

Note: This chapter contains three of the "One Computer Classroom" columns from Teachers Mac. The first directly discusses HyperCard. The second two only indirectly discuss HyperCard but are included here because so many people who correspond with us teacher in one computer classrooms or are home schooling.

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HyperCard in One Computer Classrooms

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HyperCard can be an especially valuable tool in the one computer classroom for a variety of projects. The basic idea is to develop a project idea which involves each student contributing something to a stack. They can do part of the stacking themselves even if only writing part of a story or doing a little art. The teacher can complete the stack or turn it over to a small committee of students if they know how. The project examples done below could be done as individual projects or group projects by older students in a lab situation to be shared with younger classrooms.

The intention can be to create a stack which could be printed as a book or embellished and used as a reference or story on the computer. The standard screen sized HyperCard prints into nice half-page books. However, HyperCard 2.0 and later allows creation of cards the size of a full page for full page books.

Illustration can be a real challenge, especially with younger children or students who don't have access to enough computer time to develop computer art skills. This problem can be met with extensive use of clip art, doing yourself, or if your intention is to create a book which the students can take with them, just leave a space for them to draw their own art. Another solution, if you have access to a scanner, is to have students draw their graphics and then scan them to include in stacks.

If you don't have a scanner and don't want your students spending the amount of time needed to illustrate each page of a book, have each student do a pencil drawing (provide a paper cut to the size to get appropriate size drawings) for a different page of the book. Print your stack, paste the drawings in the appropriate places, then copy it for each student in the class. Then add color if you wish. In that process, some students spend an hour on each page, coloring every little detail. Suggest they use one or two colors per page or just color some objects to add highlight. Some students get frustrated over an inability to draw. The object is to finish the project, to create a book, not to produce polished art. Be sure to encourage every effort.

If you wish to embellish the stack to make a stack, possible embellishments are some sound, hidden buttons or visible buttons with sounds, humorous messages, etc. and simple animation. Remember that sound takes a lot of memory. You will also need navigation arrows, etc. When I print these stacks, I prefer the navigation aides be hidden, so I either hide them before printing (use the message box or make a button to do the trick) or make two copies of the stack, one to print and one to embellish.

A printing note: The first version of HyperCard 2.0 contained a bug which prevented it from printing a complete stack. If you have trouble printing your stack, check your version.

Project suggestions include making a class cookbook, a map of the school, a class biography, local history, a tree identification stack, stories, map of the town, a current event,..... your imagination is the only limit.

I like to use HyperCard to cap a whole language lesson and produce a book to send home with students. Each student could write portions, or the story could be developed in oral discussion. If you use reading groups, each group could produce one.

I've included two examples of my Chapter I reading students' work. These were first graders. The two stacks are "Are You Sarah" and "Ten First Graders" written to the pattern of "Are You a Ladybug" and "Ten Sailors" respectively. The first book contains simple clip art illustration and the second has blank spaces for students to draw their own. These were both printed using HyperCard and made great half-page books which the students practiced reading, then took home. The stories were developed in oral discussion and the fact that students contributed the language made it easier for them to read the books.

The steps involved were:

1. I selected a book with a good pattern for duplication. Since my students were first graders, I selected very basic ones.
2. I introduced the book to them, using whole language techniques.
3. We read the book several times over a period of days. I read it to them first, we discussed various elements of the book.
 - a. I had them read selected words to me (oral cloze procedure)
 - b. and eventually read after me (echo reading).
 - c. If the group was doing well enough, i.e., the book wasn't too hard, I had them read it to me after extensive practice. However, that last isn't necessary to the creation of a book or benefit from the experience.
4. We discussed the elements of the book, the pattern we were going to try to duplicate. I tried to help them see the pattern on their own, without telling them outright, but told them when I had to.

The plot of Are You a Ladybug involved a little ladybug asking various critters if they were a ladybug and the critter saying something like "No, because I have feathers" or whatever characteristic worked. So in our discussion, we picked a student we were looking for and had each student say one thing that made them different from the selected student.

Ten Sailors is basically a counting and rhyming book. So each student had to come up with a word that rhymed with one of the numbers one through ten, then put it in a sentence. For example, one rhymes with gum, so one student said, "Student one chewed some gum." Some of these were very cute and creative and some weren't, but again the object was to get every student to produce some language.

5. With my guidance, each student contributed the words for a page and I wrote them down.

6. I had some students type the words into the stack form I had created in advance. If the students were too young or there wasn't time, I did it for them.

7. I also illustrated the one book using simple clip art. The other one was illustrated by pasting one drawing from each student into the book.

8. A copy of the book was made for each student.

9. We added color to the books.

10. We practiced the books for several days and sent them home. I added an explanatory note to the parents, telling them what we were doing and asking them to be sure to have their student read the book to them and to provide help as needed. I include some suggestions.

Give it a try. The stacking involved is relatively simple and the results are gratifying!

One Computer Classroom Tips

Both management and teaching children to be familiar enough with a computer and its keyboard are problems in the one computer classroom. This is especially true in elementary schools which do not have a lab and do not have enough computers for each teacher to give their classes extensive experience.

In these situations, it is always easiest to begin with a very simple program which children can learn relatively rapidly, freeing the teacher for other tasks. Children should be able to accomplish the goal in a short enough time to allow four or five other children

to use the computer in the same day, thus enabling a one week rotation period. In one week, each child gets a turn and accomplishes the goal.

The program cannot be too complicated, but needs to have a visible goal for children to reach and teach additional skills if possible.

I have a Classic with an ImageWriter in my classroom. One possibility used by myself and another second grade teacher is a basic, public domain program called WordSearch. Each student types the week's spelling words into the computer and then makes a word search puzzle. Each puzzle is different and can be printed, then solved by the child.

When each student is finished printing their puzzle, they cross their name off the list and the next student comes over when they have time. In this way, each of my students was able to work at the computer for at least ten to fifteen minutes a week for several weeks running.

During that time, they studied their spelling, gained keyboard familiarity and become more confident using the computer with minimal supervision on my part. They also had fun and were motivated.

We are unable to do full scale keyboarding skills, but I began laying the foundations during this activity by showing the students how to divide the keyboard in half, mentally and type letters on the left side with their left hand and letters on the right side with their right hand. I also showed them how to correct spelling errors in preparation for later word processing activities.

WordSearch is definitely not something I would want to use all year. But it very definitely helps me set up a management routine and familiarize students with our computer.

Linda Peterson
Second Grade Teacher

We would like to include one computer classroom tips in every issue. Send us yours!

Note: WordSearch is on disk GE-1 in the SchoolHouse Mac Catalog.

Thoughts About Selecting Programs and Developing Units

In the One Computer Classroom.

1. Generally pairs work well together. Only students who are very good with computers

work well independently unless the program or goal is very easy. Two children can reinforce and help each other. Three students at a time tend to get a little noisy, but it still works with some programs.

2. Five students, or three groups of two, accomplishing some goal each day permits a class of twenty-five to cycle once in a week and begin a second time the next week.

3. Programs or units involving computer use should be completed in two to three weeks, cycling each student, whether individually or in groups, through the program at least once and preferably twice. Units which go longer than that tend to lose their focus.

4. Programs which work best in one computer classrooms are programs in which children can achieve some goal in a manageable amount of time. By manageable, I mean an amount of time that permits four or five children individually or two or three groups to use the computer in a days time and still get most of their work done. (Remember some allowances will have to be made with other work.)

5. Because of the above, programs like the Carmen San Diego series don't always work well in one computer classrooms, because it takes too long for a pair of students to achieve their goal. (These can be used in demonstrations or by letting a pair of students return to the computer whenever time permits for a whole day. That expands the cycle to nearly a month to play one time for each student.)

6. If possible, new programs should be introduced in a lab setting and all children taught at once. Some children will forget by the time their turn roles around, but will be able to proceed with less instruction.

Realistically, labs aren't available to all of us.

We have six Mac Classics in our building and have assembled all six in one room for special programs. A class can have a lesson with four or five students per computer and the computers can be returned to their owners on the same day.

(This gets into the lab or computers in the classroom first argument. Frankly, I don't think a lab is much good when students can't reinforce lab activities in the classroom at least a little.) (Unless students can get in the lab every day!)

A less perfect solution to no lab is to use a single computer to demonstrate to the entire class by plugging the computer into a television monitor. More about that next issue.

7. Programs need to be fairly easy to use and to teach children to use or you will constantly be interrupting your activity to reteach something to one or two students on your computer. Again, programs like the Caman Sandiego series tend not to work well because they are relatively complex.

8. Another consideration is how specific you want your goal to be. Some programs allow students to solve a problem, write or read something, answer questions and so on. Others simply allow students to work with the computer for awhile without a specific outcome.

9. Often a worksheet of some sort or a written report works nicely in conjunction with these programs.

With all that in mind we've included several programs which we think will be useful, especially in elementary and middle school situations. (Our high school doesn't address this problem. Students are not permitted to use the computers in one computer classroom settings. Seems a waste.....)

PippinPuss

Works well for younger children because, each child can create a "Mr. Applehead" in five to ten minutes. There is no written goal or worksheet. Familiarization and fun is the objective.

ExpressLane

Is good for all elementary and perhaps remedial middleschool. Can be approached in a story problems format with a worksheet. Make a worksheet with your data base and ask children to write down number of items, total cost, money given and change. Or add whatever you wish after looking at the program. Children could be asked to add up totals after ten problems.....a workable amount.

This kind of worksheet is easy to make with Microsoft Works' database at least. You can print the data bases with boxes showing and whatever size you wish by choosing a larger font size.

WildAbacus

I'm not a math teacher, but it seems like the best approach to this program would be to let students, especially middle school students, noodle around with it for ten minutes or assign problems to be solved using it.