

CMaP PROJECT

Project Title: Responsible Living – Compost Benefits Everyone

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Class: St George 2010

<p>Project Description</p>	<p>Students will research what efforts have been made by the Washington County Solid Waste in informing community residents about composting. Students will create a simple presentation that can be given to parents/guardians and neighbors describing the benefits of composting. They will be able to share their knowledge of microorganisms.</p> <p>Students will create a questionnaire that they will provide to their parents/guardians and neighbors to complete with respect to recycling efforts.</p> <p>Utilizing GIS, students will map out houses of residents interested in and wanting to learn more about the benefits of composting. Students will also map locations of neighborhood (community) gardens within school boundaries and reuse center.</p> <p>Students will research simple compost kits that can be assembled by residents, compost kits that can be purchased, and requirements to create a simple composting pit.</p>
<p>Community Issue or Problem Selected -How project evolved?</p>	<p>Many residents of Washington County either are unaware of the counties green waste recycling efforts. Other residents probably feel that the efforts to recycle green waste, either through composting or taking to the green waste deposit sites, is not worth the effort or takes too much work.</p>
<p>Community Partner(s)</p>	<p>St. George residents, students, school administration, County of St. George</p> <p>Washington County Solid Waste Reuse Center 575 E. Brigham Rd. St. George, UT 84790</p>
<p>Project Objectives</p>	<p>Make residents aware of benefits of green waste recycling. Educate residents of the options that are available to them to recycle their green waste.</p>
<p>Utah Core Standards/Objectives</p>	<p>6th Grade Science Core</p> <p>Objective 2: Demonstrate the skills needed to plan and conduct an experiment to determine a</p>

	<p>microorganism’s requirements in a specific environment.</p> <ol style="list-style-type: none"> a. Formulate a question about microorganisms that can be answered with a student experiment. b. Develop a hypothesis for a question about microorganisms based on observations and prior knowledge. c. Plan and carry out an investigation on microorganisms. {Note: Teacher must examine plans and procedures to assure the safety of students; for additional information, you may wish to read microbe safety information on Utah Science Home Page.} d. Display results in an appropriate format (e.g., graphs, tables, diagrams). e. Prepare a written summary or conclusion to describe the results in terms of the hypothesis for the investigation on microorganisms. <p>Objective 3: Identify positive and negative effects of microorganisms and how science has developed positive uses for some microorganisms and overcome the negative effects of others.</p> <ol style="list-style-type: none"> a. Describe in writing how microorganisms serve as decomposers in the environment. b. Identify helpful uses of microorganisms (e.g., clean up oil spills, purify water, digest food in digestive tract, antibiotics) and the role of science in the development of understanding that led to positive uses (i.e., Pasteur established the existence, growth, and control of bacteria; Fleming
Essential Question(s) -Spatial Issue	How can 6 th grade students at Sunrise Ridge Intermediate School impact the environment? How can students influence the community to make a difference?
Assessments (rubrics, scoring guides)	All students will be required to do research and create a survey which will be part of the assessment. Students will be part of 2 – 3 person teams. Each team will be required to create a PowerPoint presentation on what they learned by performing this project.
Project Products	At the end of the project there will be a map with multiple layers of information including school boundaries, homes where the survey has been completed, homes where information has been shared with occupants, and homes where composting or green waste recycling has been implemented.
Project Timeline	Week 1 - Washington County Solid Waste will give

(include a step by step Procedures)	<p>presentation to students. Students will research information about composting requirements.</p> <p>Week 2 – Students will research options for homemade and purchased compost pits. Information will include materials list and estimated costs for homemade unit. A list of various purchased units will also be made with vendor and price information.</p> <p>Week 3 – Teacher and students will develop questionnaire and flyer to deliver to parents/guardians and neighbors. Students will deliver flyer along with questionnaire and schedule a time to retrieve the flyer.</p> <p>Week 4 – Students will have retrieved all flyers. Teacher and students will enter information from flyers to Google Docs. Teacher and students will input information into GIS system. Information will include residences met, green waste reuse center, community gardens, and any locations already recycling or composting. Teacher will schedule informational meetings for community members with WCSW.</p> <p>Weeks 5 and 6 – Hold meetings with WCSW and community members. Meetings are to educate community members with more detailed information. A survey requesting additional information will be completed by community members.</p> <p>Week 10 – Students will follow-up with parents/guardians and neighbors. They will update recycling and composting information. Students will schedule an additional follow-up visit. Students will update GIS information.</p> <p>Week 16 – Students will complete final follow-up visit and update GIS information.</p> <p>Week 17 – Students will put together PowerPoint presentation highlighting the knowledge gained and their successes.</p> <p>Week 18 – Have a party!</p>
Resources Needed	Computers – networked Printer Survey forms
Skills Required	Basic computer skills GPS units to identify coordinates of houses and community gardens
Project Team Member	Teacher(s): Mr. van den Eikhof

Roles	<p>Students: Mr. van den Eikhof's 6th Grade Science Students</p> <p>Partner(s): Washington County Solid Waste, community members, school administration</p>
Celebration/Presentation	Students will gain acknowledgement through The Spectrum, KCSG, school newspaper and in the school yearbook. Teams of students will create presentations including graphs and successes.
Project Evaluation	At the conclusion of the project teacher and students will compare the number of surveys completed, the number of community members that implement composting and the number of community members that implement green waste recycling.
Project Bibliography	
Plans for Future CMAP Activities	Additional recycling efforts will be made throughout other parts of the community. These efforts will include expanding the boundaries of the green waste recycling. Efforts will also be made to implement recycling of other products including plastic, glass, paper, aluminum, etc.