

# **Computers in the Classroom**

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## **What am I supposed to do with 1-4 computers in my classroom?**

### **Seven Categories of Classroom Computer Use**

#### **1. Administrative Tool**

- Word processor- letters, class notes, quizzes, word searches
- Test generator
- Database for mail merges
- Attendance and grade book
- Communications- e-mail other teachers, join educational [listservs](#)
- Research tool- educational CDs, Internet

#### **2. Presentation tool**

##### **For teachers:**

- display notes, quizzes, video clips, etc.
- science/math class to create graphs, charts
- demonstrate computer basic skills/training
- review information/drill facts



##### **For students:**

- use with oral reports
- show multimedia projects

#### **3. Communication station**

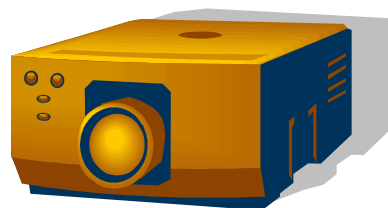
- E-mail other students/classrooms (i.e. "[keypals](#)"), other teachers, subject experts
- <http://www.askanexpert.com>
- Quick Cam to take pictures of students or communicate face to face

#### **4. Information station**

- Use CD-ROM encyclopedia for research, pictures, video and sound clips, etc.
- Use Internet to access libraries, projects, databases, addresses, etc.

#### **5. Publishing tool**

- Monthly class magazine, newsletter, anthologies
- Classroom journal
- Ongoing story center
- Brochure for project
- Web publishing



#### **6. Learning center**

- Specific content software to reinforce or remediate skills (drill and practice)
- Use templates for student projects

#### **7. Simulation center**

- Use specialized software to create simulations (i.e. Tom Snyder's software)
- form teams of students
- students complete worksheet as they work through the program
- students make predictions

## What to do with 1 or a few computers in your classroom

First decide how you're most likely to use each computer.

- Presentation station: Teach a lesson, lead a class discussion, or let your students take center stage.
- Learning center: Students work on programs and projects individually or in small groups.
- Teacher workstation: Keep student records, generate reports, create activity sheets, assessment materials, newsletters for parents, and much more.

If you have several computers...

- Set up one computer as a shared presentation/teacher workstation in the front of the room.
- Use the rest of the computers as student work-stations. Most teachers form a computer cluster in one area of the room, usually towards the back where they're less apt to cause a distraction.
- If you end up with a jumble of wires, color-code each set and the associated computer with stickers. That way you can identify cables when you need to trouble-shoot or move equipment.
- Tuck wires out of the way. You may want to consolidate them with one or more "cord snakes," hollow plastic tubes designed for this purpose.
- Adapt your mini-lab to your needs. Students sometimes work on the same activity, but other times you may want to designate a different role for each computer. One station can be a reading center with a collection of electronic books, another a writing center with a word processor and publishing tools. Add a math/science center, a social studies center, or a music and art center.

Help is just around the corner...

- Create your own support group. If you and several colleagues agree to use some of the same software, you can share ideas and help each other trouble-shoot. Even "experts" need help from time to time. Don't be afraid to ask.
- Enlist your "techno-kids." Most children love computers and spend hours exploring and problem solving. In the process, they develop valuable expertise. Enlist their help as technical advisors. Let them explore new software, teach you how to use it, tutor classmates, and trouble-shoot. They'll save you time and frustration, and the experience will bolster their self-esteem.

## Practical Ideas

1. Tom Snyder makes some wonderful software for one computer classrooms. They involve group projects requiring intermittent computer use.
2. Use it to find answers to questions students come up with in class. The internet and CD encyclopedia's are great tools in the classroom.
3. Create class projects with all students participating. An example of this might be to create a graph of students height and stride length. Each student enters their own information and a graph is created. The computer becomes a tool for a larger project.
4. Classroom to classroom communication. Send and receive email from classrooms around the world. An interesting twist on this is the Teddy Bear project. Find a classroom mascot and mail it to friends and relatives around the world. They can take pictures and send back email explaining where it is and what it has been doing.
5. Have students take turns using the computer to determine the weather in several cities around the world. Choose cities that you will be studying this year and plot the temperatures on a wall chart.
6. Workstations are a great way to incorporate the computer. Make several workstations around the room with only one at the computer. Give a short and simple assignment in order to get all students through quickly.
7. Students may want to use the computer (once a day) to get scores for a hockey draft.
8. Visit authors web sites as you are studying the novel. Showing it on the TV makes this easier.
9. Listen to audio files of historic events, like to moon landing or famous speeches.
10. Listen to authors read portions of their work on the internet.
11. Current events are available online. CNN Interactive and CBC Newsworld both link the current stories with related stories from the archives. They will also give incredible details about major News events.

# One Computer in the Classroom

## Where do I put it?

Where you put the computer will depend on the layout of your classroom. Here are some factors to consider:

- Make sure the display faces the classroom. Nothing will keep students on task better than knowing you might be looking over their shoulder.
- Keep the computer in a low-traffic area. Computer are not all that fragile, but better to keep them in a spot which students don't pass on their way into or out of the room.
- If you'll be using it for presentations, put it in the front of your room.
- If you'll be using it as a learning center, make sure a small group can gather around it.
- If you use the computer yourself, you may want it close to your desk.
- Post instructions and computer use policies at the computer.

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## Integrating the Computer

Integrate the Computer into your existing lessons. Start with a small, manageable task in one of your lessons and build from there.

## **What am I supposed to do with one computer in my classroom?**

### **Use the Computer for Yourself**

First, you can put the computer to good use even if you don't let your students touch it. You can use the computer as a tool in your own work. Use a word processor to prepare tests, a spreadsheet to keep grades, the Internet to find lesson plans. Use the Web or listservs to discuss issues with other teachers.

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### **Presentation Tool**

Using presentation software like PowerPoint or HyperStudio, you can create more compelling visual aids for your lectures. Such presentations are a good place to begin using the computer with your class, since there is little chance of anything unexpected or unpleasant happening.

Using CD-ROMs or the Internet, you can have interactive visuals which can follow students questions instead of your script.

[If you use Netscape Navigator or Internet Explorer, you can use a bookmark file as as a table of contents.

Students can also use presentation software to support their presentations.

[Have students use PowerPoint or HyperStudio presentations during oral assessments.]

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### **Demonstration**

If your class only gets lab access occasionally, why not demonstrate what they'll be doing beforehand? The preparation will allow you to use lab time more efficiently.

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### **Learning Center or Stations**

If you have learning centers set up, use your computer as one of them. You can use: content-specific software for simulations, tutorials and drill-and-practice; CD-ROMs or the Internet for research; a spreadsheet for calculations; and a word processor for preparing reports. You can create assignments on disk which the students must complete. Or assign one student each day to take notes each day and put them on the computer, so that students who are absent can catch up.

One scenario for this approach might be fifth grade students looking for information about prehistoric animals that lived in their state. Each group can choose to find information about one particular animal and to prepare a brief report about their animal for the rest of the class. At one station students might find information by examining dinosaur textbooks obtained from the library. At another station the teacher might have a set of encyclopedias available. A third station might be material from the teacher's clip file such as articles about paleontological digs in the area. The fourth station might be a computer with CD-ROMs or bookmarks to Web sites with information about prehistoric animals. The students might rotate from one station to another in small groups at fifteen or twenty minute intervals. At each station the groups would work together to gather information and develop notes about what they were learning.

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## **Bring an Expert to your Class**

Use the computer as a mailbox for email projects. Many projects exist, for example, in which foreign language students correspond with native speakers of that language, or in which science students correspond with an expert in the area they're studying.

Visit <http://www.epals.com/> to see some of the possible for email links, and [www.askanexpert.com](http://www.askanexpert.com) to see some of the experts available.

With a little more savvy, a fast connection to the Internet, and a video camera hooked up to your computer, you can use CUSeeMe or NetMeeting to set up a videoconference with an expert.

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## **Collaborations**

Set up a database (you can use a spreadsheet program) that students collect information for, and enter whenever they have time. This could be as simple as a database of students, or a compilation of observations on the weather. When you use the data later, the students have some ownership. As an example, have students put information about the weather (precipitation, barometric pressure, wind speed) into a spreadsheet, and then graph the data to look for correlations, or use database tools to explore the relationships of different elements.

Have students keep a class journal on the computer. Students who are absent can check the next day to see what they missed.

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## **Self-directed work**

You can schedule each student for 20 or 30 minutes each week, then let each student decide how to use the time. Students could use the computer to research a current project, prepare a report, or do another activity tied to your curriculum. To ensure students are using the time well, create a computer journal, and have each student fill out a journal entry each time she or he uses a computer.

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## **Virtual Field Trip**

Use the computer to allow your students to explore a remote location through pictures, sounds and video. The number of CD-ROMs and Internet sites for virtual field trips is growing quickly.

Visit [www.tramline.com](http://www.tramline.com) to take a look at some virtual field trips.