



Laptops for 21st Century Learning *Online Newsletter*

Winter, 2008- 2009

Enhancing Education Through Technology Grant:

Project Based Learning Meets Technology

The focus of the Laptops for 21st Century Learning EETT Grant is technology enhanced project-based learning activities where students acquire the digital literacy skills that are vital to success in the 21st century. As students participate in standards-focused projects they will learn content knowledge, develop information and communication technology literacy and cultivate workplace competencies such as teamwork, communication, planning and problem solving.

During the first semester, teachers and students participating in the grant at Ferry Pass Middle School, Ransom Middle School and Woodham Middle School began implementing project based learning. The teachers designed learning activities, provided resources and advised students as they worked in groups on their projects. Students conducted research using multiple sources of information. As students planned for the effective use of their time and shared resources, they increased their skills in workplace competencies such as budgeting their time and other resources. Their projects involved the design and development of a product or presentation that could be used or viewed by others. Students then presented the results of their projects to their class in a variety of formats. **Some of these projects are shared on the following pages.**

For more information about project based learning and technology go to: [Why Teach with Project Learning?](#) and [Why Integrate Technology Into the Curriculum?](#)

IT Teachers

- *Linda Cobb*
- *Norma Jennings*
- *Sue Stevens*
- *Peggy Thompson*
- *Lauren Thurman*
- *Lori Weedo*

Participating Technology Learning Groups:

Ferry Pass MS

(Deborah Long, TLGF)

Ransom MS

(Jim Moore, TLGF)

Woodham MS

(Summer DeMilly, TLGF)





Digital Citizenship

Digital Citizenship is the new name of the Social, Ethical and Human Issues standards section of the National Educational Technology Standards. The new name reflects the growing concern that students know and follow the basic principles of digital citizenship, i.e. how one should behave when using technology. Students should understand what constitutes responsible and appropriate technology use. They should also understand the hazards associated with technology misuse and abuse.

Parents, teachers and other adults are all role models for the appropriate technology behavior that constitutes commendable Digital Citizenship. The Digital Citizenship Website provides information and resources that can be used by any adults who are interested in helping students better understand appropriate technology use. To learn more about Digital Citizenship visit:

http://www.digitalcitizenship.net/Nine_Elements.html

Technology Standards

In response to the need to identify what students should know about technology and what they should be able to do with technology, The International Society for Technology in Education (ISTE) developed its National Educational Technology Standards (NETS) for students in 1998. These standards provide the framework for the Escambia County School District Student Technology Standards as well as those of Florida.

ISTE has now modified these standards to reflect changes in technology as well as the global economy. The original standards focused on developing knowledge and skills in the use of technology tools. The new focus is in the direction of an emphasis on the skills and knowledge needed for students to learn, create and work in a digital world.

The new National Educational Technology Standards ([NETS](#)) are organized into six categories:

1. creativity and innovation
2. communication and collaboration
3. research and information retrieval
4. critical thinking, problem solving, and decision making
5. digital citizenship
6. technology operations and concepts

Social Studies Projects Focus on Digital Citizenship

As Ms. DeMille's class studied the Bill of Rights, they collaborated on a project to create a Digital Bill of Rights for Woodham Middle School students. The students increased their awareness of the multiple media that makes up their high-tech world. They became more knowledgeable about digital citizenship etiquette. They applied their understanding of appropriate and responsible behavior with regard to technology use as they created their Digital Bill of Rights. Students shared their Bill of Rights with WMS pupils and posted them on campus.

Cyber Survival and Safety: Digital Citizenship and Literacy

The students in Ms. Sedillo's Language Arts class used the internet and print resources to research digital citizenship and internet safety. Using this information, students wrote comic book style narratives in which the plot educates their peers on Internet and other digital communication technology safety. The Essential Questions that the students used to guide their inquiry were:

Which are the most essential survival skills a middle school student needs in order to practice safe and responsible use of the Internet and other digital communication technologies? In what situations, could students apply and practice the Internet and digital communication technology safety skills?

To learn more about CyberSafety go to

[Netsmartz](#)



Project Based Learning and Science

"To Be Baked or Not Baked, That is the Question"

Ms. Jackson's science students worked in groups to plant, care for and to record the growth of their vegetables which were planted in different types of soils (baked and nonbaked) to see which medium grows the vegetables the best. The students learned the difference between independent and dependent variables. The students developed record keeping skills to help in communicating their findings to others. The students used Excel to develop their graphs and created PowerPoint presentations to communicate their results. They also wrote a 5-10 page analysis and summary of their experiment.

"Classification is Key"

As part of a unit on Classification, the students in Ms. O'Neal's science class were introduced to Dichotomous Keys. They practiced identifying organisms (real and imaginary) using different forms (paper and computer activities) of dichotomous keys. The students then worked in small groups to design their Dichotomous Keys using picture cards of ordinary items and following scientific classification rules. Students used both PowerPoint and PhotoStory to illustrate the steps in creating a dichotomous key.

2008 Presidential Election and Project Based Learning

The students in Mrs. Long's social studies class researched where the presidential candidates stood on important issues by using websites and written sources. The students collaborated with peer group members to develop either a Venn diagram or opinion paper that compared and contrasted the two major candidates. They used the document camera to share their diagrams with the entire class. The students then participated in a mock election. Mrs. Long noted that, "The students really became involved in the research. The students had an opportunity to discuss what the issues were and how they could impact them and their future. Students were energized as they voted in the mock election and received their 'I VOTED' stickers."



Project Based Learning and Math

Crunch and Munch

Students in Ms. Barton's math class at Ransom MS created vocabulary maps for the key terms (mean, mode, median, range, bargraph, ratio) in their *Fractions and Percents; Data Presentation* unit. Students, working in groups of four, researched the history and facts about the candy at the website for the M&M company and discussed their discoveries. Groups then estimated and counted a bag of M&M's. They added this information to an excel spreadsheet and shared with the class. As a class, they discussed their results. Each student then created an M&M character and wrote a story with at least 3 history facts.

Planning a House

Ms. Sutton students applied math skills as they worked in groups to create house plans. Students presented their house plans on a document camera and explained the total square footage of the house plan, the types and number of different rooms on the plan.

Ms. Sutton observed that, "I had the opportunity to not only see my students engage extensively in creating their own house plans, but actually extending beyond the classroom. One of my groups had an opportunity to share with their parents, one of whom was a real estate agent. They used this parent's knowledge to apply it within their group house plan." The students expressed their desire to continue to learn using Project Based Learning.



"If we teach today's students as we taught yesterday's, we rob them of tomorrow."

John Dewey

