The vital element

Jennifer McNab
University of Northern Iowa

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The vital element

Abstract
Integrating technology into curriculum requires educators to have a working knowledge of using technology in the educational setting. However, technology integration is often an oversight in staff development. Educators are more likely to use technology to their full potential if a support system is in place and proper training of how to use technology in their classroom is available.

The purpose of this study was to investigate how educators use computers to enhance the learning experience for students. Educators from around the United States answered the request for sharing motivational ideas for incorporating computers into the classroom. These innovative activities are flexible and can be adjusted to fit the needs of educators, students, and curricula. The results from the investigation provide lesson ideas and connections to educators from across the country.
The Vital Element

A Graduate Research Paper
Submitted to the
Division of Educational Technology
Department of Curriculum and Instruction
in Partial Fulfillment
of the Requirements for the Degree
Master of Arts

UNIVERSITY OF NORTHERN IOWA

by
Jennifer McNab

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has been approved as meeting the research requirement for the
Degree of Master of Arts.

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ABSTRACT

Integrating technology into curriculum requires educators to have a working knowledge of using technology in the educational setting. However, technology integration is often an oversight in staff development. Educators are more likely to use technology to their full potential if a support system is in place and proper training of how to use technology in their classroom is available. The purpose of this study was to investigate how educators use computers to enhance the learning experience for students. Educators from around the United States answered the request for sharing motivational ideas for incorporating computers into the classroom. These innovative activities are flexible and can be adjusted to fit the needs of educators, students, and curricula. The results from the investigation provide lesson ideas and connections to educators from across the country.
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CHAPTER 1
INTRODUCTION

Introduction to the Problem

Technology has become prevalent in everyday life. The goal of any school is to prepare students for the world in which they will live. Schools need to teach students the basic technological skills in order to function successfully in further schooling and work. The teacher is the vital element in this process. Integrating technology into curriculum requires educators to have a working knowledge of using technology in the educational setting. However, many educators do not have the basic technological skills that they are expected to teach their students. By ignoring the teacher's need for technology training that include technology integration, we are depriving students from the empowerment that technology has to offer. Just putting technology into schools will not get teachers to use the technology behind closed doors.

Statement of the Problem

While doing research on educators using computers in the classroom it became clear that it is the teacher that makes the difference. It is how the teacher uses the computers with the
students that provides a meaningful learning experience. If educators are to use computers to their full potential they need the technological training and the innovative ideas to get started. The literature review indicated that there were many resources related to technology training for educators. However, when it came to innovative ideas, they were few and far between.
CHAPTER 2

LITERATURE REVIEW

Teachers must lead the way to direct our children into the technology revolution. There are many goals and expectations that we have for our children to function successfully in the technological world. If we are to expect our children to graduate with a working knowledge of a variety of technologies, we need to expect our educators to serve as avid technology users. However, a report from the Congressional Office of Technology Assessment found that many teachers do not see how technology can make their job easier because most teachers feel inadequately trained to use technology in their classrooms (Shore, 1995).

Providing educators with training seems to be the clearest need for schools. Dick Riley, Secretary of Education, has stated that only 10 percent of educators currently teaching are considered to be proficient users of technology (Riley, 1995). There has been a recommendation to require teachers to demonstrate proficiency in technology to receive accreditation and certification (Mageau, 1995). If our teachers must become technologically literate there needs to be a means for teachers to acquire the knowledge.
Unfortunately, in their anxiousness to put technology into classrooms, many school systems have ignored a very important factor for success, teachers. Students need to have teachers with expert knowledge of technology applications. Without providing administrative support and proper training of how to use technology in their classrooms, teachers are unlikely to use technology to engage in the full potential of technology.

**Blaming the Teacher**

"Blaming teachers for the failure of technology to change education is a common historical theme", says Larry Cuban (1994, p. 13). This blame usually focuses on the teachers lack of knowledge when it comes to technology (Woronov, 1994). What seems to be forgotten is that you cannot expect educators to implement new ideas if you do not provide the means by which they can learn. It is amazing that equipment and resources that industry takes for granted often do not exist in schools without a fight. In offices you find a computer and phone on every desk. In the business world there are managers available to help with problems and questions. In addition, the business work force receives on the job time to learn new strategies to make the job more effective. Still, blame is put
on the educators. "There is nothing irrational about teachers being afraid of looking stupid in front of students who know more about computers than they do; similarly, the difficulties of integrating computers into daily classroom practice with no system support are not imaginary." (Woronov, 1994, p. 13) Our society needs to provide adequate support for educational training.

To avoid putting educators in this inexcusable position, it makes sense to look at those who are already considered most effective in the use of computers in the classroom. Henry Jay Becker (Bracey, 1993) of the University of California at Irvine studied how "expert" computer-using teachers differ from their fellow educators. Becker developed standards to determine which educators are demonstrating exemplary use. Computer-using teachers were judged to be exemplary if they rated high on at least half of the set standards. Becker found some commonalities among those considered to be exemplary users. Exemplary users were found in schools where there seemed to be a community of computer-using educators. Exemplary use was discovered where computers were utilized for more than just games, drills, and tutorials. The support of a full-time computer coordinator and computer-related staff
development was common among exemplary users. It is interesting to also note that Becker observed that class sizes were around 20 students and that teachers were allowed to borrow computers from school to take home. In the end, it comes down to the fact that exemplary computer-using teachers work in environments that were rich in computer-related resources (Bracey, 1993).

**Learning Community**

Now that we know what kind of environment would be ideal to foster exemplary use among our educators, how can we start the chain reaction of computer enthusiasm? The most common recommendation that comes from related literature shows that it is incredibly important to have the entire staff committed to staff development and committed to learning cooperatively. Specialized technology positions are necessary to get started and moving in a positive direction. However, responsibilities need to be shared among a committed learning community. Teachers are the primary members of this learning community, but not the only members. We need to get input from other aspects of our community - students, parents, local business, and administration. To provide success, it is necessary to involve the learning community early in the process.
of identifying needs and to keep them involved throughout the entire design and implementation process.

**Planning Staff Development**

The effectiveness of training sessions directly coincides with careful planning. Throughout the entire process it is important to keep the school's curricular plan and student outcomes in mind. In order to determine what skills and knowledge your learning community needs, it will require the results from a needs assessment. Entering these results into a spreadsheet has been suggested to help identify the technological strengths and weaknesses (Zeitz, 1995). If these strengths and weaknesses have been identified and if the goals of the school are known then a "gap analysis" can be performed. The purpose of a "gap analysis" is to compare where you are with where you want to be. This analysis provides the identification of skills and knowledge that should be the focus for staff development (Zeitz, 1995).

Change is also often a difficult and long process. Depending on the program and the school or district, it may take one to five years from introduction to complete implementation. This time span means that many schools and districts may change
their focus midstream. They may begin to implement yet another new program while staff members are only beginning to adjust to or accept the first idea. Thus, despite the best intentions, the goal of improving the teaching and learning process is again inhibited (Lauro, 1995, p. 63).

Without a written technology plan, staff development can lack direction. To avoid scrapping an entire technology plan due to emerging technologies the staff development plan should be open and flexible allowing for new developments.

Acceptance and Support

Commitment and support to the plan from the administrators are prerequisites to making staff development programs successful. However, the top down approach is rarely effective. Without input from teachers, those who are directly affected, the acceptance of staff development will be next to impossible. For the implementation of any professional development program the acceptance by staff is critical to achieve the essential support needed for the program. If everyone is involved from the beginning, then acceptance should come about naturally (Lauro, 1995).
Strategies

There are many recommendations, repeated in many sources, of strategies to keep in mind when developing training programs. A trainer's attitude toward the technology program and the effectiveness of the technology presentation often shape the attitudes of the participants. Trainers should exhibit initiative, expertise, and concern for others. The staff development should be a comfortable learning experience with clearly defined expectations expressed from the very beginning. Skills that are taught should be relevant to everyday practices and should meet the needs and interests of the participants. Trainers must do more than teach specific skills; trainers need to give participants an understanding of the technology and how they can integrate the skills into the classroom. Participants are expected to practice their new skills and incorporate them into the classroom.

When teachers were asked in a recent survey about their staff development experience nearly everyone talked about the importance of integrating technology into the curriculum (Siegel, 1995). However, 66 percent of the survey participants said that their development did not include integrating technology to enhance the
curriculum. If training and integration are treated in isolation, the
skills may fall by the wayside. Educators need to see the value of
the training because, once the classroom door is closed, the decision
to use the computer is the teacher's. That is why the most
important task in training is to continually show teachers the
practical benefits of technology. It is essential that teachers leave
the final training session with practical ways to integrate
technology into their students' learning.

**Approaches**

There are a variety of approaches that should be considered
when developing a technology plan. The comprehensive approach
consists of bringing a combination of experts and trainers with
extensive professional development experience into a district or
school to direct staff development sessions and to train staff
members. This approach is the most effective because of the
consistency in training sessions that focus on specific objectives.
Every few weeks the trainers will return to handle difficulties.
This approach provides expert advice - but at a cost. The financial
commitment a school or district has to make is very high and rarely
fits in to a school's budget (Lauro, 1995).
Bringing in outsiders is not the only way to find experts - take a look in-house. In-house experts may conduct onsite training of peers as well as the added benefit of already being established as knowledgeable resources of information. These teachers would be willing to work with their colleagues to help them become experts themselves. Trainers need to be viewed as supporters of the program. This in-house approach is very effective if the trainers demonstrate dedication to improving education and providing guidance. Having a qualified and trained person consistently available to answer questions, to resolve concerns and to provide constant reinforcement of the commitment by a district or school to a certain program can be very effective (Lauro, 1995).

The most common technology inservices are single exposures. These inservices often involve gathering educators after school or during inservice. Educators are then introduced to a technology topic, but have little time to get comfortable with it. Systemic change cannot be achieved in this manner. However, these single exposures can provide a source of inspiration. Due to the fact that this kind of training is only for a few days a year, teachers will not
see a sense of commitment and therefore may not gain the crucial acceptance (Lauro, 1995).

A consistency among the related literature is that change can only occur when staff development is consistent and supported over time. Teachers need this continuous support to apply and retain what they learn about technology. If reinforcement is not continuous, stumbling blocks and questions will arise with teachers struggling to find the solutions. Soon after, educators will get fed up with the "new" ways and revert back to the dependable "old" ways. The most effective approach to professional development incorporates a little of each of these staff development approaches. Providing a variety of options for staff development can only lead to a more prepared staff ready to face new challenges.

**Learning Styles**

The nature of the technology staff development program should incorporate a variety of learning styles. Each individual brings a different background of experience. If the training is a one-size fits all strategy participants will quickly become bored or frustrated with the instruction. Without a wider professional development context, continuous learning will not exist, and without continuous
learning there is no hope for any lasting impact (Goldberg & Richards, 1995). "No single delivery system is sufficient or correct in any one technology staff development program. Combining or offering alternative learning methods offers a more powerful learning environment than does relying exclusively on one technology learning method." (Lumley & Bailey, 1993, p. 20) No matter what learning method is chosen it is important to let participants see value in what they are doing. They need to be able to make the connection between new and prior knowledge. Participants also need to work with others and learn from their peers.

**Limiting Factors**

The limiting factors in staff development are usually resources, time and planning. Where resources are concerned it is often difficult to locate a place, materials, and equipment to be used for the workshop. More importantly these resources need to be available after the training for practical use. Also, there is never enough time in a day. How long a workshop should be and when is often a complicated decision. Finding the time for educators to incorporate the newly acquired skills into the curriculum can be more difficult. If the trainer is well prepared, even with limited
resources and time, the staff development has a good chance of success. Money is sometimes listed as a limiting factor. It does not have to be. If people voluntarily attend a workshop, then there is no need to find money to provide release time. The district must show commitment to staff development for technology, whether it is through reallocation of staff and resources, creative scheduling or financial supports (Zeitz, 1995).

Incentives

If staff development is to take place, the issue of incentives needs to be considered. Why would anyone want to put themselves through the pains of learning something new if there is no recognition for taking the initiative. To ask staff members to start the difficult task of learning technology and how to incorporate it requires incentives. Providing incentives clearly indicates the level of importance and value that administration puts on the activity. Compensation usually refers to money. State and federal funds are available for school improvement and technology is one way of improving the educational process. Another option is to receive credit towards salary schedule advancement for taking these professional development courses. Committing to hours of staff
development can also result in receiving a computer is an incentive. When staff development is provided during school hours, compensation is not an issue; however, releasing the teachers from their teaching duties is a significant problem (Zeitz, 1995).

**Voluntary vs. Mandatory**

Whether staff development should be voluntary or mandatory should also be decided. Often mandatory classes cause educators to develop a negative attitude toward the class. The importance of quantity of workshops attended should be less, and the emphasis should be on altering the learning environment in their classrooms. Sometimes it is necessary to require that technology courses are attended. The choice should be which session to attend and not whether to be involved.

While offering technology staff development through a voluntary program will not ensure that all of your faculty will be involved, those who attend this program will receive the most benefit. They are highly motivated to learn about technology as indicated by their willingness to spend their own precious time learning new information. (Zeitz, 1995, pp. 21-22)
The future of technology in schools is not a lone worker but instead the collaboration of everyone involved in the learning community. However, the only way we can bring about change in our schools is by investing in our teachers. We need to invest time, money, and provide staff development that will make a difference. Those teachers who receive this training are more likely to use computers to their full potential. This can only occur if administration supports these innovative teachers with a nonthreatening environment that encourages new ideas.
CHAPTER 3

METHODOLOGY OF ORIGINAL RESEARCH

While doing research about how educators use computers in the classroom it became clear that it is the teacher who makes the difference. It is how the teacher uses the computers with the students that provides a meaningful learning experience. If educators are to use computers to their full potential they need the technological training and the innovative ideas to get started. The literature review indicated that there were many resources related to technology training for educators. However, when it came to innovative ideas, they were few and far between.

Because of the lack of research on computer ideas for the classroom a couple of focus questions came to the surface. How are educators using computers with their students in their classrooms? Will these innovative ideas be flexible enough to get educators started with the integration process?

The ideas given in the literature often had many requirements that would make them difficult to incorporate into the average classroom site. These requirements include a vast amount of resources and tremendous cooperation among educators working
together to provide an experience that incorporates technology in every subject in a meaningful manner. This is an ideal situation that at this time, for many schools, is an overwhelming task. It is overwhelming because most schools are still in the beginning stages of training teachers about the technologies available.

Someone needed to talk to educators and find out what they are doing with limited resources in order to find ways to incorporate computers into the classroom painlessly. Educators of all grade levels and curriculum areas throughout the United States were contacted to request innovative ideas for how they use computers in the classroom. Educators were contacted via Web 66, the registry for K-12 schools, on the Internet. E-mail (appendix A) was sent to every elementary and secondary school that had an address listed. If teachers were listed they were contacted individually as well. Willing participants were asked to respond by U.S. mail, e-mail, or through the survey web page (http://www@cris.com/~nabber1/jennifer/ideas1.html).

The web page was developed as a survey including fill in the blank, multiple choice and open response questions (Appendix B). These questions prompted educators to write a basic lesson plan for
how they use computers with their students. Upon completion of the survey participants press a button and the answers are e-mailed directly in a lesson plan format. Some educators preferred to send their innovative ideas through the U.S. mail or by e-mail. To keep contributions (Appendix C) consistently organized it was necessary to take these lesson ideas and fit them into the survey format. The collection of lesson plans were organized by subject and grade level. When a computer idea for the classroom was received, a message was sent to the participant giving thanks for their contribution.
CHAPTER 4

RESULTS

Over a thousand K-12 educators were contacted over a six month time frame through their school's web page. These educators were contacted to share creative ideas for how computers are being used in the classroom to enhance the learning experience for students. A few dozen K-12 educators responded to this request for lesson ideas for incorporating computers across the curriculum.

There were over forty lesson plans shared with a range of activities from the usage of a basic word processing program to multimedia productions and the information highway. The most common type of lesson plans dealt with using a word processing program along with the Internet in innovative ways (Appendix C). Often the lesson plans involved interactive research through the use of the internet and through communications with individuals around the world with e-mail messages. Each activity requires students to use higher order thinking skills to become engaged with the newly acquired knowledge. Students are asked to take their findings and practice valuable skills to develop a production. This production may vary from a simple paper to a multimedia production. Students
can take pride and ownership in their projects which makes learning a more motivating experience.

Educators are skilled at adjusting activities to fit the needs of educators, students and curricula. The lesson plans contributed were from professionals at a variety of grade levels and content areas. Over 90% of the participants in this study were educators from middle school or high school. However, the activities can often be altered to fit other grade levels. There is also a great deal of flexibility in the lesson plans to fit other subject areas. The majority of the lesson plans involved writing skills and were designated as language arts activities. These language arts activities are easily adjusted to work with other curricula.

Some educators have access to a computer lab, while others have access to small clusters or even a single computer. The ideas given for computer enhanced activities are often easier to do in a lab setting. However, after reviewing the lessons it is apparent that these activities can be very effective with any number of computers. There were two additional participants that were disappointed that they were not able to share their experiences because they did not have the equipment available to them in their schools.
Only four educators reported that they use a system other than Macintosh computers with their students. No matter what system the lesson has designated, other systems can frequently be used because of the flexibility of the activities collected. This hardware flexibility is primarily due to the software. For example, if ClarisWorks is specified as the chosen software it can easily be replaced with Microsoft Works.

Essentially the lessons are valuable because they are ideas that educators have found that work. Regardless of the grade level or content area, the ability to share ideas can make the difference in a teacher's decision to incorporate technology into the classroom. The educators that responded to the study have been very helpful and will continue to serve as fantastic resources. The best way to take on the task of incorporating computers into the curriculum is by sharing innovative ideas with colleagues. Taking advantage of the Internet is a very efficient and easy way to contact computer-using educators and exchange ideas.
CHAPTER 5

CONCLUSIONS

Technology has become prevalent in everyday life. The goal of any school is to prepare students for the world in which they will live. Schools need to teach students the basic technological skills in order to function successfully in further schooling and work. The teacher is the vital element in this process. Integrating technology into curriculum requires educators to have knowledge of technology application in the educational setting. However, many educators do not have the basic technological skills that they are expected to teach their students. By ignoring the teacher's need for technology training that include technology integration, we are depriving students from the empowerment that technology has to offer. Just putting technology into schools will not get teachers to use the technology behind closed doors.

For successful implementation schools need to be equipped, teachers need to be trained, and technology needs to be integrated into the classroom. All of these aspects are essential, without any one of these aspects there is no hope for successful implementation. If teachers do not possess technology skills, technology will never
reach the students. If educators are knowledgeable but the skills are not integrated into the curriculum, then students will not see the value of the technology. Training teachers and integrating technology cannot stand alone, they are connected and must work together as one. The only way we can bring about change in our schools is by investing in our teachers. We need to invest time, money, and provide staff development that will make a difference. This can only occur if administration supports these innovative teachers with a nonthreatening environment that encourages new ideas.

While doing research on educators using computers in the classroom it became clear that it is the teacher who makes the difference. It is how the teacher uses the computers with the students that provides a meaningful learning experience. If educators are to use computers to their full potential they need the technological training and the innovative ideas to get started.

Because of the lack of research on computer ideas for the classroom a couple of focus questions came to the surface. How are educators using computers with their students in their classrooms?
Will these innovative ideas be flexible enough to get educators started with the integration process?

Technology is essential because it pervades our society. The push to get more computers into the educational system has been "fueled" by the belief that simply making technology available causes good things to happen. But technology is only a means. Technology alone will not bring change. The real potential of using technology to improve education is only beginning to be understood. Technology cannot fix things that may currently be wrong in the education system. Technology cannot fix poor teaching. Technology cannot replace school funding. Technology cannot eliminate discipline problems. In other words, technology itself does not automatically change the nature of teaching and learning. It is the way teachers utilize computers in the classroom that make the difference. The challenge is to make the most of the resources we have and to use them in new ways.
Appendix A

Computer Ideas for the Classroom

Hello, my name is Jennifer McNab. I teach seventh grade math and computers at Bettendorf Middle School. Currently I am working on my masters in educational technology at the University of Northern Iowa. For my master's research paper I have chosen to research how educators integrate computers into their curriculum. My hope is to contact educators from around the world to gather innovative ideas and lesson plans about how to enhance the learning experience for students through the use of computers.

I am aware that your time is valuable and rare. Sending in a lesson plan via my web page, e-mail or snail mail will take just a few minutes. Not only will you be helping out a fellow educator, but you will be doing yourself a service as well. After compiling these lesson plans, I would like to distribute my collection to interested contributing educators via e-mail. After all, who doesn't need motivational ideas to make their classroom a more exciting place to learn.

The more people that participate the better... So pass the word on to anyone that uses computers in their classroom. Thank you for participating!!!

*****************************************

Please visit my web page to participate...

http://www.concentric.net/~nabber1/jennifer/ideas1.html

or send your lesson plan by mail to...

Jennifer McNab
4735 18th St
Bettendorf, Iowa 52722
Appendix B

Educators are skilled at adjusting activities to fit the needs of educators, students, and curricula. Therefore, it seems wise to ask professionals at all grade levels and content areas to contribute ideas. I would like to give credit where credit is due. Therefore, please include your name and/or school for recognition of your contribution. If you wish to receive a copy of the final results, please enter an E-mail address below. Again, thank you for participating.

Your Name: (optional)

Your School Name: (optional)

Your E-Mail Address: (optional)
Please enter the intended grade level:

- Kindergarten
- Early Elementary
- Late Elementary
- Middle School
- High School

Please enter the intended subject area:

- Math
- Computers
- Language Arts
- Foreign Language
- Reading
- Physical Education
- Social Studies
- Music
- Science
- Art

Please enter the number of computers suggested:

- Large Lab
- Small Cluster
- Single

Please enter the operating system suggested:

- Macintosh
- IBM
Please describe your activity as detailed as you would for a substitute. The more details the better... :)

Please enter any additional comments here...

Would you like a copy of the final results E-mailed to you?

- Yes!
- No Thanks

Submit Data
Appendix C

Name: Sue Begyn

School Name: Bettendorf Middle School

Location: Bettendorf, Iowa

E-mail: (optional)

Grade Level: Middle School

Subject Area: Math

Computer Grouping: Large Lab

Operating System: Macintosh

Materials Needed: Hot Dog Stand (Sunburst Software)

Skills Targeted: Estimations and predictions are made based on information given in the program.

Activity Description: I demoed the program to the class before we began. The program goes through operating a concession stand during football season. You are given a weather forecast and the time and date of the football game. Using this information students must choose from various ordering options and must choose the selling price for the options. After the football game you find out the results. This goes on for the football season. Assessment can be the total amount of money made at the end of the season.
**Additional Comments:** Great fun for the kids. Hope you get lots of responses. GOOD LUCK!

**E-Mail Results:** No

Name: Gloria McDonald

School Name: Gotha Middle School

Location: Windmere, Florida

E-mail: (optional)

Grade Level: Middle School

Subject Area: Math

Computer Grouping: Small Cluster

Operating System: Macintosh

Materials Needed: Internet Connection

Skills Targeted: Web Sites of Interest to Mathematics Educators

Activity Description: This list was distributed by Kitty Fouche, FCTM's College Representative. Her email address is Kfouch@math-stat.math.UWF.edu
These links relate specifically to mathematics, education and teaching:

Math and Science Education -

http://www.enc.org/int_msed.html

http://www.yahoo.com/Education/Math_and_Science_Education/

Mathematics - http://www.enc.org/int_math.html

Mathematics Archives - K12 Internet Sites -

http://archives.math.utk.edu/k12.html

These links also relate to mathematics. They are not necessarily tailored to education and may or may not be related to your needs.

Science/Math/Yahoo -

http://www.yahoo.com/Science/Mathematics

Mathematics (Science) -

http://www.einet.net/galaxy/Science/Mathematics.html

Mathematics W3 Server Sites -


Try this for searching a topic - http://www.altavista.digital.com/

Need a fun, new way to introduce a function? Try -

http://www.asstarnet.com/-maxinfo/func.htm

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Mathematics Association of America - http://www.ams.org

American Mathematics Society - http://www.maa.org

Great freeware software for viewing graphical images (and manipulating them) - http://www.group42.com

Additional Comments:

E-Mail Results: Yes

************************************************

Name: B. Young

School Name: Flood Brook Union School

Location: Londonderry, Vermont

E-mail: byoung@floodbrook.k12.vt.us.

Grade Level: Middle School

Subject Area:

Computer Grouping: Small Cluster

Operating System: Macintosh

Materials Needed:

Skills Targeted:

Activity Description:
**Additional Comments:** Your best bet to use computers as tools, not toys, is to offer the idea of integration and group learning. To be only able to check one level, one content area, and one choice of computer set-up has limited me. We have a ton of ideas here to share, so I'll try to send them off as soon as I finish school--we had 7 snow days so we are going until the 21st of June.

**E-Mail Results:** Yes

**********************************************************************************

**Name:** Peggy Anderson

**School Name:** Totino-Grace High School

**Location:** Fridley, Minnesota

**E-mail:** peggya@cedar.cic.net

**Grade Level:** High School

**Subject Area:** Language Arts

**Computer Grouping:** Large Lab

**Operating System:** Macintosh

**Materials Needed:** internet connection and the laserdisc "National Gallery of Art"

**Skills Targeted:** The writing process with special emphasis on revising.
Activity Description:  I developed an entire semester course based on using Microsoft Word for teaching freshmen the writing process with special emphasis on revising. The students write their essays from first draft to last on the computer so they become very familiar with the process of focusing on clarity. It's nothing flashy, however. It's still the painful process of writing, revising made less painful.

Additional Comments:

E-Mail Results: Yes

Name: Jill Tammen
School Name: (optional)
Location: (optional)
E-mail: jill.e.tammen@uwrf.edu
Grade Level: High School
Subject Area: Language Arts
Computer Grouping: Small Cluster
Operating System: Macintosh
Materials Needed: Internet access and E-mail accounts
Skills Targeted: Students see how kids from different schools and states react to literature and relate it to their lives in different ways.

Activity Description: I teach senior high English. I have had students discuss classics: Huck Finn and To Kill a Mockingbird with partner schools in other parts of the country. In both cases the time spent sending and retrieving messages was pretty cumbersome because our students don't have email accounts at school, so all the messages had to be sent by me and through me. But both situations helped students see how kids from different schools and states react to literature and relate it to their lives in different ways.

Additional Comments: I hope this helps.

E-Mail Results: Yes

Name: Jill Tammen

School Name: (optional)

Location: (optional)

E-mail: jill.e.tammen@uwrf.edu

Grade Level: High School

Subject Area: Language Arts
Computer Grouping: Small Cluster

Operating System: Macintosh

Materials Needed: Word processing program

Skills Targeted: technical writing

Activity Description: I have also had students write software reviews for "Multimedia Schools" as an exercise in technical writing. They use the games/programs for about a week then review them according to a predetermined review form. Some reviews have been published and a more in depth explanation of the project can be found in the March/April 1996 issue of that magazine.

Additional Comments: I hope this helps.

E-Mail Results: Yes

Name: Bill Ragsdale

School Name: Harvest Park Middle School

Location: Pleasanton, California

E-mail: rags2000@aol.com

Grade Level: Middle School

Subject Area: Language Arts

Computer Grouping: Small Cluster
Operating System: Macintosh

Materials Needed: Word processing program and addresses

Skills Targeted: Writing a business letter.

Activity Description: In this assignment, you will begin your business letter. This is a letter that you will write to a company to either get information about a product that you like or own or to a company to let them know how much you like their product. We have a number of addresses but you may want to get your own address from some document that has it on it or from the library. The letters should be a full page. Explain why you like the companies products and what you want to company to do for you. Requesting information about one of their new products is always a good idea. You must make sure that your letter looks professional. Check your spelling. You will find out about the Spell Check component of Works.

Remember to use the school address:

Your Name

Harvest Park Middle School

4900 Valley Ave.

Pleasanton, CA 94566

Do not use your home address!
Some ideas about your business letter might include asking for free information about products that you like or use. Ideas that have been used in the past include clothing companies, cosmetics, and manufacturers. If you can't find the address, you might call the City Library. They can help you find addresses.

Additional Comments:

E-Mail Results: Yes

Name: Phyllis Oglesby
School Name: Grundy Center Middle School/High School
Location: Grundy Center, Iowa
E-mail: poglesby@grundy-center.k12.ia.us
Grade Level: Middle School
Subject Area: Language Arts
Computer Grouping: Large Lab
Operating System: Macintosh
Materials Needed: Word processing program and newspaper
Skills Targeted: basics of letter writing and word processing
Activity Description: With the 6th grade I have them write letters to the servicemen overseas through the Dear Abby column. She posts addresses each fall for the holiday season. Just last week we finished letters to the service people over in Bosnia. That allows us to study the basics of letter writing (format, style, etc.).

Additional Comments: Thanks for the note about computer education. I have the sixth and seventh graders in my computer classes. Sixth graders are in my room (every other day) for a semester, seventh graders (every day) are in here for 9 weeks. Will be fun the hear from other instructors and their ideas. Let me know if there is anything else I can send or help you with.

E-Mail Results: Yes

Name: Phyllis Oglesby
School Name: Grundy Center Middle School/High School
Location: Grundy Center, Iowa
E-mail: poglesby@grundy-center.k12.ia.us
Grade Level: Middle School
Subject Area: Language Arts
Computer Grouping: Small Cluster
Operating System: Macintosh

Materials Needed: Word processing program

Skills Targeted: sharing information

Activity Description: Another 6th grade idea I "borrowed" from another business teacher was to have the students type their name (in ClarisWorks) size 48, outline style, in a column. Similar to an acrostic, they are to type a word beginning with each letter that describes them. Below that they list a few hobbies/interests. Take the hardcopy with them and color it in. That way many of the students learn about their classmates with interesting tidbits of information.

Additional Comments: Thanks for the note about computer education. I have the sixth and seventh graders in my computer classes. Sixth graders are in my room (every other day) for a semester, seventh graders (every day) are in here for 9 weeks. Will be fun the hear from other instructors and their ideas. Let me know if there is anything else I can send or help you with.

E-Mail Results: Yes

************************************************
Name: Sue Castro

School Name: Bettendorf Middle School

Location: Bettendorf, Iowa

E-mail: (optional)

Grade Level: Middle School

Subject Area: Language Arts

Computer Grouping: Small Cluster

Operating System: Macintosh

Materials Needed: Word processing program

Skills Targeted: Writing process

Activity Description: I use computers for processing written materials. My at risk kids do not like to write (physically) and they hate to rewrite. Computers enable them to Type their ideas and make corrections without rewriting over and over again. Many like to type out their assignments as opposed to writing in packets.

Additional Comments:

E-Mail Results: Yes

************************************************
Activity Description: Analyze an opinion article and cartoon from a magazine or newspaper. Be sure to interpret the artist's intention and the writer's purpose into your own words. Also evaluate the strengths and weaknesses of the article and cartoon. Design your own. Choose a topic of interest to your friends/neighborhood/community. Decide what you want to say about the issue and draw a cartoon expressing that view. Don't worry, "stick figures" are just fine. We won't grade on artistry. Write an editorial that expresses the same view. Say your idea clearly and explain why you think that way. Then design a page and
do a layout of your article and cartoon. Layout is important here. It must be visually appealing with proper use of white space.

Additional Comments:

E-Mail Results: Yes

Name: Shelley Johnson

School Name: Golden Isles Elementary School

Location: Brunswick, Georgia

E-mail: shelleyj@www.technonet.com

Grade Level: Late Elementary

Subject Area: Language Arts

Computer Grouping: Single

Operating System: Macintosh

Materials Needed: The book From the Mixed Up Files of Mrs. Basil E. Frankweiler

Skills Targeted: Comparing ideas in a literature selection to an actual place and making reading more meaningful and interesting.

Activity Description: While my class and I were reading from the book From the Mixed Up Files of Mrs. Basil E. Frankweiler, we visited the Metropolitan Museum of Art on the internet and we compared the
map in the book to the map on WWW. Students were able to relate better to the story and view many of the pieces of art that they were reading about via the internet. This made the story more enjoyable and students were more motivated to read for understanding so they could look up the places they had read about.

Additional Activities: My class has also used the www to gather information about different countries, and we have followed several scientific explorations using the internet. One of the best we have found so far was Terra Quest. Terra Quest was a virtual trip to Antarctica. When we studied the U.S. Constitution and government we visited the White House page. In math we found a page on Origami and students accessed this site to learn more about geometry and they taught there classmates how to make origami that they found on the web. In science we visited Bill Nye the Science Guy, Magic School Bus, Virtual Frog Dissection.

Additional Comments: Visit our home page to see the results of an archaeological dig my class went on and then presented to others using HyperStudio. They modified this presentation for our Web page.

http://gnatnet.net/~beckymc/johnson5home.html
Name: Vera McPike

School Name: East Platte Elementary

Location: K. C. Montana

E-mail: TeachRs@aol

Grade Level: Early Elementary

Subject Area: Language Arts

Computer Grouping: Single

Operating System: Macintosh

Materials Needed: Color printer

Skills Targeted: Writing

Activity Description: Using volunteer parents 4 periods a week, second grade students receive one-on-one computer help with programs such as Amazing Writing Machine, The Writing Center, and Kid Works 2, to write, illustrate, and publish stories, reports, letters, and poems. They have immediate help with spelling, punctuation, capitalization, and the keyboard. It has been a positive experience for parents and students alike!
**Additional Comments:** I have a one-Mac and one-AppleIIe classroom and this affords each student some guaranteed time on the computer every week.

**E-Mail Results:** Yes

************************************************

**Name:** Becky McCorkhill

**School Name:** Golden Isles Elementary

**Location:** Brunswick, Georgia

**E-mail:** beckymc@gnatnet.net

**Grade Level:** Early Elementary

**Subject Area:** Language Arts

**Computer Grouping:** Large Lab

**Operating System:** Macintosh

**Materials Needed:** Kid Pies

**Skills Targeted:** Increasing interest in writing.

**Activity Description:** I use one particular program "Kid Pics" over and over again. Once students are very familiar with it, I use it as my "vehicle" to teach computer skills: save, keyboard, print, etc.

The teacher will provide each student with a disk.
The student will:

* set Kid Pix to black and white
* create a picture/"logo" using "Stamps, "Mixer", various tools
* use keyboard to type "A note to you from _____ "; "From the imagination of ______", etc. within the box of the picture.

Resize the picture so that it would only occupy the upper 1/6th of a standard copy paper. (I have them fold a used sheet into sixths as a guide.)

* save/name the picture
* quit/eject/mark disk

Next lesson:

* load Writer's workshop (or whatever)
* set up boarders, margins, spacing
* insert disk
* load to current page being set up
* make corrections
* save
* print

The teacher then copies each sheet so that each student now has 20 personalized sheets of notepaper (with logo) suitable for writing
letters, creative writing, reports, etc.

Suggestion:

I also provide a laminated "skeleton" sheet that has already been formatted. One side has lines just like any D'Nealian handwriting sheet. On the other side, it is blocked out like a friendly letter. The skeleton sheet goes under the note sheet and is stapled to it.

In the beginning of the year, I make sure that this sheet has correct spaces for indentations. As the year progresses, I omit indentations and blocks and hold the students responsible.

Students are thrilled when they peel the stapled sheet away and have a "grown up" letter!! (Look Ma, no lines!!!)

Additional Comments: Visit
http://www.gnatnet.net/~beckymc/media.htm

E-Mail Results: Yes

Name: Patty Sorensen

School Name: Chehalem Valley Middle School

Location: Newberg, Oregon, USA
Grade Level: Middle School

Subject Area: Language Arts and Social Studies

Computer Grouping: Small Cluster

Operating System: Macintosh

Materials Needed: Internet connection

Skills Targeted: Using language arts writing skills to develop a family tree project for a social studies immigration research unit.

Activity Description: Our students did research on their last names for their family tree project during a unit on immigration and family history. At the time, we used CompuServe, but this would work even better with Internet search engines. We searched for people with the same last name and requested that they contact us if they had any information regarding the background of their name. We had two great ones who even sent family crests, etc. from the country the student's name originated in via telecommunications. It was quite interesting for students and really showed a worldwide cooperative spirit!

Additional Comments:

E-Mail Results: Yes
Name: Bill Ragsdale

School Name: Harvest Park Middle School

Location: Pleasanton, California

E-mail: rags2000@aol.com

Grade Level: Middle School

Subject Area: Language Arts and Social Studies

Computer Grouping: Small Cluster

Operating System: Macintosh

Materials Needed: Word processing program

Skills Targeted: Investigative skills

Activity Description: The computer class is publishing a book called the "Kid's Guide to Pleasanton". Students from Harvest Park are encouraged to submit articles to the "Kid's Guide to Pleasanton" editorial board for possible selection for the book. Your name will appear on the article and you will receive a signed copy of the "Kid's Guide to Pleasanton" by all those who contributed an article. The book will be published during the summer and offered for sale in September. Money generated by the sale of books will be used to buy/replace technology items for the computer lab and the school.
New families to Pleasanton need to find out what there is to do around town. Most kids would like to become involved in their community. This book will tell parents and kids how to connect with the many activities that are available in the Pleasanton area.

**Instructions:**

Step 1: Select one of the Chapter topics to write about:

| History of Pleasanton                     | Football       |
| Churches/Youth Groups                    | Softball       |
| Restaurants                              | Basketball     |
| Movie Theaters                           | Game Arcades   |
| Shadow Cliffs                            | Physical Fitness|
| Stoneridge Mall                          | Family Activities|
| Earl Anthony's Dublin 40 Bowl            | Bike Trails    |
| Sports                                   | Hiking Trails  |
| Baseball                                 | Great Cookies  |
| Soccer                                   | Places to Hang Out |
| Billiards                                | Best Burgers   |
| Music/Video's                            | Best Pizza     |
Other Stuff

Step 2: Write your article from your own experiences. Make the article personal. Tell what you did and what made you like the thing that you are writing about.

Step 3: Include the following in your article:

Name of the Business
Hours of Operation
Address Directions (if appropriate)
Telephone Number
Cost (if appropriate)

Step 4: Print your article using one of the following fonts (type):

Lucida Bright, Times, Bookman Old Style at 12 point size.

Step 5: Turn in the finished Article.

Additional Comments:

E-Mail Results: Yes

**************************************************************
Name: Phyllis Richards

School Name: Bettendorf Middle School

Location: Bettendorf, Iowa

E-mail: (optional)

Grade Level: Middle School

Subject Area: Social Studies

Computer Grouping: Small Cluster

Operating System: Macintosh

Materials Needed: Word processing program and e-mail capability

Skills Targeted: Communication

Activity Description: Hooked up with an American school in Cairo, Egypt in order to be "E-pals". (Egypt is a part of our social studies curriculum.)

Additional Comments: Would like to expand this next year so that the Egyptian students do research for us to produce a booklet.

E-Mail Results: Yes

*******************************************************************************

Name: Sheila Brown

School Name: (optional)

Location: (optional)
E-mail: brown@scnc.aaps.k12.mi.us

Grade Level: Middle School

Subject Area: Social Studies

Computer Grouping: Small Cluster

Operating System: Macintosh

Materials Needed: Internet connection, MayaQuest and E-mail accounts

Skills Targeted: archeaology, exploration, and history

Activity Description: One that I was particularly smitten with was getting my classroom hooked into MayaQuest '96. This is an interactive expedition allowing my students daily contact with archeaologists, explorers, historians and classrooms around the world.

Additional Comments: MayaQuest is available via the internet and, for a small fee, an "exclusive" E-mail hookup can be obtained.

E-Mail Results: Yes

Name: Rita Manwiller

School Name: Riverdale Heights

Location: Pleasant Valley, Iowa
E-mail: (optional)

Grade Level: Middle School

Subject Area: Social Studies

Computer Grouping: Small Cluster

Operating System: Macintosh

Materials Needed: International Inspirer by Tom Snyder Productions

Skills Targeted: To familiarize students with the basic geographic location of the nations of the world. They will learn basic map reading skills, graph interpretation, cooperative learning skills, and important demographic, political, environmental, cultural, historical, and economic features of 187 nations.

Activity Description: How I incorporate it into my sixth grad curriculum: This program may be used as a group, single player, or multi-team game. I use this program with 28 sixth grade students. I divide the class into six groups and they must work cooperatively for the duration of the game (usually 2 or 3 class periods). The computer assigns each group a country in which to begin, and a set of instructions to follow as they work with their group at their seats with the materials provided with the game. The only time
they actively work on the computer is to enter their information. The computer adds up the points and then gives them more instructions that will be done with their group. This is a great way to teach cooperative learning skills along with familiarizing each student with the many countries throughout the world and their characteristics.

**Additional Comments:**

**E-Mail Results:** Yes

<table>
<thead>
<tr>
<th>Name</th>
<th>Leslie Goldman</th>
</tr>
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<tbody>
<tr>
<td>School Name</td>
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</tr>
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<td>Location</td>
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<tr>
<td>E-mail</td>
<td><a href="mailto:goldman@jordan.palo-alto.ca.us">goldman@jordan.palo-alto.ca.us</a></td>
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<td>Subject Area</td>
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<td>Computer Grouping</td>
<td>Large Lab</td>
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<tr>
<td>Operating System</td>
<td>Macintosh</td>
</tr>
<tr>
<td>Materials Needed</td>
<td>Power Point 3.0, Super Paint</td>
</tr>
<tr>
<td>Skills Targeted</td>
<td>Research, Storyboard, Scanning, Altering images in SuperPaint, Creation of slide presentation in Power Point, Public</td>
</tr>
</tbody>
</table>
Speaking

**Activity Description:** Students research a particular subject, create a storyboard to show a slide presentation and speak to it. Scan images and enhance them in SuperPaint. Write text and put together images etc. into a Power Point presentation.

**Additional Comments:** You have a nice form here that I'd like to use in our homepage.

**E-Mail Results:** Yes

*************

Name: Diane Peters

School Name: Chehalem Valley Middle School

Location: Newberg, Oregon

E-mail: petersd@mail.yamhillesd.k12.or.us

Grade Level: Middle School

Subject Area: Social Studies

Computer Grouping: Large lab

Operating System: Macintosh

Materials Needed: Authoring Software
Skills Targeted: research on a Native American tribe and designing a multimedia stack

Activity Description: I team teach an integrated 7-8th grade class. Early in the year when we were studying American History. I had the students research a Native American tribe with a partner. Then they had to create a HyperCard stack which contained information on the tribe, its customs, a map of its location and a picture. They turned out pretty good but it takes an awful lot of time to do projects like that.

Additional Comments: We are still discussing doing some interviews with some of our SeniorCitizens and making a home page featuring their "Trails to Oregon." We'd like to have some quick take pictures included. Our High School wants to create a local museum and I'd like it to have some connections to a Web site. It will depend on our time factors again. Hope this gives you a few ideas. The opinions expressed herein are those of the author and do not necessarily reflect the opinions of the Newberg School District.

E-Mail Results: Yes
Name: John Vater

School Name: Schenley High School

Location: Pittsburgh, Pennsylvania

E-mail: vater@pps.pgh.pa.us

Grade Level: High School

Subject Area: Science

Computer Grouping: Large Lab

Operating System: IBM

Materials Needed: Internet connection, Netscape and E-mail accounts

Skills Targeted: Netscape usage, E-mail, typing and mouse enhancement, Newton's Laws

Activity Description: Have students go to http://sparta.schenley.pps.pgh.pa.us/~vater/newton.html and follow the directions given on the web page. In order to give you an idea of the lesson on the web page the text on the instruction page is shown here. The underlined words represent the hot links on the web page.

Many things may come to mind when you think of the word "law."
There are criminal laws, Murphy's Laws and vehicular Laws. However, these are not the only types of laws. The ones we will be studying today are called scientific or natural laws. These types of laws explain how nature operates. As you know, laws are theories have been proven mathematically. Herein lies the genius of Sir Issac Newton.

Directions: Read the entire page carefully and answer the questions on a piece of paper. You will then email me your answers according to the directions given at the bottom of the page.

Newton's first law - inertia

A body in motion will stay in motion and a body at rest will stay at rest unless acted upon by a force.

1. What is the definition of inertia?

2. Describe the action in the above picture using Newton's first law.

3. Using Newton's first law, explain why the space shuttle can keep moving at the same speed in space without firing its rocket engines?
Newton's second law - acceleration

The acceleration of an object is affected by the force applied to it and the mass of the object.

\[ \text{ACCELERATION} = \frac{\text{FORCE}}{\text{MASS}} \]

4. What is the definition of acceleration?

5. What would the acceleration of an object be if the force = 100N and the mass = 2kg?

6. What would happen to the acceleration if both the force and the mass are doubled?

Newton's third law - action & reaction

For every action there is an equal reaction in the opposite direction.

7. In balloon #1, are the forces equal? Tell me how you know.

8. Will balloon #1 move? Explain.

9. In balloon #2, are the forces equal? Tell me how you know.

10. In which direction will balloon #2 move (north, south, east, or west)? This is the reaction of the balloon.
I want you to send you answers through email. You do not need to turn anything in to me. My email drop is vater@pps.pgh.pa.us. Put your name and group number in the subject area. Also, your answers to the questions should be put in the large blank space. When you are finished writing your letter, click on the send button. You just need the answers to the questions. Also, tell me what you liked and disliked about this activity. Good luck!!

Additional Comments:

E-Mail Results:  Yes

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Name: Karlene Garn and Kirk Shmaltz

School Name: Ames High School

Location: Ames, Iowa

E-mail: (optional)

Grade Level: High School

Subject Area: Science

Computer Grouping: Large Lab

Operating System: Macintosh

Materials Needed: Internet Connection
**Skills Targeted:** To choose a biology research topic, use Internet to check on the availability of sources, compare the results of 2 different search engines, evaluate sources, and write a possible thesis statement.

**Activity Description:** Students will do a preliminary investigation of their research topics. They will use Internet and try several different search engines to compare the results. They will look at the information to determine the usefulness based on authenticity and relevance. Identifying the source of the information will be important. Toward the end of the class period, students will be asked to write a possible thesis statement based on the information found today.

Use Netscape to search the Internet on a topic that the two of you choose. Use the search engines Yahoo and Lycos and if you have time use an engine of your choice. Skim through the information that you find, determining whether this would be helpful for the paper that you are going to write. Look at the source of the material. Determine what you will have to do to check the reliability of the information. After you have spent most of the period examining the information that is available, work at
developing a thesis statement for your research paper.

Positive Interdependence: Check with your partner to compare the information you have found with each of you using a different search engine. What information seems to be most helpful. Can you offer an opinion about what search engine you would use another time, to search for this type of topic?

Individual Accountability: Each of you will write your own thesis statement. Check with your partner to get ideas and suggestions.

Criteria for Success: Finding appropriate information. Feeling comfortable and confident that this information will be helpful for your paper.

Evaluation of Academic Learning: A summary statement of the information that you found and your beginning development of a thesis statement will be the two tasks on which you will be evaluated.

Social Learning (Processing): In small groups, by: Sharing with your partner the results of your searching. Did there appear to be enough information? Was the information authentic? Would it be relevant in supporting your thesis statement?
Additional Comments: If interested in a worksheet to use with this lesson contact Karlene Garn and Kirk Schmaltz via the Ames High School Web Page or the following address:

District Offices
120 South Kellogg Avenue
Ames, IA 50010-6719

E-Mail Results: Yes

************************************************

Name: Joe Kmoch

School Name: Washington High School

Location: Milwaukee, Wisconsin

E-mail: kmoch@whscdp.whs.edu

Grade Level: High School

Subject Area: Science

Computer Grouping: Small Cluster

Operating System: Macintosh

Materials Needed: Netscape and an internet connection

Skills Targeted: Students are to investigate the human/environmental interaction concerning the building & safety of nuclear power plants.
**Activity Description:** Review a series of articles/documents about nuclear safety, accidents, and environment and answer the following question. Can we build and operate nuclear power plants that are safe (enough)?

  - environmental factors (site choice)
  - human factors
  - technology
  - limiting risks (to environment)
  - future: alternatives/risks

**Assessment/Evaluation:** Group presentation

**Additional Comments:** We recently held a workshop on developing ideas for "internetized" lesson plans. A few of them have been entered onto our Web page (pardon our limited capabilities with HTML - format will be improved sometime soon). More will be entered as time permits. Hope this helps you out - I'll try to remember to email you when others are entered.

http://whscdp.whs.edu/whs/lesson-plans/lesson-plans-list.html

**E-Mail Results:** Yes

************************************************

73
Name: Joe Kmoch

School Name: Washington High School

Location: Milwaukee, Wisconsin

E-mail: kmoch@whscdp.whs.edu

Grade Level: High School

Subject Area: Science

Computer Grouping: Small Cluster

Operating System: Macintosh

Materials Needed: Netscape, E-mail accounts and an internet connection

Skills Targeted: Find another class on the Internet by advertising on KidSphere or elsewhere. Develop a problem specification which has the potential for a number of routines - for example, a set of routines to do arithmetic on fractions. Create teams of two at each site and pair them up. Each team will draw up the specifications for routines which will be used in their program. Each team will then choose half of the routines and send the specifications (pre/post conditions + possible description of the results) to the other team via email. While waiting for the other team to code the routines, the sending team will code the half they have not given to
the other team and also develop a routine to test all specified
routines along with a procedure for testing. (test plan)
Assessment/Evaluation: Students will present their finished
program to their classmates. Students will turn in a completed
program with documentation.
Additional Comments: We recently held a workshop on developing
ideas for "internetized" lesson plans. A few of them have been
entered onto our Web page (pardon our limited capabilities with
HTML - format will be improved sometime soon). More will be
entered as time permits. Hope this helps you out - I'll try to
remember to email you when others are entered.
http://whscdp.whs.edu/whs/lesson-plans/lesson-plans-list.html
E-Mail Results: Yes

Name: John Vater
School Name: Schenley High School
Location: Pittsburgh, Pennsylvania
E-mail: vater@pps.pgh.pa.us
Grade Level: High School
Subject Area: Science
**Computer Grouping:** Large Lab

**Operating System:** IBM

**Materials Needed:** Internet connection, Netscape and E-mail accounts

**Skills Targeted:** netscape usage, E-mail, typing and mouse enhancement, electricity

**Activity Description:** Have students go to http://sparta.schenley.pps.pgh.pa.us/~vater/electricity.html and follow the directions given on the web page. In order to give you an idea of the lesson on the web page the text on the instruction page is shown here. The underlined words represent the hot links on the web page.

This lesson is to help you to better understand electricity and magnetism. In addition, it will help you become more familiar with email and usage of the netscape browser. As you look at the following pages, jot down information so you are able to email me with your answers. Before you even ask, NO! I DON'T HAVE ANY PENCILS!
DIRECTIONS: Read the entire page carefully before anything! Once you get an idea of what you are doing, then you can start to follow the links I have made for you. You will be asked to respond to questions that can be answered from information given at these sites.

First, I would like you to click here to learn a little more about Ben Franklin and electricity.

a) What are the 3 parts of a circuit?

As you can see, if the lettering is blue and underlined you can immediately go to this page. This is called hypertext.

What did you think of these hypertext sites? Put your comments with your email.

An inside look at electricity will give you a more precise look at our subject.
a) What is the definition of the following?
- ampere
- volt
- ohm
- watt

Make sure you write these definitions on a piece of paper so you can mail them to me! I want you to send you answers through email. You do not need to turn anything in to me. My email drop is vater@pps.pgh.pa.us. Put your name and group number in the subject area. Also, your answers to the questions should be put in the large blank space. When you are finished writing your letter, click on the send button. You just need the answers to the questions. Also, tell me what you liked and disliked about this activity. Good luck!!

Additional Comments:

E-Mail Results: Yes

Name: Stephen Bunker
School Name: Meadow Elementary
Location: Lehi, Utah
Activity Description: Spreadsheet applications such as Lotus and Excel are used widely throughout business and science for creating budgets and financial statements or recording and analyzing data. Educators have even been using simplified or specialized spreadsheets for recording grades. Spreadsheets can be easily taught to students; however it does not require purchasing a complicated version with all the bells and whistles. Software packages such as WordPerfect Works, Microsoft Works, and Claris Works have spreadsheet capabilities. Educators may also purchase a specialized spreadsheet application already adapted for student use - The Cruncher by Davidson is one example. A shareware version, BiPlane, is also available. Spreadsheets are a tool that can be used to integrate technology with science and math. Simply speaking,
spreadsheets are used for three main reasons: recording data, calculating data and graphing data. The following three activities can be used to introduce students to some of the simple and practical functions of spreadsheets.

**Words per Minute Record:** Introduces concepts of recording and graphing data. Students record the date and the score they received on their daily timed writings.

**Tower of Hanoi:** Introduces concepts of calculating and filling down data. Students use a mathematical puzzle that can be solved by identifying patterns. Using equations and the fill down function, students can obtain solutions for this puzzle in varying difficulty.

**Oh Deer:** Introduces concepts of recording and graphing data. Students collect, record, and graph data from participating in this game that illustrates the carrying capacity or a habitat.

**Additional Comments:**

**E-Mail Results:** Yes
Name: Larry Flathman

School Name: Bettendorf Middle School

Location: Bettendorf, Iowa

E-mail: (optional)

Grade Level: Middle School

Subject Area: Science

Computer Grouping: Large Lab

Operating System: Macintosh

Materials Needed: modem, scanner, LCD panel, Quick Take camera

Skills Targeted: computer graphic capabilities and computer charting capabilities

Activity Description: Take information and arrange it in a motivational display.

Additional Comments: appreciate the sharing of computer interest

P.S. Have A Great Easter Break

E-Mail Results: Yes
Name: Elizabeth Burger

School Name: (optional)

Location: (optional)

E-mail: eburger@access.k12.wv.us

Grade Level: Middle School

Subject Area: Science and Language Arts

Computer Grouping: Small Cluster

Operating System: Macintosh

Materials Needed: Internet connection and E-mail accounts

Skills Targeted: research skills

Activity Description: Mr. Frostick here had his classes use the internet to write papers in science. I didn't really have a lesson plan, but let the kids surf for research papers and since I teach English, had them directly E-mail their creative writing to contests at the local newspaper.

Additional Comments: Frostick did a great job training them. In the future we will do pen pals and that sort of thing.

E-Mail Results: Yes

************************************************
Name: Pat Vernon

School Name: State College Area High School

Location: (optional)

E-mail: (optional)

Grade Level: High School

Subject Area: Computers

Computer Grouping: Large Lab

Operating System: IBM

Materials Needed: AutoCad and 3DStudio

Skills Targeted: Graphics software mastery and aesthetic awareness

Activity Description: I teach AutoCad and 3DStudio and we make various web pages with HTML and Java script.

Additional Comments:

E-Mail Results: Yes

************************************************************

Name: Jill Tammen

School Name: (optional)

Location: (optional)

E-mail: jill.e.tammen@uwrf.edu
Grade Level: High School

Subject Area: Computers

Computer Grouping: Large Lab

Operating System: Macintosh

Materials Needed: Netscape and an Internet connection

Skills Targeted: using html to create a home page

Activity Description: Finally, this semester my technical writing class used html language and created a web site for our high school. Each student created a possible home page for the site and then we selected what we liked best about each to create the home page. Then, in pairs, students wrote link pages for different departments. Eventually, we incorporated another class, a desktop publishing class, to work on the pages too.

Additional Comments: I hope this helps. You can view the results at http://www.pressenter.com/~hhs07/ if you are interested.

E-Mail Results: Yes

******************************************************************************

Name: (optional)

School Name: (optional)

Location: (optional)
E-mail: maldmal@aol.com

Grade Level: Middle School

Subject Area: Computers

Computer Grouping: Large Lab

Operating System: IBM

Materials Needed: Any desktop publishing program

Skills Targeted: To learn to use a desktop publishing program

Activity Description: I have my students design items like a letterhead, notepad, "business card" and a play restaurant menu. They have a lot of fun, and since I have them use their names and addresses, they really like their printed copy. I require them to change fonts, and to import graphics. Its an easy was to introduce desktop publishing.

Additional Comments: Good Luck!

E-Mail Results: Yes

***********************

Name: Bill Ragsdale

School Name: Harvest Park Middle School

Location: Pleasanton, California

E-mail: rags2000@aol.com
Grade Level: Middle School

Subject Area: Computers

Computer Grouping: Small Cluster

Operating System: Macintosh

Materials Needed: Microsoft Word 5.1 and an Internet connection

Skills Targeted: Research

Activity Description: In this assignment, the student will try to finish the report on the History of some type of Technology. This report should be very professional looking and must include pictures from the Internet or Clip Art from the Internet. You will have to do research using the Internet to find out information about your report. The topic you choose should be one that has lots of information about it. Not being able to find enough information is not a good excuse! You must cite (give credit) for all sources of information.

Additional Comments: I have the information under the Classes and then to Computer on my web page www.pleasanton.k12.ca.us/hpWeb/index.html. I try to post them weekly for the students and the parents.

E-Mail Results: Yes
Name: Jim Hendricks

School Name: Desert Hills Middle School

E-mail: hendja@ksd.kennewick.wa.directnet.net

Location: (optional)

Grade Level: Middle School

Subject Area: Computers

Computer Grouping: Small Cluster

Operating System:

Materials Needed: The above choices are not adequate to describe our program. In Engineering Technology students use Atari ST's, Atari Falcon 030, IBM's and PowerMacs.

Skills Targeted: Problem solving, working cooperatively, using tools, accessing research information, technical writing, desktop publishing, multimedia, CAD or Draw Programs, presentation and oral communication skills, use of Foreign Language for promoting products. More!

Activity Description: Vist http://www.business-link.com/dhills
Additional Comments:

Visit http://www.business-link.com/dhills
select educational programs
select "engineering technology"

E-Mail Results: Yes

************************************************

Name: Steve Linley
School Name: Central Intermediate
Location: (optional)
E-mail: teched1@cris.com
Grade Level: Middle School
Subject Area: Computers
Computer Grouping: Single
Operating System: Macintosh
Materials Needed: Software: Downloaded from the internet, Fetch, Eudora, Netscape, HTML Web Weaver, GifConverter, Jpeg View, etc.
Skills Targeted: HyperText Mark-up Language, Internet (http, www, URL, ftp, ISP, TCP, IP, etc.), nomenclature, and application programs such as InterSlip, Fetch, Eudora, Web browsers (Netscape, etc). File formats for pictures, movies, and sounds.
Activity Description: Given a basic template of HTML script for a web page, students learn to create several web pages with links, images, sound and movies (optional). These pages show pictures of students doing activities in their and other classes and school activities. These sites become more advanced and more professional looking (content is more polished also) with experience.

Additional Comments: This was the first year trying this. We watched video tapes purchased from "Classroom Connect" and learned how to connect to the internet and to surf for information. We also interacted with a robot at the University of Western Australia. We found information about recumbent bicycles, Ford Motor Co., and much more.

E-Mail Results: Yes

Name: Diane Peters
School Name: Chehalem Valley Middle School
Location: Newberg, Oregan
E-mail: petersd@mail.yamhillesd.k12.or.us
Grade Level: Middle School
Subject Area: Reading
Computer Grouping: Large lab

Operating System: Macintosh

Materials Needed: Presentation Software (Microsoft Works 4.0 with Works Wizard, ClarisWorks 4.0, PowerPoint, or Persuasion)

Skills Targeted: presentation skills, creating book reports and word processing

Activity Description: We have Microsoft 4.0 with Works Wizard. My students used the Presentation section to create book reports. They also had to import a picture for their book report. Then they can make it work like a slide show. Our next project will be a database using immigration or World War II numbers to create some graphs.

Additional Comments: We are still discussing doing some interviews with some of our SeniorCitizens and making a home page featuring their "Trails to Oregon." We'd like to have some quick take pictures included. Our High School wants to create a local museum and I'd like it to have some connections to a Web site. It will depend on our time factors again. Hope this gives you a few ideas. The opinions expressed herein are those of the author and do not necessarily reflect the opinions of the Newberg School District.
E-Mall Results: Yes

************************************************

Name: Peggy Anderson
School Name: Totino-Grace High School
Location: Fridley, Minnesota
E-mail: peggya@cedar.cic.net
Grade Level: High School
Subject Area: Art
Computer Grouping: Single
Operating System: Macintosh
Materials Needed: internet connection and the laserdisc "National Gallery of Art"
Skills Targeted: Research on one of the Impressionists or post-Impressionists
Activity Description: My Honors sophomore class -- they must do an art presentation on one of the Impressionists or post-Impressionists, so I have them check the laserdisc of the National Gallery of Art and use that for their research and perhaps their presentation. They also check the WWW for a given artist's home page: a number of them have one.
Additional Comments: See "About Totino-Grace High School"

E-Mall Results: Yes

Name: Peggy Anderson
School Name: Totino-Grace High School
Location: Fridley, Minnesota
E-mail: peggya@cedar.cic.net
Grade Level: High School
Subject Area: Art
Computer Grouping: Single
Operating System: Macintosh
Materials Needed: internet connection and the laserdisc "National Gallery of Art"
Skills Targeted: Research on one of the Impressionists or post-Impressionists
Activity Description: My Honors sophomore class -- they must do an art presentation on one of the Impressionists or post-Impressionists, so I have them check the laserdisc of the National Gallery of Art and use that for their research and perhaps their presentation. They also check the WWW for a given artist's home
page: a number of them have one.

**Additional Comments:** I hope this information is helpful. We have been at this move in education for at least 10 years and continue to struggle with the financial issues. The curriculum issues are much easier and our invitation approach to faculty has been highly successful.

**E-Mail Results:** Yes

**************************************************************************

*Name:* Michele Fosket

*School Name:* (optional)

*Location:* California

*E-mail:* mfosket@sduhsd.k12.ca.us

*Grade Level:* Middle School

*Subject Area:* 

*Computer Grouping:* Single

*Operating System:* Macintosh

*Materials Needed:* 

*Skills Targeted:* 

*Activity Description:* 

**Additional Comments:** Michele has suggested a few locations
where you can find a variety of lesson plans.

* gopher://bvsd.k12.co.us:70/11/Educational_Resources/Lesson_Plans/Big%20Sky/
* http://www.scholastic.com/network/langarts/la1.htm

E-Mail Results:  Yes

Name: Diane L. Kuhn
School Name: (optional)
Location: West Virginia
E-mail: dlkuhn@access.k12.wv.us
Grade Level: High School
Subject Area: Foreign Language
Computer Grouping: Single
Operating System: Macintosh
Materials Needed: Internet connection
Skills Targeted: Discover French Culture on the World Wide Web
Activity Description: My lesson plan suggestion for French is to have an Internet scavenger hunt based on the list of sites, "Discover French on the World Wide Web" found at
http://www.utsa.edu/aatf/surfing.html. At this web site you will find links to...

* Listen to a daily news summary on France Info.
* Read the first page of today's Libération.
* For the news from Canada, read Matinternet.
* Check the weather today at Méteo France.
* With Pariscope find out all you can do this week in Paris.
* Learn about travel on the Paris métro and set up an itinerary.
* A visit to the Louvre is a must.
* Spend a few minutes at the Musée des Arts et Métiers to see an exhibit.
* Don't forget the Cité des Sciences et de l'Industrie.
* Return to the past with a visit to the Menhirs et Dolmens of Brittany.
* Take a guided tour of Nîmes to see Roman ruins.
* Or how about a gourmet tour of France to taste French cheeses?
* Go on a shopping spree at La Redoute.
* Listen to some African and Carribean music.
* Then listen to some Basque music.
* For a bit of cyber French humor to appeal to all the senses, bite into the Virtual Baguette.

* And for the young and young at heart, don't miss Les premiers pas sur Internet.

* Click on this map of France to continue your virtual explorations of French culture.

Make up a list of questions, the answers to which can be found at these sites. Give a prize to the student who find the most answers in a limited amount of time.

Additional Comments:

E-Mail Results: Yes

************************************************

Name: Kathleen Schrock

School Name: N. H. Wixon Middle School

Location: S. Dennis, Massachusetts (MA)

E-mail: kschrock@capecod.net

Grade Level: Middle School

Subject Area: Computers

Computer Grouping: Large lab

Operating System: Macintosh
Materials Needed: blank card catalog cards with URL's and names of sites (one per student) with 3' piece of yarn tied in hole; transparency with definition of hypertext, URL, Internet; transparency showing how pages are linked; Internet connection and large screen projection ability

Skills Targeted: Students will understand the concept of hypertext, URL's, and how the World Wide Web is set up.

Activity Description: Internet Curriculum #1: The Living Web

This lesson requires the library media specialist to prepare 24 card catalog cards with URL's of a site and links from that site. The first card should have the home page name and URL. The next set of cards should have the first links from that site. The next set of cards should have the sublinks from the first set of links, etc. Each card, except the homepage card, needs to have a 3' piece of yarn tied in the hole.

Lesson:

1. Librarian will introduce the definitions of Internet, hypertext, network, and URL.
2. Teacher will demonstrate, via the Internet, how hypertext links work and point out the URL's.

3. Students will each be given a color-coded card with a site name and a URL:
   - 1 home page card - red
   - 10 links cards - green
   - 10 sublinks cards - blue
   - 5 sub-sublinks cards - yellow

4. The holder of the home page will be identified and stand in middle of open space. On the overhead, show how the links are related.

5. Have the links line up around the home page, having the home page hold the end of the yarn. (Like spokes on a wheel).
6. On the overhead show how the links are linked to the sites around the home page.

7. Have sublinks line up off of appropriate links. Repeat for the sub sublinks.

Summarizer: (Ticket to leave)

The World Wide Web is like______________

because______________.

Additional Comments: Visit Kathy Schrock's Guide for Educators to find part of my unit at http://www.capecod.net/Wixon/brush/brush.htm

The most important part (week 3) is being published in "Technology Connection" in September 1996, so I couldn't include that part.

copyright 1996 Kathleen Schrock (kschrock@capecod.net)

E-Mail Results: Yes

Name: Kathleen Schrock

School Name: N. H. Wixon Middle School
Location: S. Dennis, Massachusetts (MA)

E-mail: kschrock@capecod.net

Grade Level: Middle School

Subject Area: Computers

Computer Grouping: Large lab

Operating System: Macintosh

Materials Needed:

Skills Targeted: To have students realize that Web pages need to be looked at critically and evaluated for content accuracy and authenticity.

Activity Description: Internet Curriculum #3: Evaluation of a Web Page

This lesson is going to be published in the September 1996 issue of Technology Connection, the magazine for school media and technology specialists.

Technology Connection (ISSN 1074-4851)

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Address : Linworth Publishing, 480 East Wilson Bridge Road, Suite L, Worthington, OH 43085-2372

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Phone : (614) 436-9490

e-mail : newslin@aol.com

Additional Comments: Visit Kathy Schrock's Guide for Educators to find part of my unit at
http://www.capecod.net/Wixon/brush/brush.htm

The most important part (week 3) is being published in "Technology Connection" in September 1996, so I couldn't include that part.

copyright 1996 Kathleen Schrock (kschrock@capecod.net)

E-Mail Results: Yes

************************************************

Name: Kathleen Schrock

School Name: N. H. Wixon Middle School

Location: S. Dennis, Massachusetts (MA)

E-mail: kschrock@capecod.net

Grade Level: Middle School

Subject Area: Computers

Computer Grouping: Large lab

Operating System: Macintosh

Materials Needed: overhead; elements transparency; worksheet transparency; crayons; markers
**Skills Targeted:** Students will utilize the elements of a good home page in designing one on a topic of their choice.

**Activity Description:** Internet Curriculum #4: Make Your Own Home Page - Lesson:

1. Librarian will remind the students of the elements of a good home page and show the overhead transparency of the list.

2. The students will be given a blank home page (copy on the overhead) and asked to design a home page on a topic of their choice. Remind them that they are the "experts" on their topic. (20 minutes)

3. Students will share home page with the class.

**Summary:**

Ticket to leave: "I think the most important element of a Web page is _______________." 

**Additional Comments:** Visit Kathy Schrock's Guide for Educators to find part of my unit at

http://www.capecod.net/Wixon/brush/brush.htm

The most important part (week 3) is being published in "Technology 102"
Additional Suggestions

ELECTRONIC ENCYCLOPEDIA

* Especially good in "Jeopardy," (6th grade) assignment - students researched categories of their own choice, and located questions and answers.

* Technology class (8th grade) used electronic encyclopedia for information on technology topics - communication, transportation, and industries.

* Science topics - especially used animations and videos - volcanoes, continental drift, and animal CD.

* Students would take CD Rom with TV display to classroom to use as visual aids for speech class (eagle in flight and Hindenburgh disaster)

* Students (7th grade) use library research to plan their final speech, including the electronic encyclopedia.
INTERNET USES

* Up-to-date Iditarod information
* Information on authors for young adults
* Country and rock musicians
* MacWeather
* Population statistics and geographic location of endangered species
* Greenpeace and other wildlife foundations

ADDITIONAL RECOMMENDED SOFTWARE

* Decisions, Decisions! software by Tom Snyder Publications. This software provides problem solving in which student choices cause different situations to arise.
* Mind Bender software with logic problems.
REFERENCES


*Teaching PreK-8*, 6.


*Teachers and Technology: Making the Connection*, 11.


*The Education Digest*, 12-15.