

Each chapter in *THE WORKSBOOK TEACHER'S COMPANION* correlates and works in conjunction with a chapter of *THE WORKS TUTORIAL*. More in-depth explanations, topics of presentations, issues and points to be aware of, and assignments as pertains to specific chapters are included. As a note, because VectorWorks is used in the same manner on the Macintosh and Windows operating systems, it is quite feasible to teach one class with students using both platforms.

COURSE APPROACH

Generally I have followed a process when teaching in the classroom environment that I repeat with each chapter. This includes a mixture of hands-on lab time, presentations, reviewing student work, assignments, and demonstrations of completed chapters and assignments. Below, is an explanation of each aspect and how I approach it. Use it as your starting point and adapt it for your own teaching style and student needs.

In general, each chapter is based on the preceding chapter. If a student is having a difficult time with a lesson, it is usually because the information in the preceding chapter was not fully absorbed. The best method is to just have them repeat the earlier chapter. On the other hand, if you do not want them to fall too far behind, have them use the correct file from the CD that comes with *THE WORKS TUTORIAL* to start the next chapter. As a general note, do make sure students are backing up on two separate floppies. I find that this requirement usually stops the excuse of 'the disk was bad' or at least keeps it at a minimum when assignments are due.

Presentation Topic

Once the majority of students are about halfway through a chapter, I will do a presentation using a computer with an overhead projector or have everyone sit around the largest monitor available. The presentation enhances what they are learning and stimulates them to keep moving along. Many times it is demonstrating items that the students do not yet

have the knowledge for, but gives the implicit message – if I can master this chapter then there are so many more exciting things that can be done.

The purpose is two-fold for these presentations. Since the initial part of learning a computer program can be tedious, and is quite similar to learning the grammar and sentence structure of a new language before you can talk, the presentation shows the challenge/reward of sticking it through. And for those students who are interested in the topic and moving ahead quicker, they will be able to pick up a few shortcuts which they always seem to delight in – and for some reason these items are learned by almost everyone within a short period of time.

Suggested presentation topics with more in depth information will be provided under the section heading *Presentation Topic*.

Hands On – Tips And Hints

Generally, each chapter is started by having the students working on their own with *THE WORKSTUTORIAL* at their work station. This allows time to observe each student and provide individualized hints on an as-needed basis. If the lab is informal enough many times students will assist each other when they get stuck. It is invaluable for students to work on their own as well as to observe each other in order to solve problems within each chapter.

Typical problems that students might come up against will be listed along with their solutions under the section heading *Tips And Hints*.

Chapter Completion

After the presentation, the students work on their own in the computer lab to finish the chapter exercises again with individualized assistance on an as needed basis. Everyone then hands in a hard copy of the completed chapter at the

beginning of a class. I will typically review any problems I notice at each student's computer the next class so that we are looking at the file, not the hard copy.

What to look for in the hard copy for student comprehension will be listed under the section heading *Chapter Completion*.

Chapter Review Demonstration

The day the chapter lesson is handed in, I typically do a review demonstration of the whole chapter with either an overhead projector or around the largest monitor. The demonstration usually takes the whole class session and reinforces what the students have just taken the last one to two weeks to learn. Many times they can see their mistakes and correct it in their original file even before the hard copy of the file is reviewed with them individually.

In order to make the demonstration easier, the abbreviated steps for each lesson will be under the section heading *Review Demonstration*.

Assignments

At the end of the chapter *Review Demonstration*, hand out the assignments. Allow approximately one third to one half of the time that was initially allocated for the whole chapter. The exercises are similar to the lessons in *THE WORKS TUTORIAL* which the students can use for reference, but they are partially on their own. When the assignment is due, demonstrate it and review it in the same manner as the chapter *Review Demonstration*.

There are now three assignments, *Assignment 1*, *Assignment 2*, and *Assignment 3* that can be zeroxed and handed out to the students. A CD is included as well, with a VectorWorks file where each of the assignments is set up in a separate layer. The CD is readable both on Mac and Windows.

Quizzes And Extra Credit

Depending on what you see of the students' absorption, you can use just one assignment, both, or all three. The second or third one could also be used as either extra credit or as an open-book quiz depending on what you feel would work best with your class. The second and third assignments should each take less time than the previous ones, not because it is any easier, but due to the fact that the students are learning and feel more comfortable with the software and they will not need to reference *THE WORKSTUTORIAL* as often.

Once this last assignment is completed and demonstrated, start the whole cycle over again with the next chapter.

COURSE DURATION

Both *THE WORKSTUTORIAL* and *THE WORKSBOOK* are created to allow the instructor to respond to the duration of the course of study and the intensity the school program offers. Many items are addressed within *THE WORKSBOOK TEACHER'S COMPANION*, allowing the instructor to adapt the material to the rate of learning and absorption of their students as well as the level of comprehension the students will need to attain. Both of these points are critical for setting the pace for covering the material. The other aspects that should be taken into consideration depend on the students and their computer savvy as well as the priority the class has in the curriculum. I have found that some chapters can easily be covered in a week while others may need twice or even three times as long.

The learning material is quite flexible and can easily be adapted to either a quarter or a semester calendar and can even be split into two levels, beginner and intermediate classes. Following are some suggestions of which chapters to cover for particular situations.