ABSTRACT
              In October and November 1986, the Northwest Regional
Educational Laboratory (NWREL) sponsored a series of forums for
elementary teachers to share ideas about the use of computers in the
classroom. During the forums, each teacher took from 15 to 30 minutes
to explain how he or she taught the lesson that was being shared. The
informality of the sessions allowed interaction among the
participants throughout the presentations, with many ideas spinning
off from the one being presented. Applications described included the
use of: (1) a word processor, Magic Slate, to write and illustrate a
book; (2) a database management system, PFS:File, for multicultural
education; (3) a computer simulation, Island, to study geography; (4)
Mastertype, courseware in an arcade game format, for keyboard
instruction; (5) the programming language, Logo, to teach basic
programming skills; and (6) a database program, Book Worm, to do
online book reports. Specifics such as grade, ability levels, and
hardware arrangement are given for each project. Brief descriptions
are also provided for each project, and additional materials are
included for PFS:File and Book Worm. (MES)

IDEAS FOR INTEGRATING
THE MICROCOMPUTER
WITH ELEMENTARY INSTRUCTION

November 1986

by

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Table of Contents

Introduction

For the past several years, the Northwest Regional Educational Laboratory (NWREL) has conducted training for classroom teachers in how to use computers with their students. The workshops have been successful, that is, the teachers are using computers and the students are learning.

By keeping in contact with these teachers, we at NWREL have been learning too. We have become aware that teachers are using amazing new software and doing amazing things in their classrooms. They have gone well beyond the instruction they received in their computer classes and are innovating in ways which should be shared.

During October and November of 1986, NWREL invited teachers to gather and exchange ideas. We asked that each come prepared to talk about the most successful thing they are doing with computers in their classrooms. On October 28, elementary teachers met in Portland, Oregon to share these ideas. In addition to some very good ideas, the teachers shared some concerns, some lunch, and some speculations about where technology was heading in elementary schools.

We started with an invitation to a series of forums, two of which were for elementary teachers. This invitation was sent to principals throughout the Northwest. When teachers called to say they wanted to come, they were sent a lesson plan form to describe what they do, with what they do it, with whom they do it, etc. The forum was free for any teacher willing to share a teaching idea by filling out the form.

During the forum, each teacher took from 15 to 30 minutes to explain how he or she taught the lesson which was being shared. The informality of the sessions allowed interaction among the participants throughout the presentations, with many ideas spinning off from the one being presented.

NWREL staff were there to learn with the other participants. If they knew about a related product, an upgrade, or a resource which the group needed they would speak up, but the teachers were the primary resource. After learning about each other's ideas, the participants sat at the computers and tried out some of the software each had brought.

Within the following pages you will find the ideas which were presented at the forum. Unfortunately, the fun and interchange of the sessions are hard to reproduce, as are many of the discussions which went on during breaks, lunch and phone calls afterward. To get all of that, come to the next series of forums.

4

Illustrated Books

Oralee Kramer uses the Magic Slate word processor with her students to write and illustrate a book. As part of her lesson, she teaches how to use the word processor since most of the students have not used a computer before. The emphasis of the unit remains on the publication of a book, however. Oralee brings a librarian in to speak and the students look at several examples of children's books paying attention to how the text and illustrations fit together.

Some of the examples of completed work were astonishingly well done. The students mixed illustrations done with tradional art materials and text done on the word processor. A student whose work followed a comic book format pasted his text into the dialog balloons. Another student mixed poetry and graphics done with water colors.

Oralee explained that the students who produced the best books had some natural talent and were allowed to work long hours after school to get those results. She warned of the after school time commitment from the teacher since there were never enough computers, printers or hours during class. A related problem was that the students tended to finish their books at different times, with some taking such care that the project went on much longer than originally planned.

Managing the students' disks was a problem. Some of the data disks disappeared. She would have liked more master disks of Magic Slate and more printers than she had.

The other participants shared similar success using word processing with students. A number had used a public domain program, FredWriter, as the word processor since each student could have his or her own disk. The participants all agreed that the 20 character per inch option (i.e., big letters) on Magic Slate was a nice feature for some upper elementary students.

5

What Works for You?
Using Computers in the Classroom

SUBMITTED BY

Name: Oralee Kramer

School Address: Chinook Middle School; 2001 98th Avenue NE; Bellevue, WA 98004

Phone: 206/455-6218   **Best time to call:** 12:00 - 12:35

TARGET AUDIENCE

Grade: 6 - 9   **Ability level:** All--mainstream, special ed, gifted

Comments:

HARDWARE

Number: **Type:** Apple II+/IIe   **Peripherals:** printer

Arrangement: one computer per student

SOFTWARE

Title(s): Magic Slate   **Publisher(s)** Sunburst

Number of copies: several copies of data disk, self-data

PROJECT DESCRIPTION

Title or brief description: Write and illustrate a book for a younger child.

Instructional Purpose: Creative writing, illustrating, awareness of reading levels, editing, rewriting, correcting

Objectives:
1. Write an original story
2. Enter story, correct, edit, print
3. Illustrate book
4. Share

Multicultural Education

When Richard Turnbull offered to help with the multicultural education effort in Tacoma, Washington, he knew that using a database in the activity would accomplish some critical thinking training along with some cultural awareness. What he didn't plan on was that the unit took at least twice as long to prepare as he had hoped. The good news for the forum participants was that he was willing to share his work and his experiences.

The unit was prepared to use with fourth to sixth grade children. As we looked through the lesson plan, many of the participants wondered about using it in their classrooms where there just isn't much cultural diversity. Richard assured us that when you ask the students to find something out about their cultural heritage, a seemingly homogeneous class will come up with amazing diversity.

The unit that Richard shared with us uses a commercial database program, PFS, to keep track of the cultural heritage of each student. They include not only the physical characterics, but such things as food, clothing, holidays and even values. The lesson is much more than a computer activity, though. He brings in films, coats of arms, bulletin boards, maps, etc. In short the lesson incorporates good teaching.

Students have many chances to be creative. They design a coat of arms, they build acrostics, and they make up ways of analyzing the database. They can ask such questions as what foods do people in hot climates tend to eat, and spin off on a discussion of why.

The participants agreed with Richard's suggestion that the database program that is actually used isn't very important. After some discussion of various databases, it was agreed that PFS was probably most important since one like Appleworks is less flexible in the ways it can store information. Other suggestions were the Friendly Filer and MECC's Data Handler.

4   7

What Works for You?
Using Computers in the Classroom

SUBMITTED BY

Name: D. Richard Turnbull

School Address: 1502 51st Str=et NE, Tacoma, WA 98422

Phone: 927-9216   **Best time to call:** 8:15 - 9:00 a.m.

TARGET AUDIENCE

Grade: 4-6   **Ability level:** Average

Comments: Involve classroom or entire school

HARDWARE

Number: 1 **Type:** Apple   **Peripherals:** printer

Arrangement: classroom or center

SOFTWARE

Title(s): PFS:file   **Publisher(s)**
            (or any database)

Number of copies: 1

PROJECT DESCRIPTION

Title or brief description: Ethnic Origins

Instructional Purpose: Multi-cultural Basic Skills

Objectives:
Each student will:
1. List ethnic groups that are represented at Elementary school.
2. Name at least two or more students in each ethnic group.
3. Identify the physical appearance of members of the group through drawings, pictures and films.
4. Describe something of value to members of each ethnic group.
5. Give the geographical location and physical characteristics of the country/continent of their ethnic origin.
6. Enter facts about each ethnic group into a computer database file.
7. Search and sort the database file to form conclusions about ethnic groups.

5 8

Multicultural Basic Skills

"ETHNIC ORIGINS"

BY

D.R. TURNBULL

ETHNIC ORIGINS

RELATED QUESTIONS:

1. With which ethnic groups do the students identify?

2. From what continent/countries did the group(s) originate?

3. How are the physical characteristics similar/different within and between groups?

4. What are the persistent cultural features of the ethnic groups?

OBJECTIVES: Each student will:

1. List the ethnic groups that are represented at _____ Elementary School.

2. Name at least two or more students in each ethnic group that attend _____ Elementary School.

3. Identify the physical appearance of members of the group through drawings, pictures and films.

4. Describe something of value to members of each ethnic group.

5. Give the geographical location and physical characteristics of the country/continent of their ethnic origin.

6. Enter facts about each ethnic group into a computer data base file.

7. Search and sort the data base file to form conclusions about ethnic origins.

RESOURCES:

1. Colored felt-tip pens

2. Crayons

3. World map, globe, atlas, encyclopedias or other reference books

4. Desk map of the world

7

5. Access to copy machine for: Acrostic Poem (Our Ethnic Origins). Coat of Arms, Data Base Template

6. Apple Computer, or other brand

7. PFS-File Software or other data base software

8. Films:
   World's Children: With Michael in Kenya
   World's Children: With Oscar in Peru
   World's Children: With Nang and Makorn in Thailand
   World's Children: With Sylvia in the Philippines
   World Cultures and Youth: Gilberto's Mayan Dream (Guatemala)
   World Cultures and Youth: Jafar's Blue Tiles (Iran)
   World Cultures and Youth: Laroussie the Saddlemaker (Morocco)
   World Cultures and Youth: Richard's Totem Pole (Canada)
   World Cultures and Youth: Yang-Xun the Peasant Painter (China)

9. Displays/exhibits from students, local agencies, personal collections.

Lesson 1: Motivation

PROCEDURES:

1. Build motivation for the unit with one or more of the following activities:
   a. Bulletin Board - post the words **What Is Your Ethnic Origin?** and a few examples: English, Spanish, Afro American, Japanese, etc.
   b. Order display materials from audiovisual or search other sources to set up a display about one or two ethnic origins (ask students if their parents or relatives would be willing to share materials, pictures, art, etc.).
   c. Prepare your own ethnic origin map, Cost of Arms, data base template information to give the class a preview of the unit. See samples, attachments four, five and six.
   d. Show two or three films from resource list that represent ethnic origins.
   e. Invite a guest speaker to make a presentation to the class. Consult Central office personnel or local agencies for speakers.

Lesson 2: Acrostic Poem (see attached example)

PROCEDURES:

1. An acrostic poem is a colorful way of determining the ethnic groups represented at our school. Each student will need a copy of Our Ethnic Origins and several colors of marking pens.
   a. Distribute copies of the acrostic poem called "Our Ethnic Origins." Post one on chalkboard. Have colored marking pens ready to use.
   b. Discussion questions:
      (1) Where did your grandparents grow up?
      (2) Where did your great grandparents grow up?

(3) What is the area or country? the continent? Point it out on the world map.

(4) Are there any special activities your family does together that you especially enjoy? With your grandparents?

(5) Do you know or remember something special about your grandparents?

3. List the ethnic origins of the class on the acrostic poem.
   a. Ask for the ethnic origin, country or area that each student thinks is his origin. It may not be accurate at this introductory stage.
   b. Ask for a color from the student giving the ethnic origin. The teacher and students will print in block letters vertically and connecting with any corresponding letter from the ethnic origin and the letters in "Our Ethnic Origin" (see attached example). Complete as many ethnic origins as possible.
   c. Post several acrostic poems in the room and the hallway.

Lesson 3: Coat of Arms (see attached examples)

PROCEDURE:

1. The Coat of Arms is an exciting, colorful way to help students focus their thoughts and values in relation to their ethnic origins. Prepare the class for a little art and creativity. Some of the information learned in the Coat of Arms may also be used again in the data base template (procedure five)
   a. Making a Coat of Arms
      (1) Resources Needed: Chart of continents/countries/flag; magazines with peoples faces; books of folktales, myths, information about the country; Coat of Arms forms; crayons, glue, felt pens, scissors.
      (2) Procedures:
         (a) Top - color flag of the country of your origin
         (b) Ribbon - label the name(s) that you call your ethnic group
         (c) Right - create a symbol; e.g., animal, object or image; that best describes something the group values
         (d) Left - include a motto, symbol, phrase or picture that best describes something else you want to depict about the group that is important to you; e.g., write in a sample of the language used by members of the group.
   b. Make duplications of the Coat of Arms outline.
   c. Provide or ask students to bring resources needed.
   d. Sample discussion questions:
      (1) What things, events, values, etc., are important to you, right now, in your life?
      (2) What does your family think is important?
      (3) What are symbols, logos, themes, mottos?
   e. Create a Coat of Arms
   f. Display completed Coat of Arms in classroom and hallway. Optional: Display a world map and use yarn from Coat of Arms to location of ethnic origin on map.

EVALUATION:

1. Have each student explain the sections of their Coat of Arms. Explain why you choose the symbols, pictures, labels, etc.

2. List as many statements about each ethnic origin as possible.

3. Have students make general statements about likenesses, differences.

Lesson 4: World Map

PROCEDURE:

1. The world map lesson will help locate ethnic origin countries, identify their continent and provide a review of previously learned map skills. Prepare copies of the world desk map and have an atlas, globe and/or wall map of the world available for the students.

2. The teacher should:
   a. Demonstrate by finding his/her own ethnic origin country on the globe or wall map, name and trace outline of the continent and show how to sketch the boundary of the country on the desk map. An overhead projector and transparency would be very helpful.
   b. Give instructions to horizontally label the country and continent, then color the country to make it the dominant feature of the map. Felt tip pens tend to be quite dark and harsh looking. Crayons might be preferred.
   c. Give instructions to lightly color in the rest of the continent.
   d. Horizontally label and lightly color in the Atlantic, Pacific and Indian Oceans. The side of a crayon with paper removed works very well.
   e. Display an example of as many different countries as possible.

3. Sample discussion questions:
   a. What ethnic origins do you see from the same continent?
   b. What continents are represented in our class?
   c. What other statements about our ethnic origin countries can be made?

Lesson 5: Completing a Computer Data Base Template

RESOURCES:

1. PFS File Software (or any other data base software)

2. Copies of the template for each student (see attached example)

3. Encyclopedias, access to library resources.

10

13

PROCEDURES:

1. Follow the "Creating a New PFS-File," directions provided (see attached). When the template has been created, choose number two, add on the main menu. With the blank template on the screen, press CONTROL-O, TAB through print options and type L for line feeds, then (C) to print a copy of the template.

2. Make enough copies of the template print for all students in the class.

3. The teacher should fill in all fields of the template as an example. See attached letter to parents for more examples.

4. Distribute copies of template to students, explain all fields giving examples as needed and have students complete each field according to their ethnic origins.

5. Sample questions:
    a. Do any students have brown hair? Black? Blond?
    b. From what ethnic origin are the brown hair students? The black hair? Do the black-haired students have the same general physical features?
    c. How many of you celebrate Christmas as a special activity? What ethnic origins are represented?
    d. How many of you consider honesty important as a value? What ethnic origins are represented?

6. Review computer PFS file commands with students.

7. Have students begin entering their own template data.

LESSON
~~Activity~~ 6: Small Group Presentations to Other Classrooms

RESOURCES:

1. Copies of letters to parents (see attached example).

2. Copies of data base template (see attached example).

3. Each student needs his/her copy of Coat of Arms, map and data base template.

PROCEDURE:

1. Select small group leaders (enough to equal the number of classes that will be visited).

2. Let leaders select other students until all are participants in a small group. Take precautions to be sure each group has a good representation of ethnic origins.

3. Demonstrate a procedure to use for the presentation to another class. Example:
    Leader - Explains acrostic poem
    Each member - Explain map, Coat of Arms
    Leader - Explain letter to parents with ethnic origin template

4. Allow each small group to practice their presentation. There can be one at a time in front of class or all at once in different areas of class.

5. After arrangements are made with each classroom, make the small group presentation. Follow-up each day by having the small group leader visit each classroom to collect data templates.

6. Make small group leader responsible for assigning collected templates to group members.

Lesson 7: Using the Computer Data Base (PFS File, substitute)

The computer data base will allow the class to search and sort the ethnic origin template forms provided by all the students that participated in each ethnic group, their values and many other combinations of data are available. Students should be able to form several conclusions and/or generalizations after working with the data.

PROCEDURES:

1. Instruct the small group leader to supervise collecting the ethnic origin templates from each participating classroom and assigning a student to enter the data on the computer. This should be done as soon as templates begin coming in from other classrooms.

2. Optional: Use the comparing ethnic group origins chart to help search and sort the forms on the data base (see attached chart).

3. Use the printer to print out several combinations using the search and sort (number four on PFS file main menu). Display and discuss the information about each ethnic origin. See attached "Creating a New PFS "File number twenty for printing instructions).

4. Sample search and sort questions (see attached list).

5. Help the students form generalizations from the information gathered and discussions about the data base files. See attached list of sample generalizations.

SAMPLE SEARCH AND SORT QUESTIONS:

1. How many students are from the same ethnic origin?

2. How many students are from the same continent?

3. How many students have black hair?

4. How many students have brown eyes?

12

15

5.   How many students celebrate Christmas?

6.   Which ethnic groups have the same values? same holidays? same special
      activities?

7.   Do people of different ethnic origins live with similar geographic
      characteristics? Explain. Any different?

8.   Ask students to think of one or two sentences that will sum up what you have
      learned about people and ethnic groups. Ask students to give facts that support
      their conclusions. Use the following generalizations as a guide.
      a.   Key Generalization: The ancestors of people of different ethnic groups
            came from many different nations.
      b.   Some Other Generalizations:
            (1)   All people belong to an ethnic group
            (2)   Some people identify with their ethnic group more than other people
            (3)   Often people of the same ethnic group have similar physical
                   attributes and characteristics
            (4)   The physical environment and the people's beliefs influence the way
                   people do thir.; (language, food, tools, products, etc.)
            (5)   Most people that live in the United States had ancestors that came
                   from other parts of the world
            (6)   There are some cultural elements (language, foods, dress, artifacts,
                   literature, values, etc.) from the homeland that people still use in the
                   United States

Lesson 8:

EVALUATION:

1.   Each student example of the acrostic poem, map, Coat of Arms and template
      can be evaluated for understanding and creativity.

2.   The presentation to another classroom can be evaluated through observation (the
      teacher will do this).

3.   Have each student draw and color a 9 by 12 inch picture of anything that
      represents their ethnic origin. Tell each student to be prepared to discuss why
      they chose their example and how it might relate to other ethnic origins. From
      these discussions develop the design for a large wall mural. Help the students
      with the design by forming generalizations about ethnic groups and representing
      them in the mural.

4.   A written evaluation can be presented (see attached example).

CREATING A NEW PFS FILE

1. Boot PFS file

2. Selection number: Type in the number "1" for design file

3. Press the TAB key

4. File name: Type in the name "Origins"

5. (C) means press CONTROL and C keys

6. Create a File: Type the number "1"

7. (C)

8. This statement appears:
   WARNING: The diskette in drive 1 will be completely overwritten. press ESC to abandon this operation.

9. Put a blank disk in disk drive 1 and press CONTROL-C. This will initiate a PFS file data disk. Be sure to label the data disk with the name "Origins."

10. You are now ready to set up your fields (formal items, categories). Look at the Sample File Formats (templates). Copy it or change to your own design. Be sure to put a colon (:) after each field. Use the arrow keys to move the cursor.

11. (C) when you are finished setting up your fields.

12. You are now back to the Main Menu.

13. Choose number 2. ADD

14. Press TAB, enter file name (if not there), (C)

15. Enter your data for each field. Press TAB key to move the cursor from field to field. Arrow key and space bar erases. (C) when your first form is complete.

16. (C) when your first form is complete.

17. You are now ready for form number two. Enter your data, (C).

18. Press ESC key to return to Main Menu. This can be done at any time to abandon an operation without making any changes to a form.

19. Choose number four. Search and sort. This allows you to type a word or number in any field that contains that item and sort by that item only. To sort by word or number use ..."word"... & (C) will move to the next form.

20. Choose number five. Print. The first template is black and allows you to type in fields to sort. (C) then takes you to the print options. Type L for linefeeds and change the number of printed lines from 66 to the number needed. (C) now gives you another blank template. Type in an "X" in each field if you want only certain fields printed. Otherwise, (C) with printer on will print all forms.

14

PFS File Format (Template)

Last Name: First: Ethnic Origin:
                                                        Continent:

My Physical Characteristics   Ethnic Origin Country/Area
**********************   Geographical Characteristics
Hair color: *********************
Hair texture: Climate:
Eye color: Land:
Skin color: Vegetation:
Average height: Population:
Average weight: Minerals:
General features: Type of economy:

                    Ethnic Origin Country/Area
                    Cultural Characteristics
                    ****
                    Food:
                    Clothes:
                    Holidays:
                    Special activities:
                    Values:

Sample Print of One Record

Last Name: Turnbull   First: Richard   Ethnic Origin: English/Scotish
                                                     Continent: Europe
My Physical Characteristics   Ethnic Origin Country/Area
**********************   Geographic Characteristics
Hair color: Black   *********************
Hair texture: Smooth   Climate: Marine
Eye color: Hazel   Land: Hills and lowlands
Skin color: White   Vegetation: Grassland and shrubs
Average height: 5 feet 8 inches   Population: 50,000,000
Average weight: 150 pounds   Minerals: Coal
General features: Homogeneous   Type of economy: Manufacturing

                    Ethnic Origin Country/Area
                    Cultural Characteristics
                    ****
                    Food: Beef, fish
                    Clothes: Wool
                    Holidays: Christmas, Easter
                    Special activities: Hiking, Camping
                    Values: Leadership, education, religion

15   18

Name _____ Date _____

Test: "Our Ethnic Origins"

1. List as many ethnic groups that are represented at our school as you can. Write one or more names of students in each group.

    Ethnic Group   Student Names

    _____   _____

    _____   _____

    _____

2. Describe something of value to your ethnic group.

    _____

    _____

    Name other ethnic groups that share your values.

    _____

    _____

3. Give the geographical location (continent, country, area) of your ethnic origin and describe some physical characteristics about that location.

    _____

    _____

4. What can you say about ethnic group origins in only a sentence or two.

    _____

    _____

March 27, 1985

Dear Parents,

Our sixth grade class has been working on a multicultural unit called Our Ethnic Origins. We are finding out where our grandparents or great-grandparents grew up. For example, my great-grandparents came from northern England/southern Scotland. That's as close as I can come to my ethnic origins. We are also gathering other information about each ethnic origin and need your help. If you will take a few minutes to help fill out the data base template provided below, it would be greatly appreciated. We are attempting to do this for all students at Browns Point, search and sort on the computer, and form generizations and conclusions about ethnic likes and differences.

Here are some examples of answers to the catagories found in the template below: Ethnic Origins - English, Afro-American, Irish, German, Japanese, Chippewa Indian.
    Physical features: tall & thin, short & stalky, etc.
    Climate: marine, hot & dry, cool most of the year, etc.
    Land: lowlands & hills, mountains and valleys, etc.
    Population: 7000000
    Type of economy: agriculture, manufacturing
    Special activities: Valentines Day, professional sports, etc.
    Values: good health, religion, education, honesty, etc.
Do the best you can to fill in all catagories. Looking up the country in the encyclopedia helps find much of the information needed. Don't worry if you have to leave one blank.

Thank you very much for helping with this project. We will share our results through classroom presentations, hallway bulletins, and some computer printouts.

Sincerely,

D. Richard Turnbull
D. Richard Turnbull

• •

LAST NAME: FIRST: Ethnic Origin:
                                                        Continent:
                                                        Ethnic Origin Country/Area
My Physical Characteristics   Geographic Characteristics
••••••••••••••••••••••   ••••••••••••••••••••••••••
Hair color: Climate:
Hair texture: Land:
Eye color: Vegetation:
Skin Color: Population:
Average height: Minerals:
Average weight: Type of economy:
General features:
                       Ethnic Origin Country/Area
                       Cultural Characteristics
                       ••••••••••••••••••••••••••
                       Food:
                       Clothes:
                       Holidays:
                       Special activities
                       Values:

OUR ETHNIC ORIGINS

PHILIPPIN

FRENCH

SWEDIS

AMERICA

ENGLISH

ITALIAN

INDIAN

IRISH

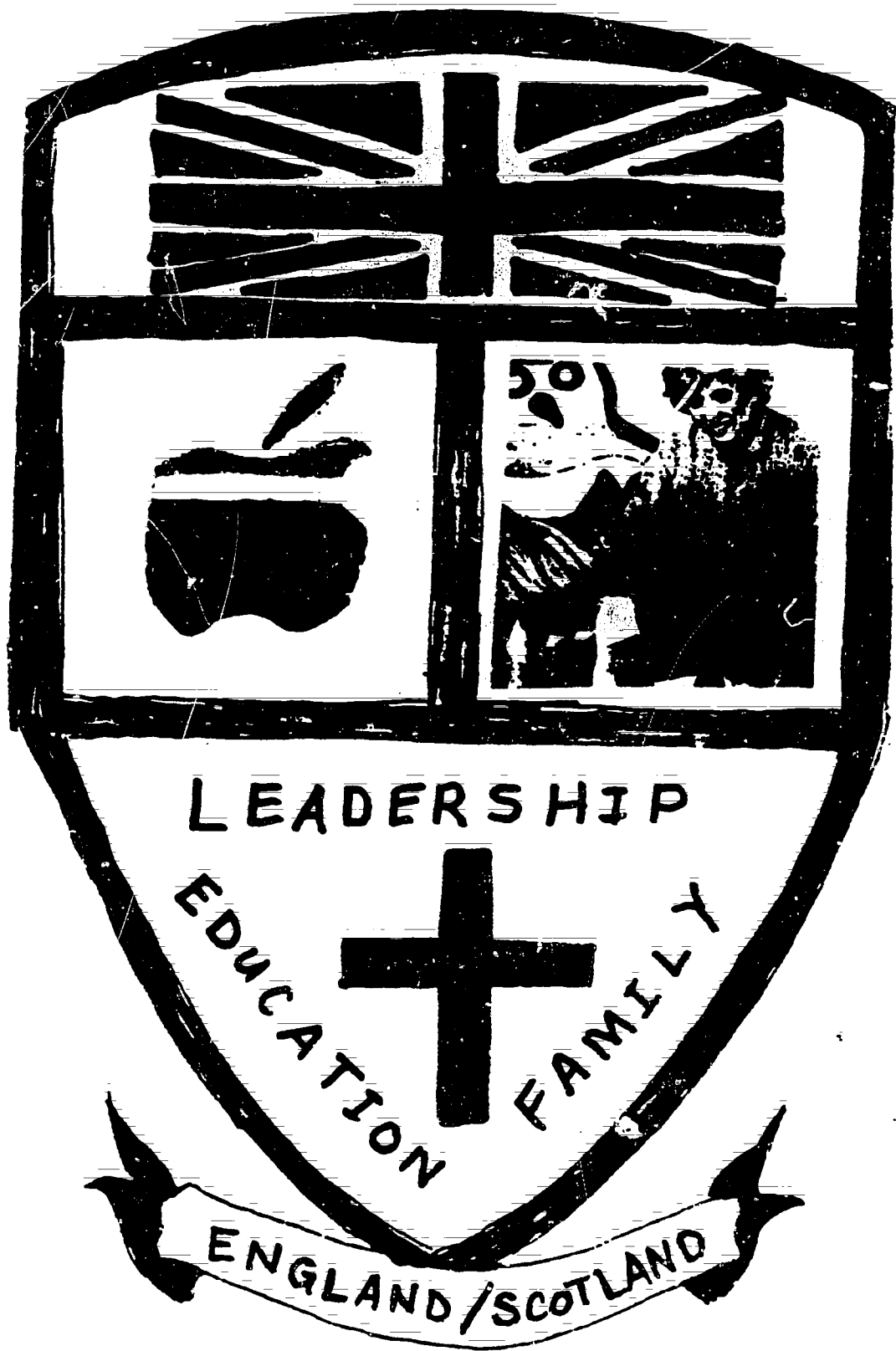SCOTTISH

HAWAIIAN

ITALIAN

GERMA

SPANISH

21

22

LEADERSHIP

EDUCATION FAMILY

ENGLAND/SCOTLAND

Geography Simulation

Some teachers find computer and print materials which fit right into the curriculum with little modification. Ron Ferguson liked a simulation which helps a student to learn geography by learning about their own simulated island. The program is called Island and it is written for fifth and sixth graders. What Ron liked most about the program was that its objectives in Geography are the same as his.

Ron introduced his presentation with another good idea. When his students learned that he was going to the forum to talk about their work, they decided to make it easy on him. The class produced a slide and audio tape presentation on their computer activities, with all of the writing, photography and reading done by the students. Teachers who are hesitant about presenting their ideas because of "stage fright" might use Ron's method of introducing the material.

The slide show idea is useful when Ron does his Island unit as well. He has had his classes put together a 35mm show about islands in the world. The show from the previous year's class is useful when he introduces the unit for a new year.

The program comes with plenty of materials for students to work on when they are not at the computer. Ron said that the students invariably worked hard at the materials because they found them fun. He has found little need to add to the instruction that they get from the simulation.

20

24

What Works for You?
Using Computers in the Classroom

SUBMITTED BY

Name: Ron Ferguson

School Address:

Phone: **Best time to call:**

TARGET AUDIENCE

Grade: 5   **Ability level:** fifth - sixth graders

Comments:

HARDWARE

Number: **Type:** Apple   **Peripherals:**
                       IIc
Arrangement:

SOFTWARE

Title(s): Island   **Publisher(s)** C. C. Publications Inc.
                                                 M. B. Jones
                                                 PO Box 23696
Number of copies: disk A and disk B   Tigard, OR 97223

PROJECT DESCRIPTION

Title or brief description: A Geography Simulation

Instructional Purpose: To introduce and reinforce geographical skills

Objectives: Disk A: Define "Island"; learn compass points; select own island
                        Naming geographical features
                        Identify land forms and bodies of water
                        Treasure Hunt
                Disk B: Identify global regions and climate zones
                        Conditions affecting climates
                        Study latitudes and longitudes
                        Map reading--continents and oceans

Keyboard Instruction

Everybody at the forums had an opinion about keyboard instruction in the elementary schools. Few of the participants agreed on how it should be taught, when it should be taught, or even if it should be taught. Most did agree that keyboard instruction did have a place in elementary school, and many had some proven ideas on how to do it.

Pam Reynolds from Scappoose, Oregon likes Mastertype for teaching her fifth and sixth graders. She has the students keep track of their own progress in a class notebook. They like both the program and the tracking system. Pam suggested using the notebook in math to teach the students about graphing as well.

Some of the forum participants who had used Mastertype objected to the fact that a student can do quite well at it using poor typing techniques. Since the program is in an arcade game format, students tend to get excited and to start jabbing at keys with their forefingers. Some of the teachers thought that the program was most appropriate for students who already knew correct finger placement and key positions and who just need an interesting way to practice.

Many of the participants liked MECC's lesson in keyboarding which uses Microtype: The Wonderful World of Paws.

They all agreed that no matter what program is used to teach programming, it should be closely supervised by the teacher. None of the programs is able to assure that the students are using their fingers correctly.

Some of the discussion was on when to teach the students to keyboard. The consensus was that the students should learn as early as possible, since they can produce work faster than by hand even if they can type only 17 words per minute.

The NWREL staff shared their report on keyboarding software with the participants. This report from MicroSIFT reviewed all of the programs available and made recommendations.

What Works for You?
Using Computers in the Classroom

SUBMITTED BY

Name: Pam Reynolds

School Address: Petersen Elementary School
EM Watts Rd., Scappoose, OR 97056

Phone: 503/543-7111   **Best time to call:** After 3:15

TARGET AUDIENCE

Grade: 5-6+   **Ability level:** Should have finger dexterity

Comments:

HARDWARE

Number: **Type:**   **Peripherals:**

Arrangement: Varied--we only have one computer to a class

SOFTWARE

Title(s): Master Type   **Publisher(s)** Scarborough Systems, Inc.

Number of copies: 1

PROJECT DESCRIPTION

Title or brief description: Management System for Pupil Progress

Instructional Purpose: Keeping track of pupil progress on keyboarding
skills.

Objectives: The learner will demonstrate the ability to individually
monitor and record his or her progress on keyboarding skills
by completing a chart which records pupil progress.

23

MASTERTYPE

	LESSON BEGINNER	WAVE 1	WAVE 2	WAVE 3	WAVE 4	LESSON ADVANCED	WAVE 1	WAVE 2	WAVE 3	WAVE 4	14 - 29	16 - 33	17 - 35	19 - 38	20 - 41	22 - 44	24 - 48	26 - 53	29 - 59	33 - 67	38 - 76	44 - 89

24 28

Logo

Some debate is being waged throughout the country as to the merits of teaching Logo to elementary students. The participants at the forum saw value in Logo instruction, particularly as a means of teaching students how to analyze a problem and to break it into smaller tasks.

Two teachers offered ideas for introducing Logo in the upper elementary grades. Eric Miller from Scappoose, Oregon suggested an introductory lesson for students to learn Logo primitives. He has the students work a maze which he has displayed with an overhead projector. After he is sure that they know about what makes a maze solvable, he has the students construct their own mazes using graph paper.

With their completed mazes in front of them, the students go to the computer and translate them into Logo instructions. Each unit of graph paper represents ten of the turtle's steps. Eric reports that the students are quick to pick up the basic directional commands of Logo. After the mazes are drawn on the computer, they are printed out. The students exchange mazes and try to solve them.

Rod Kalmbach from La Grande, Oregon found that his students sometimes get confused about turning angles in Logo. He put together a handout of a circle diagrammed with 45 degree division around it. Also on the handout are the primitive commands with their abbreviations; a color chart; editing commands; and some function key commands for Commodore Logo.

What Works for You?
Using Computers in the Classroom

SUBMITTED BY

Name: Eric Miller

School Address: Petersen Elementary School
52181 EM Watts Road, Scappoose, OR 97056

Phone: 543-7111   **Best time to call:** Mondays and Fridays

TARGET AUDIENCE

Grade: 4-6   **Ability level:** Mid to High

Comments: Understanding of Logo primitives

HARDWARE

Number: **Type:** Apple   **Peripherals:**

Arrangement: varied

SOFTWARE

Title(s): Terrapin Logo   **Publisher(s)**

Number of copies:

PROJECT DESCRIPTION

Title or brief description: A"mazing"--constructing a turtle maze

Instructional Purpose: to further develop Logo programming skills

Objectives:
1. The learner will demonstrate the ability to use Logo primative commands by constructing a maze.
2. The learner will demonstrate the ability to create a maze on a piece of graph paper.

What Works for You?
Using Computers in the Classroom

SUBMITTED BY

Name: Rod Kalmback

School Address: 1305 Willow Street; LaGrande, OR 97850
963-1950 (S)
Phone: 963-5361 (H)   **Best time to call:** 3:00 - 4:00 p.m. (S)
4:30 - 9:00 p.m. (H)

TARGET AUDIENCE

Grade: 4, 5, 6   **Ability level:** at least fourth grade

Comments: students should be able to load a program by themselves

HARDWARE

Number: 1   **Type:** CO 64   **Peripherals:** disk drive, monitor

Arrangement: in front of class

SOFTWARE

Title(s): LOGO   C64105   **Publisher(s)** Commodore

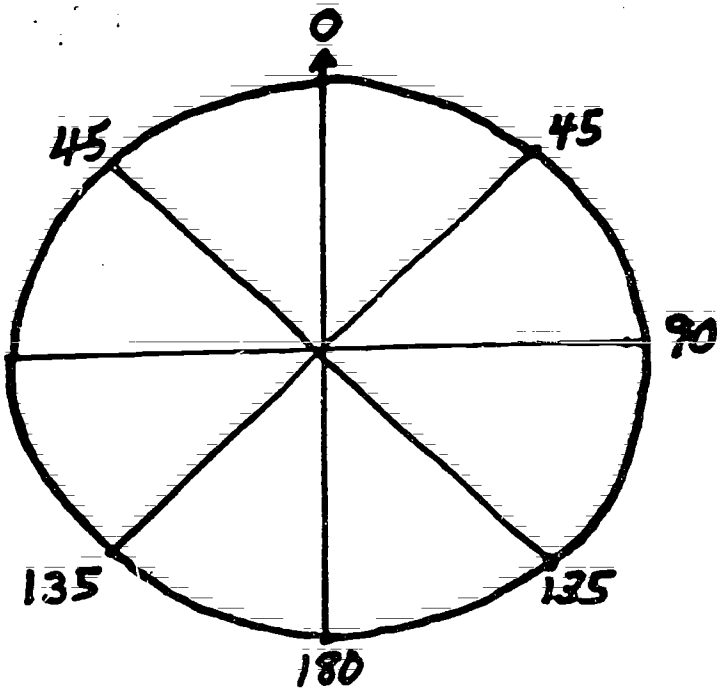**Number of copies:** 1

PROJECT DESCRIPTION

Title or brief description: Introduction to LOGO and exercises

Instructional Purpose: Simple programming and simple problem solving

Objectives: The student will be able to do simple LOGO programming and
be able to solve several LOGO problems using the computer.

LOGO

Distance Turtle Travels

COMMANDS

FD	FORWARD
BK	BACK
LT	LEFT
RT	RIGHT
	HOME
PU	PENUP
PD	PENDOWN
HT	HIDE TURTLE
ST	SHOW TURTLE
PC	Pen Color
BG	Background
PC -1	Pen erase
CS	Clear Screen
⟨F1⟩	Text Screen
⟨F3⟩	Split Screen
⟨F5⟩	Full Screen

PROCEDURE MODE

TO ....
CTRL - C — TO DEFIN:
CTRL - G — TO ABORT
REPEAT _ [=

COLOR CHART

BLACK - 0	ORANGE - 8
WHITE - 1	BROWN - 9
RED - 2	Lt. RED - 1(
CYAN - 3	GRAY 1 - 1:
PURPLE - 4	GRAY 2 - 1:
GREEN - 5	Lt. GREEN - 1:
BLUE - 6	Lt. BLUE - 14
YELLOW - 7	GRAY-3 - 1:

SAVING PROCEDUR

SAVE " _____
READ " _____
CATALOG

28
32

DataBase for Elementary Students

Integrating computers with instruction means using a computer to teach something better which you already teach. Sometimes it is possible to do this while also teaching about computers. Janice Thorson does this using the MECC program Book Worm. This is a simple database in which students can do an online book report.

Janice is the librarian at her school. She has the students who are using the program fill out a planning sheet and gives them a tutorial disk which tells them about databases in general and Book Worm in particular. The students enter the information about each book that they read into the computer.

After there is a sufficient base of information in the database, Janice has the students select books which meet particular criteria. She noted that one of the more popular sorts is to find all of the books which a particular student has read, since that student has a reputation for picking good books. While it would be possible to clear the database at the end of the year and start with new students, Janice keeps the old entries there since the older students can act as role models through the data which they have entered.

What Works for You?
Using Computers in the Classroom

SUBMITTED BY

Name: Janice Thorson

School Address: 3810 132nd Avenue SE
Bellevue, WA 98006

Phone: 206/455-6293   **Best time to call:** 8:00 a.m. - 4:00 p.m.

TARGET AUDIENCE

Grade: 3-5   **Ability level:**

Comments: Keyboarding skill would be helpful, but not absolutely necessary

HARDWARE

Number: 1   **Type:** Apple II/IIc   **Peripherals:** one disk drive and monitor
printer if printed copy is desired

Arrangement:

SOFTWARE

Title(s): Book Worm   **Publisher(s)** MECC

Number of copies: 2

PROJECT DESCRIPTION

Title or brief description: Introduction to Databases using Book Worm.
The students (30) can enter up to eight books they have read. They
enter the call number, subject, author's first and last names, title,
reviewer's name and grade, rating and
brief description. These records can
then be searched, edited or printed.

Instructional Purpose:

To introduce the concept
of databases through
reading.

Objectives:

The student will be able to enter, edit and print information using
Book Worm. The student will be able to search and sort the database for
information and answers to questions.

DATA BASES IN SOCIETY

DATA BASES IN SOCIETY

Business
- billing
- inventory
- payroll
- marketing forecasts
- record-keeping
- updating information
- designing products

Government
- statistics on births,
- deaths, social security
- payrolls
- census
- criminal records
- income tax returns
- expenditures

Schools
- attendance
- grades and test scoring
- scheduling classes
- payroll

Homes
- mailing addresses
- phone numbers
- budget and financial records
- birthday lists
- recipes
- health records
- household inventories

36

ADOLESCENCE	FRIENDSHIP	POETRY
ADVENTURE	FRONTIER	RACE
ANIMALS	GEOGRAPHY	RECREATION
ARTS	GOVERNMENT	RELIGION
BIOGRAPHY	HEALTH	SCHOOLS
BUILDING	HISTORY	SCIENCE
COMMUNICATION	HOLIDAYS	SCIENCE-FIC
FAIRY TALES	MATH	SUPERSTITIONS
FAMILY	MYSTERY	TRANSPORTATION
FANTASY	OCCUPATION	WAR
FOLKLORE	PLANTS	WIT/HUMOR

37

Book Worm
Planning Sheet

Call Number   [_____]

Subject   [_____]

Author last   [_____

Author first   [_____

Title   [_____

_____

Reviewed by   [_____

Grade   [____]

Rating G-F-P [__]

Description   [_____

_____

Materials Cited

Appleworks:
    Apple Computer Inc.
    20525 Mariana Avenue
    Cupertino, California   95014

Book Worm
    Minnesota Educational Computing Corporation
    3490 Lexington Avenue North
    St. Paul, Minnesota   55126

Data Handler
    Minnesota Educational Computing Corporation

Predwriter
    Available through:
    Softswap
    333 Main Street
    Redwood City, California   94063

Friendly Filer
    Grolier Electronic Publishing
    Sherman Turnpike
    Department 247
    Danbury, Connecticut   06816

Island
    C. C. Publications
    PO Box 23699
    Tigard, Oregon   97223-0108

Magic Slate
    Sunburst Communications
    39 Washington Avenue
    Pleasantville, New York   10570-9971

Mastertype
    Scarborough Systems Inc.
    55 South Broadway
    Tarryton, New York   10591

MicroSIFT Report
    Northwest Regional Educational Laboratory

Microtype: The Wonderful World of Paws
    Scott Foresman & Company
    1900 East Lake Avenue
    Glenview, Illinois   60025

PFS:file
    Software Publishing
    1901 Landsing Drive
    Mountain View, California   94043