

Technology Unit Redesign

In order for today and tomorrow's students to better learn educators need to become aware of their teaching style and whether or not it meets the demand of the digitally engaging minds of the students they plan to teach. Sometimes it becomes critical to restructure individual units or entire curriculum based on the digitally inclined audience they present to. The purpose of the unit redesign proposal is to address that very issue. In particular, the focus will be on redesigning a textbook and brick and mortar technology classroom unit. While technology such as computers and the Internet, are usually two integral parts of a technology course much of the existing software and digital tools are left out. This leaves the student trying to understand exactly what technology means to them, how it can be utilized and where today's technology trends will head once they graduate.

The focus of this redesign will be a 12th grade Technology Futures course where students will be asked to demonstrate their knowledge of what technology means as well as how to forecast its utilization in the 21st century. The Ohio Standard and Benchmarks cover are the following:

- Develop an understanding of technology, its characteristics, scope, core concepts and relationships between technologies and other fields
- Demonstrate the relationship among people, technology and the environment
- Forecast the impact of technological products and systems
- Integrate conceptual knowledge of technology systems in determining practical
- Identify, select and apply appropriate technology tools and resources to produce creative works and to construct technology-enhanced models
- Apply appropriate communication design principles in published and presented projects

- Create, publish and present information, utilizing formats appropriate to the content and audience
- Determine and apply an evaluative process to all information sources chosen for a project
- Apply a research process model to conduct research and meet information needs
- Identify and produce a product or system using a design process, evaluate the final solution and communicate the findings
- Understand their role in the designed world: its processes, products, standards, services, history, future, impact, issues and career connections

To succeed in meeting these standards and benchmarks a new digitally redesigned Technology Future course has been created. (Ohio Standards and Benchmarks, 2010)

Unit Breakdown

The Technology unit will be broken down utilizing Bloom's Taxonomy for knowledge. The first section of the unit will ask students to utilize several different site finding tools to develop a sense of the definition of technology. They will then post their findings on a pre-developed PBWiki along with their classmates. The next activity asks students to comprehend what has been posted to enable a better understanding of how technology currently impacts society, politics, advances in agriculture and medicine. A discussion board will be developed where students can analyze this information and provide constructive feedback. The third section will deal with application where the core objective of the unit truly begins. Students will be asked to form small groups, choose an existing or future problem for 2025 A.D. and begin the task of problem solving. During the analysis phase of the unit, students will be required to state their problem, brainstorm potential solutions, forecast the future impact and envision whether their solution will be successful. At the end of this section individual groups will be asked to concretely put their ideas onto a Prezi presentation and deliver it to the instructor. During this time, students collaborate using blogs, Skype or other means of

synchronous/asynchronous technology to accomplish the task. After completing this section student groups will create a presentation utilizing Prezi, Weebly, Glogster, Vimeo or other open source web 2.0 tools to demonstrate what they have learned, identify their problem, the steps they took to solve it and eventually what their viable solution was. The culminating factor of the unit is to take the presentations and display their projects on the PBWiki. The wiki will, in turn, be published on a technology related website for students to evaluate one another's finished products and give constructive feedback about the viability of the solutions for the future. Ultimately, the student's work will be the starting off point for the 12th grade students in the following year. These new students will be able to dissect the information pertinent to them and begin producing and evolving the entire wiki all over again. As this process continues there should be an upward spiraling evolution of knowledge between the teacher, student and outside audiences that keeps everyone aware and up to date on technology and its potential to solve existing and future problems.