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Learning centers for the elementary classroom

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California State College
San Bernardino

LEARNING CENTERS FOR THE ELEMENTARY CLASSROOM

A Project Submitted to
The Faculty of the School of Education
In Fulfillment of the Requirements of the Degree
Master of Arts
in
Education: Administration Option

by

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Fontana, California

1981

APPROVED BY:





TABLE OF CONTENTS

I.	INTRODUCTION	1
II.	REVIEW OF LITERATURE	2
III.	SUGGESTED LEARNING CENTERS FOR CLASSROOMS.	16
	Reading.	22
	Language	30
	Math	47
IV.	SUMMARY.	60
APPENDICES		61
	A. Student Center Evaluation Forms.	62
	B. Personalized or Individualized Learning Contracts	66
	C. Learning Center Organization	68
	D. Self Evaluation.	72
BIBLIOGRAPHY		77

INTRODUCTION

The objective of this project is to design a program to provide teachers with a simple, easy-to-follow outline and guide for planning and using learning centers.

It is a teaching and learning approach based on individual needs and interests, and is in no way dependent on ability grouping.

Included in this project are activities and techniques to help the teachers achieve the objectives of individualized learning and the use of learning centers within their classrooms.

REVIEW OF LITERATURE

What is a Learning Center?

Tom Davidson states that, "A learning center is an instructional device developed with a specific goal in mind. Activities are provided to reach an outcome (which should be different for each child)."¹

A center can be:

1. A setting where students are involved in learning
2. An area in the classroom which contains a collection of activities and materials to teach, reinforce, and/or enrich a skill or concept
3. Pre-planned instruction. The teacher diagnoses the needs of her students and develops a program which will meet these needs on an individual basis. The prescription in learning should also involve the learning style that is most appropriate to the individual student's need
4. Success Oriented. The materials are designed so that the student has a consistent pattern of success. It is necessary to provide work that is written at his reading ability, his reasoning ability level, and has relationship to his experience.

¹Tom Davidson, The Learning Center Book, (Pacific Palisades, CA: Goodyear Publishing Co., Inc., 1976), p. 6.

5. Programmed. The availability of the answers allows the student to check himself as he proceeds and prevents him from practicing his mistakes until they are perfect.

6. Designed to fit the individual needs of students. There is a purpose and planned outcome.

7. Useable at all grade levels and levels of ability

8. Non-graded. Tests may be given on learning center concepts, but do not grade learning center material per se. The students work on it until they complete it correctly.

9. Designed for team learning. Team learning is an excellent technique for introducing new material to children. While students are working together in teams, the teacher is free to observe each of the functioning groups and see how individual children relate to each other and to their group as a whole.

As teams are engaged in completing group tasks, the teacher may work in depth with either individuals or small numbers of students. Fewer children are likely to require instant attention once they have been trained to turn to and rely on their team members to lend assistance and guidance.

10. Involving the learner in the learning process. Students participate in the activity. They interact with others and receive feedback immediately.

Initiating the Center

"Children who have functioned in the so-called "traditional" classroom, who have always been told precisely what to do, who have always raised their hands to speak, and who have been lined up to walk down the halls can hardly make the transition to the flexible, self-disciplined learning-center classroom overnight."²

All classrooms follow a basic sequence of procedure. Just as a child crawls before he walks, a teacher who desires to center his/her classroom must feel his/her way slowly. Slowly is the key word. You can always add centers, but if you are over ambitious and begin too many things at the same time, the results will be chaotic. Supplying materials to the centers will be overwhelming and your children may rapidly get out of control. Students too must be trained to work in the learning center classroom.

Use classroom meetings to develop and discuss the need for and benefits of rules and regulations. Encourage them to contribute their ideas and opinions. Revise, improve, or eliminate rules when they are no longer appropriate.

In the early states of the school year it is necessary to establish routines and performance criteria. Question missing or misplaced papers. Indicate clearly your own expectations and demands with regard to the children's work

²Ibid., pp 7-9.

performance. Once this structure is clearly understood by the students, they will feel comfortable, perform confidently within this atmosphere, and readily accept responsibility.

Strive for a warm classroom environment. Praise and approval promote a positive learning response. Criticism of performance, when needed, is more easily accepted if accompanied by praise for what is well done.

Space and Furniture Arrangement

Kaplan states that, "What is placed in the room and how it is arranged determine the atmosphere and the expectancies for learning."³ Since there's bound to be a steady stream of people sharpening pencils, visiting, picking up work and getting books or games, it's important that kids can move easily around the room without bumping into other people or disturbing groups. The groups should be dispersed throughout the room so the noise is spread out. It is also vital to have a quiet corner with a rug and cushions which is physically cut off from the main part of the room by shelves or partitions, allowing children to retreat from the hurly-burly of the classroom if they so desire. Study carrels and forts of various kinds can serve the same purpose. Bookracks and display racks may be secured from drugstores

³Sandra Nine Kaplan and Jo Ann Butom Kaplan, Change for Children (Pacific Palisades, CA: Goodyear Publishing Co., Inc., 1973), p. 2.

and grocery stores and are very effective for creating work areas and for storing center activities.

Children need practice before they can transform the room from one configuration to another without a lot of noise and confusion. It's important to explain the purpose of the different arrangements.

Kaplan listed four important room environment ideas:

- (1) label areas and post directions for using each area;
- (2) provide containers and spaces for making materials available to children;
- (3) create places to display children's work;
- (4) devise ways to obtain human resources and materials.

Kinds of Centers

There are five kinds of learning centers which might be helpful in setting up a center classroom:

1. Interest Center. Interest centers serve many purposes: (a) they are available as another option for students, an alternative way of obtaining information and concepts about a given topic; (b) they provide students with a means of gathering facts and broader concepts independently, and, (c) they build small-group activities into the learning process to provide social interaction and group achievement.⁴ In this way, the teacher is free to construct motivating and stimulating instructional environments for students

⁴Rita and Kenneth Dunn, Practical Approach to Individualizing Instruction, (New York: Parker Publishing Co., Inc., 1972), p. 41.

provide multiple opportunities for both independent and small-group learning.

2. Basic Skill and Concept Center. A learning center developed around the basic curriculum. The center should extend, reinforce, or enrich the concepts already introduced.

3. Single Concept Center. A learning center developed as supplemental to a single or limited idea and use for short periods.

4. Instructional Centers. A learning center for developmental or instructional activities. Use an aide or adult for instruction.

5. Involvement Center. Reinforcement, extension, or enrichment of a concept already learned. Students work independently.

Evaluation

The teacher should diagnose each student's perceptual strengths and weaknesses and then provide learning methods and materials that capitalize on the revealed strengths. Diagnose each student's academic ability in each curriculum and recognize each student's special interests.

Once the teacher has correctly diagnosed the student, she must then design a flexible program of study that the student will be expected to master. The program is called a prescription and includes a listing of the instructional

objectives specifically written for the individual student in behavioral terms.⁵

Schools traditionally use automatic group testing at the end of each unit or topic and, again, at the end of the term or year. One method which has been used successfully is the contract. It builds in self-testing for a student as he progresses and teacher testing and guidance when the student indicates that he believes he has mastered his objectives.

Contracts build in self evaluation assessments for students so that each learner may constantly test himself to determine what he learned while working on the contract, find out what still remains to be mastered, discover when he has completed his contracts and evaluate the success with which he has mastered his objectives.⁶

Keep a folder representing a child's good and bad work. Enlist the child's assistance in selecting the examples. The folder gives you an excellent cumulative record of his performance progress and provides the child with a visual record.

Evaluation is an ongoing process that is the responsibility of both child and teacher. The child should be able to evaluate work, determine progress, define weaknesses, and plan for future work.

⁵Ibid., p. 41.

⁶Ibid., p. 80.

The evaluation method which provides the greatest opportunity for student-teacher interreaction is the evaluation conference. It is structured to give the student a chance to share his accomplishments and his feelings concerning his attainments.

Record Keeping

In order to ensure that each child is achieving a balanced exposure to the available centers, a system of recording his work should be developed. Three ways to be successful in recording children's activities are: (1) A teacher may keep a checklist in a folder of children's names and centers available to them. This can be used to compile a quick daily account of work covered. (2) A large chart may be set up on a wall with each child's name on it. A star or other symbol for each center would be added by the child's name as he completed an activity. He could then see his progress and determine which centers he had yet to cover. (3) A center check sheet may be kept at each center with all the children's names listed. As a child works at the center, he checks his own name or marks it out. This, of course, furnishes a tally of those who have worked at the center. (See Appendix, page 63.) ✓

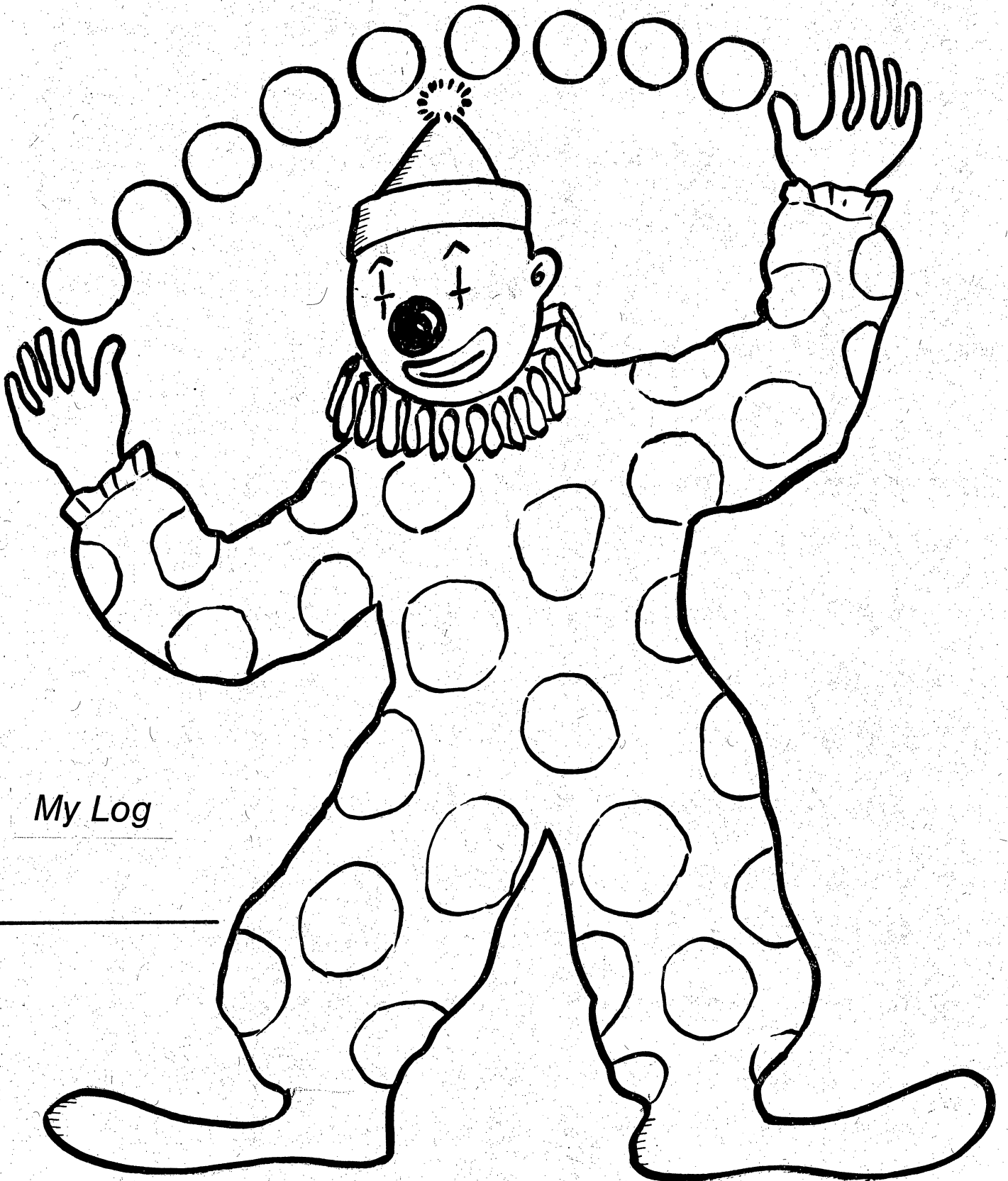
The main purpose of record is to enable both teachers and children to monitor the learning, the child's interests, strengths, and deficiencies. Thus the teacher has some idea

of the child's feeling of self worth and confidence in attacking or trying new tasks. The simplest methods of keeping records are often the best ones and the most fun.

The following descriptions are examples of "logs" which have been used in Sandra Kaplan's study and have been highly successful as a method of recording based on teacher observation and child response.

A color clown (Figure 1) can be a log that is used individually by each child for a week. Each child prints his name on the front of the picture sheet and keeps the log in his own cubby for his completion at his own pace. Each learning center is color coded. When a child has worked at a particular center he can fill one of the circles on his log with the color of that center. For example, a child that has painted a picture at the art center, which is designated as red, would then color in a red circle on his log. Each center is only recorded once on the log although a child may work at the same center more than one time. Each child is responsible for the completion of his own log, but he has free choice as to when he does each center. At the end of a week each child should have all the circles colored in with a different color for each of the given number of centers (10 in this example).

The vegetable log (Figure 2) is another example. It is a learning tool as well as a recording device. This log can be used during a unit on plants, gardening, or nutrition.



My Log

Figure 1

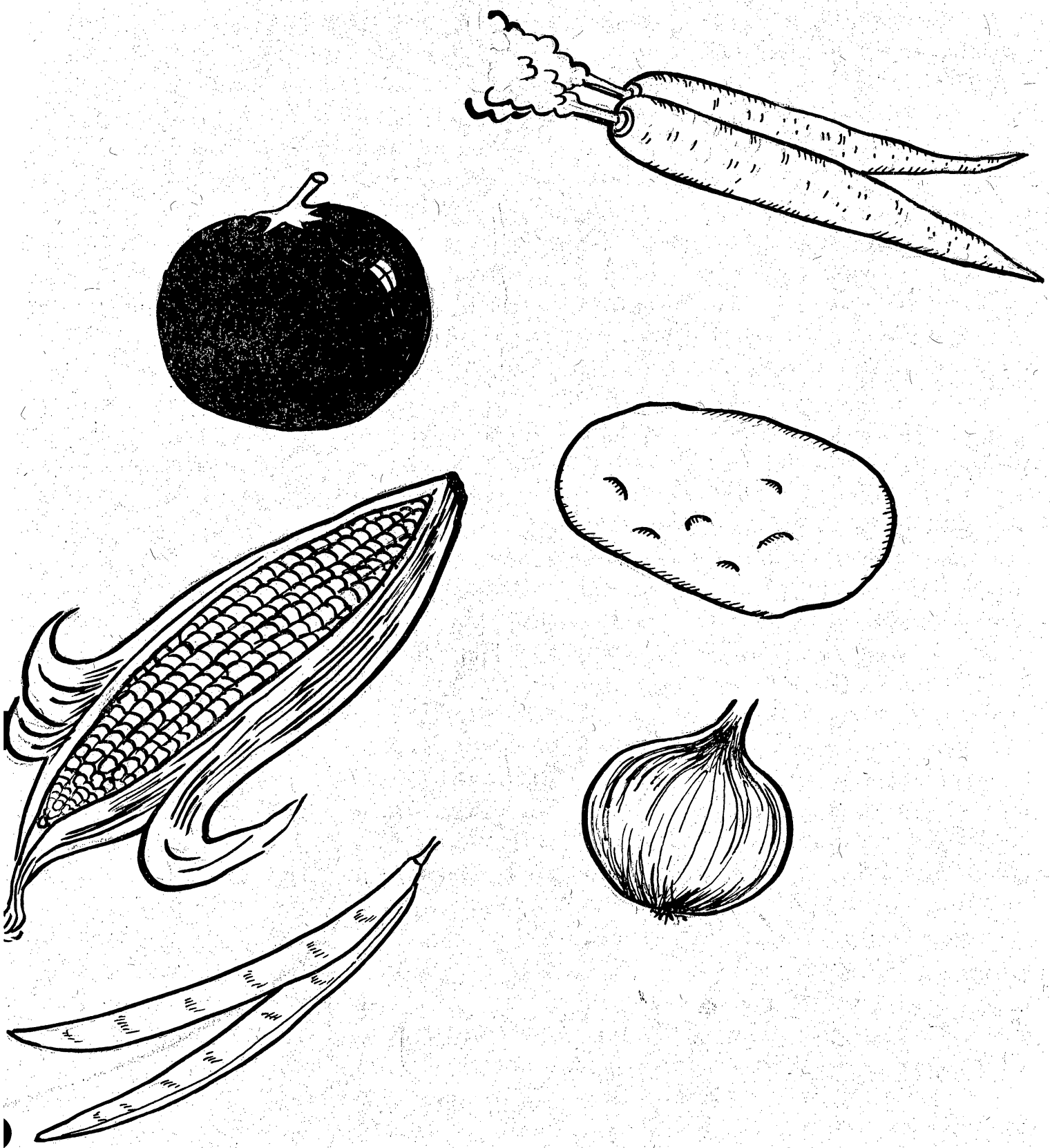


Figure 2

As well as color coding as in the color clown log, each center would be represented by a different vegetable. The children would color in each vegetable, as he completed the center.

Many variations are possible using the basic format of the vegetable log. An example is a sea shell log incorporated with a seashore learning unit (Figure 3). By adding to or varying the designation of each learning center and its corresponding part of the log, a variety of learning or lesson reinforcements can be involved in an activity recording log. The Easter egg log (Figure 4) illustrates such a development. It has been used prior to Easter to record children's activities. The log has the word for a color written in each section of the log. The children are to match the correct color with the word after working in the corresponding learning center.

Record keeping has been found to be a useful means of allowing proper response to the child activities. The parent response to frequent updated records of activities has been found to support the learning center approach to teaching.

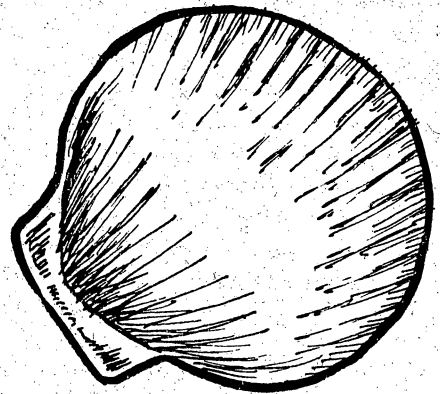
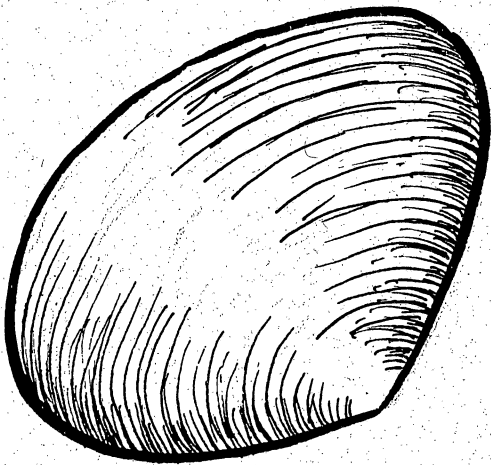
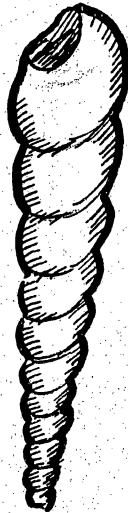
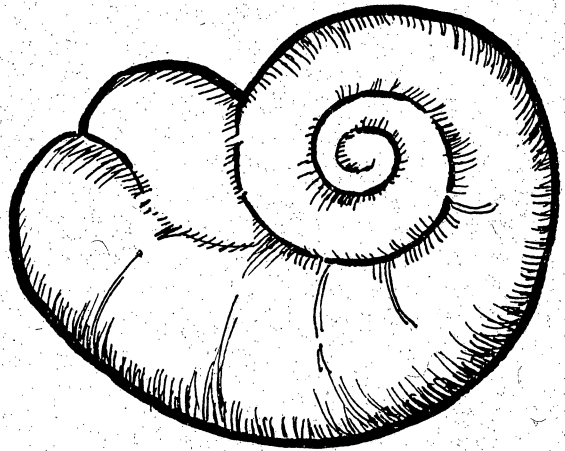
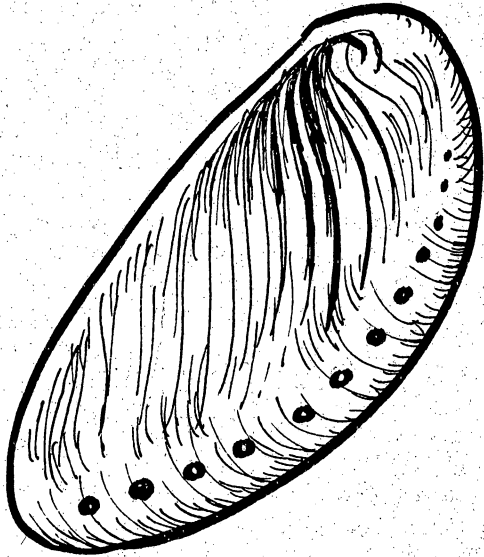
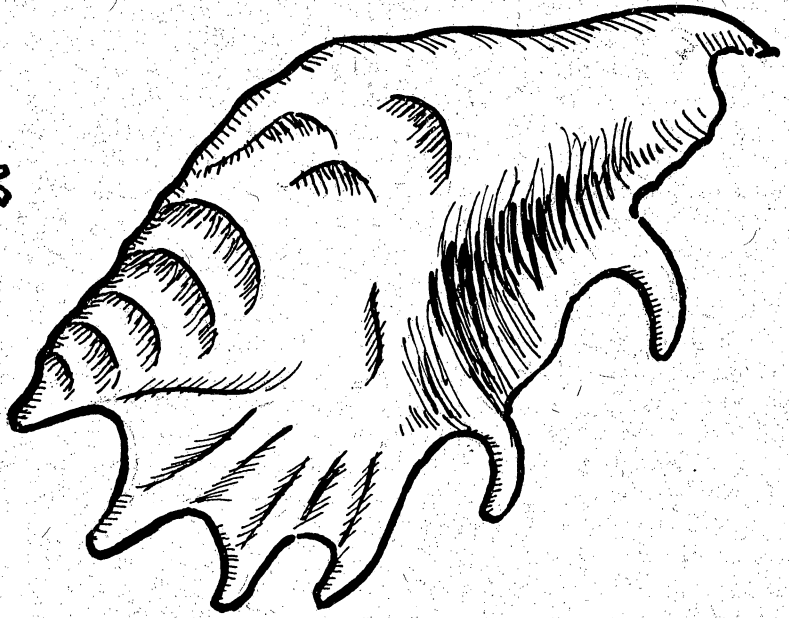
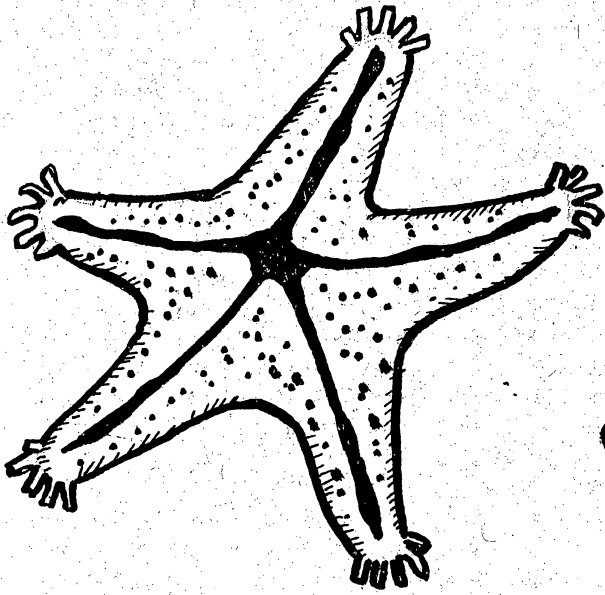


Figure 3

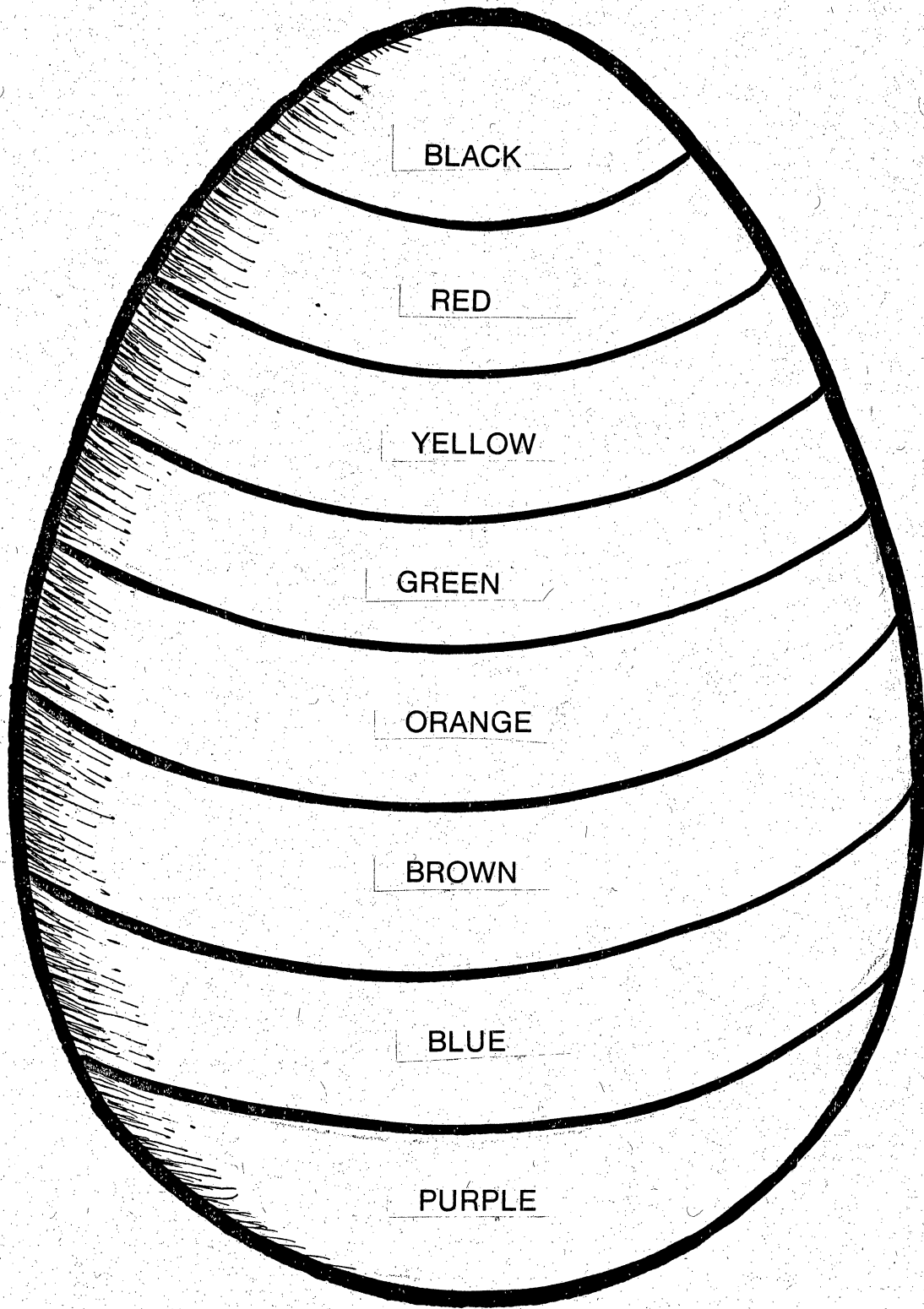


Figure 4

Suggested Learning Centers for Classroom

Related to

Reading, Language, and Math

Story-Bored? Try Story Boards!

Behavioral

Objective: Given a story board, the child will be able to follow written instruction and identify the major points of plot developed in a given story.

Material: Story boards from cut up cardboard boxes.

Procedure: After students read a fiction book, ask them to share their stories by creating story boards from cut up cardboard boxes.

Have students draw scenes as illustrated below. The back of the board may be used for elaboration of any part of the book (For example: Title, author, other books by the author, other books on the same subject).

Provide a time when students may look at the boards and ask each other questions.¹

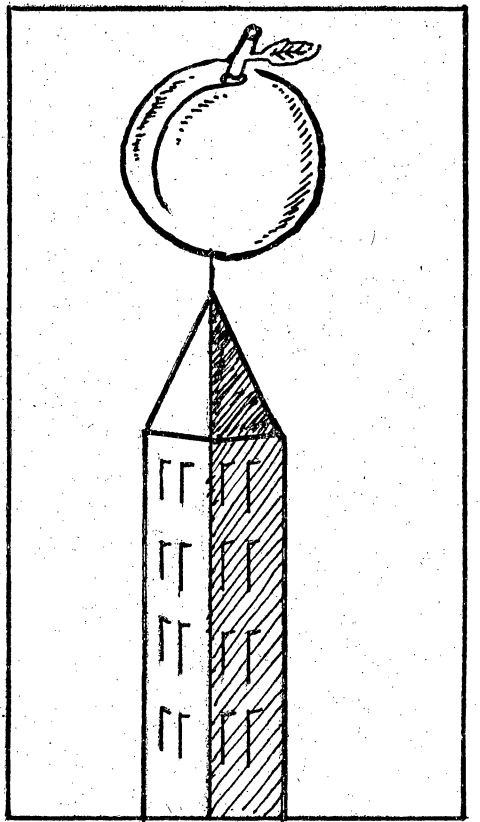
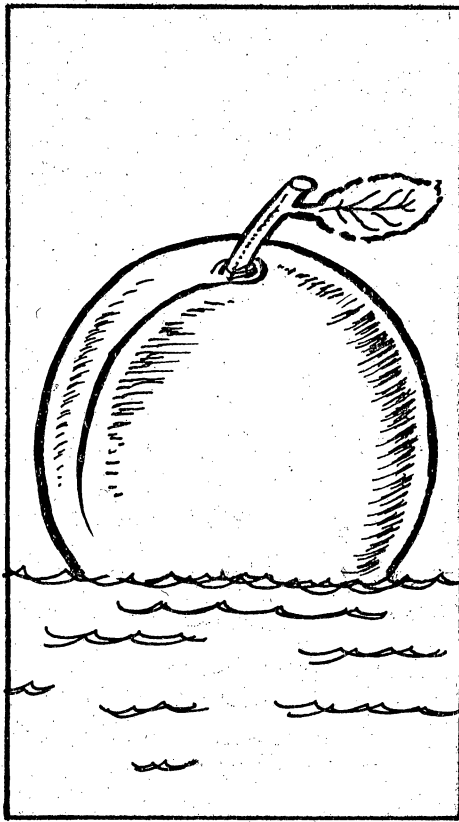
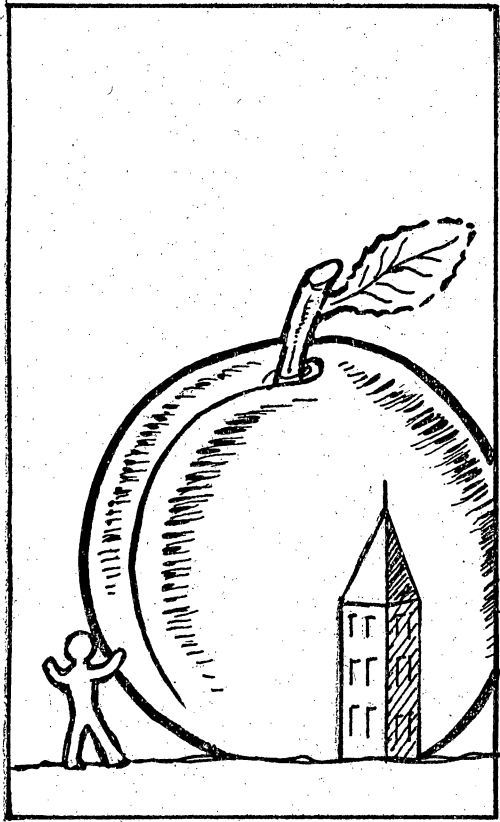
Scene from Rising Action

James and the Giant Peach ✓

(See next page for illustration)

glimpse of climax ✓

¹ Imogene Forte, "Kids Stuff Reading and Language Experiences," Nooks, Crannies, and Corners, (Nashville, Tenn., 1973), p. 85.



Happiness is a Tree:

Behavioral

Objective: Given a picture of an outline tree, the student will follow written directions and make an outline of the main idea from a book, reading assignment or research.

Material: The illustration on the next page.

Procedure: For beginning the idea of outlining, or for students who have difficulty with the standard form, try "outline trees" for the organization. Use the following illustration as an example. (See the next page.)²

Alphabet Book

Behavioral

Objective: Given a sheet of paper, pencil and crayon, the child will listen to the letters given orally, and make the first letter of the word and draw a picture of the word.

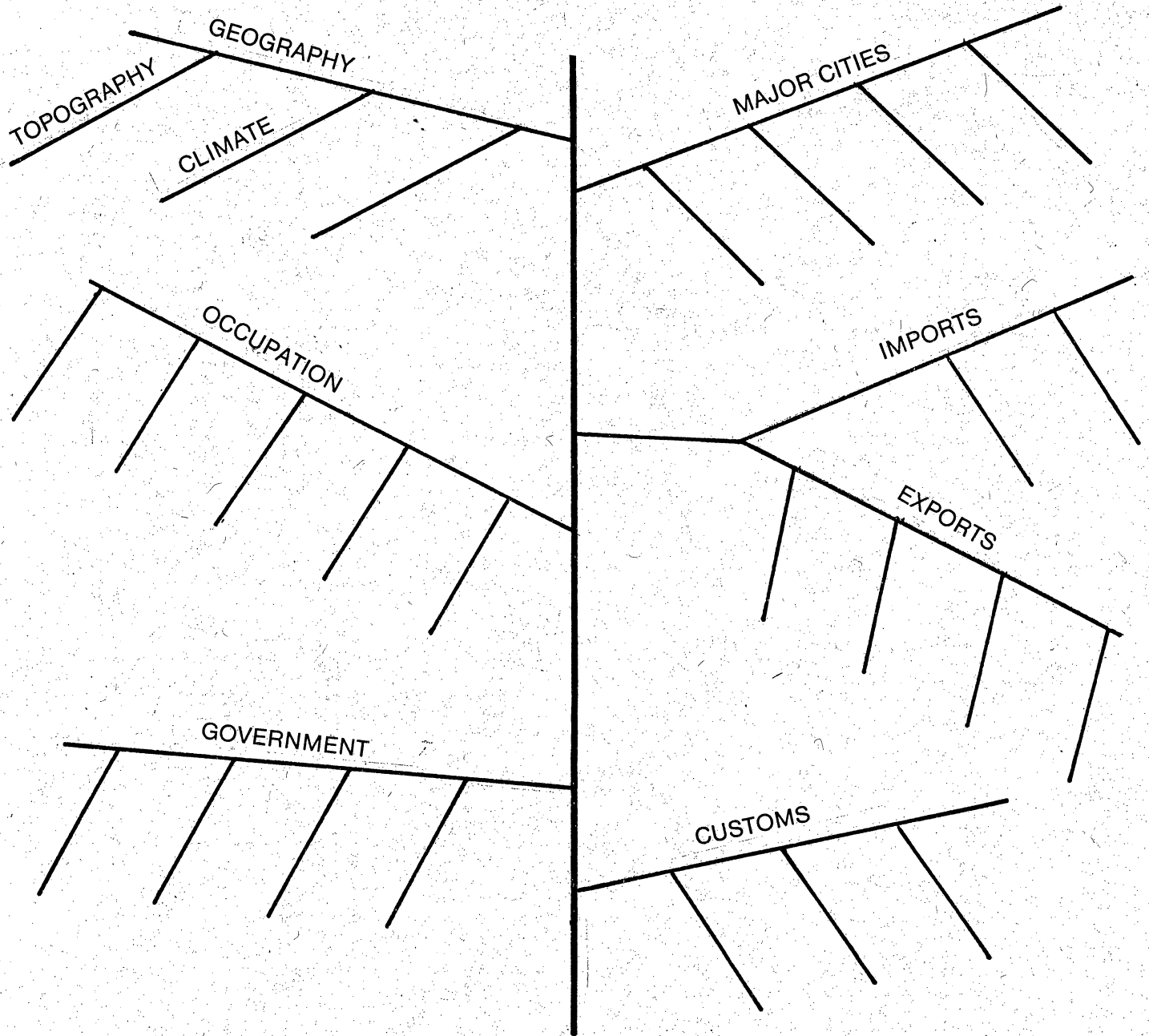
Materials: Paper, pencils and crayons.

Procedure: Children fold paper into four squares and print a capital and a small letter in the right hand corner of the paper. They draw pictures of things that begin with this letter and print the name under the picture. They make a booklet by putting pages in alphabetical order.

Variation: Use the same procedure with blends instead of letters.

²Ibid., p. 173.

Information on a Country or Region



GEOGRAPHY

Topography

Climate

OCCUPATION

GOVERNMENT

MAJOR CITIES

IMPORTS

EXPORTS

CUSTOMS

Facts Galore:

Behavioral

Objective: Given five charts, five groups of children will be able to follow written instruction to recall and record facts in various subject matters.

Materials: Five large charts similar to the one below.

Procedure: Prepare five charts similar to the one below (but without answers) on 8½" x 11" construction paper or cardboard. (Covering the charts with clear plastic allows students to write on them with grease pencil and erases easily.)

Fill in the top space of each row with a category which you wish to emphasize in this activity. Label the horizontal rows by placing a letter of the alphabet in the boxes at the far left.

Divide the class into five teams. Allow teams a given amount of time to fill in the facts.³

³ Forte, Kid Stuff Reading and Language Experiences, p. 71.

NAME	FACTS GALORE !!				SOCIAL STUDY
	COUNTRIES	CITIES	MANUFACTURED	AGRICULTURAL PRODUCTS	LANGUAGES
F	FRANCE	FLORENCE	FILM	FIGS	FRENCH
G	GERMANY	GRENOBLE	GLOVER	GRAPES	GREEK
C	CZECHO-SLAVAKIA	CALCUTTA	CHEESE	CORN	CHINESE
S	SWITZERLAND	SAN FRANCISCO	SHORES	SPINACH	SPANISH

SUGGESTED LEARNING CENTERS
RELATED TO READING

All Aboard:

Behavioral

Objective: Given poster board, box envelopes, word cards, six car train, hooks, paper for passenger list and engineer's hat, the child will follow written instructions, make a sentence from the card and add his name to the travelers list.

Materials: Poster board, box envelopes, word cards with hole punched in the center top, six-car train made of construction paper, hooks, paper for passenger list and engineer's hat.

Procedure: This center is set up in a train motif. Children follow directions posted in the center to make sentences on the train. After completion, the children add their names to a passenger list provided in the center.

In the center you...

1. Get a ticket
2. Put on the hat
3. Open ticket envelope
4. Make a sentence from the cards you find there
5. Add your name to the list of travelers

Railroad Company List of Passengers

(See next page for illustration.)



CAP

TRAIN

Words Have Relatives, Too!

Behavioral

Objective: Given a thesaurus, colored construction paper, and scissors, the student will use a thesaurus to form groups of associated words.

Materials: A thesaurus, colored construction paper, and scissors.

Procedure: The student cuts a house from construction paper and labels it with a category.

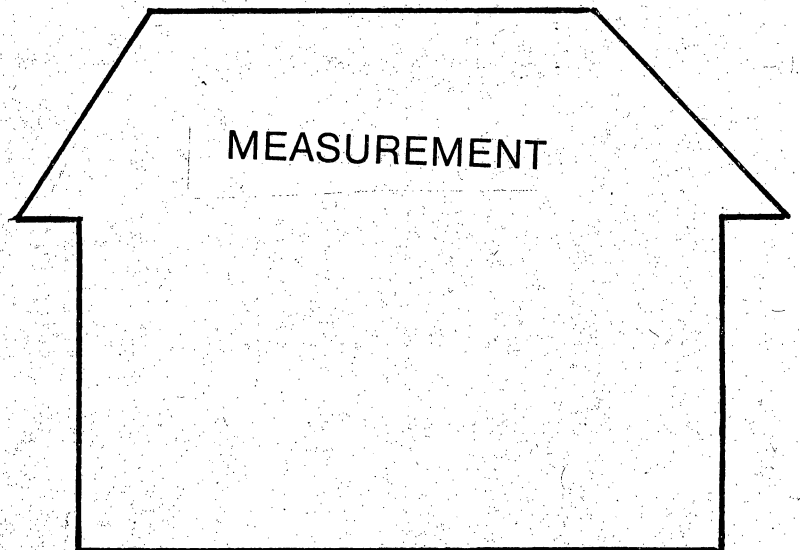
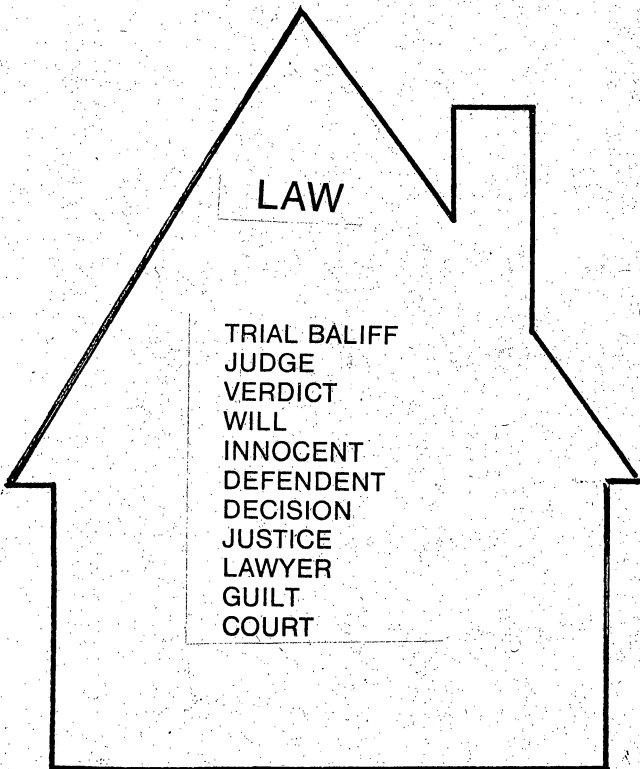
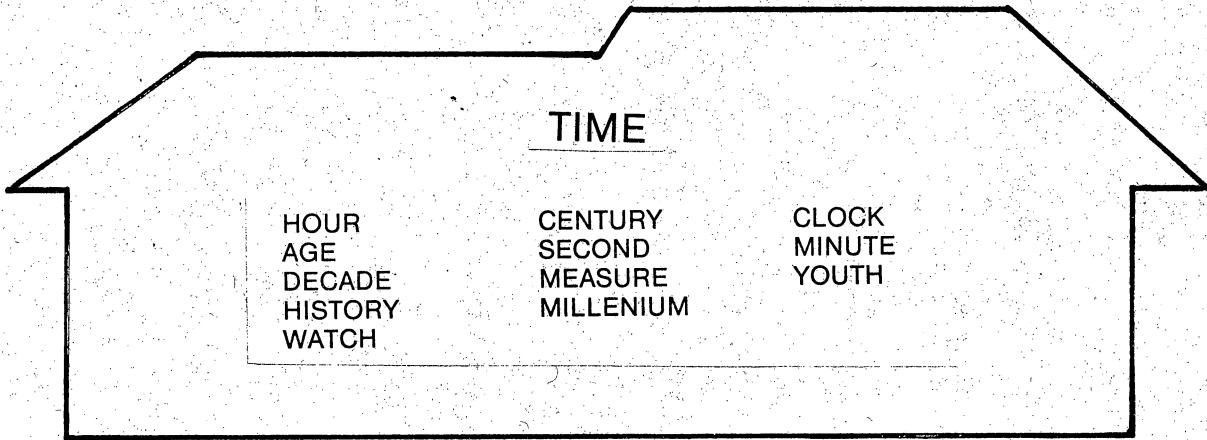
Then, he uses the thesaurus to fill his house with as large a family of related words as he can.

Provide a place where the word family homes may be displayed. The houses may then be used as bases for writing assignments or further word study.

See the illustration on the next page.⁴

⁴Ibid., p. 121.

Words Have Relations, Too!



Make Me A Man:

Behavioral

Objective: Given a copy of a street map, the student will be able to follow written instruction, create symbols for building and instruction and place the symbol on the map.

Materials: Copies of the map shown on the next page.

Procedure: Give students written directions which require them:

to create symbols for buildings and natural features

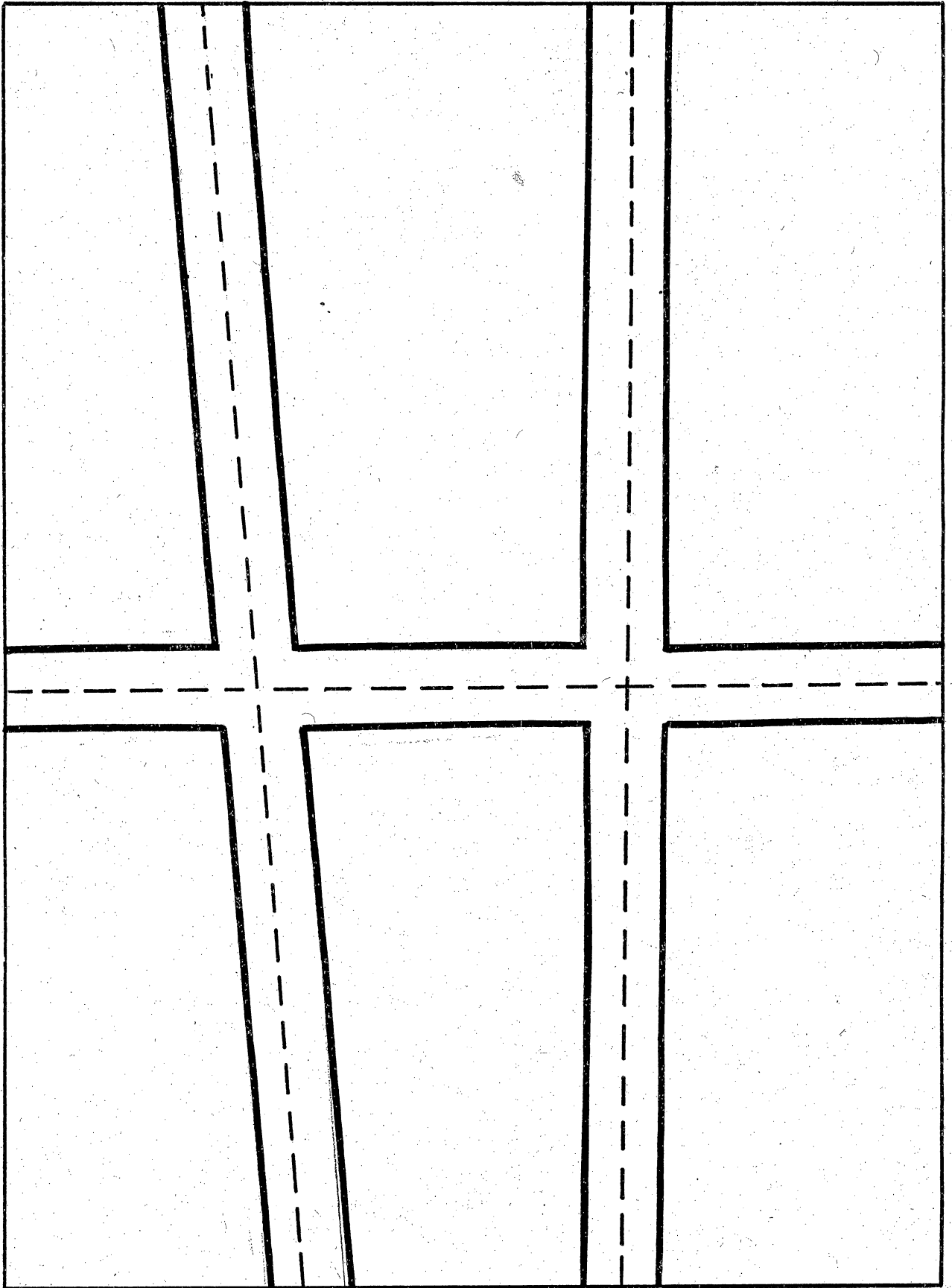
to locate positions and draw objects on a map

to read distances and directions on a map⁵

Sample Instructions:

1. Label the directions on the map.
2. Label the east-west street Main Street.
3. Label the easternmost north-south road Western Avenue.
4. Label the westernmost north-south road Axle Avenue.
5. Place a church on the southwest corner of Main and Axle.
6. Draw a forest preserve along the western edge of Axle north of Main.
7. Draw a school on the southeast corner of Main and Western.
8. Place a shopping plaza across Main from the school.
9. Draw a community of homes on the eastern side of Western, north of Main.
10. Draw a key for your map explaining all symbols.

⁵ Ibid., p. 148.



Gadzooks! It's Spooks:

Behavioral

Objective: Given an illustration and a story read orally, a child will listen and write a ghost story using some of the words.

Materials: A ghost story book and the illustration on the next page for the student to use for their own creativity.

Procedure: On a day near Halloween (preferably a cloudy day), turn the lights off, close the blinds, gather into a circle, and read two or three ghost stories to the class.

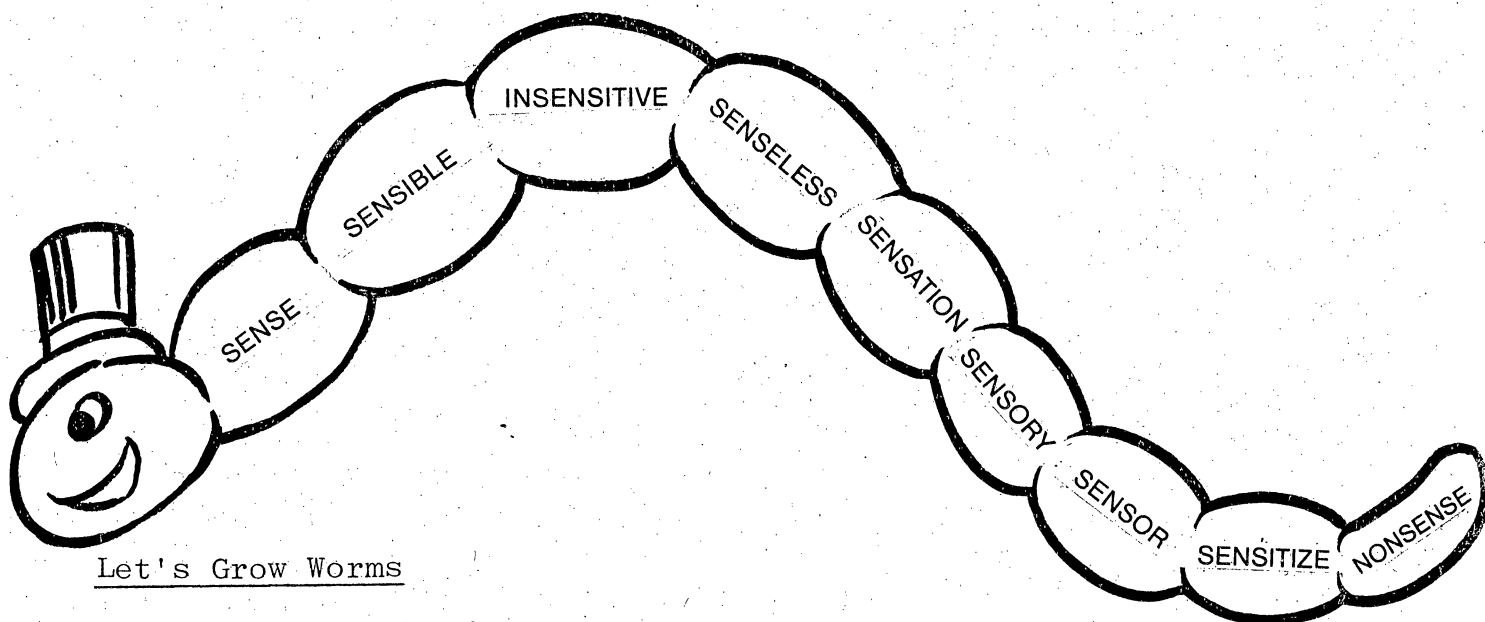
Ask students to listen for words that create spooky feelings. (Show illustration on the next page.)

Compile on the chalkboard a list of all the bewitching words the students can name.

Then ask each student to write a "ghost story" (with lights still out), using some of the words on the board.

Allow the students to share their stories in the semi-dark.⁶

⁶Ibid., p. 274



Let's Grow Worms

Behavioral

Objective: Given scissors, glue and several colors of construction paper, the child will follow oral instruction and write prefixes and suffixes to a root word to form new words.

Materials: Supply scissors, glue, and several colors of construction paper.

Procedure: Ask students to cut a head for a worm and write a root word on it.

Then they may add a section to the worm for each new word that can be made by adding prefixes and suffixes.

Challenge the students to make enough worms to extend all the way around the room (or along a wall, etc.).

Students may try to make trains, too!⁷

⁷Forte, Kid Stuff Reading and Language Experiences, p. 28.

SUGGESTED LEARNING CENTERS
RELATED TO LANGUAGE

Forms and Reforms

Behavioral

Objective: Given a huge clown with colorful balloons with root words written on them. After introducing prefixes and suffixes orally, the child will write prefixes and suffixes to the root words individually.

Materials: A huge clown holding colorful balloons. Mount on a bulletin board. Provide an envelope of blank paper slips (2" x 5").

Procedure: After introducing suffixes and prefixes, pin a root word on the clown. Change the root each morning.

Every day, students use the blank paper slips to write words derived from the root by adding prefixes and suffixes.

Each new word may be pinned on a balloon.

Challenge the students to fill all the balloons every day!

Variation: Reproduce a picture of the balloon man holding balloons. On each student's paper, write a different root word and allow them to work individually.⁸ (See illustration on the next page.)

⁸Ibid., p. 29.

Form and Reform



LEARNING CENTER ACTIVITIES
RELATED TO LANGUAGE

Phonics Play Ground

Behavioral

Objective: Given an activity sheet with words, the child will follow written instruction and mark each vowel to show its long or short sound.

Materials: Activity Sheets

Procedure: Mark each vowel to show its long or short sound.

cage	lake	lake
pail	nail	rain
car	ball	bat
day	bay	way

body	mop	toll
boat	mock	toad
bone	mob	toe
bowl	most	Tom

Keep a Diary:

Behavioral

Objective: Given a pencil and paper, the child will follow written instruction and keep a record of school events.

Procedure: This activity can be adapted to the level of difficulty of the children involved. Primary children can draw weekly picture diaries in booklets of school events, weekends, or happenings at home. A class diary booklet might include how plants grow, books we read in the library, or social study activities.

Sound Safari

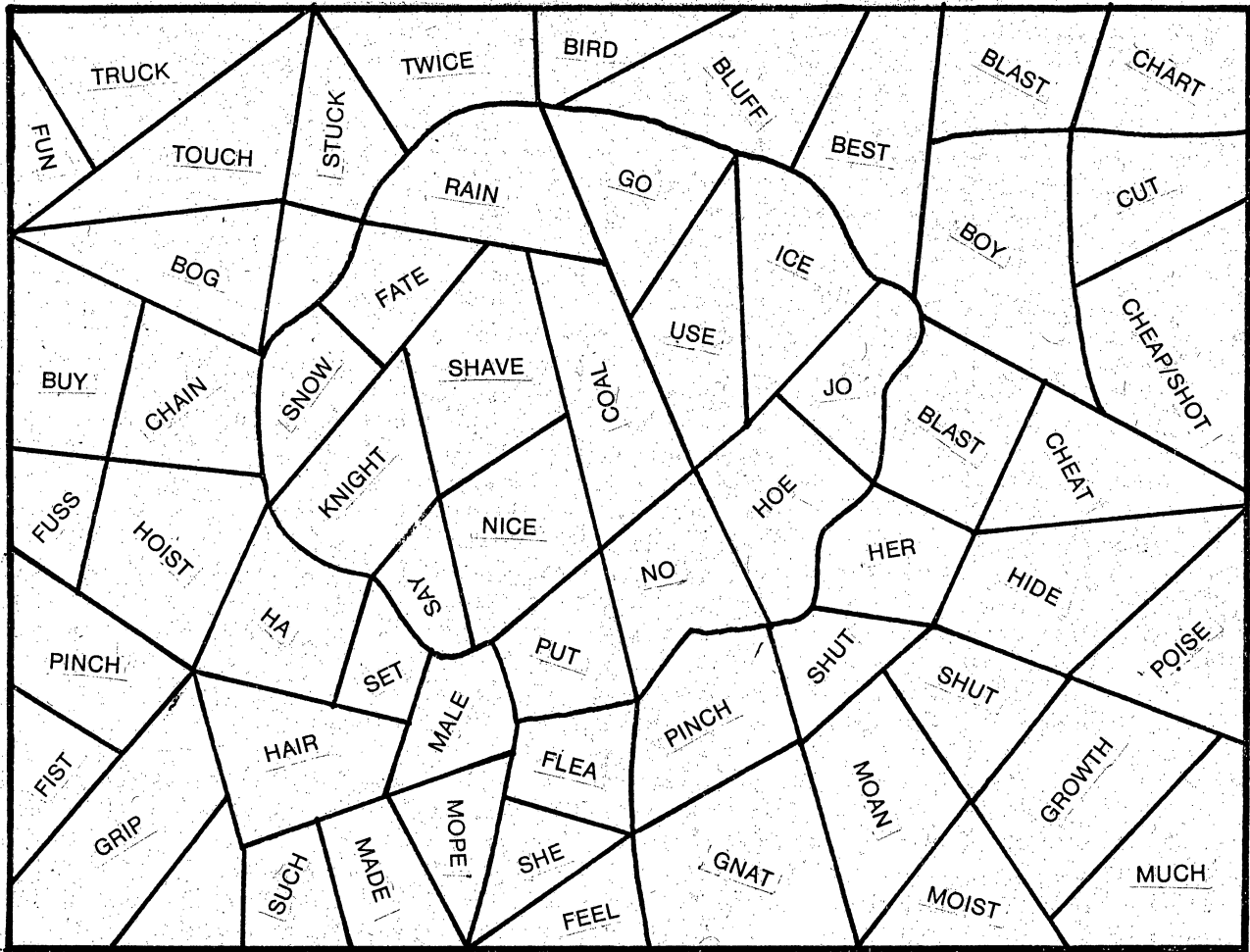
Behavioral

Objectives: Given a design and color crayons, the child will follow written instruction and identify the vowel sounds and color the design appropriately.

Materials: Make a design similar to the one below in which a picture of some object is hidden. (Seasonal items work well.)

Procedure: Write a one-syllable word in each space. Develop a color code which will enable the students who have correctly identified the vowel sounds to finish an appropriately colored design.⁹ (In this example, a hidden tree would be revealed.)
(See next page for illustration.)

⁹Ibid., p. 24.



CODE

a = GREEN

e = BROWN

i = GREEN

o = GREEN

u = GREEN

F S B C H . P G M T = BLUE

Beanbag Compounds

Behavioral

Objective: Given a large mat and two beanbags, a child will follow oral instruction and throw a bag at the mat. He uses the word on which it falls and makes several compound words.

Materials: Make a large mat like the one below, using an old plastic tablecloth or poster board, covered or sprayed with plastic. Provide one or two beanbags.

Procedure: Standing three feet from the edge of the mat, each student throws a beanbag at the mat. He must use the word on which it falls as part of two different compound words (i.e., classmate, classroom).

Players take alternate turns, trying each time to make different compounds from those which have been used before.¹⁰

sun	loud	house	class
time	boat	out	base
air	size	way	room
watch	man	fly	book

¹⁰Forte, Kid Stuff Reading and Language, p. 34.

Grow a Tree

Behavioral

Objective: Give a copy of a tree with a base word. The child will follow written instruction and identify several derivative words.

Material: A copy of a tree as illustrated on the next page.

Procedures: Write a base word on the trunk of the tree.

These are good starters:

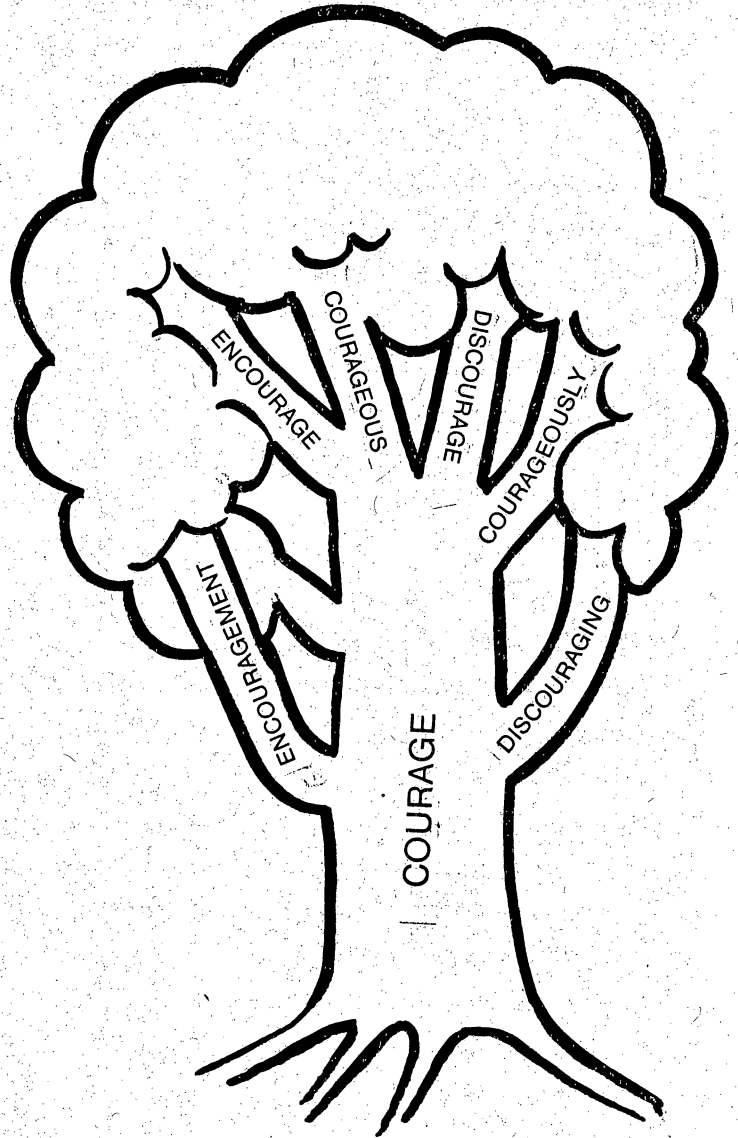
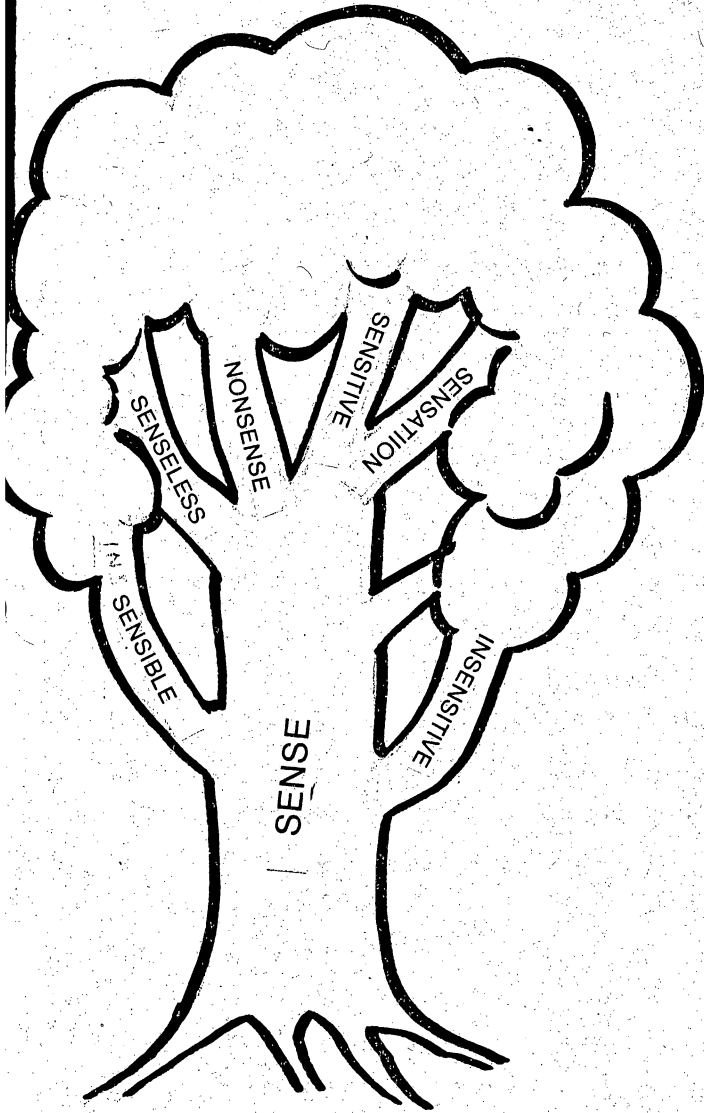
favor	comfort	courage
please	sense	self
inform	resist	complete

Students may complete trees by writing the words they've formed on the branches.¹¹

(See the next page for illustration.)

¹¹Ibid., p. 32.

GROW a Tree



Draw a Word

Behavioral

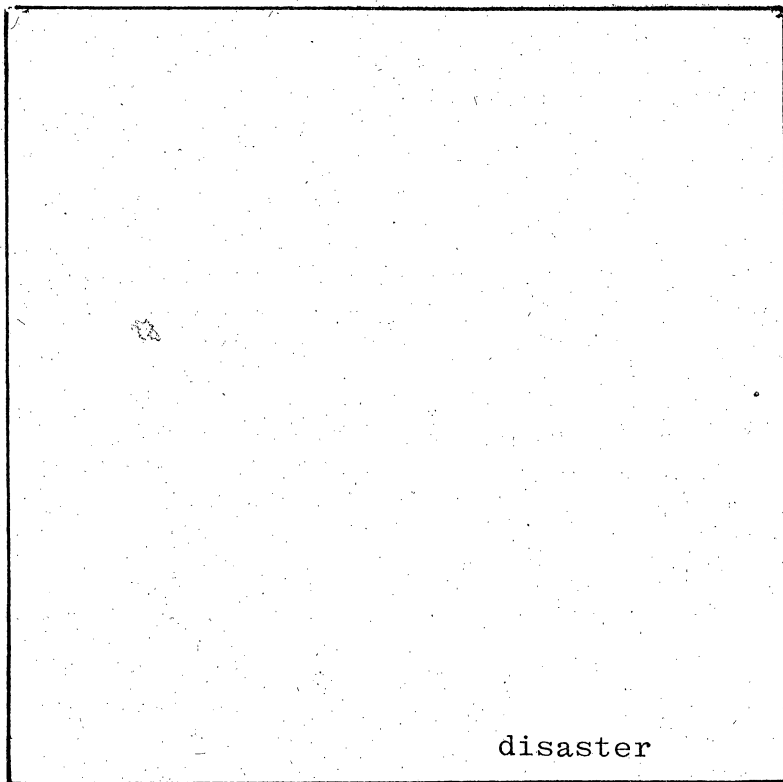
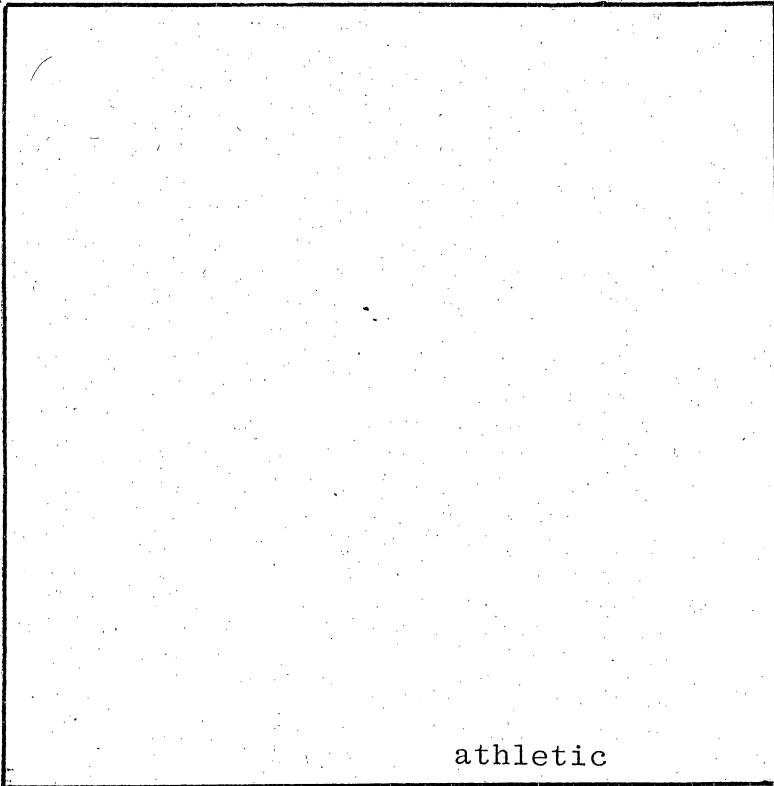
Objective: Given a series of squares on which words have been printed, the child will follow written instruction and draw the first scene or picture that comes to his mind.

Materials: A series of squares (4" x 4") on which words have been printed. Words should be chosen which have connotations broader than the name of an object.

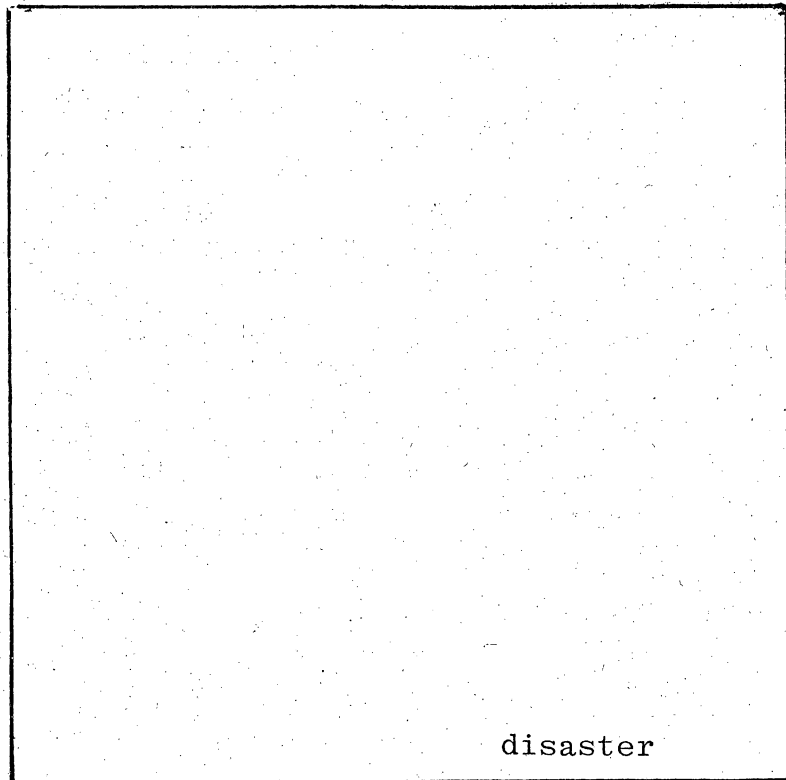
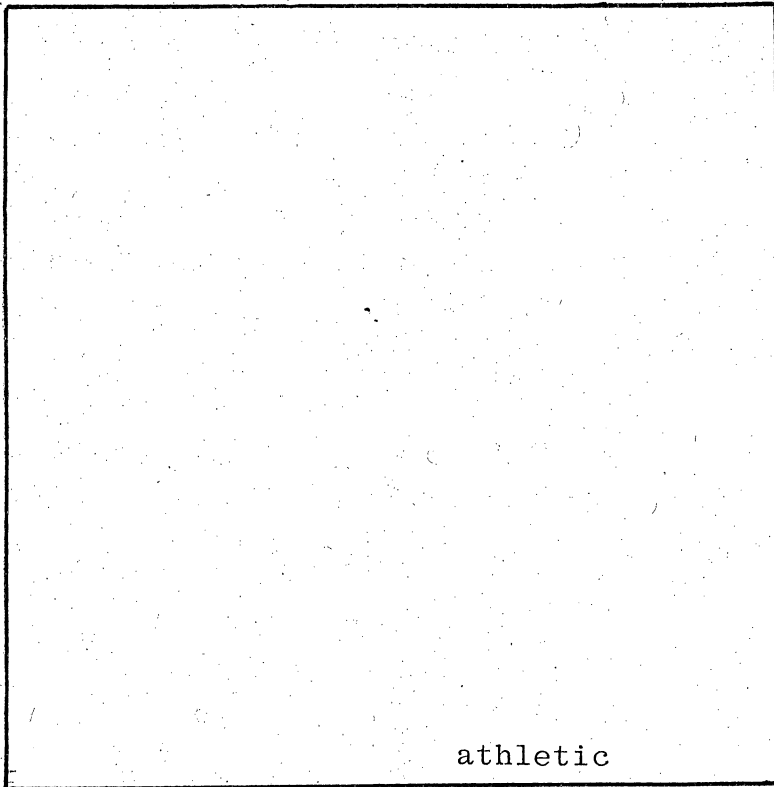
Procedures: Direct students to look at the word, then draw the first scene or picture that comes to mind. Compare the images illustrated by different students in response to the same word. Introduce the word "connotation" to students in describing the reasons for differing impressions. A bulletin board may be prepared where like words may be grouped for comparison. Students may wish to make several or many contributions to the board.¹²

¹²Ibid., p. 48.

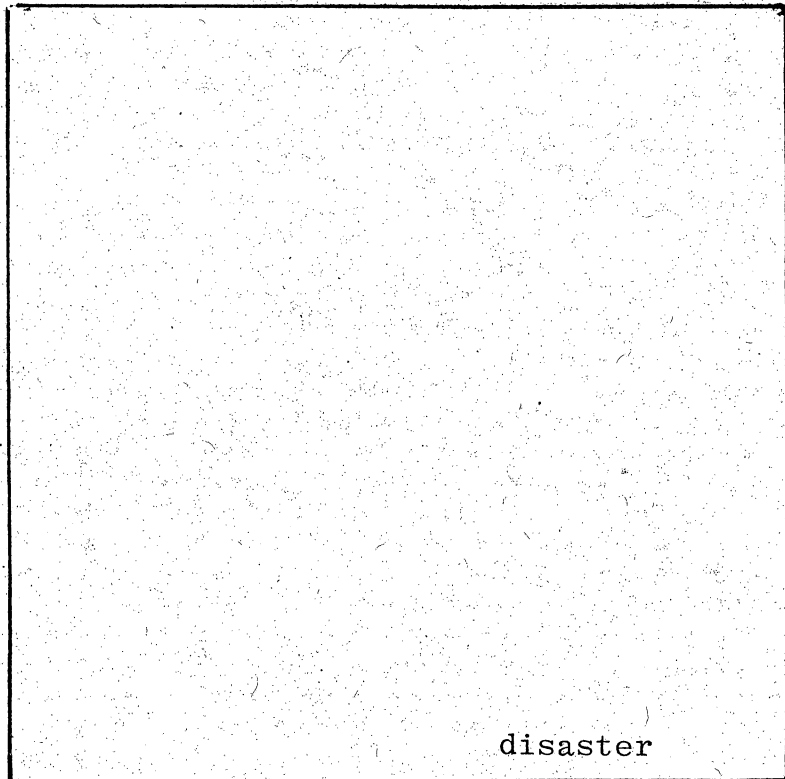
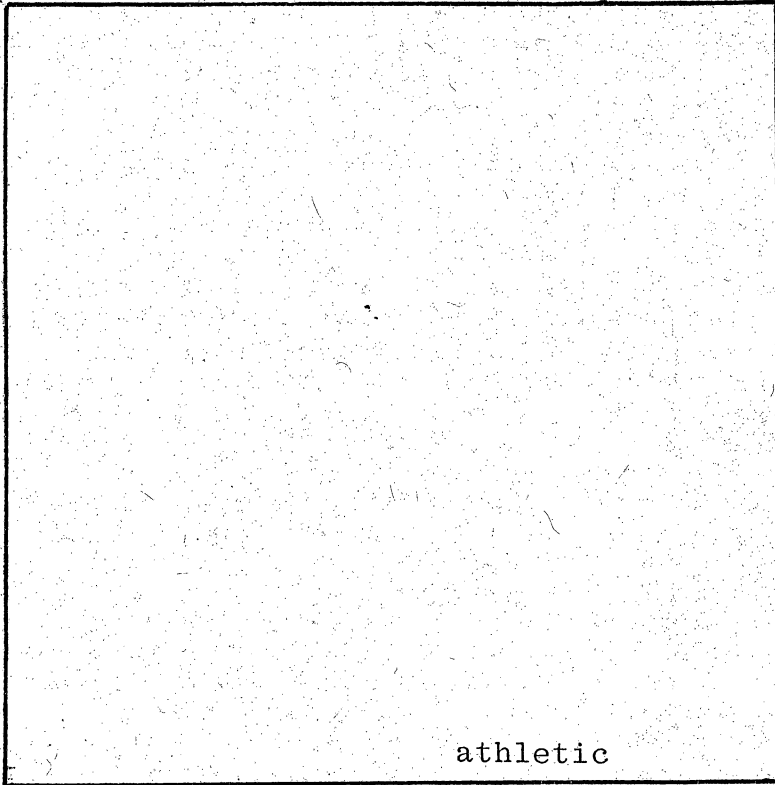
Draw A Word



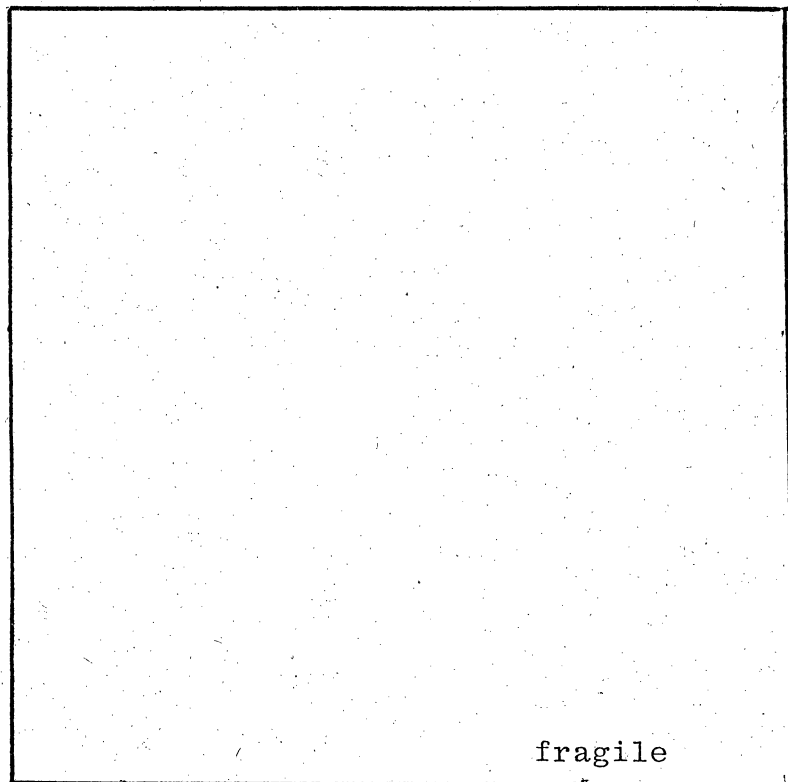
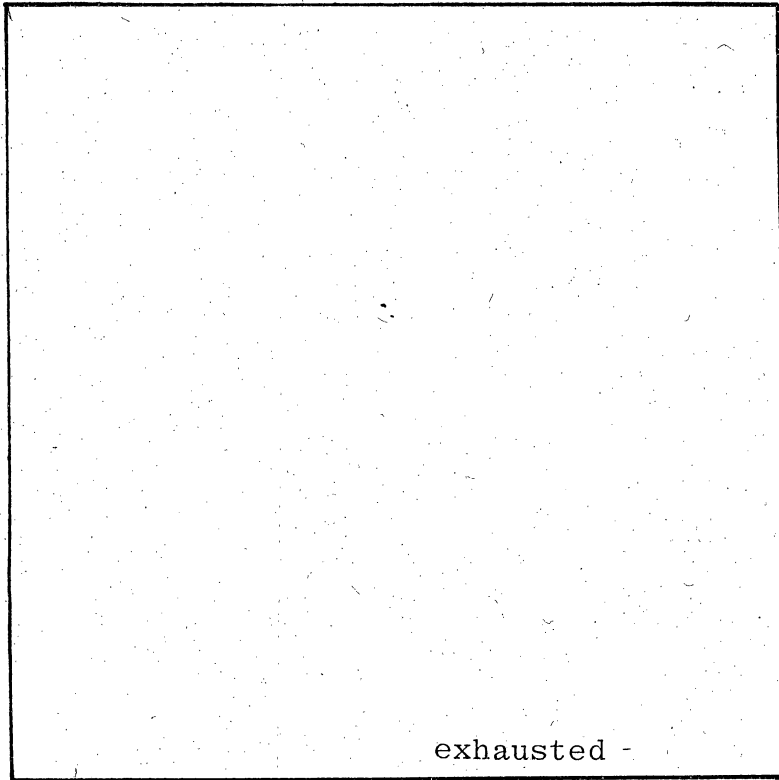
Draw A Word



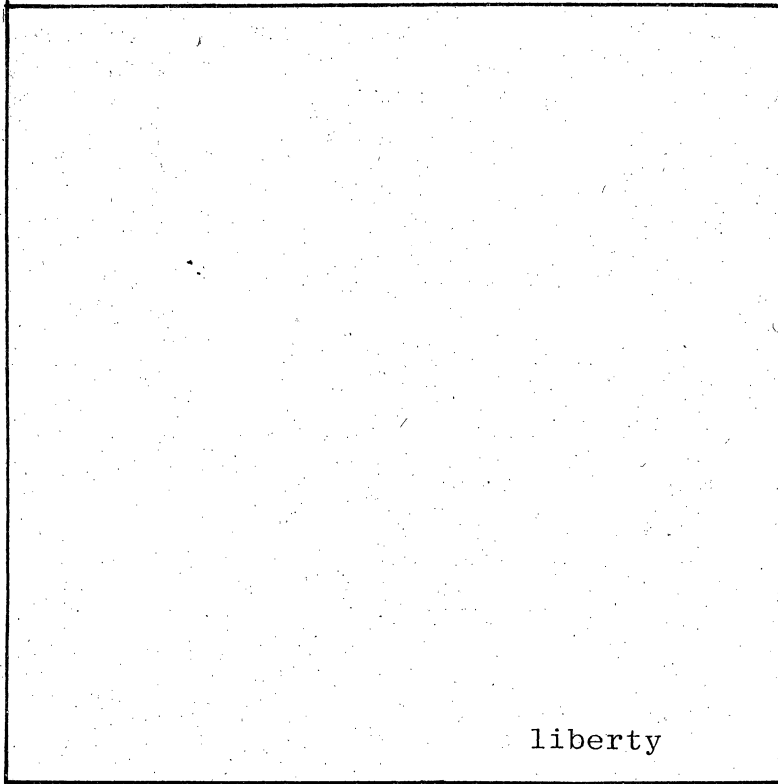
Draw A Word



Draw A Word



Draw A Word



liberty

Double Trouble

Behavioral

Objective: Given a magazine, a large piece of paper, and a list of words, the child will complete the assignment independently, after oral instruction, giving as many meanings as possible.

Materials: Old magazines and a large piece of paper or poster board. Provide a list of words with two or more meanings.

For example:

rose	check	ball
light	ruler	scales
trunk	rock	sink
run	bark	star
back	brave	pitcher
slip	trip	fall
plate	hard	chest
racket	date	figure
set	drive	club

Procedures: Give students old magazines and a large piece of paper or poster board. Ask them to use the poster and pictures to illustrate as many meanings of a word as possible. Examples may be drawn rather than found in magazines.¹³



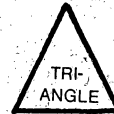
¹³Forte, Kid Stuff Reading and Language, p. 47.

GEOMETRY SHAPES

Common Shapes

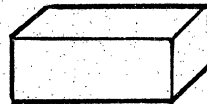
Behavioral

Objective: Given an activity sheet with geometric shapes the student will follow written instruction and identify geometric figures by matching the shapes with the pictures.

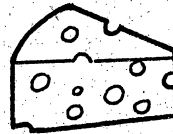


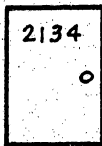
Each picture below shows one or more of the shapes above. List the shapes or shape on the line.¹⁴

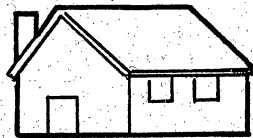




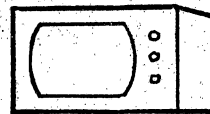












¹⁴ Imagene Forte, Center Stuff for Nooks, Crannies and Corners, (Nashville, Tennessee, 1973), p. 296.

Calendar

Behavioral

Objective: Given a large calendar, the child will listen to oral instruction and will indicate understanding of the calendar by answering questions concerning dates and information on the calendar.

Materials: A large calendar for the current year.

1981		JANUARY			1981	
SUN	MON	TUE	WED	THUR	FRI	SAT
				1	2	3
4	5	6	7	8	9	10
11	12	13	14	15	16	17
18	19	20	21	22	23	24
25	26	27	28	29	30	31

Calendar

Procedure: Provide a list of questions requiring careful reading and use of the dates and information on the calendar.¹⁵

Sample Questions:

1. If today is September 17, and I am sailing to India on December 3, how many days must I wait?
2. Is this a leap year?
3. What two months begin on Wednesday?
4. Seven weeks from today the date will be _____
5. Twelve weeks, six days before Halloween is _____.

Ask each student to add a question to the list.

¹⁵Forte, Center Stuff for Nooks, Crannies and Corners, p. 152.

SUGGESTED LEARNING CENTERS
RELATED TO MATH

Say it with a Graph

Behavioral

Objective: Given a piece of poster board, a yardstick, magic marker and pencil, the student will listen to oral instructions and complete a simple bar graph independently.

Materials: A yardstick, magic markers, a pencil, 9" x 12" piece of poster board for students

Procedure: Collect from the students some information of interest to them which might be suitable for graphing. For example: "How do we spend the time in our school week?" Illustration on next page.

1. Language arts activities	7 hours
2. Science	3 hours
3. Social Studies	3½ hours
4. Math labs	4 hours
5. Lunch	2 hours
6. Gym	2 hours
7. Independent studies	5 hours
8. Music	1 hour
9. Art	<u>2 hours</u>
Total	30 hours

Develop some other kinds of information that may be graphed:

1. Numbers of the kinds of books read this month.
2. Temperatures in our town each day last month.
3. Number of student birthdays each month of year.

Work together (the teacher on the poster board, the students on the paper at their seats) to put the information into the form of a vertical bar graph.

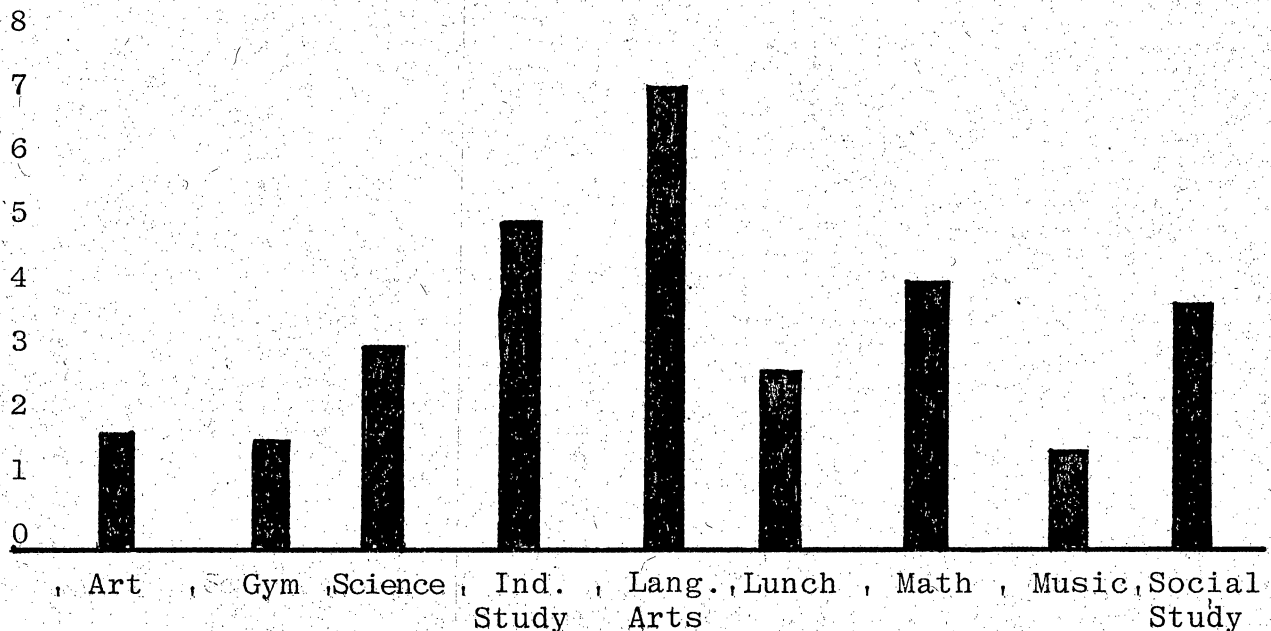
Note the example sketched below.

Show the students how the same information may be put into a horizontal bar graph by writing the times along the bottom and the subjects along the side.

Ask students to use one of the other sets of information gathered to make a horizontal or vertical bar graph.

When a student finishes, he may show his graph to a friend and question his friend to give him practice in reading graphs.¹⁶

HOW WE SPEND OUR TIME EACH WEEK



¹⁶Ibid., p. 151.

Geometry Gypsy

Behavioral

Objective: Given an illustration and oral presentation, the child will identify geometric figures by completing the graph.

Materials: Illustrations (see next page)

Procedure: Introduce the center to enable the student to complete activities independently.

Provide time for evaluation of each completed activity and record individual student progress.

Make provision for filing or displaying completed activities.

Graph the Giraffe

Behavioral

Objective: Given an illustration and title, the student will locate information on a graph and construct a graph.

Materials: Illustrations and title.

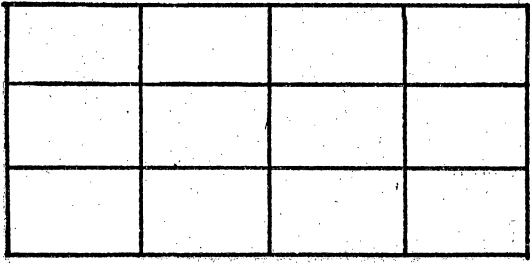
Procedure: Introduce the center to enable the student to complete activities independently.

Tell the student that the letters on the coordinates "Graph the Giraffe," form a secret message. See if you can find the message.

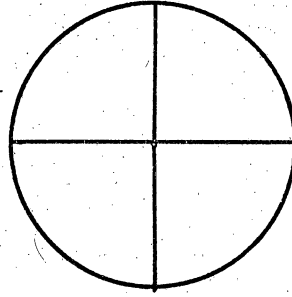
When you use the number coordinates, remember to read across first and then up.¹⁷

(See the illustration on the next page.)

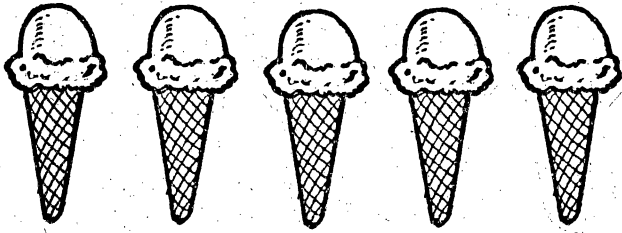
¹⁷Ibid., p. 305.



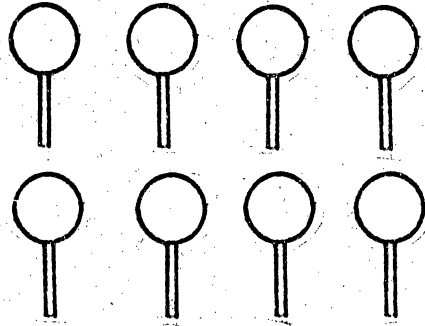
$$\frac{6}{12}$$



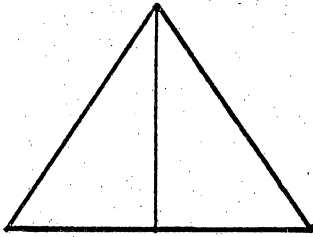
$$\frac{3}{4}$$



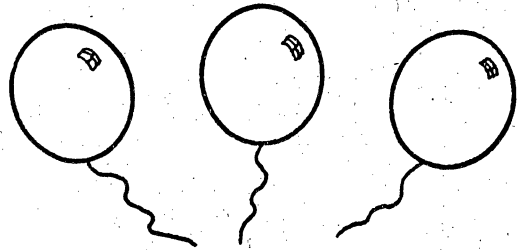
$$\frac{3}{5}$$



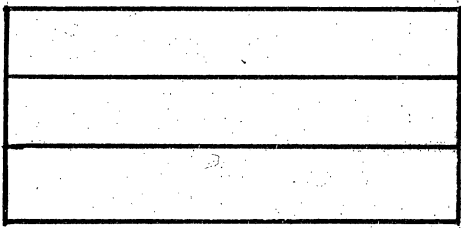
$$\frac{6}{8}$$



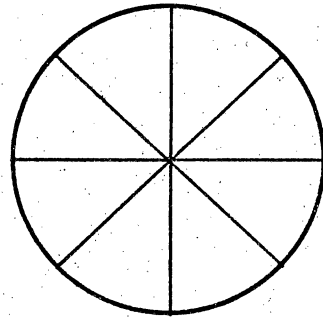
$$\frac{1}{2}$$



$$\frac{1}{3}$$



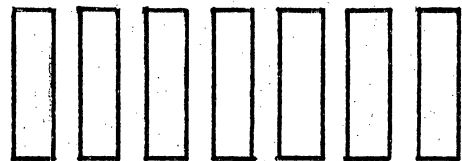
$$\frac{2}{3}$$



$$\frac{5}{8}$$

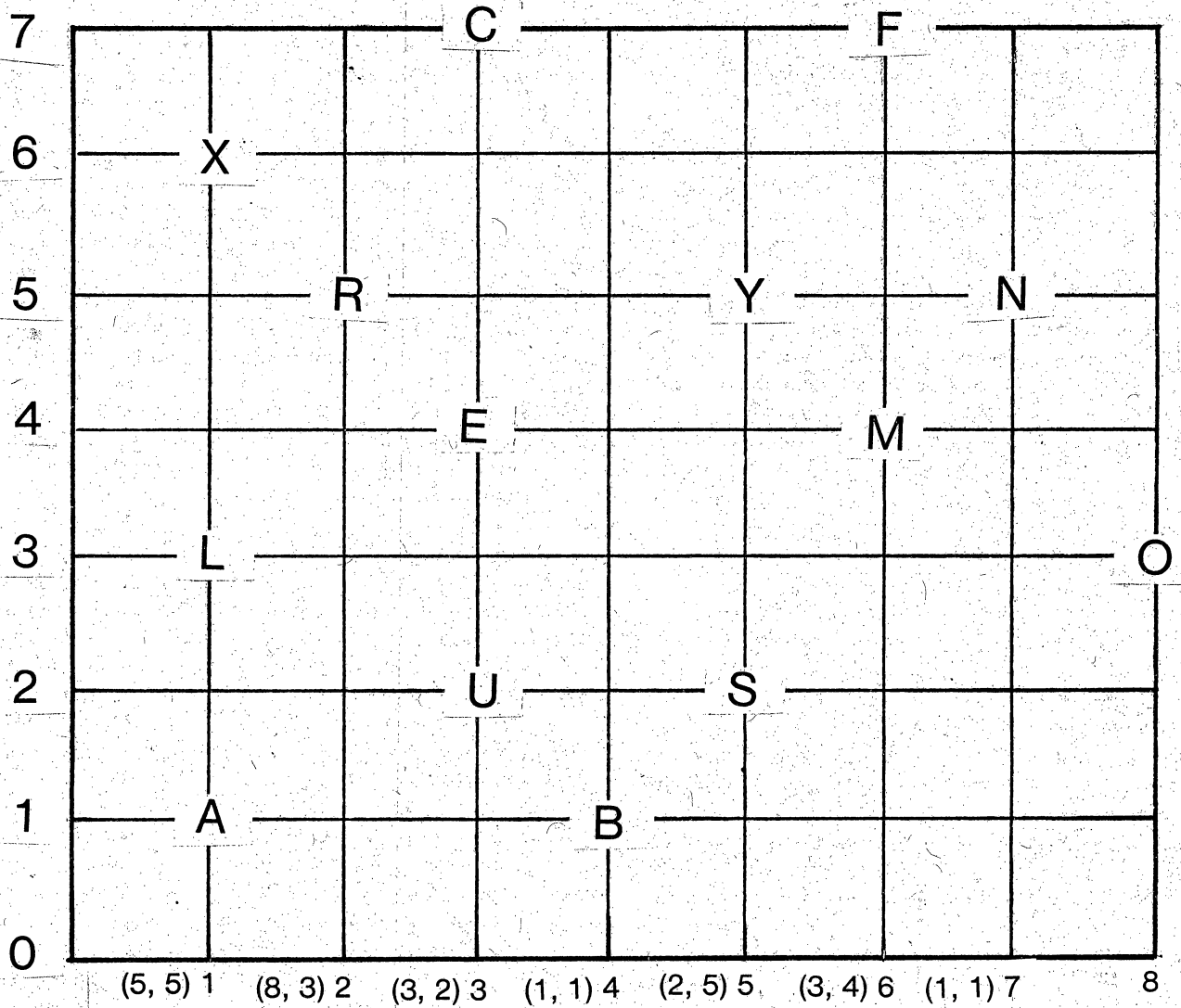


$$\frac{4}{9}$$



$$\frac{3}{7}$$

GRAPH THE GIRAFFE



(5, 2) (6, 4) (1, 1) (2, 5) (8, 6) 5, 5) (3, 7)
(1, 1) (8, 6)

Give Missing Number

Behavioral

Objective: Given an activity sheet and oral presentation, the child will solve the sample addition and subtraction equations independently.

Materials: Activity sheets, crayons, pencils

- Procedure:
1. Place all materials in the center.
 2. Introduce the center to enable the student to complete activities independently.
 3. Provide time for evaluation of each completed activity and record individual student progress.
 4. Make provision for filing or displaying completed activities.¹⁸

Color the picture on the next page:

- If the answer is 4 color those spaces red.
- If the answer is 5 color those spaces green.
- If the answer is 6 color those spaces orange.
- If the answer is 7 color those spaces yellow.
- If the answer is 8 color those spaces purple.
- If the answer is 9 color those spaces blue.
- If the answer is 10 color those spaces brown.
- If the answer is 11 color those spaces black.
- If the answer is 12 color those spaces white.
- If the answer is 13 color those spaces pink.

¹⁸Ibid., p. 284.

Give the Missing Number

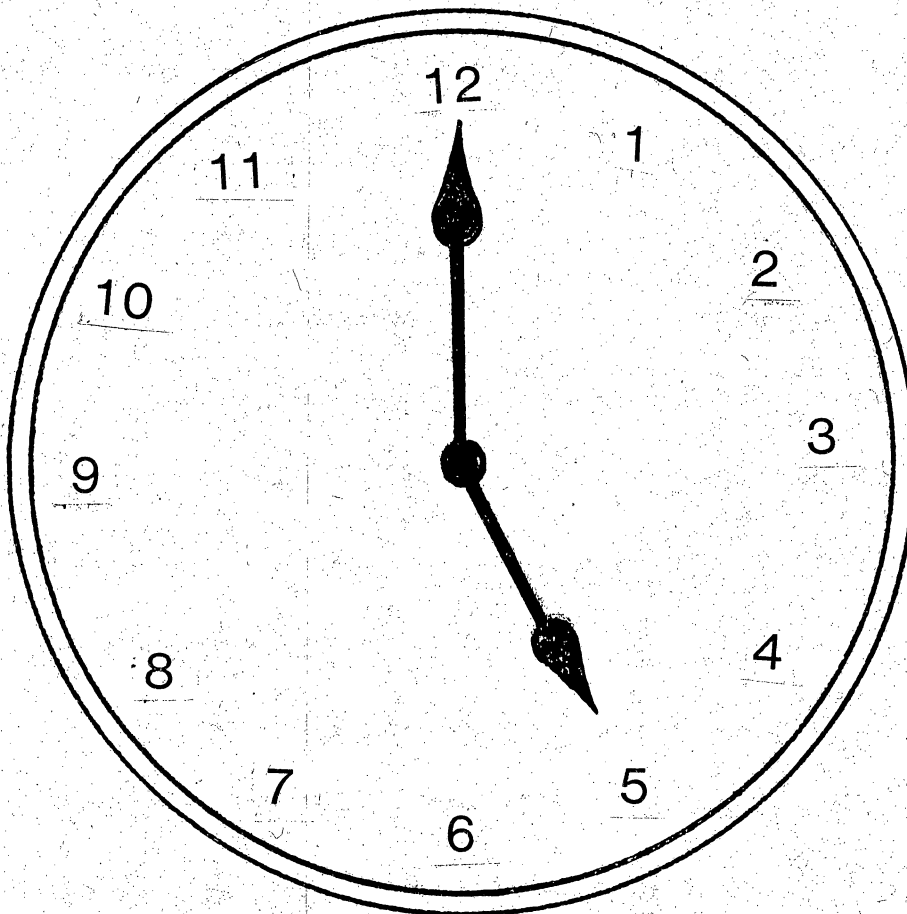
Ding-A-Ling

Behavioral

Objective: Given a paper plate, brass fasteners, two tagboard strips and crayons, the child will demonstrate he can tell time by using the home made clock to answer the questions.

Materials: Paper plate, brass fastener, two tagboard strips, and a crayon.

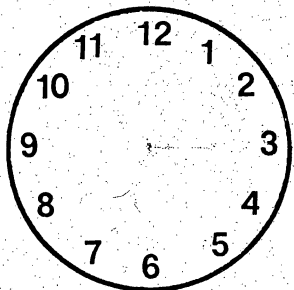
Procedures: Using your crayon, number the clock face.
Use your tagboard strips to cut hands.



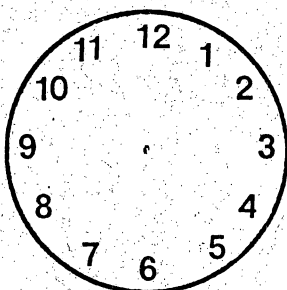
Fasten the two hands to the center of the plate with the brass fastener.

Ding-A-Ling

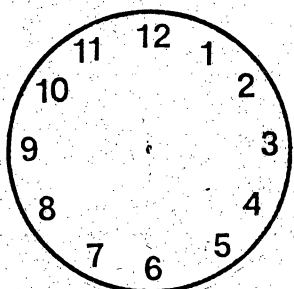
Move the hands on the clock you have just made to show the time given under each of these clock faces. Draw hands on each clock to show the correct time.¹⁹



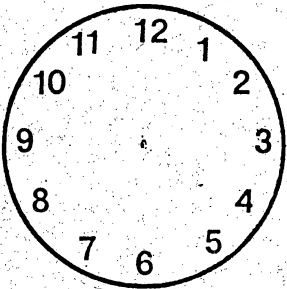
8:20



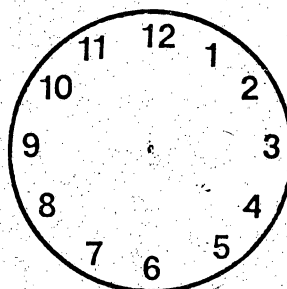
7:30



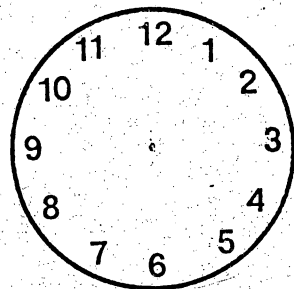
10:15



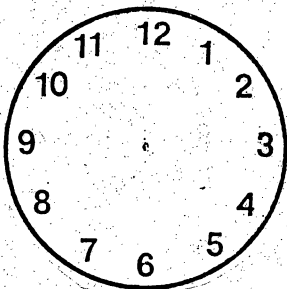
11:20



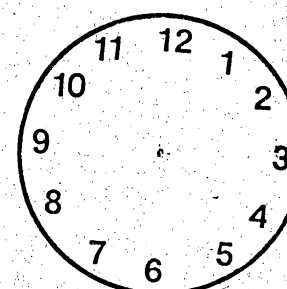
12:30



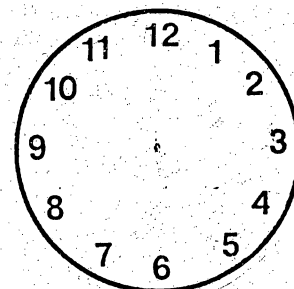
1:35



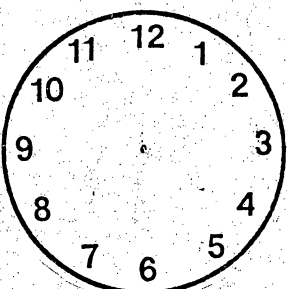
2:05



3:50



4:10



9:45

¹⁹Ibid., p. 279-280.

Freaky Fractions

Behavioral

Objective: Given work sheet and color crayons, the child will listen to oral directions and demonstrate understanding of fractions concepts by completing the work sheet independently.

Materials: Illustration sheets

Procedures: Color the parts or objects to illustrate the fractions.²⁰

See next page for illustration.

²⁰Ibid., p. 290.

Match the Numeral

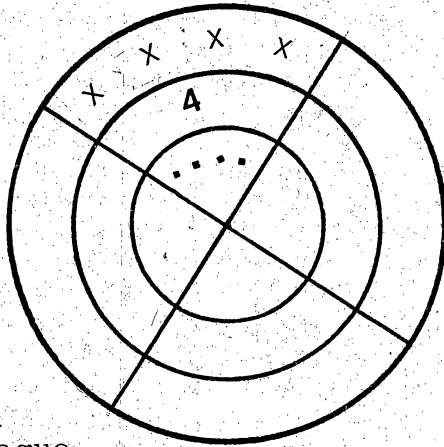
Behavioral

Objective: Given a game board with three wheels, the student will demonstrate he can match the dot configurations and picture sets to numerals by turning the wheels to match the dots, numerals and pictures.

Materials: Gameboard with 3 wheels (1 may be stationary)
 $5\frac{1}{4}$ ", $10\frac{1}{4}$ ", and $12\frac{1}{2}$ " diameters

Procedure: Turn the wheels to match the dots, numerals, and pictures.

Variations: Use words in place of dots or pictures. Use initial consonant, picture, and words.



NFL Number Fun League

Behavioral

Objective: Given a game board representing a football field and a card with answers to equation, the child will practice addition and subtraction facts by playing the game and checking the card with equation answers.

Materials: Game board representing football field. A math equation at each end of each 10 yard section.
 Cards with answers to equations.

Procedure: Place cards face down in pile. Each child places a marker at opposite goal posts on opposite sides. Player draws a card and checks to see if he has the answer to any of the next 3 equations. He advances 10, 20, or 30 yards depending on the position of his match. Card is returned to bottom of pile. If he cannot make a match, no yardage gain is made. First to make touchdown wins the game. Game board representing football field.

10	20	30	40	50	40	30	20	10	
	$16-8$	$18-7$	$11-7$	$6-5$	$7+6$	$7+9$	$15-5$	$6+6$	
$16-3$	$7-7$	$9+7$	$15-9$	$7+8$	$11-7$	$16-8$	$6+7$		







Can You Buy It?

Behavioral

Objective: Given a card with objects and price, the child will demonstrate he understands the value of coins by matching them to the price of objects.

Procedure: Place cards face down. Child selects a side of the board. Child draws a card, and if it is a match to an item on his side of the game board, he places card next to item. If it is not a match, he

returns card to bottom of pile. First one to fill his side of the board wins the game.²¹

 10¢			 11¢
 5¢			 5¢
 18¢			 13¢
	YOURS	MINE	

Follow the Signs

Behavioral

Objective: Given a gameboard, the child will complete the problems on the board by multiplying or adding.

Materials: Gameboard (6" x 8") for each player. Vary problems on each board.

Procedure: Perform the operations as indicated horizontally. Add each vertical row. Add these totals to check accuracy.

	x2	-13	x4	+7	x3	-10	+1	
5								
6								
7								
8								
3								
0								
		+	+	+	+	+	+	+

²¹Ibid., p. 332.

SUMMARY

Research of educational literature reveals that elementary children from the early time to the present have had the same basic needs and desires. Elementary children are resourceful, creative, and curious. They are fascinated with objects in the world around them. They continually use their senses to learn as much as they can about their world. This nature of children is the focus of the learning center approach to elementary education.

The learning center is a refined method of teaching which has been developing along with modern education. It provides a place of discovery and involvement where every child may be able to enter into active participation in learning at his or her individual level. The arrangement of learning centers in the classroom and the content of the center may vary widely. When the centers are offered with a general structure of arrangement and operation there can be a wide span of benefits directly or indirectly related to the lesson involved. Clearly the learning center holds great promise in response to individual, social, and teaching demands while offering stimulating and rewarding learning experiences for both the child and the teacher.

APPENDICES

- A. Student Center Evaluation
- B. Personalized or Individualized Learning Contract
- C. Learning Center Organization
- D. Self Evaluation

APPENDICES




- A. Student Center Evaluation
- B. Personalized or Individualized Learning Contract
- C. Learning Center Organization
- D. Self Evaluation

APPENDIX A

STUDENT CENTER EVALUATION FORMS

1. What did you do today? Primary

a.

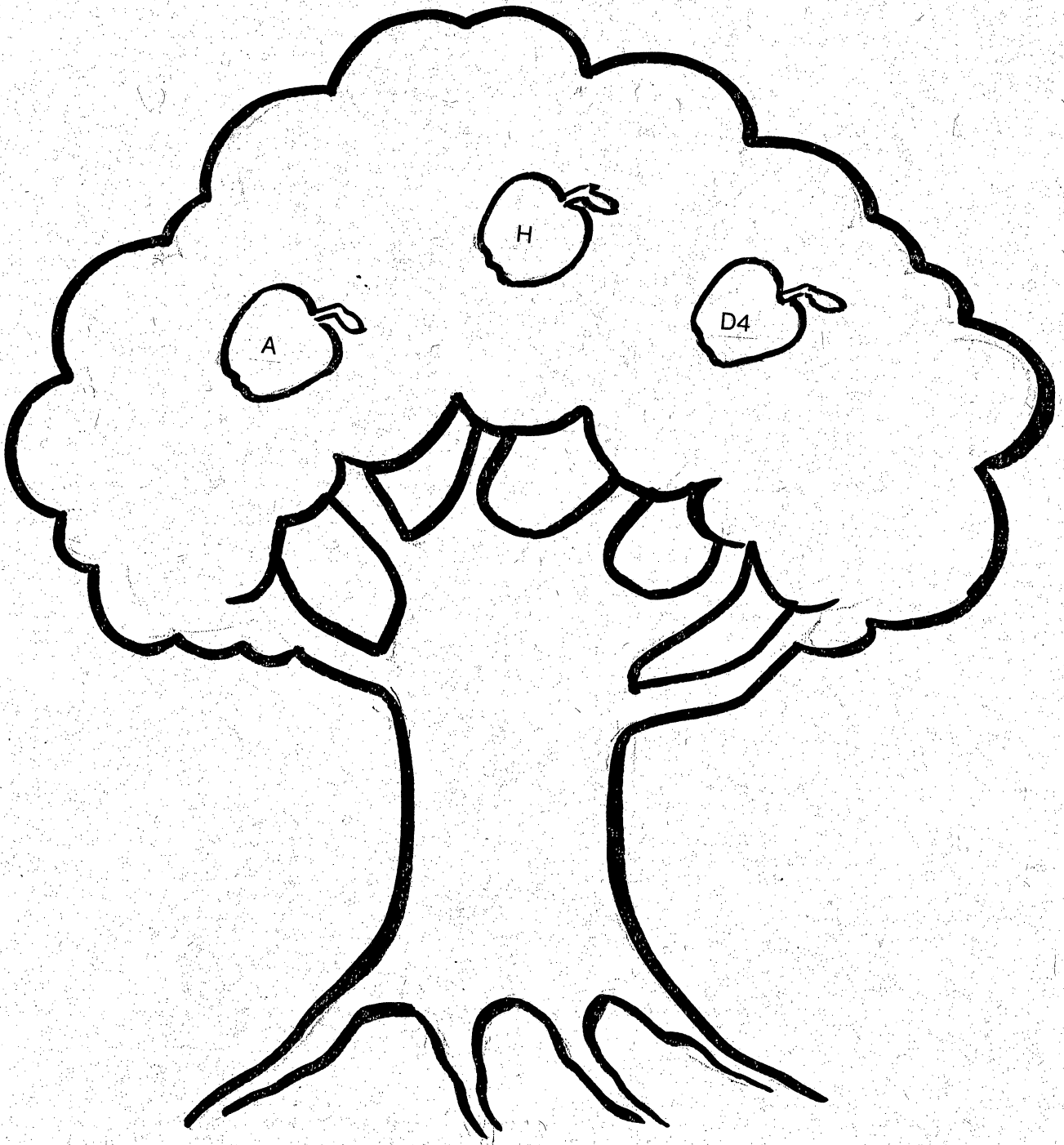
NAME: _____		DATE: _____	
What Did You Do Today?			
*Student records by drawing a picture.			
Painting	Writing	Math	
Reading	Teacher Time	Choice	
Other	I had a		
			 Day Today!

Check one:

2. What did you do today? - 3-6

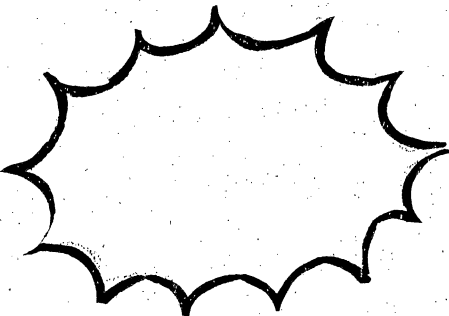
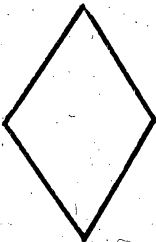
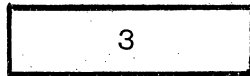
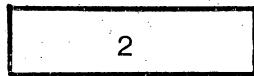
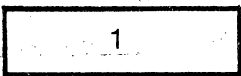
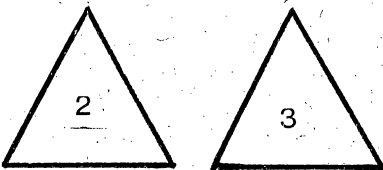
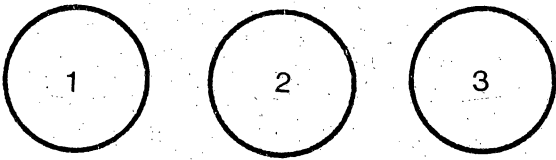
Name _____		Date _____	
What Did You Do Today?			
Reading: Book: Page: Activity:		Writing: Project:	
Math: Project: Pages or Media:		Science: Project: Resource/Aid:	
Help!		Suggestions/Comments	

(Student Record Keeping)



As you finish each center, the keeper will give you an apple for that center. Paste the apple on your tree.

Color the symbol for each center you have finished.



(Symbols are keyed to centers or parts of centers.)

APPENDIX B

PERSONALIZED OR INDIVIDUALIZED LEARNING CONTRACT - 2-8

Alternative #1 - Dependent Learner

This contract works effectively for the student who does not function well in a self-scheduled or open learning environment. He can do his planning with the teacher.

Alternative #2 - Independent Learner

The highly motivated or accelerated student who wants to plan his own educational program and projects can use or adapt this contract.

Personalized Learning Contract

Name: _____ Subject: _____

Starting Date: _____ Contract # _____

I, _____ propose the following as an outline of my work.

Assignment: _____

Projects: _____

Help Needed: _____

Materials Needed: _____ Signed: _____

_____ Approved: _____

_____ Conference Date: _____

This contract is: Complete

Extended until: _____
Date

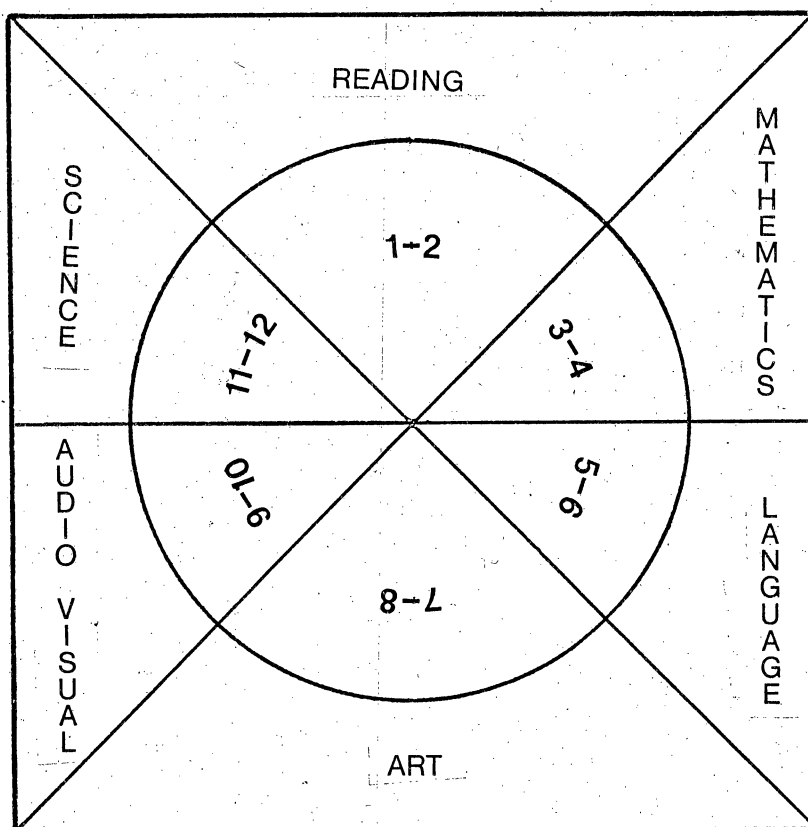
APPENDIX C

LEARNING CENTER ORGANIZATION

LEARNING CENTER ORGANIZATION

69

1. Beulah
2. Bob
3. Gus
4. Mary
5. Louise
6. Junior
7. Sarah
8. Ella
9. Willie
10. Wilma
11. Connie
12. Robert



1. Ruthie
2. Paul
3. Melvin
4. Annie
5. Loretta
6. Gene
7. Earl
8. Fredda
9. Marion
10. Helen
11. Art
12. Mike

1. Freddy
2. Lina
3. Fred
4. George
5. Theodore
6. Ricky
7. Jackie
8. Claude
9. Edna
10. Ollie
11. Davie
12. William

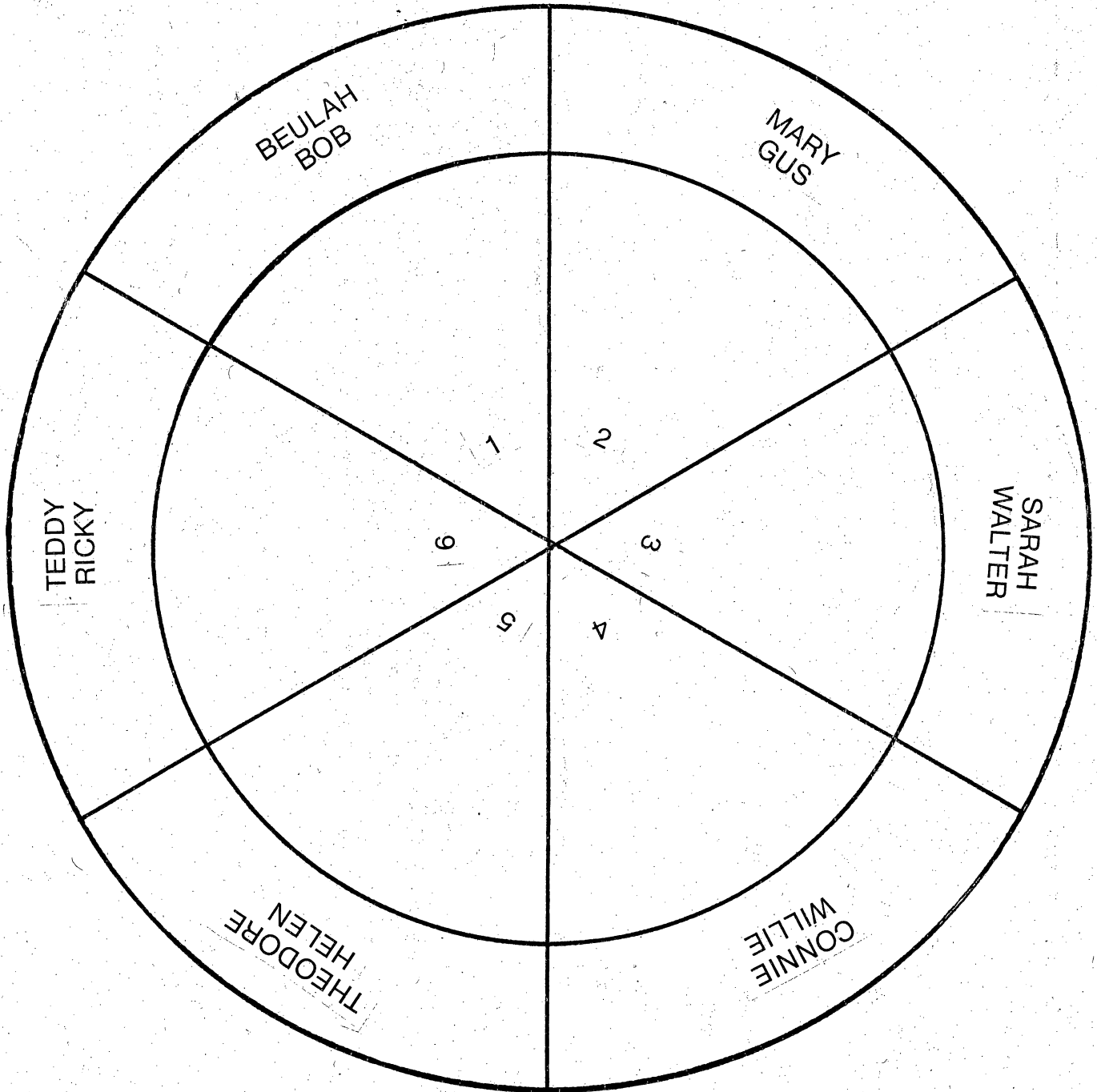
TIME	CIRCLE AREA	WORK AREA	CENTER AREA
25 MINUTES (22 + 3 MIN. WARNING)	X	Y	O
25 MINUTES (22 + 3 MIN. WARNING)	O	X	Y
25 MINUTES (25 + 3 MIN. WARNING)	Y	O	X

CIRCLE	WORK	LIBRARY	CENTERS
X	Y	O	L
L	X	Y	O
O	L	X	Y
Y	O	L	X

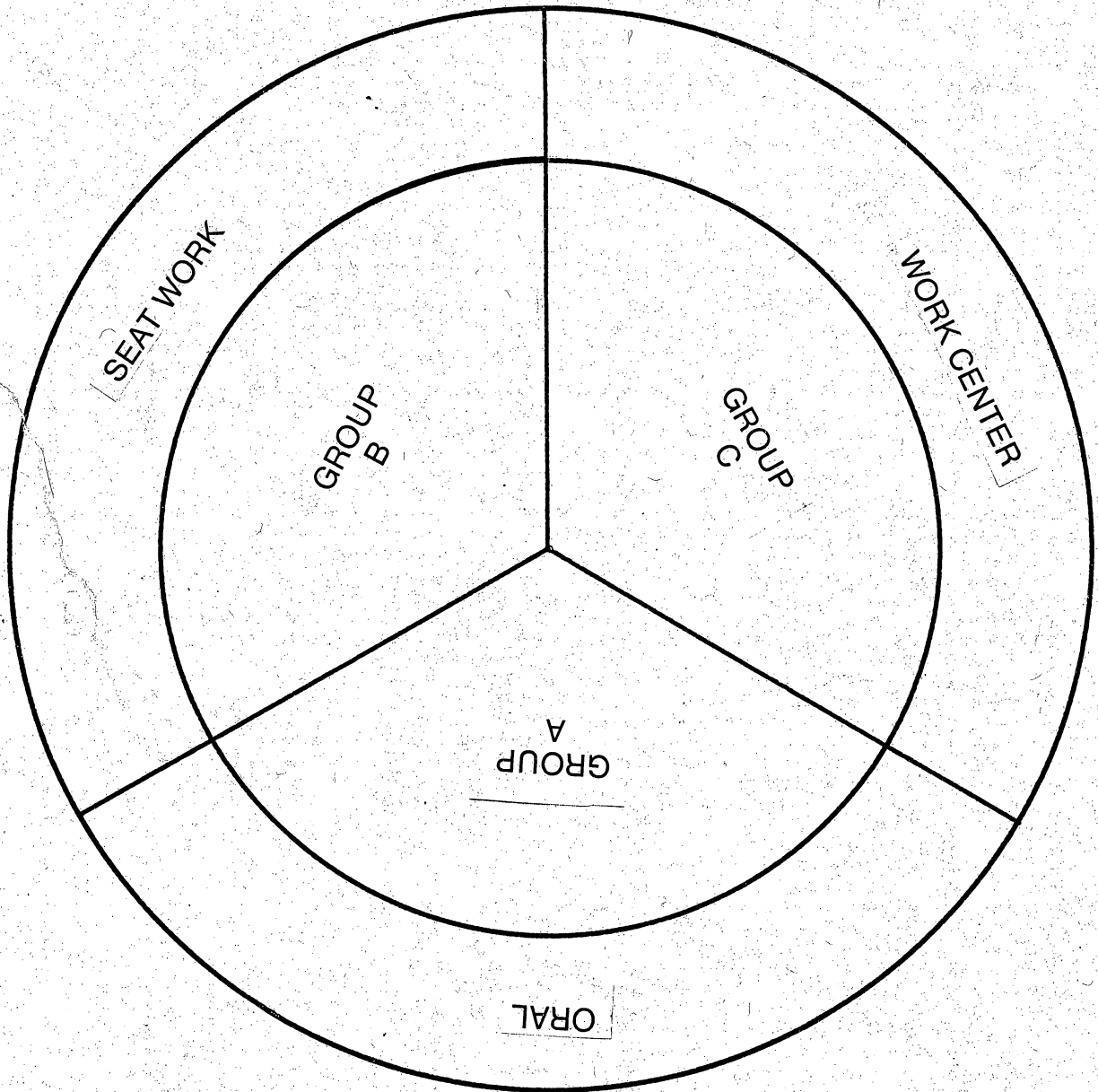
LEARNING CENTER ORGANIZATION

For this plan, each center area would be numbered.
Each student reports to the center that corresponds to the
number by his or her name.

Small Wheel Rotates



Each pupil of a group would have a letter and he would report to that center corresponding to his or her letter.



APPENDIX D

SELF EVALUATION

MY OWN WORK

Center

Did I try to do everything well?

Did I finish the directions?

Is there anything else I'd like to do at this center? (Write idea at bottom of the page.)

Center

Did I try to do everything well?

Did I finish the directions?

Is there anything else I'd like to do at this center? (Write idea at bottom of the page.)

OTHER THINGS I'D LIKE TO DO:

Center _____

Center _____

Center _____

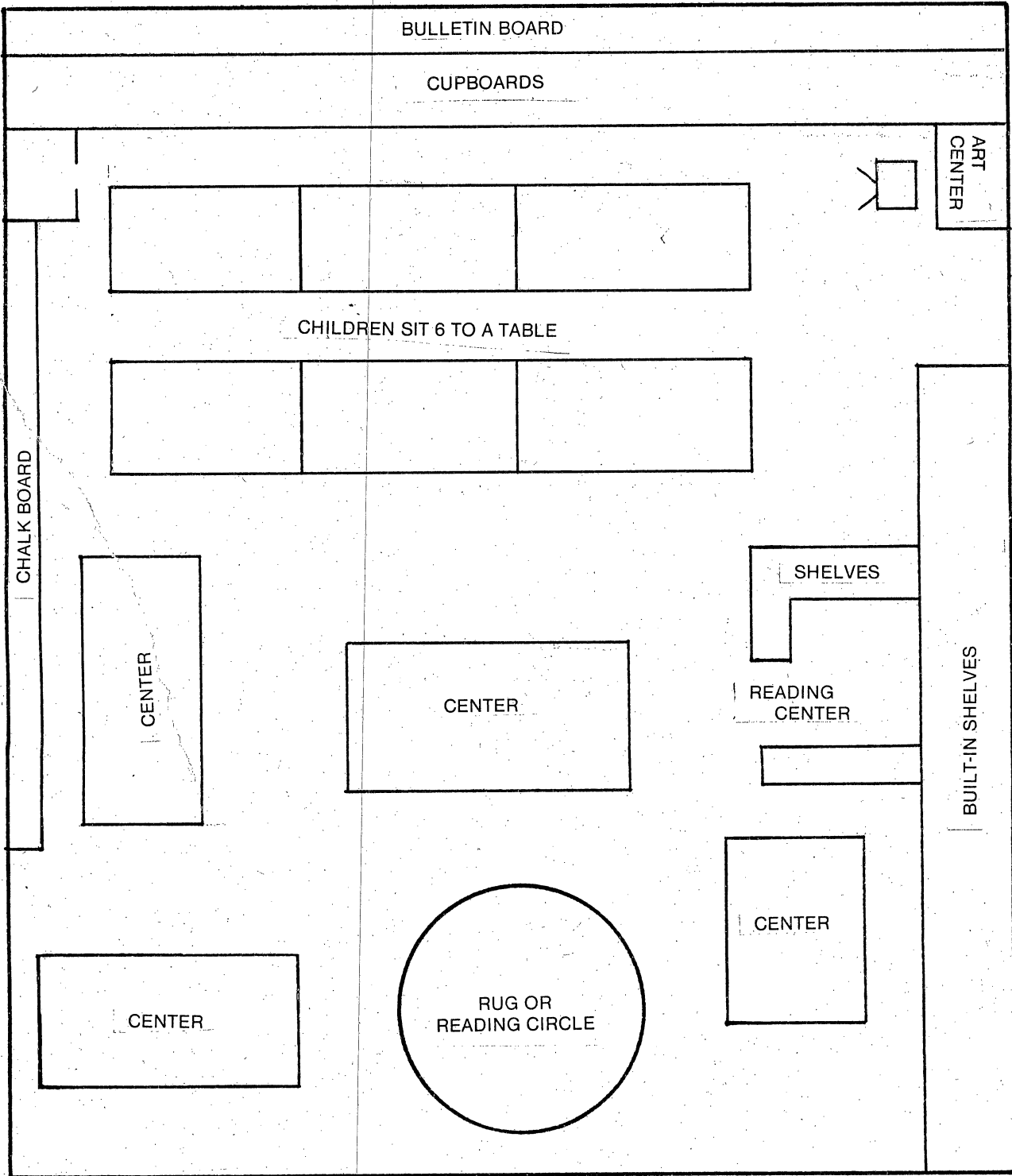
Center _____

Center _____

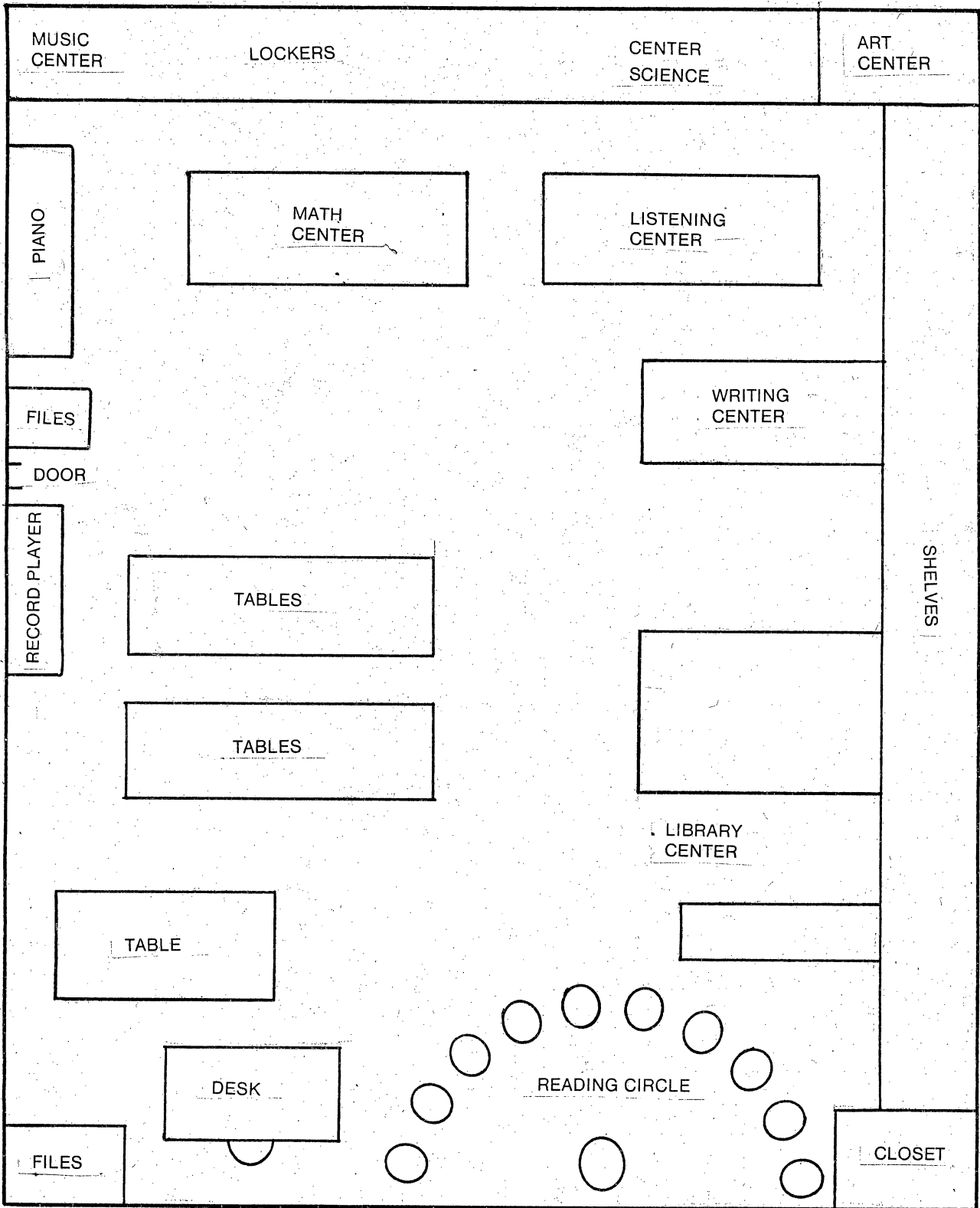
WORKING WELL WITH OTHERS

Center Number							
Did I share materials?							
Did I use a soft voice?							
Did I listen to the group leader?							
Did I stay with the group?							
Was I a good group worker?							
Was I courteous to others?							
Did I help clean up?							

Center Number							
Did I share materials?							
Did I listen to the group leader?							
Did I stay with the group?							
Was I a good group worker?							
Was I courteous to others?							
Did I help clean up?							



³⁰ Ibid., p. 25



³¹ Ibid., p. 24.

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