**Project Title: Locations of Fire hydrants**  
*Created by: Creig Cox*  
*Class: Price 2009*

<table>
<thead>
<tr>
<th>Project Description</th>
<th>Locations of Fire hydrants in Orangeville Utah.</th>
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<tbody>
<tr>
<td>Community Issue or Problem Selected - How project evolved?</td>
<td>Need location of fire hydrants for quick access in event of fire and training of new fire fighters. To better serve the city and other depts.</td>
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| Community Partner(s) | Fire Chef Tracy Addley  
Orangeville City |
| Project Objectives | Students will Mark Waypoints for Fire hydrants with GPS units.  
Students will create a GIS Map, to help fire fighters find fire hydrants faster and safer |
| Utah Core Standards/Objectives | (I teach Industrial Technology.)  
Standard 2  
DEMONSTRATE AN UNDERSTANDING OF THE BENEFITS AND LIMITATIONS OF CONSTRUCTION DESIGN.  
Objective 2-2  
Students will Identify design factors in Geography.  
Standard 3  
Through activity-based education students will explore agricultural and related biotechnologies technologies in our world.  
Objective 3-4  
Students will participate in activity based leaning activity to explore agricultural and related biotechnologies.  
Example Activities:  
- Biotechnology  
- Environmental – Water Purification  
- GPS – GIS  
- Greenhouse  
- Hydroponics  
- Recycling |
| Essential Question(s)  
-Spatial Issue | What is a GPS?  
What is GIS? ArcMap?  
What Resources are available for students to use?  
What help is available from the city?  
Will students have all the tools to work with?  
How will our project make a difference in our community?  
How do adults in the community use GIS & GPS? |
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<td>Assessments (rubrics, scoring guides)</td>
<td>Student will develop an ArcMap project that Orangeville City Can use.</td>
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| Project Products | Student will have an understanding of GIS and GPS.  
Student will have a map of fire hydrants for Orangeville City. |
| Project Timeline  
(include a step by step Procedures) | School Year 2009-2010.  
Start project in September.  
Finish project in March |
| Resources Needed | Computers with ArcMap installed.  
GPS’s  
City Topographic Maps  
Community Partners |
| Skills Required | GPS use  
GIS skills  
Computer skills |
| Project Team Member Roles | **Teacher(s): Creig Cox (Technology), Layne Hales (Math)**  
**Students:** 7th gr students work as teams of 2 or 3  
**Partner(s): Orangeville City  
Orangeville Fire Dept** |
| Celebration/Presentation | Invite Tracy Addley to school to hear students project plans and join us when collecting if time his time permits. |
| Project Evaluation | City Engineering Department  
City Fire Department  
Student and Teacher Evaluation |
| Project Bibliography | GIS ArcMap instruction manual |
### Plans for Future CMaP Activities

| Approach local businesses and Companies to become partner’s with the school. |

**Optional:**
- Lesson Plans
- Student Artifacts
- Publicity