

**IDENTIFICATION, LOCATION, & TRACKING
OF
NURSERY STOCK**

TIES 2001

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Curriculum Overview

As in most industries, the nursery industries deals with stock, in large quantities and the organization of this stock so that it can be found organized into orders. Finding the quantities and kinds is necessary since these are both aspects of orders. Thus using technology to organize and track stock is necessary to keep pace with the demands of the modern market place. This unit will combine organization skills, identification skills, and database use and creation skills. This unit will center on database use with regard to plants and the nursery industry and it might be used with general science classes, but the units are aimed at high school biology classes. Substitution of various “stock items” might make these skill applicable to other industries and classes. A minimum of six class periods with additional homework or computer lab work will be necessary to complete this unit. Some of the units could be assigned as supplemental or extra credit work to be done on student time.

Big Picture

Students will be asked to bring in samples of their music CD’s and players. A short lecture will be presented on the need for organization of things in their world. The example of the Meijer’s “A million reasons” will be shared. The relevance of organizing data, stock, or information will be shared. The beginning step of organization is to find or think of categories. They will then be asked to categorize their music into 5 or 6 categories. Reasons for their categories will be requested as well.

Preparation of the unit

While this unit can be self contained, it makes sense to contact the computer lab in the school and find times when the class can use the lab. Materials for categorization and organization need to be collected which are pertinent to the classes in which this unit will be taught. If this unit is interdisciplinary as is suggested, other subject matter teachers will need to be consulted so that they can coordinate times and lessons in the appropriate sequence. As written, this unit suggests a music or English class unit, a math class unit, technology class units, and science lessons.

Science	Math	Technology
ALT-1 Leaf identification The students will identify leaves using a dicotymous key.	ALT-1 Dicotymous Key The students will make a dicotymous key using geometric figures.	ALT-1 Database entry The students will use a database to enter records for a magazine of the teacher’s choosing.
		ALT-2 Databased Creations The students will create a database for a personal collection.

Transfer Activity

Students will organize hosta leaves, create a dicotymous key and then using their previous work create a database for the 10 hosta leaves .

Summary

Hook Activity

Students will learn about the need to organize data, objects, or stock. Students will experience some of the difficulties and skills of organizing by organizing their own music CD's into categories.

Competencies

The students will learn observational skills.

The student will practice discrimination between items of dissimilar and similar nature.

The student will use decision making skills in a group.

The students will use communication skills to present their findings to the class.

Time

Approximately 5 minutes will be needed for the initial introduction of the concept of organization and categorization. Then approximately 10 minutes will be needed to decide what observations they will make of the music for purposes of categorization. Next approximately 15 minutes will be needed for listening to the music and recording their observations of it. Finally 15 minutes will be needed to list then music in categories and the reasons. On the following class day students can give oral presentations of their findings and experiences.

Materials

Each student will need to bring a personal CD player to class or they can listen to one earphone simultaneously. Also they will need to bring at least three of their favorite CD's. Students will also need to use the lab handout and pencils to record their observations and make their classification decisions.

Instructions

Students will be given the lab handout and a short lecture about the need for organization. The Meijer "million reasons" and "How do you organize all the stock?" will be included in the presentation. Students will also be informed about the time line as listed above and the expectation in the lab handout.

Evaluation/Assessment of Student's Competency

Students will be required to submit the completed lab handout and each share in the oral presentation of their decisions.

Closure

A short discussion of the differences and similarities of different groups decisions and decision making criterion could be held following the oral presentations.

Name _____

How might you categorize your music?

In this activity you will be asked to listen to your own music and then make some decisions regarding it to place it in categories. You will need to decide categories and criterion for placing the music into categories. You will work with a group of four students and make decisions as a group and then you will make an oral presentation of your decisions.

Your objectives will be to learn about decision making and categorization. You will learn how to discriminate between objects, and also look for similarities. You will need to supply reasons for your decisions and be able to explain them to others. You will need to explore the decision making process and decide how to make decisions.

You will have approximately 10 minutes to decide how you will make decisions regarding the music and how you will make observations. You will also decide in this 10 minutes how you will record your observations and what observations to record. Next you will have 15 minutes for listening to the music and recording your observations. Do not expect to listen to the total song. Listen to enough to make your required observations. Finally, you will have the last 15 minutes of class to make your group decisions regarding the categorization of your music and who will present what parts of your presentation to the class.

A. You will need to bring a personal CD player and 2 – 3 CD's to class for this lab. If you have a CD player with the capability of more than one person listening at once this will be appreciated. The computer lab and head phones might be substituted for this part of the lab. Try to bring music you like not music you think will be popular with the group. The more diversified your music the easier this task will be.

B. List 8 ways that different pieces of music are different.

- 1.
- 2.
- 3.
- 4.
- 5.
- 6.
- 7.
- 8.

C. Select four of these that will be apparent in all the songs you will listen to and decide on a range or scale of this category. If length of song were a category, decide on what is long,

short, medium, etc. You may not use this category. List your selections below and your scale.

1.

2.

3.

4.

D. Decide on at least 5 categories of music and what their characteristics will be. Make sure that you include the four categories that you will use for observations. You may list others as well. List the 5 categories below and their attributes.

A. a.

b.

c.

d.

B. a.

b.

c.

d.

C. a.

b.

c.

d.

D. a.

b.

c.

d.

E. a.

b.

c.

d.

E. Use notebook paper and record the four ratings you make for the 8 pieces of music you selected to hear. Record the artist name, the song title and your five ratings.

F. Describe how you will decide which songs fit into which categories as a group.

G. List the categories and the songs that you placed in each group and record two reasons why.

H. What difficulties were there in placing the songs in categories. Tell at least two ways.

- I. Where there any songs that didn't fit any of the categories, tell why?

- J. Were songs in the same category from the same group or did they sound overly similar?

- K. What would be the advantages or disadvantages of organizing your music with the method you created?

- L. What other methods might you suggest for organizing your music. Tell at least two ways.

- M. Record below who will be responsible in your oral presentation for telling how you did the following:
 1. Decided on your music characteristics:
 2. Decided on the rating scale:
 3. Decided on which songs went into what categories and share the results:

4. Report on your answers to questions H to L:

N. Record any ideas that other groups used that your group did not think of using. Be willing to defend or dispute their method compared to your own.

Summary

Students will use a dicotymous key to identify 15 tree leaves or pictures of tree leaves.

Competencies

Students will be able to discern the differences and similarities between various tree leaves from pictures, drawings, or the actual leaves. They will identify 75% of the leaves correctly. Students will become familiar with using a dicotymous key. They will become familiar enough with a dicotymous key that they can create one using familiar objects or objects that have apparent differences.

Time

This assignment should take one class period to complete and process.

Materials

Students will be using printed lab papers, handouts of leaves, photos, or the actual leaves.

Instructions

Prior to the lab activity, collect leaves, print pictures or drawings of tree leaves. The following leaves are needed: C-Sassafras, A-Silver Maple, B-Red Maple, D-Box Elder, H-Osage Orange, F-White Oak, G-Black Oak, O-Burr Oak, M-Buckeye, L-Red Bud, K-Black Locust, J-Walnut, E-Sweet Gum, N-Bald Cypress, I-Black Cherry

Closure

The students will answer the questions at the end of the lab correctly during a discussion of the characteristics of a dicotymous key.

Name _____

Tree Leaf Identification Using a Dicotymous Key

In this lab you will use the included dicotymous key to identify 15 tree leaves. You will use the real leaves or the drawings supplied by your teacher. During the process it is important that you observe and learn the characteristics of a dicotymous key. You will use this familiarity and knowledge to help construct such a key in the near future.

Here are some simple rules to use when using a dicotymous key:

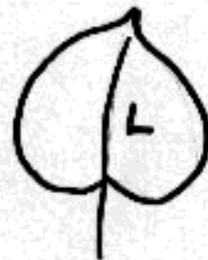
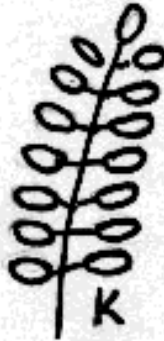
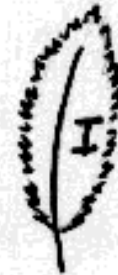
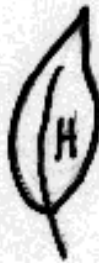
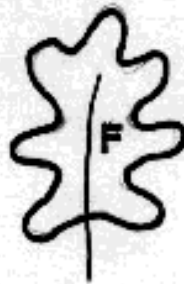
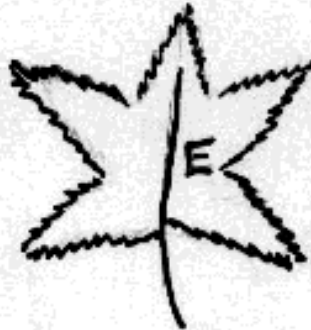
1. Always begin at the first pair of statements.
2. Always read both statements in the pair and decide between them.
3. Go to the next numbered pair based upon the statement selected from the pair.
4. When the statement selected does not direct the key user to another pair, but lists the name of the leaf, record the name next to the letter of the leaf being keyed.
5. If real leaves are used, remember that a leaf has a bud at its base, a leaflet does not.

Record your answers below:

A. _____	B. _____
C. _____	D. _____
E. _____	F. _____
G. _____	H. _____
I. _____	J. _____
K. _____	L. _____
M. _____	N. _____
O. _____	

Leaf Identification Key

1. a. It is a compound leaf with multiple leaflets on one stem, go to 2
b. It is a simple leaf with one blade on a stem, go to 3
2. a. the leaflets are attached to one point on the stem, go to 4
b. the leaflets are attached to multiple points on the stem, go to 5
3. a. the leaf has a smooth edge “entire”, go to 6
b. the leaf has a jagged or toothed edge “serrated”, go to 7
4. a. the leaf has five leaflets, it is a **Buckeye**
b. the leaf has three leaflets, it is a **Box Elder**
5. a. the leaf has large leaflets, not confused with needles, go to 8
b. the leaf has very small leaflets, possibly confused with needles, it is a **Bald Cypress**
6. a. the leaf has no lobes, go to 9
b. the leaf has large lobes, created by large indentations, go to 10
- A. a. the leaf has a small saw blade like edge, go to 11
b. the leaf has a large tooth like edge, go to 13
8. a. the leaf has pointed leaflets, it is a **Black Walnut**
b. the leaf has rounded oval shaped leaflets, it is a **Black Locust**
9. a. the leaf is heart shaped, it is a Red Bud
b. the leaf is eye shaped, being pointed at both ends, it is an **Osage Orange**
10. a. the leaf has few lobes and a large rounded end, got to 12
b. the leaf has several lobes and a small rounded end it is a **White Oak**
11. a. the leaf shape is eye like, being pointed at both ends, it is a **Black Cherry**
b. the leaf shape is star like, it is a **Sweet Gum**
12. a. the leaf has one lobe or two and is mitten shaped, it is a **Sassafras**
b. the leaf has four parallel lobes and a large rounded end, it is a **Burr Oak**
13. a. the leaf has a flat bottom to the leaf, got to 14
b. the leaf has rounded bottom, it is a **Red Maple**
14. a. the leaf has five lobes it is a **Silver Maple**
b. the leaf has at least seven lobes it is a **Black Oak**



P. At each stage of the dicotymous key there are how many alternatives? Thus if you took all the leaves together and went through the key you should be able to divide the leaves into how many groups at each stage?

Q. If you made a flow chart showing the division of all the leaves, each group of leaves on the chart would be divided into how many groups?

R. When one object , or in this case one leaf is remaining what would you know?

S. What must you be careful of doing when you pick characteristics for creation of a dicotymous key?

T. What characteristics would you pick first for your key?

U. What characteristics would you pick last for your key that you make?

Summary

Students will create their own dicotymous key using geometric shapes. They will learn the characteristics of the geometric figures and they will have a means of identifying them other than looking up the definition or leafing through their book to find the figure and its name.

Competencies

Students will be able to discriminate between different geometric figures, noting similarities and differences. Students will be able to plan and execute a dicotymous key. They will create a flow chart to accomplish this. Students will form simple definitions of geometric figures that will enable them to discriminate between similar figures and those very different. Students will practice group work and decision making. Students will test other groups dicotymous keys and therefore practice using such keys.

Time

This activity should take at least one class period for Geometry students with experience and perhaps two if students must spend time looking up the figures and finding names. Students could complete this activity as homework after seeing the process. This would allow discussion of alternatives created on their own.

Materials

Students will require a geometry book, scrap paper to use for planning, and the lab work sheets.

Instructions

Students will be instructed to use the previous leaf dicotymous key as an example of how a dicotymous key should be structured. They can be give a list of figures and geometric figure definitions if you choose. They will be instructed to work in groups of four or pairs to complete this activity. Students need to be told that another group will be using their key as one criterion for determining their success. Also, they will each be asked to key out one figure using their key as a quiz. Their key will be reproduced several times for use by themselves on the quiz and the other group.

Closure

Successful completion and use of the key will evaluate their success and readiness to go on to database use.

Name _____

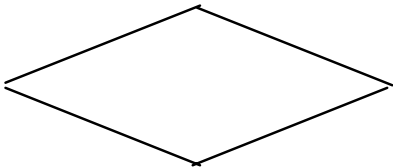
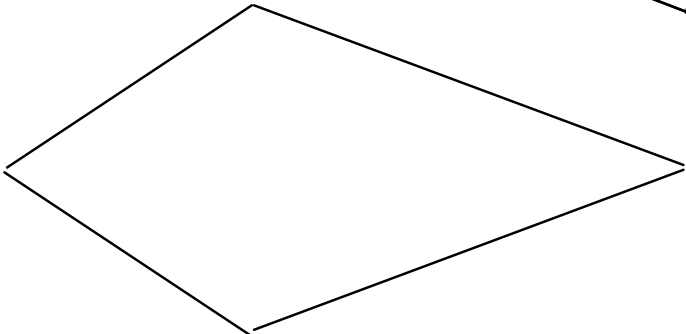
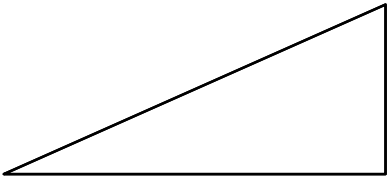
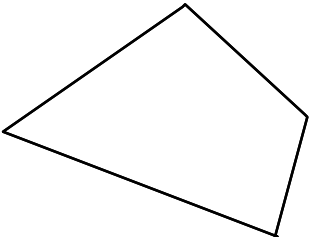
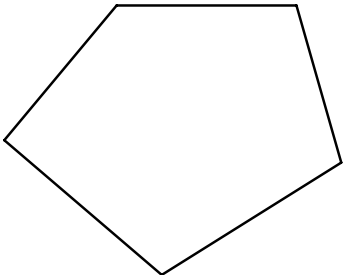
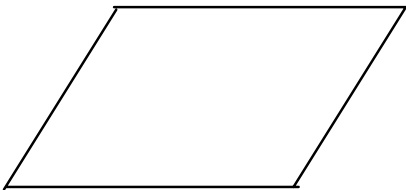
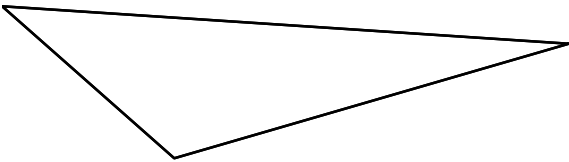
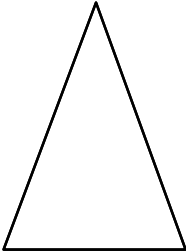
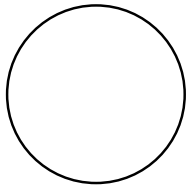
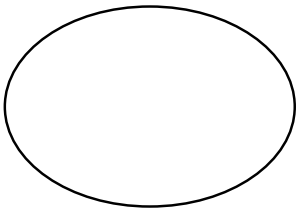
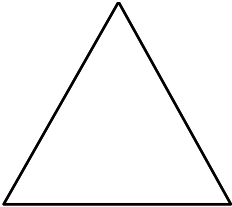
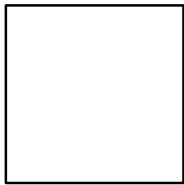
Creation of Dicotymous Keys for Geometric Figures

Use the enclosed page of geometric figures and create a dichotomous key that will identify the figures. You will need to use your text book if a list of geometric figures is not supplied. While you do not need a text book to make a dichotomous key of geometric figures, to name them you might need one. Names of the figures might be found in a dictionary also.

You will be working with a group of four students to create the key. You will be tested over your key by being asked to identify one of the figures and you will be graded by having another group use your key to make an identification. Each person in the group will be quizzed on their ability to list the key pathway they followed using their own key and the final answer. Also each person in the group will be quizzed on their ability to follow another group's key to get an answer. Extra credit will be awarded for each group based upon the success of other groups using your key. The teacher will also grant a grade by testing your key prior to the other group using it. Thus, one third of your grade will be from teacher test, one third will be self test of your key, and one third will be self test of another group's key.

Use the dichotomous key you used with the leaves as an example to help you. Also, consult the questions at the end of that lab to guide you in your construction of this new key.

- A. Make sure that all figures are keyed in your key.
2. Make sure that all partners in the group can key your figures.
3. Make sure that all figures are properly keyed.
4. Make sure that your key follows the form used in the leaf key.
- A. Make sure that your writing is neat and can be read.
6. You will receive 10% extra credit if you type your key.



Technology
Authentic Learning Task 3
Summary

Students will use a previously made database to enter individual entries. By making entries they will see how a database is formatted, learn the basic commands, and gather an understanding of features that would benefit the uses. This will help prepare them for creation of their own database.

Competencies

Students will be able to open, make entries into, and search a database. They will see the different kind of fields available, and the different kinds of view formats. They will decide what types of entries go into what fields and they will get some practice in picking key words to aid in searching and finding a particular entry.

Time

This activity should take one period in the computer lab. However more time can be allotted if you want to spend more time instructing in the commands and use of the database. Perhaps two periods would be appropriate. One period could be used for instruction and “play” with the database and then you could take the second period to enter data in a quantity appropriate for your students computer and typing skills.

Materials

Students could be given a handout explaining the commands used in a database and the lab paper explaining the requirements for this activity. A template for a Claris Works© database is not included in this ALT since this is written in Microsoft Word©. Paradox© or Access© are databases that could be used as well and their commands would be expected to be similar but differ from the Claris Works© commands. Students will also be given a magazine that will be used to make entries into the database. Most importantly, the copy of the database needs to be loaded in advance onto student computer disks or the hard drives of the computers that they will use. Access to a printer is necessary to grade the work easily unless the actual disks with the entries are graded.

Instruction

Students can be instructed as a group in the use of the database, or they can be given Xeroxed tutorial instructions that they are expected to use and follow. Students of lower ability or those with less computer experience will need tutoring as a group. Some Claris Works© instruction is included in this developed unit. However, Xeroxing a more complete tutorial might assist.

Closure

Students will submit printed copies of the entries they have made and the magazine from which they obtained the data. Grades can be assigned for the completeness of records, the number of entries completed and the appropriateness of the key words listed in the topic category.

Name _____ Due _____

Database Entry

You will need to bring a computer disk to class, preferably one that is formatted for Macintosh computers, but a PC disk will work. However, you must complete this task on a Macintosh computer. This data will not transfer to IBM format. Your teacher will load a copy of the Freshwater and Marine Aquarium Magazine (FAMA) database onto your disk. Work on the extra computers in your teacher's classroom, the library, or the computer lab. See your teacher in advance of your study hall or work period to get a pass.

You will enter the data into the fields shown below:

FRESHWATER AND MARINE
AQUARIUM

article:

author:

topic:

date: **page:**

issue:

Follow the rules listed below:

1. List the exact title in the article category, but eliminate the word "the" or "A(n)" if it begins the title.
2. List the author's last name first, then a comma, then the first name, the middle name or middle initial. Eliminate any titles such as mister, or PhD. example: Cloony, George
3. In the page category, list only the first page of the article.
4. In the date category, enter no zeros before numbers except the year. Enter the year as the last two digits only. Use the slash under the "?" to separate the parts of the date. Enter the month first, the day second, and the year last. Always enter the day as the first.
5. The issue must be entered precisely as follows. "Vol.", then a space, the volume number, a comma, another space, and the issue month number (July would be 7). An example would be "Vol. 22, 7".
6. This last category is the most important. Skim the article or read it if you have that kind of time or an interest. Write in the "topic" category any key words that you think describe the topic of the article. List any scientific names used if their are specifics mentioned. If there are numerous scientific names used, list the most common only, and try to find a family name or other higher classification category to list. List any common names used. Again if they are too numerous to list, try to list a family common name and only the most mentioned common names. If related information is given about other topics, list key words for these topics as well. Think back to your extra credit reports. What key words would you think to use to get info about the organisms mentioned in the article. Think of it this way also, a fact that can't be accessed is a lost piece of information. When the "topic" entry box extends beyond the boundary of the single article entry, stop!
7. Extra rules to help you with your entries:
 1. Since the volume and the date will be the same for all entries, enter them first in your first entry. Then

click on the entry anywhere but in a field. This will select the entry and highlight it. Then copy it by hitting "command" () and the "c" keys at the same time. Then hit the "command" () and the "v" keys at the same time and you will paste a new copy of the record with the date and volume already entered. This will save you typing time.

2. "command" () and the "r" keys will create a new record, but the volume and the date will not be entered.

3. The tab order of the entry has been set, so you can press the tab key to go to the next entry field without using the mouse.

4. Save your work after each entry to prevent problems. Back up your work each day. If you lose your work you gain knowledge, but no credit!

5. You can copy and paste words in the entry, but then you lose your whole entry pasting ability. I suggest you make enough records to do the whole magazine at the beginning then you can use this feature without fear or inconvenience.

6. To delete an entry, click on it outside a field to select it. The whole entry will be highlighted. Then go to the edit menu at the top of the computer screen and click and drag down to delete.

7. Make a back up copy of your database and play with it. Can you enter key words in the title field and find an entry? Can you enter keywords into the topic field and find an entry? If not, consult with your teacher to find your error. Also play with the back up copy to learn about databases. You can use them at home for lots of things. Do you have a collection, a hobby, a library of your own, your own address book?

8. Try these things in your discovery or "play" period.

A. Go up to the menu bar and select "Layout" and then click hold and drag down to "Find", "List", and "layout" and see what each of these does. Hints: Find allows you to enter a keyword to search the database. List makes a list of your entries, like a spread sheet. Layout allows you to change to appearance of the entry when you are in browse mode.

B. Go down to "Define field" under the "Layout" listing in the menu bar and see what kinds of fields you can produce in a database. The "field type" button will show you the types of fields you can use. For example, number fields can only have numbers in them. Text fields can have numbers or text in them, but they treat the numbers as letters (if you sort 1234, 123, 18; 123 would be first, then 1234, and then 18 since the second character in 18 is larger than 2 it comes after the other two just like alphabetic order). Date fields can only have properly formatted dates entered.

C. Go up to "Organize" in the menu bar and drag down to sort. This feature allows you to sort the records by one or more of your fields. You could sort them by date, volume, title, author, or any other field or combination of fields.

D. Remember that you should only play with a back up copy of the database. If you enter your data you will see how these features work more clearly, but remember to make a back up copy to do this!

Technology
Authentic Learning Task 4
Database Creation

Summary

In this authentic learning task, the student will actually create a database that will allow them to access information pertaining to an interest of their own. Student will use a lab with directions and requirements to create this database so that it has certain parameters and meet certain expectation.

Competencies

1. Students will create a database layout and appropriate data fields.
2. Students will enter data into the data fields in an appropriate manner.
3. Students will select key words for the topic field that will allow them to search and find entries quickly or from different perspectives of thought.
4. Student will select an appropriate batch of data to organize within a database.

Time

Approximately 45 minutes will be needed to create the database and save it to a computer disk. If less time is required they should have data available to begin the data entry process. Several days of homework or study hall should be allowed for the students to make their data entry. Some teachers might wish to allow class time for this process so that lab time is available for the less adept student to receive more help with the database creation.

Materials

Students will need to bring an appropriate computer disk to the lab for saving their database or for backing up their database. They will receive a lab paper explaining some of the protocol for database creation and the grading rubric. In addition, Xeroxed hand outs about the use of the database application can be distributed. Data can be brought to the lab to allow entry of data into the database should its creation not take the entire class period.

Instructions

A day or so prior to the class period with access to the lab, a discussion might be held for a few moments regarding selection of data for development of a database. Distribution of the requirements at this time might allow the students time to select appropriate data. Collections, hobbies, address books, relatives, etc. might all be considered. Make sure that appropriate time in the computer lab is allotted and also access for those students who might not have computers at home.

Evaluation/Assessment of Student's Competency

The database itself will be evaluated by the criterion given in the lab hand out. Suggest that points will be deducted for phone book creation if original and unique work is not shown. Encourage original thought and projects which might stimulate renewed interest in a forgotten hobby.

Closure

A discussion can be held regarding additional applications that they might have for a database at home, work, or school.

Name _____ Due _____

Database Creation

You will need to bring a computer disk to class, preferably one that is formatted for Macintosh computers, but a PC disk will work. However, you must complete this task on a Macintosh computer. Create a database with a title, field labels, and at least 6 data entry fields. Create at least 20 entries for some collection that you own. **To repeat, this work must be done on a Macintosh computer!** The final project will be submitted on a computer disk. Work on the extra computers in your teacher's classroom, the library, or the computer lab, or at home. See your teacher in advance of your study hall or work period to get a pass.

An example of the types of fields is shown below:

FRESHWATER AND MARINE
AQUARIUM

article:	<input type="text"/>		
author:	<input type="text"/>		
topic:	<input type="text"/>		
date:	<input type="text"/>	page:	<input type="text"/>
issue:	<input type="text"/>		

Follow the rules listed below:

1. In browse mode there should be some title that appears on every entry.
2. If an entry involves an author's name, list the last name first, then a comma, then the first name, the middle name or middle initial. Any titles such as mister, or Ph.D.. can be placed after a comma at the end. This allows you to sort the entries by author's last names. e.g.. (Cloony, George, Ph.D.)
3. In the page category, list only the first page of the article.
4. You must have a date category. It could be the date you acquired the article in the collection, or the date of the magazine, etc. In the date category, enter no zeros before numbers except the the year. Enter the year as the last two digits only. Use the slash under the "?" to separate the parts of the date. Enter the month first, the day second, and the year last. Always enter the day as the first.
5. You must have some numerical designation for the item. If it is a collection, make up a number scheme that has significance to you. If it is a magazine, use their plan. The issue must be entered precisely as follows. "Vol.", then a space, the volume number, a comma, another space, and the issue month number (July would be 7). An example would be "Vol. 22, 7". Consistency is necessary so that sorting is possible.
6. Some individual name should be assigned to each entry so that sorting is possible by title or name.
7. This last category is the most important. Skim the article or read it if you have that kind of time or an interest. Write in the "topic" category any key words that you think describe the topic of the article or item in a collection. List any scientific names used if their are specifics mentioned. List any common names used. Again if they are too numerous to list, try to list a family common name and only the most mentioned common names. If related information is given about other topics, list key words for these topics as well. Think back to your extra credit reports. What key words would you think to use to get info about the items mentioned in the article or collection. Think of it this way also, a fact that can't be accessed is a lost piece of information. When the "topic" entry box extends beyond the boundary of the single article entry, stop!

Extra rules to help you with your entries:

1. Since the volume and the date will be the same for all entries, enter them first in your first entry. Then click on the entry anywhere but in a field. This will select the entry and highlight it. Then copy it by hitting "command" () and the "c" button at the same time. Then hit the "command" () and the "v" button at the

same time and you will paste a new copy of the record with the date and volume already entered. This will save you typing time.

2. "command" () and the "r" button will create a new record, but the volume and the date will not be entered.
3. The tab order of the entry has been set, so you can press the tab button to go to the next entry field without using the mouse.
4. Save your work after each entry to prevent problems. Back up your work each day. If you lose your work you gain knowledge, but no credit!
5. You can copy and paste words in the entry, but then you lose your whole entry pasting ability. I suggest you make enough records to do the whole magazine or collection at the beginning then you can use this feature without fear or inconvenience.
6. To delete an entry, click on it to select it. The whole entry will be highlighted. Then go to the edit menu at the top of the computer screen and click and drag down to delete.
7. Make a back up copy of your database and play with it. Can you enter key words in the title field and find an entry? Can you enter keywords into the topic field and find an entry? If not, consult with your teacher to find your error. Also play with the back up copy to learn about databases. You can use them at home for lots of things. Do you have a collection, a hobby, a library of your own, your own address book?

Rules for Database Creation:

1. Once you've opened a database you need to create the fields by going to layout in the menu bar and scrolling down to define fields.
2. Once all the fields are defined you can change the fonts, etc. by going up to layout again and scrolling down to layout. Use the tool bar on the left to enter text, lines, shapes, etc. You can probably paste pictures as well.
3. The line under body will let you change the size of the entry. This determines how many entries you have per page when in browse mode. Go to layout and scroll down to browse to check the appearance of your database.
4. In browse mode you can go up to view and change to page view to see the borders of your document for additional spacing considerations.
5. Once the document is set up the way you want, go to browse mode or list for data entry. List makes it similar to a spread sheet. Browse makes it look like a page in a notebook. You will be graded for following the directions provided above. This extra credit will constitute no more than 5% of your quarter grade.

Name _____
Period _____

Database Creation
Grading Rubric

- A. On computer disk _____(2 pts.)
- B. Database application _____(2 pts.)
- C. Six Data entry fields _____(4 pts.)
- D. Twenty entries _____(4 pts.)
- E. At least one numerical field _____(2 pts.)
- F. Title for layout _____(1 pts.)

G. Titles for entry fields _____(1 pts.)

H. Entry fields arranged appropriately _____(2 pts.)

I. Be able to sort by names of entry _____(2 pts.)

J. Date field _____(2 pts.)

K. Topic field that allows description _____(8 pts.)

Total Points _____(30 pts.)

A. Printed copies will not be acceptable, and copies on the file server will have deductions taken. Plan ahead and back up your work!

B. This must be a database application, points will be deducted for spread sheet work.

C. There should be at least six data entry fields more will be permissible, but not receive extra credit. This is to be a database useful to you. Extra work will benefit you.

D. 120 pieces of data need to be entered. If some entries have less information, extra entries should be made.

F. A appropriate title should appear on each page of the database in browse mode.

G. Each data entry field should have an appropriate title to facilitate the entry of data.

H. Data entry fields should be arranged so that addresses, names, etc. can be read in browse mode easily and without confusion. First names should appear before last names, but sorting can be done by last names.

I. If you enter first and last names in one field make it a name field so the computer knows this information.

J. Create a date field so that the date of acquisition, the date of entry, or the date of creation of the information or object is tracked. Label this text field so that a reader knows what the date means.

K. This field may be one of the most important since using key words in this field might enable you to find this entry easily. At least two key words are needed for each entry.

Transference Activity Hosta Collection Organization

Summary

This activity is designed to provide the student with an unfamiliar collection of data and challenge them to organize it for identification and then to create a database to access that information. This is the type of problem solving situation that the student might face if they worked for a commercial grower.

Competencies

1. Students will be required to use their powers of observation and their understanding of different types of data.
2. Students will be required to create a dichotomous key using traits of Hosta leaves that are provided by lists of data and pictures.
3. Students will create a database using the data that proved most useful to them in the creation

of their dicotymous key.

4. Students will work in cooperative groups and make decision regarding the out comes desired.

Time

One class period will be needed to complete the dicotymous key of the hosta plants. An additional class period will be needed to create the database for the hosta plants, and then one additional period would be needed to enter the data. Multiple copies of the created database and data would facilitate data entry and transfer to a single product.

Materials

Students will need color copies of the hosta leaf pictures and copies of the hosta plant data. In addition, they will need the grading rubric so that they can direct their activities appropriately. Computer disks and access to computers will also be needed.

Instructions

1. One period in the classroom will be needed for the dicotymous key production and then a succeeding period in the computer lab. Additional periods can be taken if needed.
2. Students can work in pairs or small groups as desired.
3. Instruction will be at a minimum since this is a transference activity and the students should have experience with all the skills required.

Evaluation/Assessment of Student's Competency

Student work will be assessed by their completion of the dicotymous key and their completion of the database according to the rubric provided.

Closure

A discussion can be held regarding databases and how they are applicable to other situations. Students might generate a list of where they are used now and where one might be created that would be useful. They might be asked to suggest a use for databases in some familiar businesses. Creation of a database for some local business might be an extra credit offering and one which might become a profit making endeavor if they can sell it to the business.

Name _____

**Hosta Dicotymous Key Creation &
Database Creation**

In this activity, assume you work for a commercial nursery and you have to devise some way to identify and organize information about your hosta collection. You will be given pictures and statistical information about the hosta. Your job will be to make a dicotymous key and then use that information to make database.

- A. Each member of the team is to author at least two parts of the dicotymous key. Their name should appear with the parts they authored.
- B. Each member of the team is to author at least two fields in the database. Their name should appear next to a printed copy of the layout.
- C. Each member of the team should enter the data for their fractional share of the data. They are required to provide a printed copy of their data entry with their name on it.
- D. A fourth of each team members grade will be over the effectiveness of their

data base and their dicotymous key as shown in the grade rubric.

Name _____ Date Due _____

Grade Rubric for Hosta Dicotymous Keys and Hosta Database

1. Creation of two descriptors in the dicotymous key _____ 20 pts.
2. Creation of two fields in the database _____ 20 pts.
3. Entry of data into the database _____ 20 pts.
4. Selection of good descriptors for the key _____ 2 pts.
5. Ease of use of the key _____ 2 pts.
6. Clear alternatives for the key _____ 2 pts.
7. Minimum of alternatives used in the key _____ 2 pts.
8. Use of alternatives from the key in the database _____ 2 pts.

9. Logical order of fields in the database _____ 2 pts.
10. Data that sorts in the fields created _____ 2 pts.
11. Data that is useful in the database _____ 2 pts.
12. Good key words in the topic category _____ 4 pts.

Note! Each member of the group will be graded over that portion of the work that they contribute. Total possible points will be 80 to determine a percentage for the final grade. Points awarded for the grading period may be less, but an equivalent percentage.

Hosta Data

1. Sea Octopus: lance shaped leaves, minature size, leaf 6" long, .75" wide, 6" blade,
purple bloom, August
2. Revolution: lance shaped leaves, small size, 1' long, 3" wide, 5" blade,
light lavender bloom, July
3. Fragrant Bouquet: heart shaped leaves, large size, 1.5' long, 6" wide, 7" blade,
white bloom, August
4. Yellow Splash Rim: lance shaped leaves, medium size, 10' long, 2.5" wide, 6" blade
lavender bloom, July
5. Night Before Christmas: lance shaped leaves, large size, 1.5' leaf, width 5",
12" blade, white bloom, July
6. June: ovate shaped leaves, medium size, 8" leaves, 5" wide, 6" long blade
violet bloom, August
7. Shade Fanfare: heart shaped leaves, large size, 1.25' long, 4.5" wide, 6" blade,

8. Summer Music: ovate leaves, medium size, 8" long, 4" wide, 4" blade,
lavender bloom, July
9. Fair Maiden: lance shaped leaves, small size, 1' long, 3" wide, 4" blade,
streaked lavender bloom, July
10. Golden Tiara: ovate leaves, small size, 10" long, 2.5" wide, 3" blade,
purple bloom, July
11. Brim Cup: rounded leaves, small size, 7" long, 3" wide, 3.5" blade
white bloom, August
12. Sun Power: lance shaped leaves, extra large size, 1.5' long, 6" wide, 1' blade,
lavender bloom, July
13. Great Expectations: ovate shaped leaves, large size, 1.5' long, 7" wide, 9" blade
white bloom, June
14. Gold Standard: ovate leaves, large size, 1.25' long, 3.5" wide, 6" blade,
lavender bloom, August
15. Pandoras Box: ovate shaped leaves, miniature size, 2.5" long, 1" wide, 1.5" blade
lavender bloom, July
16. Sultana: lance shaped leaves, miniature size, 4" long, 1.5" wide, 2" blade,
white bloom, July
17. Blue Angel: round leaves, extra large size, 2.5' long, 9" wide, 12" blade,
lavender white bloom, June
18. Frances Williams: round leaves, large size, 2' long, 7" wide, 8" blade,
white flowers, June