

Project Title: Bicycle Exercise Routes in Price
Created by: Derald Kurtz
Class: Price 2009

<p>Project Description</p>	<p>By implementing the use of GPS (Global Positioning System) units, ArcMap, and GIS (Geographic Information Systems) technology, students will be asked to create a database of bicycle exercise routes, including maps, location, land marks, distances, difficulty, elevations gains, travel time, points of interest (with pictures), and other equipment needed (such as water or digital cameras, etc.) All routes will be in the gas well area north of Price.</p> <p>Routes will then be incorporated into GIS maps and posted to the school web site. Brochures will also be printed out to be circulated to all students. Brochures will also be made available through local bike stores, and exercise gyms in the area.</p> <p>All teachers, elementary through high school, will be made aware and encouraged to have students, and families, utilize designated bike routes.</p>
<p>Community Issue or Problem Selected -How project evolved?</p>	<p>With the rise of diseases related to children obesity, it is important that every opportunity be given to encourage youth to adequate and enjoyable exercise.</p> <p>OR</p> <p>With trends showing the change of lifestyles in American youth getting overweight, and their related diseases, it is important that youth be encouraged to exercise.</p>
<p>Community Partner(s)</p>	<p>Local gyms, bicycle shops, fitness trainers, local law enforcement.</p>
<p>Project Objectives</p>	

	<p>It is hoped that by giving youth non threatening and easy bicycle routes they will be motivated to enjoy and use this form of activity both individually and with families.</p>
<p>Utah Core Standards/Objectives</p>	<p>Standard 4 Students summarize issues related to health promotion and disease prevention.</p> <p>Objective 1 Analyze how communicable and non-communicable diseases differ, and the roles of heredity and behavioral choices on each.</p> <p>☐☐</p> <ul style="list-style-type: none"> a. Identify methods of prevention for communicable diseases; e.g., hand washing, personal hygiene, immunization, balanced diet, exercise, rest, abstinence from high-risk behaviors. b. Identify methods for reducing the risks of non-communicable diseases; e.g., exercise, non-use of alcohol, tobacco, and other drugs (ATOD), balanced diet, regular check-ups, coping skills. c. Summarize ways in which many diseases are treatable and manageable; e.g., proper use of medication, appropriate check-ups, diet, humor, exercise.
<p>Essential Question(s) Spatial Issue</p>	<p>Will the access of exercise trails encourage students to become more involved in an exercise program involving riding their bicycles?</p>
<p>Assessments (rubrics, scoring guides)</p>	<p>Selected students will be evaluated based on data collected with a GPS unit. Grading will be based on student completion of a route including the data base.</p> <p>Participants will be assessed based on completion and frequency of use on designated routes. Overall health of students will be observed.</p>

Project Products	<p>The Routes will be posted on a school website along with supporting data such as: distance, elevation differences, difficulty, land marks, pictures, estimated time and other items needed such as water and digital cameras.</p> <p>Brochures will also be printed out with the above information and distributed to students, local bicycle shops, and exercise establishments.</p>
Project Timeline (include a step by step Procedures)	<ol style="list-style-type: none"> 1. Train selected students on use of GPS, GIS systems. 2. Have student record data on GPS units. 3. Have students incorporate data on GIS maps. 4. Have students complete a table listing the other types of data needed specific to each route. 5. Introduce project to all teachers in Price schools. 6. Post all data on the district web page. <p>It is hoped that the project can be completed within the first 3 months of the school year.</p>
Resources Needed	<ol style="list-style-type: none"> 1. GPS units for student to use. 2. Students willing to collect data. 3. GIS software for students to transfer data. 4. Digital cameras for students 5. Time to implement program. 6. District web master to post data.
Skills Required	<p>Students will need to know how to ride and record paths on a GPS unit.</p> <p>Students will need to know how to transfer data to a GIS map.</p>
Project Team Member Roles	<p>Teacher(s): indicated later</p> <p>Students: indicated later</p> <p>Partner(s):</p>
Celebration/Presentation	<p>Information will be presented to the teachers of the Carbon School District to introduce to the student in their health class.</p> <p>Brochures will also be placed in local bike shops and fitness training establishments.</p>

Project Evaluation	<p>Students will submit the data indicated above in a timely matter.</p> <p>Also</p> <p>Include a table with the brochure for students to fill out including the following fields. Date, start time, end time, travel time, and overall exertion to complete (scale 1 to 10 - 1 being low), and student weight (optional.)</p>
Project Bibliography	
Plans for Future CMAP Activities	Hiking and running paths in the Carbon area

Optional:

- Lesson Plans
- Student Artifacts
- Publicity