Middle School: Air, Land, Water, Multi-Modal

Technology Applications

Learning Area: Economics & Business/Resource Management

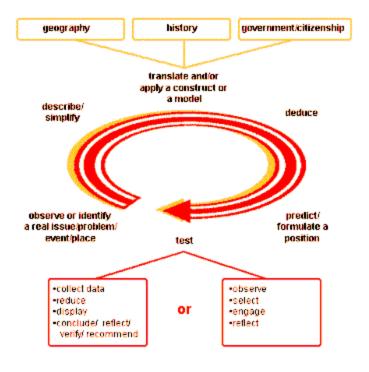
Educational Level: Middle School

Content Standard: Technology Applications

Standard: A student shall use appropriate technology to access, evaluate, organize information and produce products by:

- 1. Gathering and evaluating information from electronic sources;
- **2.** Applying appropriate technological process to an identified need or problem;
- **3.** Producing products and selecting language, format, and graphics appropriate for purpose and audience by using word processing, graphics, multimedia, spreadsheets and databases.
- 4. Maintaining, using, or creating a technological system.

Large Processes/Concepts:



Next step: Assessment Task---

Transportation Education Academy Activities

Middle School: Air, Land, Water, Multi-Modal

Technology Applications continued---

Assessment Task---

Description: After learning about the different transportation systems and how they interrelate, students will access information to answer the question: "How will E-commerce change the current transportation systems?" How will this affect the larger Systems of Commerce and how we currently purchase goods and services?" The students will gather and evaluate information from electronic sources then determine what the current system for moving goods from the manufacturer to our homes currently looks like. Students will hypothesize how E-commerce will change this model and create a written report documenting their background research and their conclusions.

Products/Evidence of Learning---

- * Conference with teacher on topic
- * Research file/log
- * Written report
- * Student made model of current transportation systems for commerce
- * Possible future transportation system changes due to E-commerce

Overview: After studying the various forms of transportation and their systems, we will now explore how these systems can change with changes in technology, life styles and consumer habits. You will determine if and how the growing market of E-commerce will change current transportation systems. To do this you must do research to determine what the current transportation system looks like for consumer goods. Then you must research how the Internet and E-commerce work. You will have to analyze and predict how much E-commerce will effect current models and how the models will change. You must document your research, follow the instructions, and use these sheets as a guide.

Assessments will be based on the following:

- * Definition of the question and issue;
- * Plan for research;
- * Research log and use of electronic sources of information;
- * Current model and future models of transportation;
- * Identifying links to larger systems and their impacts;
- * Report clarity, organization, and appropriate format, & graphics for the purpose and audience.

In this assignment you will:

- 1. Determine how to approach the problem and questions you will investigate.
- 2. Conference with the teacher to confirm direction.
- 3. Set-up a research log and document your research.
- **4.** Create a model of the current transportation system and a new model showing how E-commerce could effect the system.
- **5.** Develop a written report, four to five pages, on your findings documenting the background research and your conclusions.

Next step: Assessment Task continued---

Page 2

Transportation Education Academy Activities

Middle School: Air, Land, Water, Multi-Modal

Technology Applications continued---

Assessment Task continued---

Planning your investigation:

To prepare for your investigation, set-up a research file/log with sections for these are areas:

- * Defining issue and narrow topic
- * Planning your investigation
- * Conducting research

Here are some areas to include in your research:

- * Concentrate on the elements (inputs, processes, outputs, feedback) of the system of transportation and how it relates to the larger systems.
- * Define the tools, support systems and skills needed for the system to operate.
- * Determine how E-commerce will change the system you have defined for transportation.
- * Identity the consequences of the increased E-commerce will cause.
- * Determine the impact by our environment short and long term. Thinking in the large systems.

Document your research:

- * Recording can be done in a notebook, note cards or on the computer.
- * Which ever recording/gathering tool you use include bibliographic information.
- * Record specific, focused information that will assist you in interpreting, analyzing, and understanding your topic/question.
- * Next begin to interpreting your data/information
- * When looking at your information always assess the source. Ask if it is creditable or is it a bias source. On the Internet there is a lot of good information but also their is a lot of bad biased information.
- * Always keep your objective in mind, it is easy to get off track and bogged down.

Organizing and producing your models and report:

- * Look at your information organize it into common connected areas.
- * Rearrange the information into systems.
- * Think about the larger connections, take notes as you analyze your information.
- * Develop your model of the current system.
- * Look at your information, develop theories on how the increase in E-commerce will change your model.
- * Draw your new model, think about the impacts it will have.

Some questions you could ask are:

- * Will we be able to use the current tools and equipment?
- * Will we need new ways to keep track of the packages and information?
- * Will we use more natural resources with E-commerce?
- * Will companies save money with direct delivery over the traditional way of doing commerce?
- * Will companies like UPS be affected?
 - * When writing the report make sure it is organized and focused.
 - * Do not plagiarize. Document your sources and use your own words.
 - * Include the research log when you turn in your report.
 - * Report must be four to five pages, double-spaced with a bibliography.

Next step: Check list---

Page 3

Transportation Education Academy Activities

Middle School: Air, Land, Water, Multi-Modal

Technology Applications continued---

Check list---

STUDENT **TEACHER** Shows appropriate use of technology to access, evaluate and organize information to produce products. Shows that information was gathered from electronic sources and evaluated appropriately. Shows correct application of appropriate technology processes to an identified need or problem. Shows that language, format and graphics were selected for purpose and audience by using effectively: Word processing **Graphics** Multimedia Spread sheets **Data bases** Shows clearly that a technological system was maintained, used or created efficiently.