Integrating Technology and the Curriculum

Contents:

Assignments to be completed:

A Microsoft Excel inventory of technology resources **(Resources.xls)**

A copy of your **Collected**

Welcome to the Western Region Education Service Alliance .

www.wresa.org

This is an **Advanced** level online course consisting of activities and tutorials designed for **Word, PowerPoint, Excel, and Internet Explorer**.

CEU Credit: To receive CEU credit from your LEA, you must **register, receive confirmation, complete and submit** all course assignments. Upon completion of the course you will be given a certificate which you may send to your Central Office for the equivalent CEUs. **Important!** Some LEAs require prior approval of workshops and courses to be submitted for CEUs.

Course Requirements: Word, PowerPoint, and Excel installed on your computer, access to the Internet, Javascript enabled, the ability to send and receive email (including attachments), and completion of all course assignments. It is strongly recommended that you review this tutorial on How to Take a WRESA Online Course.

Course Contents: To the left you find a list of course modules.

Project to be developed: Choose one of the following

- **A Lesson Plan appropriate for your grade level that incorporates the use of the Internet**
- **A Lesson Plan appropriate for your grade level that incorporates the use of either Microsoft Word, PowerPoint, Publisher, or Excel**
- **A Unit Outline appropriate for your grade level that incorporates the use of technology**
- **Develop a Website for homework assignments and help**
- **Other project approved by the instructor**

Time needed to complete this course: 10 hours

CEUs awarded by LEA: 1 (One)

Websites folder A Microsoft Word or PowerPoint document **Unit-Lesson Plan Template.dot** A Microsoft Excel document **Scoring Rubric.xls**	Click here to download this manual in pdf format If you need Acrobat Reader to open pdfs you can get it here

Integrating Technology and the Curriculum

Plan for Curriculum / Technology Integration (30-45minutes)

Module1

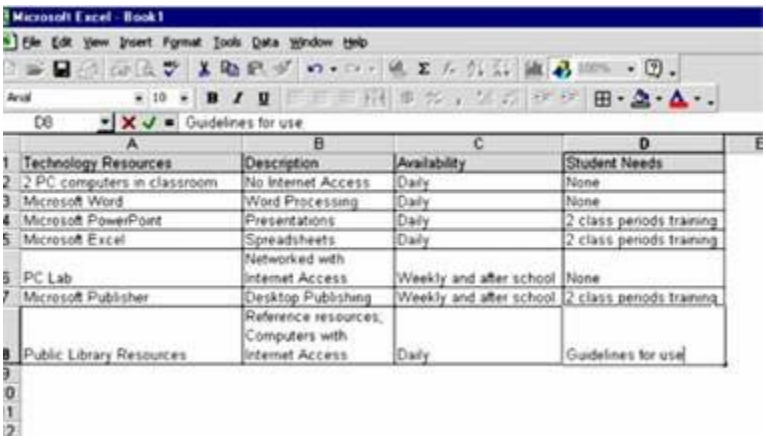
This module contains the following activities:

- Activity 1: Inventory technology resources.
  - What is available to your students?
  - What do you and your students need to use these resources? (i.e. In-school support, training, time, physical access, etc.)
- Activity 2: Steps to Technology integration
  - Examine your curriculum guide to determine where technology can improve student learning
  - Determine where technology resources exist to support learning objectives
  - Write (Rewrite) your lesson/unit plan to reflect Technology integration
  - Prepare your unit/activity materials and assessment tools

Plan for Curriculum / Technology Integration

Activity 1: Inventory technology resources

1. Using Microsoft Excel, develop a list of technology resources available to your students. Include hardware and software available in your classroom and school. Create a new folder on your desktop and save the spreadsheet as resources.xls
2. Add descriptions of when these school resources are available to students (i.e. daily, weekly, after school, etc.)
3. Continue building your resources inventory by adding out-of-school resources (Internet resources, community resources, etc.) to your spreadsheet.
4. Add a column to your spreadsheet describing what students will need to use the resources.



	A	B	C	D
1	Technology Resources	Description	Availability	Student Needs
2	2 PC computers in classroom	No Internet Access	Daily	None
3	Microsoft Word	Word Processing	Daily	None
4	Microsoft PowerPoint	Presentations	Daily	2 class periods training
5	Microsoft Excel	Spreadsheets	Daily	2 class periods training
6	PC Lab	Networked with Internet Access	Weekly and after school	None
7	Microsoft Publisher	Desktop Publishing	Weekly and after school	2 class periods training
8	Public Library Resources	Reference resources, Computers with Internet Access	Daily	Guidelines for use

Your spreadsheet may look similar to this. Remember, you will continually be updating and modifying your resource inventory, so don't be overly concerned if there are blank spots. You may organize your spreadsheet any way you wish. Add, remove of change the layout as necessary.

Remember to save your document before going on to the next activity.

Activity 2: Steps to Technology integration

1. Examine your curriculum guide to determine where technology can improve student learning
2. Determine where technology resources exist to support learning objectives
3. Write (Rewrite) your lesson/unit plan to reflect Technology integration
4. Prepare your unit/activity materials and assessment tools

Competency Goal 3	**The learner will use a variety of technologies to access, analyze, interpret, synthesize, apply, and communicate information**.	**Excerpt from the DPI Computer Technology Skills Curriculum**
	3.1 Select and use technology tools to collect, analyze, and display data. (SI) 3.2 Use word processing/desktop publishing applications to create documents related to content areas. (KU/WP/DTP)	
Competency Goal 3	**The learner will build understanding of the Solar System.**	**Excerpt from the DPI Grade 6 Science Curriculum**
	3.01 Interpret scientific theories concerning the components, patterns, and cycles of the solar system. 3.02 Compare and contrast the Earth to other planets in terms of: • Size. • Composition. • Relative distance from the sun. • Ability to support life.	

Resources	**Classroom resources: text, science software; school computers; the Internet; spreadsheet program; desktop publishing programs; PowerPoint**	
Lesson Plans	Develop a publication or presentation comparing the…	**Include both curricular and technology resources**
Materials and Assessment tools	Develop scoring rubrics for presentation / publication…	**Scoring rubrics are helpful in defining expectations**
This activity describes in broad terms the steps to developing a curriculum / technology integration project. Later on in workshop you may follow this broad outline in the development of your integrated project.		

Integrating Technology and the Curriculum

Exploring DPI Resources for Curriculum and Technology(30-45 min)

This module contains the following activities:

- Activity 1:Visit DPI web resources
- Activity 2: Explore other web resources for curriculum and technology integration

Exploring DPI Resources forCurriculum and Technology

Activity 1: Create a subfolder in your new folder entitled Websites. Visit the following DPI web resources and save. Use the Web page (complete) type

1. http://www.ncpublicschools.org/curriculum
2. http://www.dpi.state.nc.us/curriculum/computerskills/scos/
3. http://www.dpi.state.nc.us/publications/
4. http://www.learnnc.org
5. http://www.ncwiseowl.org
6. http://www.ncwiseowl.org/Handouts/Fall_2002/NC.DOC
7. http://www.ncwiseowl.org/Handouts/Fall_2002/K-5.DOC
8. http://www.ncwiseowl.org/Handouts/Fall_2002/6-12.DOC

DPI Websites contain a wealth of information relating to curriculum and technology

Activity 2: Visit the following web resources and savethe into your folder:

1. http://its.guilford.k12.nc.us/act
2. http://www.ncsu.edu/midlink/vy/resource.html
3. http://warrensburg.k12.mo.us/sites/techlessons.html
4. http://www.middleschool.net/less_tut/lessplanlk/techintlp.htm

You may add saved web pages to this folder as you continue the workshop.

Integrating Technology and the Curriculum

Developing a Unit/Lesson Plan Template (30-45 minutes)

Module3

This module contains the following activities:

- Activity1: Create a form template for the development of your Unit/Lesson plan.

Developing a Unit/Lesson Plan Template

Activity 1: Create a form template for the development of your Unit/Lesson plan.

1. Create a Microsoft Word form to be used as a template for the development of technology/curriculum integration projects. Save the document into your workshop folder under the name **Unit-Lesson Plan Template**. You may want to include the following fields in your form:

Unit/Lesson Plan Title	A descriptive name for your unit/lesson
Unit/Lesson Plan Summary	A concise overview of your unit/lesson that includes topics that will be covered and a description of how technology is integrated into the plan
Subject Area	
Grade Level	
Student Objectives/Learning Outcomes	A list of the objectives that the students will master, including student products that will be produced
Targeted State Curriculum Goals and Objectives	From the NC Standard Course of Study for your grade level subject area and from the Computer Technology Skills Curriculum
Procedures	
Time Needed	
Pre-requisite Skills	Conceptual knowledge and technological skills students will need to begin the unit/lesson
Materials Needed	
Technology Hardware	
Technology Software	
Printed Materials	
Internet Resources	
Student Products	List possible student products such as presentations, publications, web pages, spreadsheets, written reports, etc.
Assessments	The context and specific procedures of evaluating student learning, (i.e. scoring rubrics for products, tests, observations, essays etc.)

Integrating Technology and the Curriculum

Exploring Rubrics (30-45 minutes)

Module4

This module contains the following activities:

- Activity 1: Explore technology integration and rubric sites on the web
- Activity 2: Begin the development of a rubric which will be used with the product that your students will development in your unit/lesson plan

Exploring Rubrics

Activity 1: Explore technology integration and rubric sites on the web. Visit the following sites:

1. http://school.discovery.com/schrockguide/assess.html
2. http://www.kent.k12.wa.us/curriculum/tech/proj_plan.html
3. http://teachers.teach-nology.com/web_tools/rubrics
4. http://www.cesa10.k12.wi.us/intro/integrate.htm
5. http://cnets.iste.org/teachers/t_rrubrics.html

Be sure to save useful web sites in your workshop folder.

Activity 2: Using Microsoft Excel, begin the development of a rubric which will be used with the product that your students will develop in your unit/lesson plan

1. You may model your rubric after one of those you examined in Activity 1, or you may design your own. Create the rubric using Excel and save as **Scoring Rubric**. If you are giving students a choice of different products, you will need to develop a rubric for each type.

Integrating Technology and the Curriculum

Collecting Resources for Technology Integration Projects(2 hours)

Module 5

This module contains the following activities:

- Activity 1: Use the Internet to collect resources that you might use in the development of a Curriculum-Technology project.

Collecting Resources for Technology Integration Projects

Activity 1: Explore technology integration and rubric sites on the web. Visit the following sites:

1. http://school.discovery.com/schrockguide/assess.html
2. http://www.kent.k12.wa.us/curriculum/tech/proj_plan.html
3. http://teachers.teach-nology.com/web_tools/rubrics
4. http://www.cesa10.k12.wi.us/intro/integrate.htm
5. http://cnets.iste.org/teachers/t_rrubrics.html

Be sure to save useful web sites in your workshop folder.

Activity 2: Using Microsoft Excel, begin the development of a rubric which will be used with the product that your students will develop in your unit/lesson plan

1. You may model your rubric after one of those you examined in Activity 1, or you may design your own. Create the rubric using Excel and save as **Scoring Rubric**. If you are giving students a choice of different products, you will need to develop a rubric for each type.

Integrating Technology and the Curriculum

Developing a Technology Integration Project (5 hours)

Module 6

This module contains the following activities:

- Activity 1: Use the entire day to develop your Integration project.

Developing a Technology Integration Project

Activity 1:Use your time today todevelop your Integration project. Items to be turned in at the end of the dayinclude:

- A copy of your Microsoft Excel document of technology resources (**Resources.xls**)
- A copy of your **Websites** folder
- A copy of the Microsoft Word document **Unit-Lesson Plan Template.dot**
- A copy of your Microsoft Excel document **Scoring Rubric.xls**