • Create/record data in a spreadsheet • Add data to GIS map • Persuasive writing
Project Team Member Roles	**Teacher(s):** **Students:**

	Partner(s):
Celebration/Presentation	
Project Evaluation	
Project Bibliography	
Plans for Future CMaP Activities	

Optional:
-Lesson Plans
-Student Artifacts
-Publicity