

TEMPLATE FOR CMAP PROJECT

Project Title: Murray Nature Center Nature Walk

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Heber Community Mapping

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<p>Project Description</p>	<p>This project will involve the students in using GPS units to map the plant and animal life found in the Murray Nature Center. Digital photos will be taken at each site. This data will then be mapped using ArcGIS. After researching each of the artifacts photographed, students will create an interpretive audio presentation to follow the map. The annotated maps and audio presentations will be made available to the Nature Center as a resource in furthering the educational experience at the Nature Center.</p>
<p>Community Issue or Problem Selected -How project evolved?</p>	<p>The Murray Nature Center is an outdoor education facility shared by Murray and Granite School Districts.</p> <p>Providing an interpretive audio tour of the Nature Center will help enhance the learning experience of the students who visit the Nature Center.</p>
<p>Community Partner(s)</p>	<p>Myra Millward, Retired Teacher Murray Nature Center Granite School District Curriculum Department - Interconnections</p>
<p>Project Objectives</p>	<p>Students learn the use of GPS units Students will work with Digital Cameras Students will create maps using ArcGIS software Students will research the species of plants and animals found at the Murray Nature Center Students will create an interpretive audio presentation to be used at the Murray Nature Center</p>
<p>Utah Core Standards/Objectives</p>	<p>Science Benchmark Utah has diverse plant and animal life that is adapted to and interacts in areas that can be described as wetlands, forests, and deserts. The characteristics of the wetlands, forests, and deserts influence which plants and animals survive best there. Living and nonliving things in these areas are classified based on physical</p>

	<p>features.</p> <p>Objective 2 Describe the common plants and animals found in Utah environments and how these organisms have adapted to the environment in which they live.</p>
Essential Question(s) -Spatial Issue	In what ways does the Murray Nature Center demonstrate the diversity of plant and animal life found in Utah?
Assessments (rubrics, scoring guides)	Evaluate each group's initial presentation and research of artifacts. Record a competent grade (B) for each learner who actively participates in the presentation in some way.
Project Products	<p>Annotated Maps of the Nature Center</p> <p>Audio CDs of the interpretive material</p> <p>PowerPoint or PhotoStory presentations for use at schools</p>
Project Timeline (include a step by step Procedures)	<ul style="list-style-type: none"> € Arrangements will be made with the Murray Nature Center to complete the project. € Teachers and students will visit the Nature Center and gather data using GPS and Digital Cameras. Notes will also be taken of the plants and animals that are observed. € Students will research the plants and animals that were photographed so that they can write a descriptive narration for each artifact. € GPS information and Photos will be incorporated in a map of the Nature Center. € The descriptive narration will be recorded to go along with the map and photos. € The finished project will be presented to the Nature Center.
Resources Needed	<p>GPS Units</p> <p>Data Recording Sheets</p> <p>Digital Cameras</p> <p>Internet and Library research resources</p> <p>ArcGIS software</p> <p>Audio recording equipment</p> <p>CDs to burn final copies</p>
Skills Required	<p>1. Use Science Process and Thinking Skills</p> <ul style="list-style-type: none"> a. Observe simple objects and patterns and report their observations. b. Sort and sequence data according to a given criterion.

	<p>c. Conduct a simple investigation when given directions.</p> <p>2. Manifest Scientific Attitudes and Interests</p> <p>a. Demonstrate a sense of curiosity about nature.</p> <p>b. Voluntarily read or look at books and other materials about science.</p> <p>c. Pose questions about objects, events, and processes.</p> <p>3. Communicate Effectively Using Science Language and Reasoning</p> <p>a. Record data accurately when given the appropriate form and format (e.g., table, graph, chart).</p> <p>b. Report observation with pictures, sentences, and models.</p> <p>c. Use scientific language appropriate to grade level in oral and written communication.</p> <p>d. Use available reference sources to obtain information.</p>
Project Team Member Roles	<p>Teacher(s): Provide resources and facilitate the project by instructing students in the use of GPS units and Digital Cameras. Teachers will also provide guidance as students do the research and will check the narratives for accuracy.</p> <p>Students: Collect data using GPS units and digital cameras. Do research on the plants and animals that were observed and write up the narrations. Create maps of the data that were collected. Record the narrative that will go with the maps and photos.</p> <p>Partner(s): Help us gather the existing materials so that we can see where to start and what can be done to improve current materials. Evaluate the project as it goes along and provide encouragement and evaluation of the project.</p>
Celebration/Presentation	The finished project will be presented to the Murray Nature Center for use by classes throughout the Salt Lake Valley.
Project Evaluation	One of the other 4 th grade classes will take the materials and use them to do the activities at the Nature Center. They will provide feedback about what was done well and what needs to be improved before the final product is presented for use.
Project Bibliography	
Plans for Future CMaP	

Activities	This project could be repeated in winter and spring to show the changes that the plants and animals go through in different seasons of the year.
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Optional:

- Lesson Plans
- Student Artifacts
- Publicity