

TEMPLATE FOR CMap PROJECT

Proposed Project Title: Trees for Old Mill Elementary

Created By: Jamie Hagan

Class: Pleasant Grove 2007

Project Description	Students will map the school grounds and mark buildings, objects, equipment, trees, parking lots, sprinkler heads.They will then determine a good location to plant a new tree(s).
Community Issue or Problem Selected -How project evolved?	We are a new school (1 year). We have very limited tree/shade cover. The few trees we do have are very, very small. We have a need for more trees/shade.
Community Partner(s)	School PTA, local and city/county nurseries
Project Objectives	<ol style="list-style-type: none"> 1. Students will learn how to use GPS handheld units 2. Students will learn how to use ArcMap software 3. Students will learn how to gather and analyze data 4. Based on the data, students will problem solve a location for a new tree(s)
Utah Core Standards/Objectives	<p>Technology Standards:</p> <p>Standard 4 Use general purpose productivity tools and peripherals to support personal productivity, to remediate skill deficits, and to facilitate learning throughout the curriculum.</p> <p>Standard 5 Use technology tools (e.g., multimedia authoring, presentation, web tools, digital cameras, scanners) for individual and collaborative writing, communication, and publishing activities to create knowledge products for audiences inside and outside the classroom.</p> <p>Fifth Grade Science ILO's</p> <p>1. Use Science Process and Thinking Skills</p> <ul style="list-style-type: none"> • Observe simple objects, patterns, and events and report their observations. • Sort and sequence data according to criteria given. • Given the appropriate instrument, measure length, temperature, volume, and mass in metric units as specified. • Compare things, processes, and events. • Use classification systems. • Formulate simple research questions. • Predict results of investigations based on prior data. • Use data to construct a reasonable conclusion. <p>2. Manifest Scientific Attitudes and Interests</p> <ul style="list-style-type: none"> • Demonstrate a sense of curiosity about nature. • Voluntarily read and look at books and other materials

	<p>about science.</p> <ul style="list-style-type: none"> • Pose science questions about objects, events, and processes. • Maintain an open and questioning mind toward new ideas and alternative points of view. • Seek and weigh evidence before drawing conclusions. <p>Accept and use scientific evidence to help resolve ecological problems.</p>
Essential Question(s) -Spatial Issue	<ol style="list-style-type: none"> 1. Why do you think the current trees are planted where they are? 2. What needs to be considered for planting a new tree(s)?
Assessments (rubrics, scoring guides)	See Scoring in Project Products Field.
Project Products	<p>Students will each create a map of the school grounds including:</p> <ul style="list-style-type: none"> • School building (with correct perimeter) 5 points • Parking Lots 5 points • Trees 5 points • Playground Equipment 5 points • Sprinklers 5 points • Digital Images (at least 2) 5 points • Show location for proposed tree (s) 5 points • Title, direction, legend, student name 5 points <p style="text-align: right;">40 points</p>
Project Timeline (include a step by step Procedures)	<p>I see fifth graders for 1 hour a week in the computer lab. The plan is to spend one session a month on GPS/GIS activities.</p> <p>Sept-Dec:</p> <ul style="list-style-type: none"> • Intro GPS Units-Variou activities to learn how to mark waypoints, find waypoints, transfer waypoints and import into ArcMap. <p>In small groups:</p> <ul style="list-style-type: none"> • Map the school building perimeter • Map the playground (take pictures) • Map trees and other objects(take pictures) • Map sprinklers –meet with custodians to determine zones • Have an arborist come speak to the students • Plan how to obtain tree(s) <p>Jan-Apr</p> <ul style="list-style-type: none"> • Analyze data and create maps to decide where would be good locations for new trees • Research what types of trees would work best for our school/area • Plant the trees in a ceremony on Arbor Day (April 25, 2008)
Resources Needed	<p>15 GPS units Digital Camera Computers ArcMap Software</p>

	Internet Access Arborist
Skills Required	How to use a GPS Basic computer skills How to use ArcMap software Research skills
Project Team Member Roles	Teacher(s): Jamie Hagan, Fifth Grade teachers Facilitate learning Students: Fifth Grade classes (4) Gather and analyze data Partner(s): PTA, local nurseries, arborist Funding, donations, expertise
Celebration/Presentation	We plan on obtaining a “good sized” tree to present to the school and plant on Arbor Day.
Project Evaluation	Ongoing: Do the activities meet the stated goals? Did the project meet school needs? Feedback from community partners Did students work well together? Were students successful with the equipment and software?
Project Bibliography	http://www.arborday.org
Plans for Future CMAP Activities	A new park will be put in across the street from the school. Students will map a safe way to get there from school and then to home. They will also map the equipment/objects at the park.