Data bases are wonderful learning tools because they embody so much of the learning process. Once teachers begin to understand how to apply this technology to curricular projects, learning truly becomes a process of give and take. Here are some of the highlights of that exciting experience.

1. Obtaining Background: Students need to read or research designated curricular topics.

2. Planning: Students participate in brainstorming that gives them the opportunity to recall large amounts of data. Recalling data also serves to develop concepts.

3. Organizing: Students learn and apply organizational skills when they plan a data base.

4. Gathering Facts: Students extend their research skills as they fit facts into categories.

5. Using Tools: Students learn to create and use a data base to store data in an organized, efficient manner.

6. Questioning: Students learn to formulate questions that result in the extraction of information from the data base.

7. Hypothesizing: Students learn to state and test their own hypotheses.

8. Analyzing: Students quickly understand associations and relationships within the data base.

9. Evaluating: Students understand the difference between data and information.

Using a data base as a teaching tool is quite different from using word processors in the classroom. Just as the use of word processing requires planning, the use of the data base as a tool requires strategies that go beyond a few afternoon sessions in the computer lab. It is important, therefore, to incorporate the Inductive Strategy of Hilda Taba into the
learning process in order to succeed in integrating data bases with the curriculum.

We will learn about Hilda Taba soon, but first, let's get familiar with Access 97.

**Part 1: Opening a new file**

*Please note that you may need to use your intuitive gifts with this handout simply because of the differences between Windows 95 and 98 and the idiosyncratic features of the various versions of Office 97 you may be using.*

As with Word 97, there are numerous options for opening a new document.

1. For this lesson, we will use the "Start" button on the Windows toolbar and scroll up to "New Office Document". As in Word 97, Access allows all kinds of options for opening a new document. You choose.

2. When the "New Office Document" window opens, select "Blank Data Base" from the choices you have.

3. You will be asked to name your data base. Do so, but don't forget to save it in an appropriate folder.

4. Once saved, you will see the Data Base window which displays all the different objects you can create in a data base. The object with which you will become most familiar is the Table. Most people recognize data bases as tables of data arranged in some organized format.

5. Select the Table tab and hit "New" and you'll see yet another set of choices. These choices will soon be in muscle memory. It's not rocket science. Don't panic.

6. There are really only two appropriate choices for you: "Datasheet View" and "Design View". "Datasheet View" looks like a traditional table...almost like a spreadsheet, but "Design View" is where you really want to create your data base fields. So, select "Design View" and hit OK. You'll get to "Datasheet View" soon enough.

*Another Note: It's important to realize that everything about Office 97 is "object oriented". That means that you make things happen by pushing buttons in toolbars. The novice must remember the
first law of Technodynamics: For every action, there is an equal but opposite undo action. Use Ctrl+Z whenever you need it. Also, you may also discover that there's usually a button somewhere on the toolbar that takes you back. Your intuitive gifts will come alive when using Office 97. Enjoy the fact that you have these gifts and thank Bill Gates for being so perceptive as to recognize that people think this way.

**Part 2: Making your first data base**

Go easy on this part. It's easy until step 10. If it gets confusing, you can either keep going over it until your hair turns white or falls out, or you can just ask me to help you. Pocket protectors may be necessary as a visual stimulus and motivating device.

1. If you followed the directions in Part 1, you should be in "Design View" and you are ready to define new fields for your first data base.

2. Since we all like music (I'm making an assumption here) our first data base will be one that organizes our CD, cassette, eight track or vinyl record collections. Some of us probably even know what an eight track tape is.

3. The cursor is patiently (patient cursor is a good compressed conflict) waiting for you to enter something in the "Field Name" column. Enter "Artist(s)" and press Enter or Tab.

4. Your cursor moves to the "Data Type" column and selects "Text" as your default type of data. That's the most common type of data you'll use.

5. Just hit "Tab" or "Enter" for now and watch the cursor move on to the "Description" column.

6. You may ignore this column. It is simply what it says it is. Type a description if you choose and move on.

7. Your cursor moves on to the "Field Name" column in the next row and awaits your command. Enter "Title" and move on.

8. Hit "Tab" or "Enter" making "Text" your default "Data Type" and move on.

9. How about saving this document before the whole system crashes? Control + S will do the trick. You'll be asked to give your table a name. You can use the default name "Table 1" if you want. This is
just practice. You'll think you know what you're doing and Office 97 will ask you if you want to define a Primary Key. Just say "No". Simple data bases don't need no stinkin' primary keys. Do you know what movie I'm paraphrasing?

10. Now, let's do something fancy before this gets as boring as a turtle race through peanut butter.

**** Note: You don't need to do these next steps if you want to keep your sanity. If you choose not to do these steps, simply repeat steps 3 through 9 adding appropriate new field names with each new row, then skip to step 17. The next field we're going to add is "Format" because we want to keep track of CD, Eight Track, Cassette, or Vinyl format.

11. Enter "Format" for your next "Field Name" and press "Enter" or "Tab" to move on.

12. When in the "Data Type" column, look down at the bottom half of the "Design View" window and notice that you may click on a tab named "Lookup". Click on that and you'll see some very geek-like options. Put on your propeller hat and get ready to rock and roll.

13. Where you see "Display Control" click on the words "Text Box" to the right of it. When you see the little arrowhead pointing downward, click on it and select "Combo Box".

14. Look on the left for the words "Row Source Type" and click on "Table/Query". That cool little arrowhead appears again.

15. Click on the downward arrowhead and select "Value List".

16. Right under that category you'll find "Row Source". In the text entry box enter CD;Cassette;Eight Track;Vinyl making sure you have semi-colons immediately following each album format.

17. You're done. Click the mouse pointer in the upper part of the "Design View" window and enter a description if you want.

18. Save your work.

Part 3: Entering Data
1. Entering data is the easy part. It's just like word processing. You enter words and numbers.

2. Go to "View" in the Windows menu bar and select "Datasheet View" from the two main choices you are given.

3. Use your intuition to figure out how you can enter data. Play with this until you can't remember anything else about your music collection.

4. Save your work often.

Part 4: A word about planning

Databases take additional preparation. If you think about fields as categories, you'll be taking a quantum leap. When you use these categories with children, you can think about the same categories as concepts. Your objectives are to help children develop concepts and apply new knowledge. In the next few sessions, you will see how this is done.