Project-based Learning Plan

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Project Title: Gardening Locally and Globally

Grade Level: Third Grade Gifted

Subject Areas:Reading, Mathematics, Science, Social Studies and Language Arts

Purpose:

To incorporate curriculum areas for third grade gifted students into a year-long, project-based unit utilizing available technology. Areas addressed are the development of expository writing skills, multicultural understanding, map skills, geography, science, and nutrition explorations through gardening and mathematics.

Setting:

The classroom is a resource room for gifted students in grades one-through-five. The project will be incorporated throughout all grades, but information presented here will be limited to third-grade. Classroom materials include an indoor grow-lab, five outdoor raised garden beds, and a 15' X 30' hydroponics greenhouse. These materials were purchased through grant opportunities.

Desired Outcomes for Students:

Knowledge: enhance and expand the regular curriculum by using technology as another tool for learning and communication. Involve students with local and international communities of learning, make the use of technology a personal experience, and gather a better understanding of another culture.

Skills: reading, writing, mathematics, social studies, technology and scientific study

Attitudes: Encourage student learning and interest through high-energy activities with real, hands-on type learning activities

Essential Question: What are our local basic essentials of food production and preparation, and are they the same for us as for students in a different region of the world?

Final Product or Artifact: Written and electronic "how-to" guide for producing and preparing foods locally and globally.

Technology from the institute that will help complete this project: Skype/Webcam, Photoshop Elements, Smartboards, writing tablets, Microsoft Office (Excel, PowerPoint, Publisher, Word, Frontpage) and iMovie.

Summary Description

The initial component of this project will link students with local resources including small-scale produce growers, master gardeners, and researchers from the University of Florida IFAS Station in Live Oak, Florida. Students will communicate with these individuals electronically through e-mail, webcam, and websites to gain a more personal perspective of the local community, the types of persons involved in commercial vegetable gardening, as well as their job descriptions. The project will also fulfill a typical school improvement goal to unite community members with schools. Students will take a trip to the IFAS station for a closer study of hydroponics and container gardening of vegetables.

The second part of the project will connect students with similar school children in Victoria, Australia. Working relationships were formed in the past when teachers worked collaboratively on other projects. Students will begin by exchanging information based on topics such as favorite foods, areas of local geographic interest and cultural information. Later communication will focus on specific crops grown in the school gardens and preparation of these food sources.

The project will provide a multitude of benefits for students. While enhancing and expanding the third grade curriculum, the project will expose students to technology as another tool for learning and communication, and will serve to integrate technology into the curriculum. The project will link students with local vegetable growers and give students a more personal perspective of our community and the types of persons involved in food production. Students will learn about different cultures from children in another country, giving all a more global perspective. Students will also have real opportunities to develop writing and electronic communication skills.

Pre-Project Plan

Grouping	Resources	Technology Equipment
Third grade enrichment students placed in cooperative learning groups	Classroom curriculum materials for math, science, and social studies	Computer Lab

State of Florida Matrix Guidelines for subject areas	Digital video cameras
Vegetable gardening guides	Scanners
Raised vegetable garden beds	Digital cameras
Gardening equipment	Webcam monitoring cameras
E-mail	Microsoft Office Software: Word, Excel, PowerPoint, Publisher
Internet	Microsoft Frontpage (webdesign)
Indoor grow-lab	
Hydroponics greenhouse	

Project Schedule

Timeframe	Objective	Task
Activities will take place throughout the school year.	Enhance and expand the regular curriculum	Follow the curriculum guidelines for third grade students by incorporating the studies of scientific explorations, mathematics, people of different cultures, map skills, geography.
	Expose students to technology as another tool for learning and communication	Computers, software, and peripherals will be used throughout the year to enhance learning.
	Use technology to make learning a personal experience	Students will be linked locally and globally through the use of the Internet, E-Mail, and webcams.
	Study the local community and the people who are involved in agriculture both as small growers, and as scientists at the University of Florida	Students will be linked with small growers and with horticultural experts at the University of Florida IFAS station in Live Oak. Students will have opportunities to interview local experts via E-mail, live by webcam, and on a visit to the IFAS station in Live Oak. Interviews and information will be compiled into a student-produced booklet that will be shared with other students throughout the school.
	Practice oral, reading and writing skills	Communication with others will enhance these skills
	Keep student interest high through the use of electronic mail and real-time communication	Communication with schools in Australia is expected to be as least once per week.
	Study of geographic and climate differences	Conversion of weights, temperatures, measurement.

Phase 1: Activities to set the stage for the project:

1. Pre-tests in subject areas along with teacher-made instruments to gauge student knowledge and interest.
2. General introduction and overview of the project, student responsibilities, and expected behaviors.
3. Review of materials from past projects.
4. Begin to write letters of introduction and real-time video introduction via webcam using Skype.

Phase 2: Activities that engage students in learning:

1. Pairing of students with pen pals from two classes in a primary school in Victoria, Australia.
2. Pen pal exchange via e-mail and "snail mail." Discussions of favorite books, foods, holiday customs.
3. Preparation of electronic booklet detailing vegetable gardening in North Central Florida.
4. Preparation and exchange of cookbooks containing favorites of the class and using items grown in the class garden when possible
5. Exchange of cultural boxes containing local maps, brochures, favorite books, photographs, posters

Phase 3: Activities in which students share their knowledge in a culminating event as well as reflect on the project and their learning:

1. Presentation of a student designed and produced iMovie containing still and action pictures detailing the project and time-line of events.
2. Sharing with families of foods from the garden, using recipes from the combination cookbooks.
3. Post tests in individual subject areas.

Project Progress & Assessment

The project is planned around state-wide benchmarks for third grade standards in the areas of language arts, reading, mathematics, and science. Student progress will be monitored on a daily basis based on involvement, enthusiasm, and personal development of each individual. Information regarding individual student activity will be recorded on a daily check-sheet. Students will record information every day in project diaries and will keep track of their participation through a self-monitoring guideline. Serving as a responsible, positive, and contributing member of a group will be modeled and encouraged. Students will evaluate their activities within the group and also rate other group members. A time-line of activities will be posted in the classroom and revised as needed to allow for project flexibility. Weekly student

progress check-lists will be sent home to parents along with informational updates. Application of standard curriculum units will be taught through the project theme and assessment will be achieved through the use of curriculum-appropriate testing materials.