

Computers in the Classroom:

Teaching & Learning with Technology



TEC 938
Fresno Pacific University

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Course Completion Checklist**Part 1 - Theory**

- Assignment 1: Your Technology Background
- Assignment 2: Your Technology Profile
- Assignment 3: Your Technology Environment
- Assignment 4: Your Students' Proficiency
- Assignment 5: Text Chapter 1
- Assignment 6: Text Chapter 2
- Assignment 7: Text Chapter 3
- Assignment 8: Text Chapter 4
- Assignment 9: Software Inventory
- Assignment 10: Text Chapter 5
- Assignment 11: Software Evaluation (2)
- Assignment 12: Trial Software Evaluation (2)
- Instructor Contact

Part 2 - Hands-on Exercises

Your choice of **any four** of the seven presented:

- Assignment 13: Chapter # _____ - Learning with _____ Tools
- Assignment 14: Chapter # _____ - Learning with _____ Tools
- Assignment 15: Chapter # _____ - Learning with _____ Tools
- Assignment 16: Chapter # _____ - Learning with _____ Tools
- Course Evaluation
- Submit Request for Online Grading

All work should be submitted in printed form to the instructor at the end of the course.

Assignment 1: Your Technology Background

Before you move on, you need to know where you are in terms of your technology 'I.Q.'. This profile will help you inventory your current technology background, knowledge and practices. This is not intended to be a rating of your skill or ability as a teacher, but rather as a tool to help you think through the kinds of activities you use to help your students learn. These are narrative, stream of consciousness questions. You will be asked some specifics in the next assignment. There is a PDF of this form available for download from the course website, or you may record your responses on this page.

Based on information presented on the previous page, what stage in the 'Adoption of Technology' hierarchy best describes you.

Stage 1

Stage 2

Stage 3

Stage 4

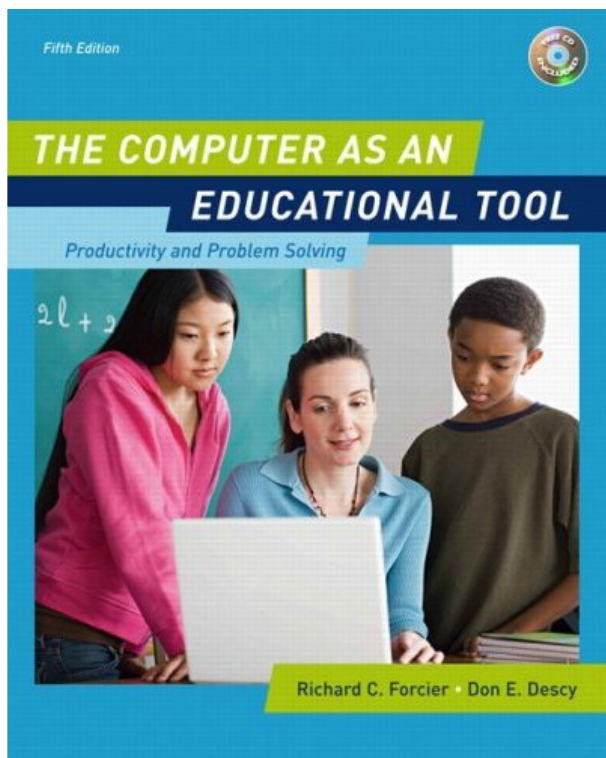
Stage 5

Stage 6

Personal Technology Experience: Where, when and how did you acquire your technology skills?

What types of technology do you have available to you at home? How, and how often do you use it?

Part 1 - Introduction to the Textbook Assignments



For this section of the course, you are asked to respond to text-based questions. Your replies may be a combination of information drawn from the textbook and/or your own personal perceptions, feelings and experiences.

You will note that some of the software referenced in the text is a bit dated. I have addressed this in part two of the course by the inclusion of up to date resources. The pedagogy of the text is sound and relevant to today's classrooms.

It is my goal to encourage you to think critically and creatively - forecasting just how integrating computers into your existing curriculum will assist you and benefit your students.

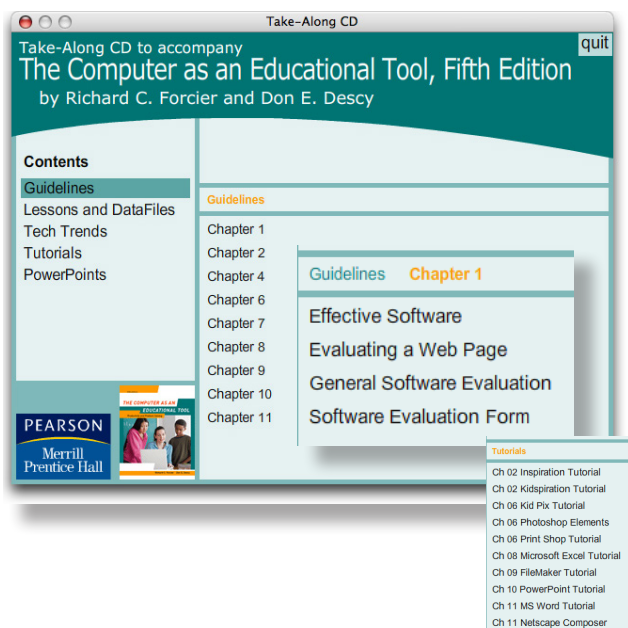
You may handwrite your responses directly on the workbook pages then submit the original page (or a copy) or word process your replies, then print out a copy to return. There is an

interactive PDF of this form accessible from the course website **Please do not return the entire workbook.**

Affixed to the inside cover of the course textbook is a CD-ROM from the authors (referred to as the "Take-Along" CD-ROM). You do not need it to complete the course.

In this workbook I refer to the author's CD as the textbook CD-ROM.

Most of the material is in Adobe Acrobat .pdf format which can be copied to your computer and printed.



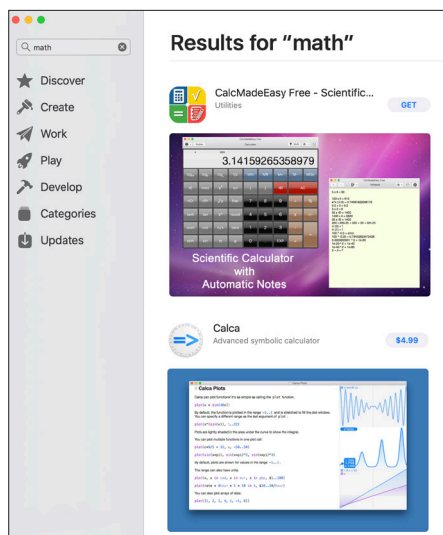
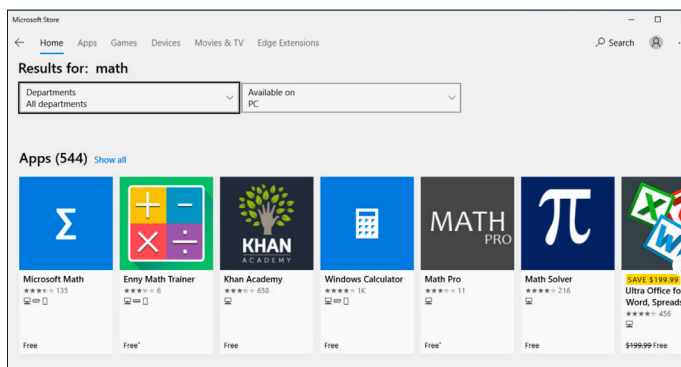
Assignment 12: Software Evaluation

Learning is discovering! In addition to the software that is already on your computer(s), the TEC 938 website contains links to several curricular software sites. Your task is to explore new software for two purposes: to increase your awareness of the vast library of curricular software available, and to become familiar with evaluating software. Your choice of software is by no means limited to what is listed here. There are innumerable sites for curricular software, both online and downloadable (usually for Macintosh and Windows computers) available - any of which will meet the requirements of this assignment.

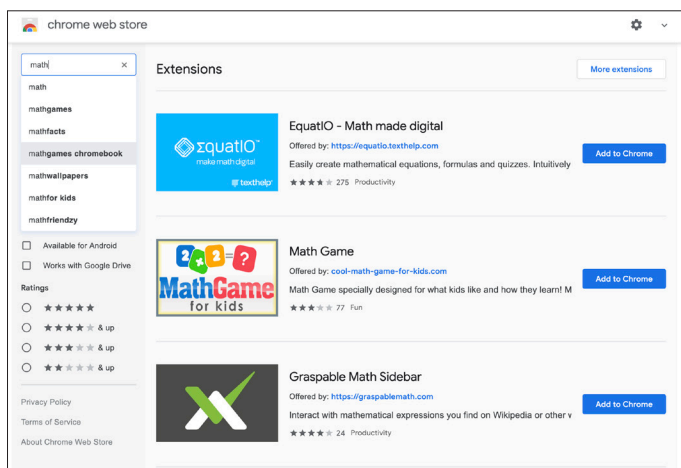
You will find descriptions of each piece of software over the next few pages. You may wish to check out the publisher’s website listed at the bottom of each page, as many sites offer numerous free demos to download or use online. A Google search will find other downloadable demos of educational software. If you choose, you can also review web-based programs; a few are listed in this section of the workbook. Microsoft, Apple and Google all have web stores which cater to the education market. You can find links to these stores on the course website.

Using your choice of one (or more) of the three software evaluation forms from assignment #11 (or your school or districts form, if available) review then evaluate two pieces of software from either the course website, a demo downloaded from a publisher’s website, or a curricular web-based program.

Microsoft Store



Apple App Store



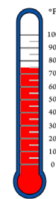
Chrome Web Store

IXL Math

Publisher's description: IXL (from "I excel") is a math & language arts practice website for K-12. It has unlimited questions on thousands of math topics and a comprehensive reporting system. For each grade (currently pre-K—calculus) there are over a hundred

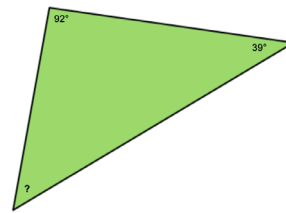
of skills listed, organized into categories. These are quite comprehensive and there is both breadth and depth present in the quantity and quality of topics. The skills to be practiced not only cover calculations but are quite varied.

What is the temperature?



°F

What is the measure of the missing angle?



°

5

Fifth grade

Includes: Operations with decimals | Points on the coordinate plane | Adding fractions with unlike denominators | Numerical expressions | Converting measurement units | Volume

See all 382 skills >

6

Sixth grade

Includes: Ratios, rates, and percents | Integers | Inequalities | Exponents | Variable expressions | Solving one-step equations | Mean, median, and mode | Polygons in the coordinate plane

See all 366 skills >

7

Seventh grade

Includes: Proportional relationships | Operations with rational numbers | Two-step equations and inequalities | Area and circumference of a circle | Probability | Volume and surface area

See all 345 skills >

8

Eighth grade

Includes: Linear functions | Reflections, rotations, translations, and dilations | Systems of linear equations | Pythagorean theorem | Scatter plots | Scientific notation | Square roots

See all 344 skills >

A1

Algebra 1

Includes: Graphs of linear functions | Domain and range | Quadratic equations | Exponential growth and decay | Direct and inverse variation | Systems of linear inequalities

See all 326 skills >

G

Geometry

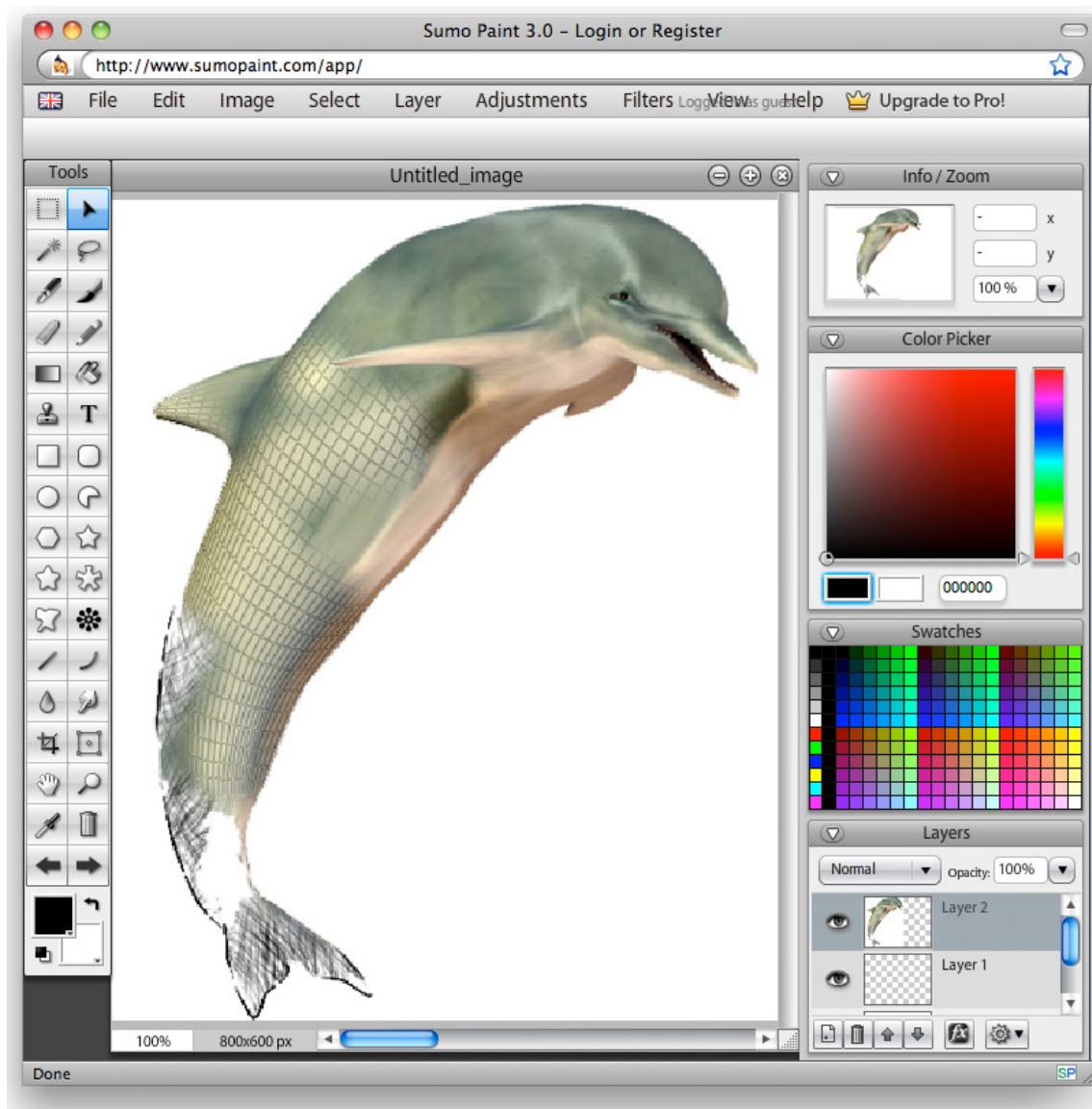
Includes: Proofs about parallel lines | Congruent triangles | Law of Cosines | Circles in the coordinate plane | Trigonometric ratios | Similar shapes | Constructions with angles

See all 235 skills >

Publisher's web site: <https://www.ixl.com/math/> A link is provided on the course website

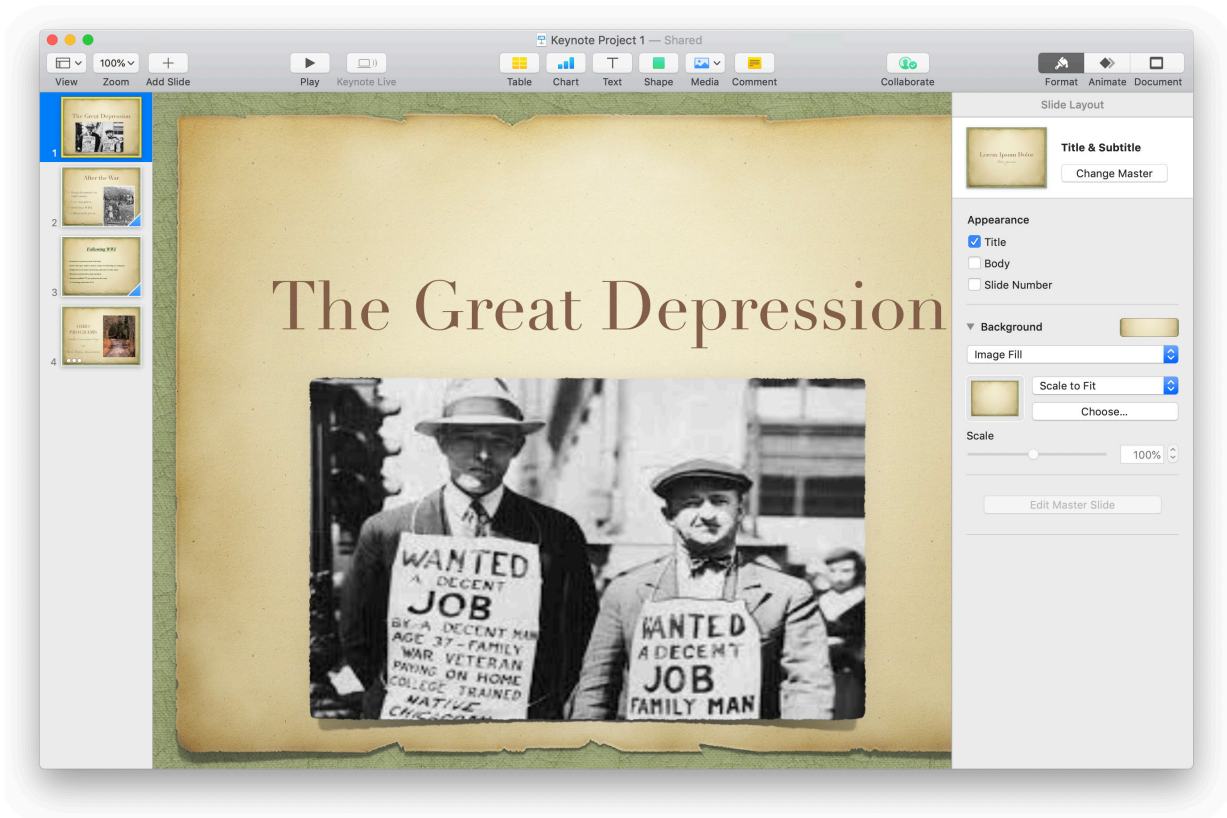
Textbook Chapter 6: Learning with Graphic Tools

Computer graphics combines the speed, versatility and computational power of the computer with astounding results. It is used in such diverse areas as displaying the results of engineering and scientific visualization, creating movie special effects and just plain fun. The art of creating pictures with a computer, like other art forms of the 20th century (color photography and television), has evolved from an expensive oddity to a legitimate form of expression available to everyone. Today's kindergartners have tools available to them that, 30 years ago, could only be afforded by multi-million dollar corporations.



Assignment 17: Multimedia

- 1) Using a lesson plan format with which you are most comfortable (and makes this exercise useful, beneficial, and meaningful), design a lesson plan for elementary, middle school, or high school students in which they will work in groups to design and produce a multimedia presentation. It may be about a subject they will be studying or any other area of interest. Students might use a form of HTML editor, PowerPoint or HyperStudio. If you do not have access to students (i.e. you are taking this class over summer break) and can not present the lesson, omit the evaluation portion of the lesson plan.
- 2) List the programs available to you that would qualify as multimedia computer programs (refer to examples listed in the text on pages 309 - 312). Referencing the chart on page 308 - 309 of your text, indicate which aspect or aspects of each program you feel is its greatest strength (or advantage, as phrased by the author).
- 3) Using programs at your disposal or mentioned in this workbook, design and build a simple multimedia project for your classroom. Print and return sample pages (beginning, middle, and last) of your project.

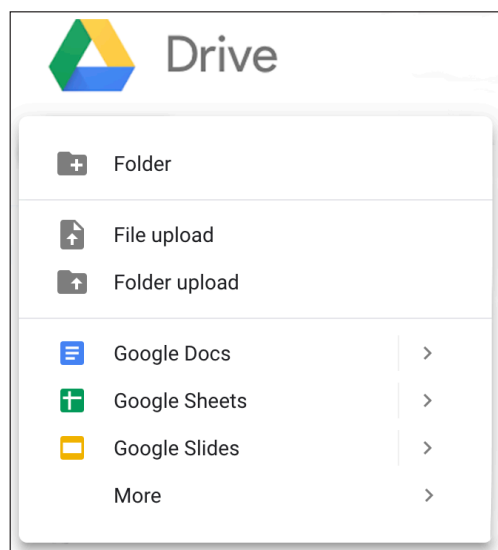


Assignment 19: Internet Applications

- 1) As a variation of a traditional lesson plan, using the information and resources presented in the text, plan your choice of an 'Electronic Field Trip', a WebQuest, or an 'Internet Scavenger Hunt' in an area of interest. Submit your plan.
- 2) Search the Internet for a pre-existing lesson plan you would consider presenting to your students. Submit either a print-out of the web page containing the lesson plan or the URL of the page. Include a brief comment as to why you chose it.
- 3) Summarize your school or district's Internet use policy (Acceptable Use Plan). It is not necessary to print out and return a copy of the entire AUP; I am asking only for a brief summary. If you find no such policy exists, develop a set of rules for your students to follow when they are online (surfing the web, emailing, doing research, etc.).



mapmaker.nationalgeographic.org



www.google.com

www.icloud.com

