**Project Title:** Community Recycling Project  
**Name:** Ken Patrick

| Project Description | Neighborhood Recycling Project  
| Through the use of GPS units students will map their community. By surveying the community students will determine the households who currently participate in recycling, and encourage more community participation. |

| Community Issue or Problem Selected - How project evolved? | Conserving Earth’s natural resources through recycling.  
| This project was chosen for my fifth grade class because our class is already responsible for the schools recycling project. The students will be able to build on what they already know and do themselves expanding recycling into the community building partnerships between the community and their own educational goals. |

| Community Partner(s) | Possible community partners could be;  
| - The schools community council  
| - West Jordan City  
| - Salt Lake County 4H |

| Project Objectives |  
| - Determine percentages of community residents who recycle.  
| - Determine possible reasons/causes for not recycling.  
| - Encourage residents to recycle through the use of |
**Utah Core Standards/Objectives**

- Utah State CORE 5th grade language arts Standard 1, Objective 1: Develop language through listening and speaking. Objective 2 b. Use a variety of formats in presenting with various forms of media (e.g., pictures, graphs).
- Utah State CORE 5th grade language arts Standard 7, Objective 3 d. Identify different structures in text (e.g., description, problem/solution, compare/contrast, cause/effect, order of importance, time, geographical classification).
- Utah State CORE 5th grade language arts Standard 8 Writing—Students write daily to communicate effectively for a variety of purposes and audiences.
- Utah State CORE 5th grade language arts Standard 8, Objective 6 c. Produce informational test (e.g., cause and effect reports, observational/research reports)
- Utah State CORE 5th grade mathematics Standard 3, Objective 2 Specify locations in a coordinate plane. a. locate points defined by ordered pairs of integers. b. Write an ordered pair for a point in a coordinate plane with integer coordinates.
- Utah State CORE 5th grade mathematics Standard 5, Objective 1 a. Construct, analyze, and display data using an appropriate format (e.g., line plots, bar graphs, line graphs). b. Recognize the differences in representing categorical and numerical data.
- Utah State CORE 5th grade Health Standard 7 Students will understand the value of service and effective consumer practices. Objective 1 Participate in service-learning that assist the preservation of natural resources. Identify natural resource protection needs. Examine situations where a person or group assists the protection of natural resources. Plan, implement, and report on a natural resource service project.

**Essential Question(s) - Spatial Issue**

- What is recycling?
- Why should I care if other people or households recycle?
- How does recycling help protect our natural resources?
- What are the costs/savings realized when people
| recycle? | What is a landfill?  
|         | Where are the landfills in our community/how much have they grown in the past 5, 10, and 20 years?  
|         | What impact do landfills have on our community/environment?  
|         | What is the predicted growth of landfills for the next 20 years?  
|         | What does our community look like?  
|         | What is GPS/GIS? |

| Assessments (rubrics, scoring guides) | Scoring for the various parts of this project will be an ongoing process. The teacher can use the scoring of assignments to determine student’s knowledge and progress. Students can use the same scoring system to assess their own understanding and progress.  
|                                       | The following guide will be used;  
|                                       | 0. Student did not bother to try.  
|                                       | 1. Student put forth some effort, but is completely lost in the content knowledge.  
|                                       | 2. Student participated in classroom discussions, group work, but is struggling to understand the concepts.  
|                                       | 3. Student has participated and has a conceptual understanding of what they are supposed to be doing, however is struggling with accuracy the majority of the time.  
|                                       | 4. Student fully participated in all classroom activities and group work. Student understands the important concepts and is able to complete work with good accuracy.  
|                                       | I use this guide in my classroom for most assessments. It is published and discussed allowing the students to use it to assess their own understanding and progress. It often lends itself well to opening a dialog between the students and the teacher. When the students are comfortable with the scoring guide they use it to relate their own feelings to the teacher. As an example students often simply state “I am a 4”, or “help I am a 1”. |

| Project Products | Published pamphlet or brochure.  
|                 | Increased community involvement in recycling. |
| Project Timeline  
| (include a step by step Procedures) | Overall project timeline approximately 6 weeks. Project timeline will have to be evaluated as the project progresses.  

**Week One**  
- Introduction to the project. Classroom discussion based on student ideas and perceptions.  
- Classroom lesson/discussion “What happens to our consumer waste? How is consumer waste dealt with in other communities across the world? How does our community deal with consumer waste? How does consumer waste impact the environment we live in? What is recycling and how does it help us?”  
- Create community survey. (this needs to be completed early in the process to ensure time for responses and follow up where responses were none received or clarifications needed).  
- Field trip (if possible) to a landfill.  

**Week Two**  
- Introduction to GPS, including its uses and application to the project.  
- Field work, practice with GPS units.  
- Mapping the community.  
- Classroom visit from community partner. What are the partner’s needs, what are the student needs, what are the community needs.  

**Week Three**  
- Collection of the data. What does the data tell us? How can we use the data to accomplish our goals?  
- Graphs and charts.  
- Follow up on data collection if needed.  

**Week Four**  
- Putting the data to work.  
- Draft of pamphlet and formal presentation to the community partner.  
- Publish and presentation.  
- Community partner classroom visit. What resources are available to complete project?  

**Week Five**  
- Community letters regarding project, data obtained, request for commitment to recycle, plans for community recycling assistance.  
- Implementation of recycling plan developed between community partner and students.  

**Week Six**  
- This week may not happen until a few weeks after implementation of recycling plan.  
- Evaluation of project success |
| Resources Needed                  | • Professionally produced maps of community and landfills.  
|                                  | • Student generated maps of their community.        
|                                  | • Access to computers and Internet.                 
|                                  | • GPS units.                                       |
| Skills Required                  | • Basic number sense.                               
|                                  | • Knowledge of basic number operations.             
|                                  | • Mathematical predicting/estimating.               
|                                  | • Graphs and charts.                               
|                                  | • Writing; persuasive, effective communication,     
|                                  | compare/contrast, cause and effect.                
|                                  | • GPS usage.                                       
|                                  | • Map making.                                      
|                                  | • Computer and Internet skills.                    |
| Project Team Member Roles        | **Teacher(s):** Provide classroom instruction on various topics related to the project. Monitor student progress and offer feedback. Organize activities both in and out of the classroom. Liaison between students and Community Partners. Keep students on task and maintain timeline. Project photographer. Other help as needed.        |
|                                  | **Students:** Organize themselves and their individual/group work product. Complete surveys, draft pamphlet/brochure. Complete all other assigned tasks.  
|                                  | **Partner(s):** Classroom visits. Funds for fieldtrip to landfill and/or recycling center. Assist with publishing pamphlet/brochure. Assistance with other needs that may arise to successfully accomplish the project. Recognition of student efforts and successes.  
| Celebration/Presentation         | Students will make a formal presentation of the project to the Community Partner in a council meeting.  
|                                  | Students will make a second formal presentation at the completion of the project including the success and recommendations for future recycling efforts.  
|                                  | Published report of project progress and ideas.  
| Draft of formal presentation to community partner and school. | • Formal presentation.  
|                                  | • Commitments for continued efforts from students, community partners and school for continued efforts.  
Students recognized by school and partners for their efforts and work.

| Project Evaluation | Students will be evaluated on participation, accuracy of completed work, and presentations. Overall project will be evaluated on community responsiveness, increased participation in recycling, and individual commitment to continue recycling efforts. |