

DOCUMENT RESUME

ED 108 172

CS 001 962

TITLE T. I. L. C. (Teacher Interactive Learning Center) Elementary "Do It and Understand" Curriculum Activities.

INSTITUTION Hartford Public Schools, Conn.

SPONS AGENCY Office of Education (DHEW), Washington, D.C.

PUB DATE Jun 75

NOTE 97p.

EDRS PRICE MF-\$0.76 HC-\$4.43 PLUS POSTAGE

DESCRIPTORS *Class Activities; Communication Skills; *Creative Activities; Educational Objectives; Educational Resources; Elementary Education; *Elementary School Curriculum; *Instructional Materials; *Learning Activities; Learning Disabilities; Mathematics Instruction

IDENTIFIERS Elementary Secondary Education Act Title III; ESEA Title III

ABSTRACT

This booklet is a collection of 133 field-tested learning activities produced at the Teacher Interactive Learning Center for teacher use with elementary students. No sequence has been attempted in this collection, although the activities are classified by content area as follows: communication arts activities, mathematics activities, and learning disabilities activities. Activities are coded to a content key of objectives, such as the ability to recognize letters, the concept of sequence, proficiency in word recognition, the ability to read and follow directions, the ability to add to any sum, the ability to tell time, and the ability to use various units of metric measures. (TS)

 * Documents acquired by ERIC include many informal unpublished *
 * materials not available from other sources. ERIC makes every effort *
 * to obtain the best copy available. nevertheless, items of marginal *
 * reproducibility are often encountered and this affects the quality *
 * of the microfiche and hardcopy reproductions ERIC makes available *
 * via the ERIC Document Reproduction Service (EDRS). EDRS is not *
 * responsible for the quality of the original document. Reproductions *
 * supplied by EDRS are the best that can be made from the original. *

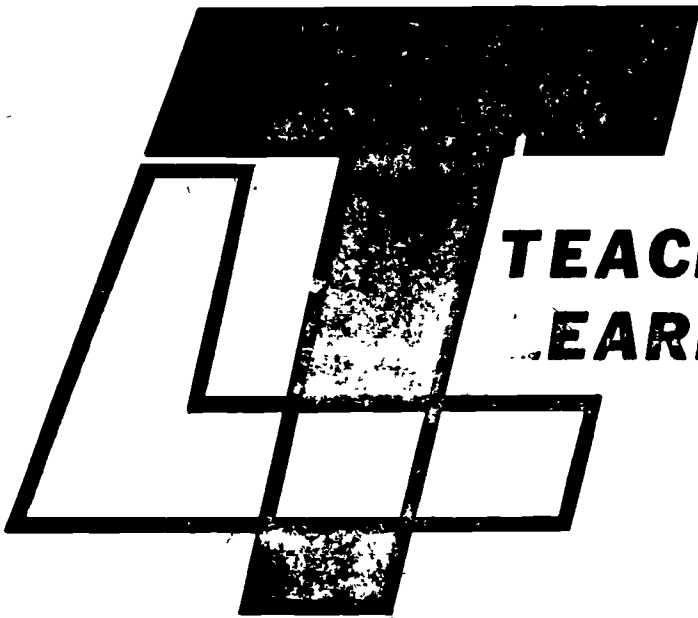
ED108172

U.S. DEPARTMENT OF HEALTH
EDUCATION & WELFARE
NATIONAL INSTITUTE OF
EDUCATION

THIS DOCUMENT HAS BEEN REPRO-
DUCED EXACTLY AS RECEIVED FROM
THE PERSON OR ORGANIZATION ORIGIN-
ATING IT. POINTS OF VIEW OR OPINIONS
STATED DO NOT NECESSARILY REPRESENT
OFFICIAL NATIONAL INSTITUTE OF
EDUCATION POSITION OR POLICY

T.I.L.C. ELEMENTARY "DO IT AND UNDERSTAND"

CURRICULUM ACTIVITIES



**TEACHER INTERACTIVE
LEARNING CENTER**

E.S.E.A. TITLE III

Submitted by,
Helen DiCorleto,
Title III Director, T.I.L.C.
June 1975

CS 001962



INTRODUCTION
T.I.L.C. ELEMENTARY DO IT AND UNDERSTAND
CURRICULUM ACTIVITIES
*PART I

This booklet is a collection of 133 field-tested learning activities produced at the Teacher Interactive Learning Center for teacher use with elementary students. The ideas have been contributed by public and non-public teachers, paraprofessionals, intern-teachers and retired teachers. While some ideas were original, others were modifications or adaptations of existing resources. Some activities and models contained in this booklet identify the name and town of the contributor.

The T.I.L.C., Teacher Interactive Learning Center of Hartford, Connecticut, was an innovative regional staff development program established and operated from 1972-1975 with the leadership of Helen DiCorleto, Title III Director.

*PART II

Under separate cover a booklet, T.I.L.C. LOW-COST / NO COST
LEARNING ENVIRONMENT PROTOTYPES AND MODELS

PART I

133 "DO IT AND UNDERSTAND" CURRICULUM ACTIVITIES

To facilitate the exchange of these motivational learning tools, mini-models of the activities were catalogued and housed in a curriculum bank; a letter or number system, plus a content title, identified each deposit box of the bank. The design structure and the directions for each activity were made available along with the "hands-on" materials for the teacher to "see" as well as "do and understand." Participants made the decision either to replicate a learning activity, modify it for their students, or to create a prototype to fit a special need. In fact, participants were encouraged to utilize a design structure or idea and to tailor it to meet the specific learning styles and needs of their students. Thus, rather than trying to fit children's needs to inflexible commercial tools, teachers selected and created learning activities tailored to their own pupils' needs.

Field testing had been accomplished prior to the receipt of each contribution. Teachers felt that these were some of their best teaching-learning activities which had been most effective in presenting concepts and in extending the learning experiences of their students. Not all activities have an indicated grade level since it was observed that many fine motivational learning activities provided a cross-grade structure which could be modified to meet a considerable range simply by varying the content material developed for use with the activity.

The T.I.L.C. was a voluntary program. Participants were encouraged to be self-directed and to determine by the assessment of their students' needs whether to use an activity for the presentation of a new concept, or for reinforcement of a newly-acquired skill, or for the purpose of enrichment.

No sequence has been attempted in this collection, although the activities are classified by content area:

Communication Arts Activities

Mathematics Activities

Learning Disabilities Activities

Activities are coded to a content key of objectives. Recognizing the reality of individual teaching styles and of individual student learning styles a number of activities may be coded to one particular objective.

KEY OF OBJECTIVES FOR 38 "DO IT AND UNDERSTAND" COMMUNICATION ARTS CURRICULUM ACTIVITIES

Mastery Will Be Shown By The Student Demonstrating 90% Effectiveness In The Acquisition Of:

- 21 the ability to recognize letters
- 22 the competency to recognize initial consonant sounds and to make word families
- 23 the skill in recognizing and using blends, digraphs, suffixes, and word parts
- 24 the recognition of words as contractions and the ability to make them
- 25 the recognition and making of compound words and of syllables
- 26 the concept of sequence
- 27 the ability to make inferences, analogies, draw conclusions, and classify
- 28 the knowledge of correct usage, of parts of speech, and of punctuation
- 29 the capability to think creatively and express oneself in creative language
- 30 familiarity with children's classics
- 31 the ability to read and follow directions
- 32 proficiency in word recognition
- 33 the eye-hand coordination required
- 34 spatial relationships and visual perception and motor skills required
- 35 the skills relating to learning disabilities

KEY OF OBJECTIVES FOR 73 "DO IT AND UNDERSTAND" MATHEMATICS
CURRICULUM ACTIVITIES

Mastery Will Be Shown By The Student Demonstrating 90% Effectiveness
In The Acquisition Of:

- 01 number sequence
- 02 the meaning of the mathematical symbols for "greater than" and "less than"
- 03 the concept of fewest and most
- 04 the ability to add to any sum
- 05 understanding the difference between cardinal and ordinal numbers
- 06 the skill in counting from 1-10
- 07 symbol recognition for cardinal numbers
- 08 recognition of geometric shapes and names
- 09 the understanding of place value
- 10 the ability to tell time
- 11 the understanding and the usage of money
- 12 the ability to subtract from any number
- 13 the concept of multiplication as repeated addition and the ability to perform the process
- 14 the concept of division as repeated subtraction and the ability to perform the process
- 15 the idea that fractions express equal parts of one whole unit or one whole set; the ability to express a fraction numerically (2/4)
- 16 the understanding and use of the units of linear measurement
- 17 the ability to discover and continue a pattern
- 18 the reading, the interpretation, and the construction of various types of graphs
- 19 the ability to use various units of metric measure
- 20 the skill in the recognition and reading of numbers in both Spanish and English

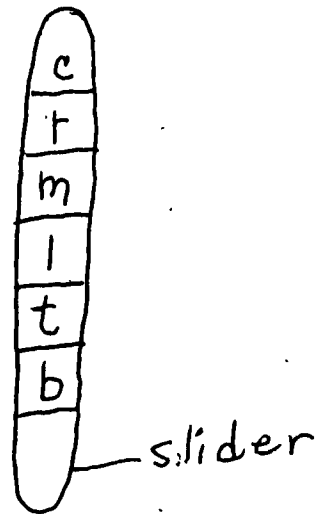
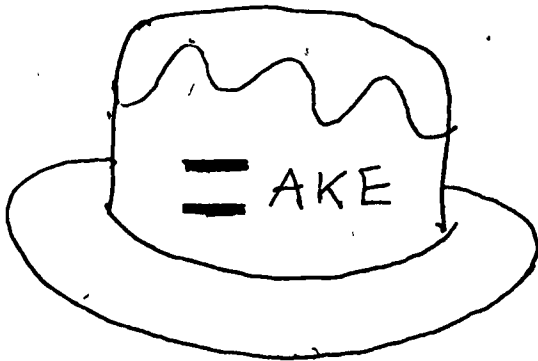
KEY OF OBJECTIVES FOR 22 "DO IT AND UNDERSTAND" CURRICULUM ACTIVITIES FOR
LEARNING DISABILITIES

Mastery Will Be Shown By The Student Demonstrating 90% Effectiveness In
The Acquisition Of:

- 35-32 proficiency in word recognition
- 35-21 the ability to recognize letters
- 35-08 recognition of geometric shapes and names
- 35-06 the skill in counting from 1-10
- 35-06 the ability to add to any sum
- 35-12 the ability to subtract from any number
- 35-27 the ability to make inferences, analogies, draw conclusions
and classify
- 35-22 the competency to recognize initial consonant sounds and make
word families
- 35-07 symbol recognition for cardinal numbers
- 35-33 the eye-hand coordination required
- 35-34 spatial relationships and visual perception and motor skills
required
- 35-01 number sequence
- 35-26 the concept of sequence
- 35-31 the ability to read and follow directions

INITIAL CONSONANTS

Make a cake. Place the letters AKE on the cake. Cut 2 slits before the letters. Make a slider containing the letters that will make words when placed before AKE.



Yvonne Brown, Canton
T.I.L.C. 1975

FIND THE RIGHT HOUSE

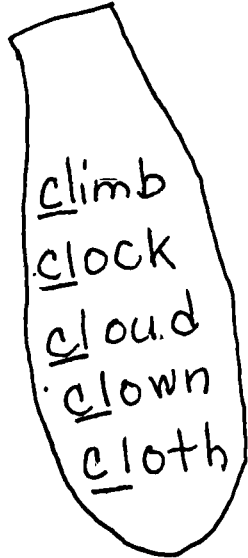
One player - child fills up board.

5 players - each child picks a house. In turn each child picks a word. If it matches his house, he fills up a space towards his house with the card.

Teacher makes words with the endings in houses. Can be used with blends, vowels, digraphs, suffixes, etc.

FIND THE RIGHT HOUSE				
at	ag	an	ad	ap

CL SOUND



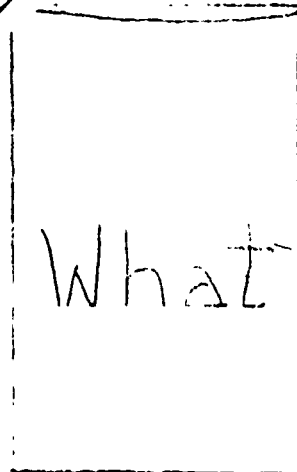
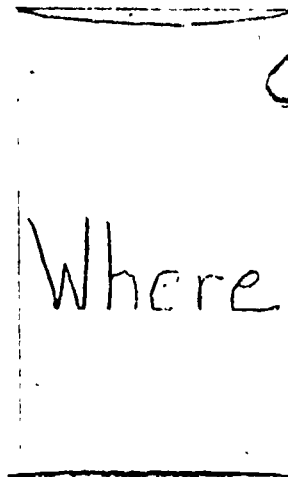
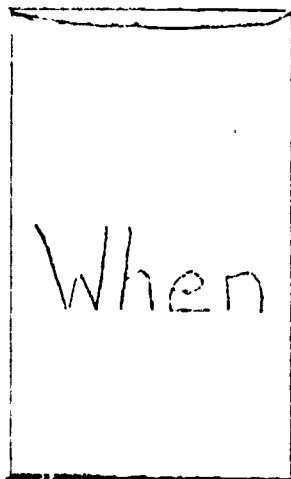
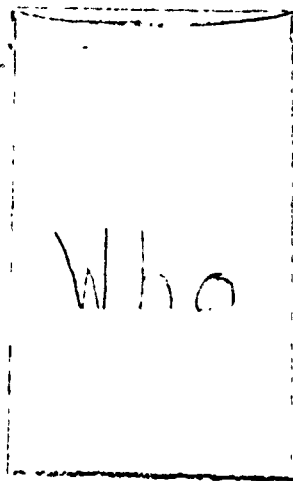
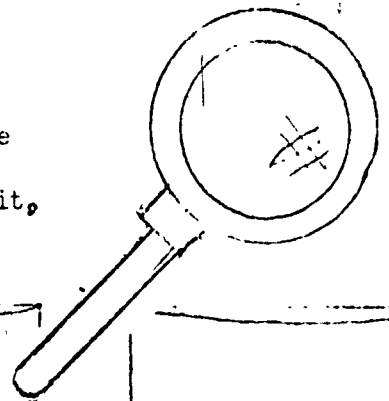
tongue



Slit mouth so that the tongue can slide in and out.

CLUE

Pick a clue from each envelope. Make up a detective story with the clues. Ask one of your classmates to solve it.



samples:

the girl

Halloween

forest

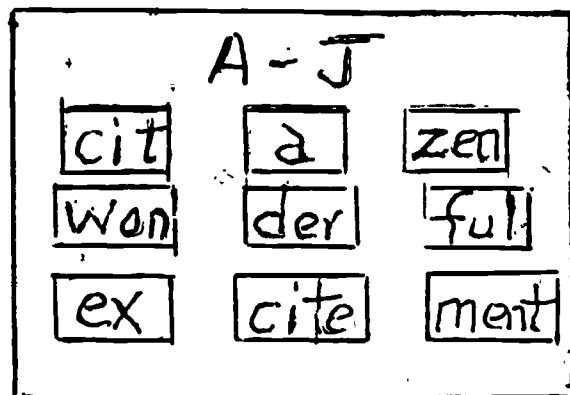
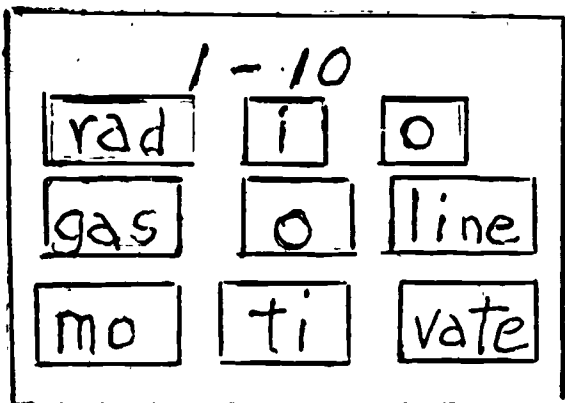
a gun

T.I.L.C. 1977

SYLLABLES

Write syllables in different colors to help in recognition of syllables. Cut up words, have child put words back together. Self corrective: Number pieces of word with same number. For the second player's cards, letter the backs of the pieces.

Two players. Each player takes an envelope. First player to make all 10 words wins. Game may be played by one.



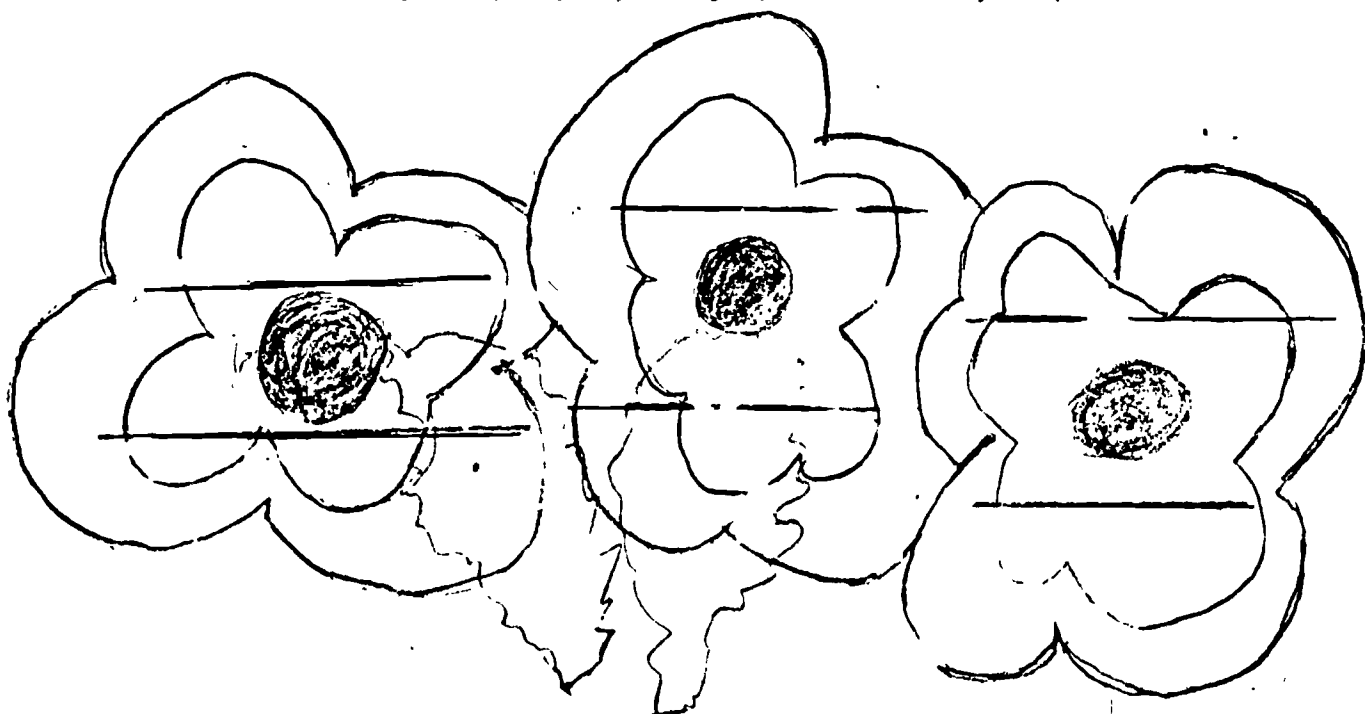
T.I.L.C. 197

BOWER OF FLOWERS

1. Teacher chooses idea of day. 2. Child writes his own words. or 3. Friend and he write rhyming words (or other words). Person getting most words wins.

Use grease pencil or crayon on film.

Sug.: rhyming words, antonyms, synonyms, homonyms, contractions, compound words.



LETTER RECOGNITION

1. Cut squares apart.
2. Children fit the squares together in a 4 x 4 array so that the edges that touch are the same letter

	j A	a L	m M	d D
U	k K	i n	c C	s S
B	g G	N	F f	P p
b	h		T t	u U
H				Y y
	o O	G	W w	V v

T.I.L.C.
1975

RECOGNIZING LETTERS

Circle the correct letter. If a capital A is at the top of the card, the child is to find all A's on the card and circle them. On the back of the game, dots will give the number of A's the child should find.

A
B C A K
D A F R
A G A S

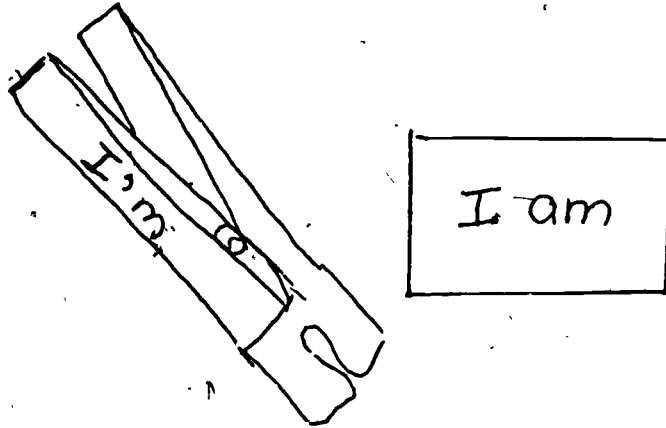
Yvonne Brown, Glastonbury

HANG ON

PURPOSE: A game used to teach the use of contractions.

Directions: Two persons may play this game. See who can match the most contractions with the words from which they are shortened.

Clip the clothespin with the correct contraction to the card with the two words from which it was formed.



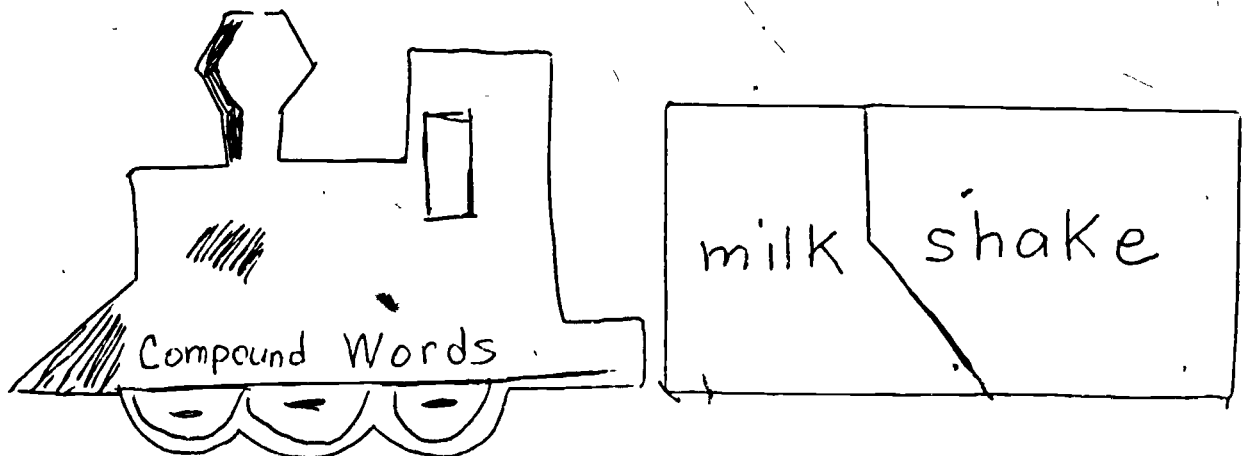
Pat Hockenberry
Batchelder

T.I.L.C. 1975

COMPOUND WORD EXPRESS

Compound Word Express is a game for 3rd or 4th grade children.

Two children may play. Each child matches the puzzle pieces of the compound words to form freight train cars. The colors match too. The child who forms the longest train is the winner.



T.I.L.C. 1975

A CORNY QUIZ

Fill in the blank in column 1 to make a compound word. Use the clues in column 2.

_____ corn

pop_____

_____corn

pop_____

corn_____

pop_____

pop_____

corn _____

pop_____

_____corn

1) A nut

2) Flower

3) An animal (in a fable)
with one horn

4) well liked

5) Point where two walls
meet

6) Number of people who
live in an area

7) A quick baking bread

8) Part of the eye

9) Head of a church

10) Good to eat in a
movie theatre.

Answers:

- | | | | | | |
|--------------------|-------------------|--------------------|----------------------|-------------------|-----------------------|
| 1. <u>A</u> corn | 2. <u>Po</u> py | 3. <u>Uni</u> corn | 4. <u>Popu</u> lar | 5. <u>Cor</u> ner | 6. <u>Popu</u> lation |
| 7. <u>Popo</u> ver | 8. <u>Cor</u> nea | 9. <u>Po</u> pe | 10. <u>Popo</u> corn | | |

T.I.I.C. 1975

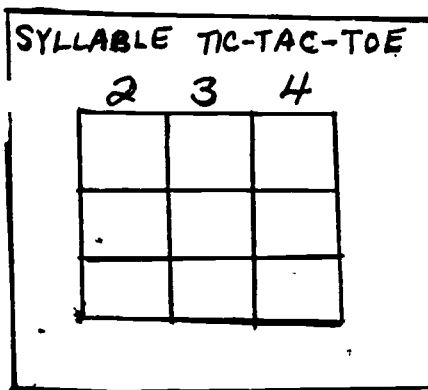
SYLLABLE TIC-TAC-TOE

2 players

Materials: Word cards with 2,3, or 4 syllables

Procedure:

1. Place word cards down.
2. Players select X or O.
3. Player draws card and tells number of syllables. If correct, he puts X or O in numbered column.
4. ---played like Tic-Tac-Toe.

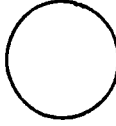
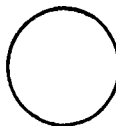
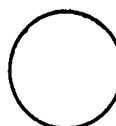
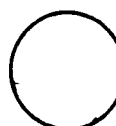

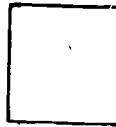



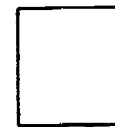


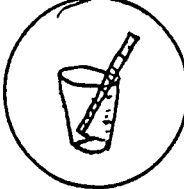
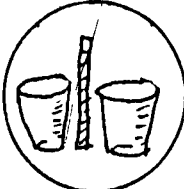
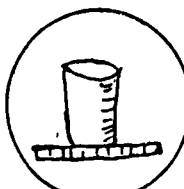
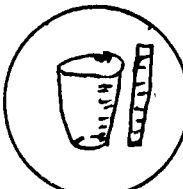
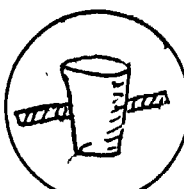
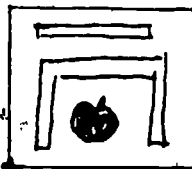
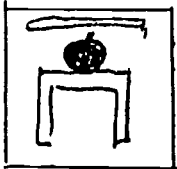
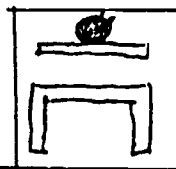


Peter Bonee, Naylor
T.I.L.C. 1975

Spatial Concepts

Directions: Child places the correct picture on the shape with the corresponding word.

Child can correct his own work by turning over his cards.

				
inside	between	in front	outside	in back
				
under	on top	over	right	left

HOLIDAY MATCH

Directions: Match holiday to proper month.

Halloween		Independence Day	
Father's Day		Columbus Day	
Lincoln's Birthday		Mother's Day	
Labor Day		Washington's Birthday	
New Year's Day		St. Patrick's Day	
Thanksgiving		Flag Day	
Memorial Day		Veteran's Day	
Valentine's Day		Christman	

(Have cards with names of months on them.)

JANUARY

T.I.L.C. 19

MONTHS OF THE YEAR

Arrange months in order.

Variations: 1. Name the 3rd month, 5th, etc. 2. What month comes after June, before December. 3. Names of the month can be printed on this card and student can match.

MONTHS OF THE YEAR	

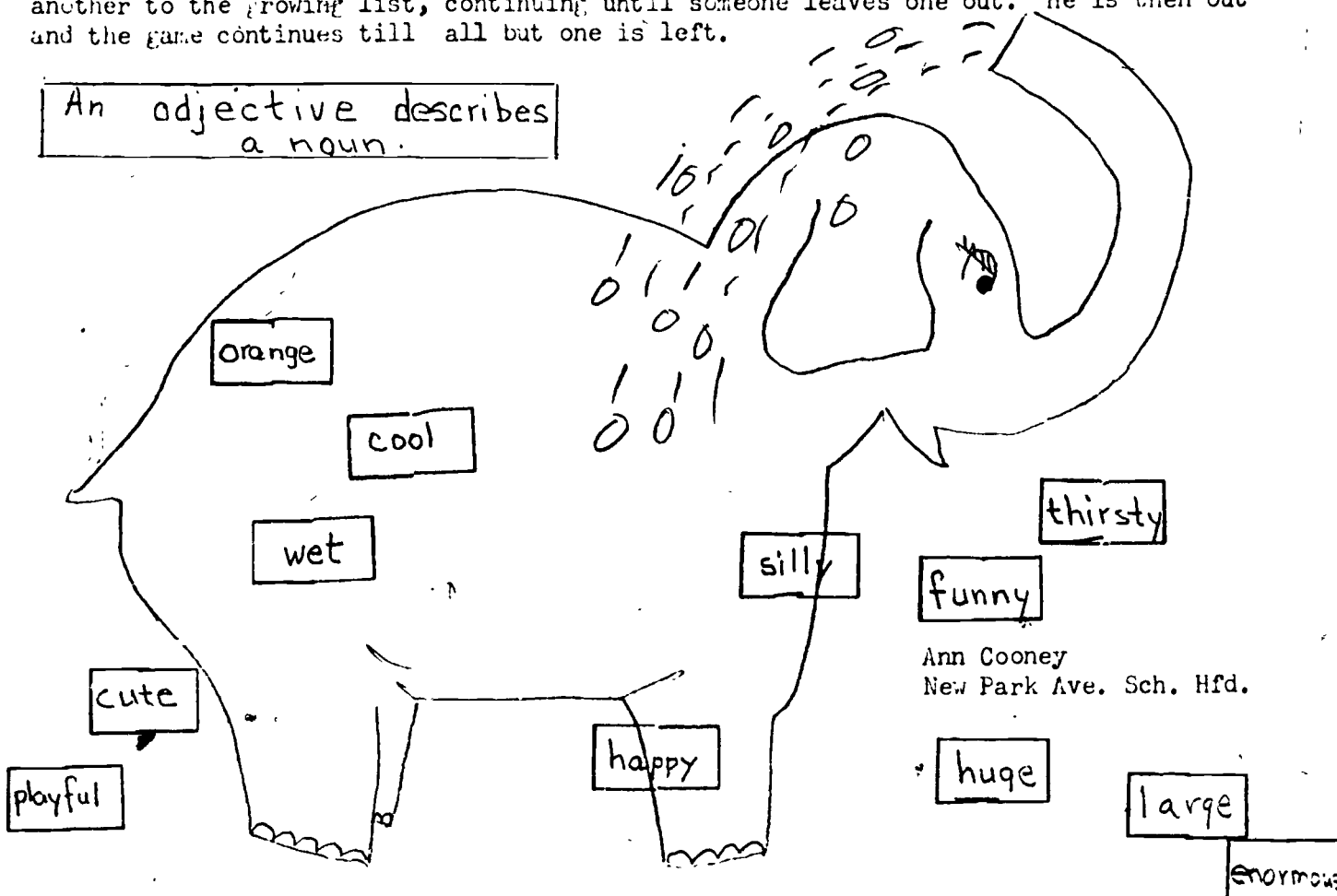
JANUARY

J. Jaksina, Union Sch.
Farmington

T.I.L.C. 19

With this board, the children make up the adjectives. This can also be used as an oral game with a group. One student makes up a sentence such as, "I saw a baby elephant at the zoo." The next child must add another adjective, such as, "I saw a happy baby elephant at the zoo." The next child will then add another to the growing list, continuing until someone leaves one out. He is then out and the game continues till all but one is left.

An adjective describes a noun.



Ann Cooney
New Park Ave. Sch. Hfd.

T.L.L.C. 1975

ORAL OR WRITTEN

1. Compile a story sack. 2. Using baggies, put an object in each (or for variation, put several objects in one baggie.) 3. Assignment: A. Choose a baggie from story sack. B. Create a story in your head about what is in the baggie. C. Then tell your story to a friend, the tape recorder, or write your story.

Maggie Hernen
Mary Hooker Sch. Hfd.

T.I.L.C. 197

ONOMATOPOEIA

These are words which make the same sounds they describe. How many of these words do you know? Play with a friend. See who can guess the most words that are sounds we all have heard.

Print the above on the outside of an envelope. Inside have cards like the following samples.

You're a
horse

You're a
bell

You're a
bee

clip-clop

ding-dong

buzz

Reverse
sides
of
cards

1975
T.I.L.C.

Creative Writing

- 29 -

Imagine you are an

OCEAN!

You have children playing in you.
You have ships sailing on you.

How do you

happy

How big

rectangle

feel?

wet

short

big

are you?

sad

What shape are you?

Triangle

What shape are you?

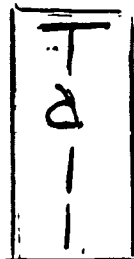
are you?

enormous

funny

round

hot cool



1975
T.I.L.C.

Choose your favorite liquid.

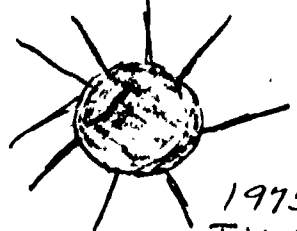


- 29 -

Imagine you are that liquid

Write about yourself and the things that

happened to you one bright sunshiny morning.

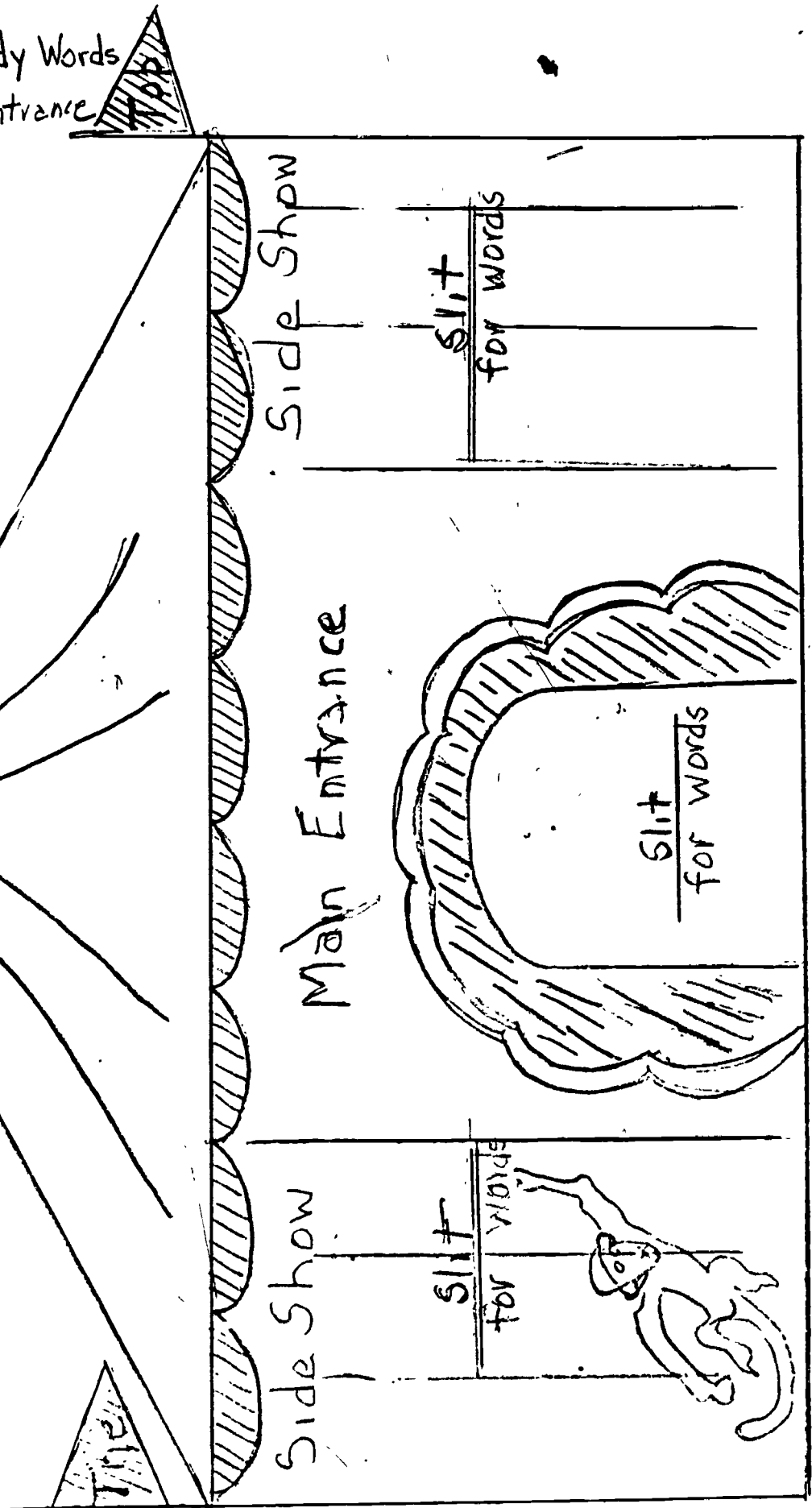


1975
T.I.L.C.

Circus Study Words

Sample: Main Entrance

- ring
- ride
- popcorn
- parade
- monkey
- lion
- growl
- flag
- elephant
- joy



COMMAND CARDS

Objective: To give practice in following directions and increase word meaning.

Procedure: The student reads the cards, one at a time, and does what it tells him to do. He looks up the meaning of unknown words and should be encouraged to use word attack skills to sound them out.

Stand up,
stretch and
yawn.

Whisper to a
neighbor.

Growl like a
fierce animal.

Make a compound
word out of
--- cake.

Scratch your
elbow.

Write a dollar
sign on the
board.

Tell the teacher
what vanished
means.

Amble to the
door.

What Do These Measure?
Find a picture that tells the right answer and cover the square with it.

I use this to weigh myself at home.	Mother uses this at market to weigh fruits.	A nurse uses this when she weighs you at school.	We use this to tell how cool or the warm the room is.	Mother uses this to measure flour when she bakes a cake.	Two of these are equal to a quart.
Mother uses this to find if you have a fever.	This tells us the days, weeks and months.	This will tell us when it is time for lunch.	This is found in gardens. It tells time, too.	This is as large as two pints.	Mother buys cider in this for Halloween.
Mother uses this in the kitchen when she cooks.	Daddy uses this when he builds things.	We keep this in our pocket book.	Mother uses this when she sews.	We use this to weigh a small package.	You can find your birth date on this.

A. MATERIALS: paper, pencil, crayons

B. DIRECTIONS TO THE CLASS:

A metaphor is a colorful phrase in our language. It is a way of describing something and there are many types of metaphors. From the following list can you guess what type it is? Can you imagine how these metaphors would look if we took the words literally? This could be an idea for a very funny picture book. Choose some of the metaphors you like best and illustrate them.

hands of the clock

spine of a book

face of the clock

tongue of a shoe

eye of a potato

arm of a couch

leg of a chair

spine of a book

foot of the bed

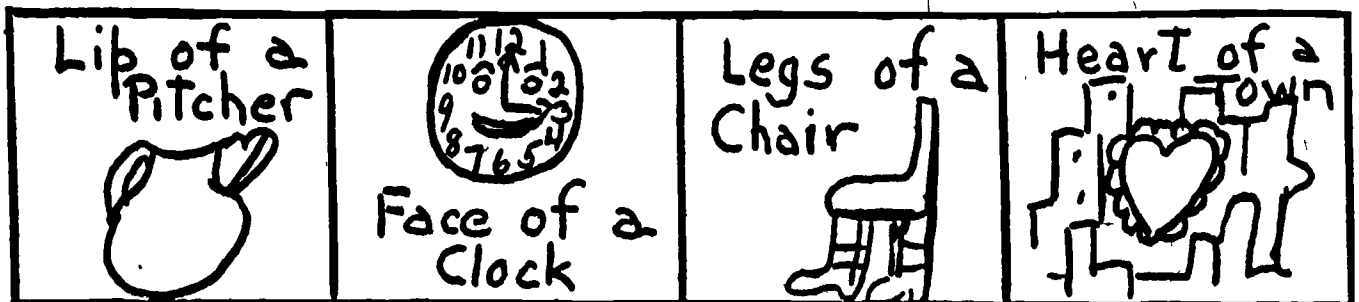
neck of a bottle

ear of corn

teeth of a comb

eye of a needle

body of a story

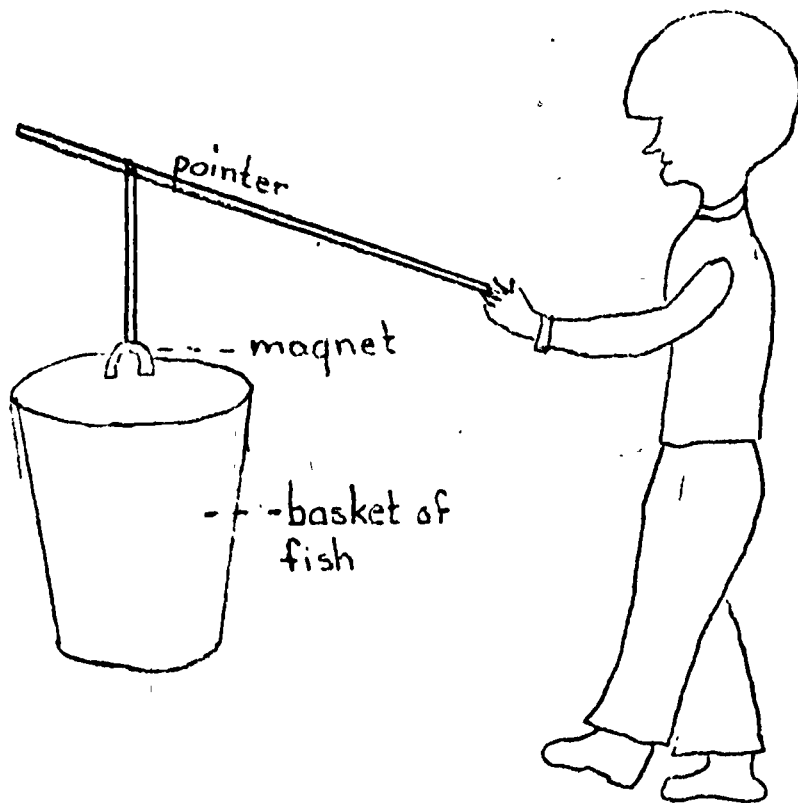
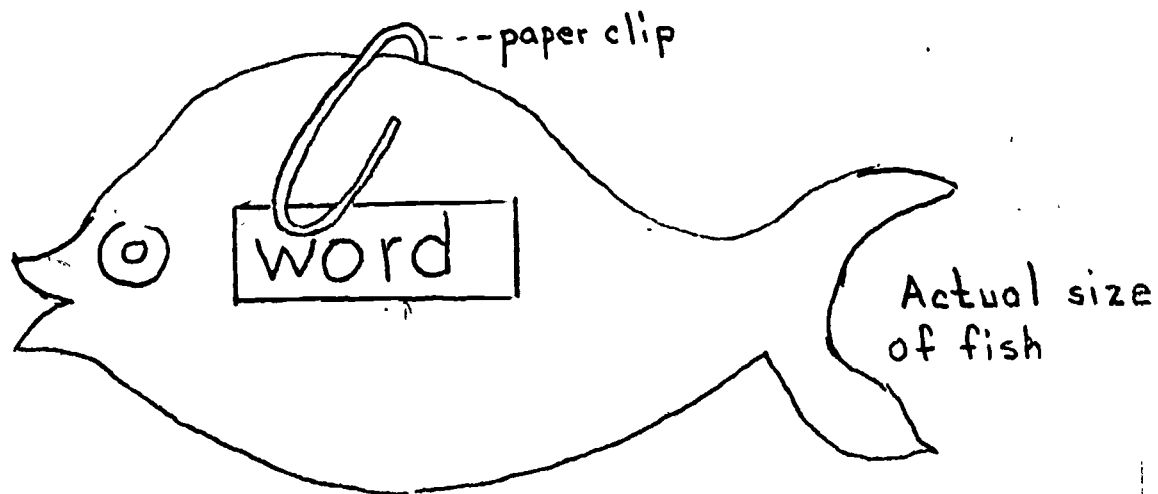


FISHING GAME

Materials: 1. bucket (wastebasket) 2. fishing pole (long stick, ruler, or pointer with string attached and magnet at end. 3 "fish" (words written on fish cutouts which have a paper clip attached).

Procedure: 1. Place all fish in bucket. 2. In turn, each child goes "fishing". If he can read the word (s) on fish, he keeps it. If not he must throw fish back in. (Can be used to reinforce word attack skills or with new spelling words, etc.)

Variation: Number 1-3 can be assigned to words according to difficulty. Winner would be child with highest count.



Linda Cleary
New Park Av. Sch.
Hfd.

T.I.L.O.
1975

VERBS

Game: Student picks a card. He must then act out the action word he chose. He then picks a student to guess his verb. If the student is correct he has a turn to pick a card and repeat the procedure.

Activity: The student picks a card and illustrates the action. These can then be put on a board with the words written under them.

Others: 1) Student must use the word in a sentence. 2) Student must put the word in the past tense.

stand

dance

scratch

Samples

20 Usage, Parts of Speech

T.I.L.C. 197

ADVERB ACTION

run fast

hop quickly

laugh gaily

Samples

1975
T.I.L.C.

What would they say? Put your saying in the envelope under the picture.

Picture of an animal

envelope under each picture

Suggestions: bear, elephant, geese, bird, giraffe, dog

DRAW A WORD

How many ways can a word be expressed?
Students can have fun designing a poster from a word.

WORDS
WORDS!

ALL

DOWN

SAD

FAT

TINY

STAIRS

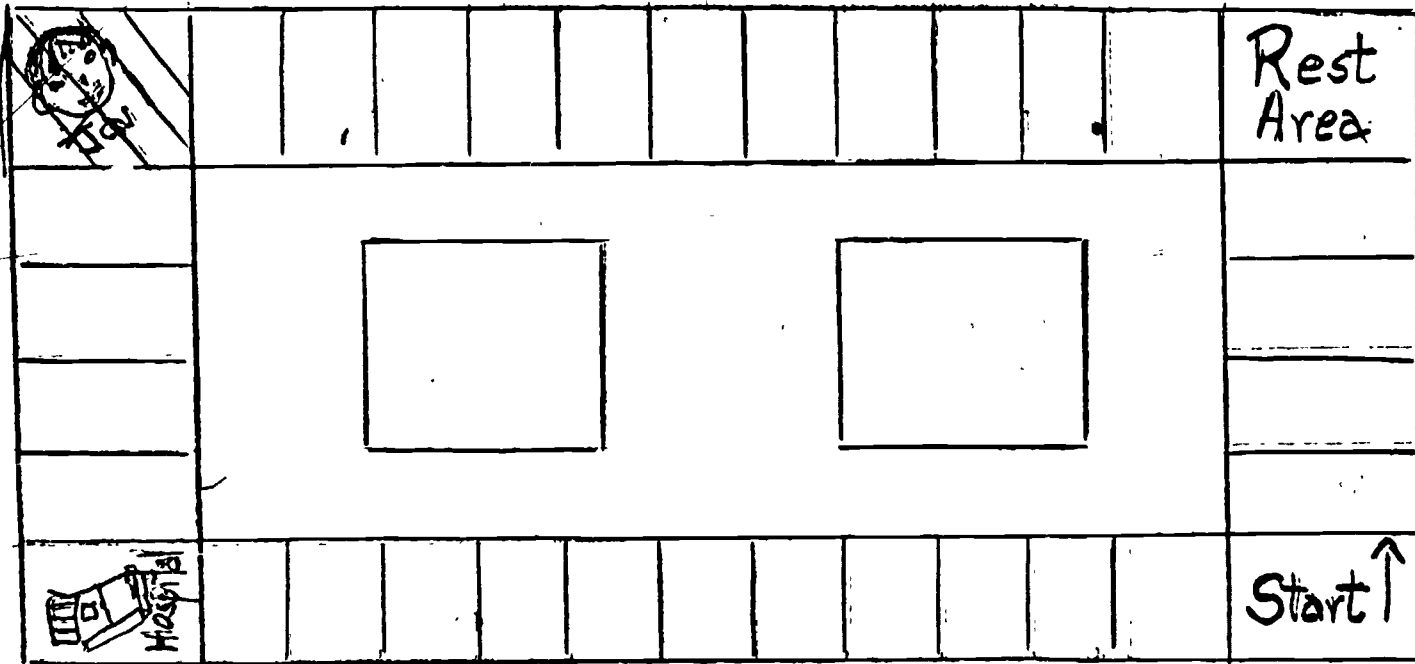
LOOK

electricity

HAPPY

MONOPOLY

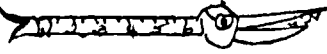
Played like Monopoly
Teacher divides words and moves for his level.




T.I.L.C. /

JUST FOR FUN

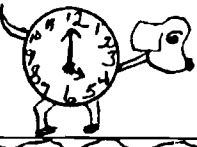
Just For Fun

Draw a picture of a —
ruler fish 

candy cane cat

rabbit snake 

cookie girl

clock dog 

spoon giraffe

flower ant

bird kite

book horse car cow tree man
Can you think of more?

Reverse side

Ann Cooney
New Park Ave. Sch. Mt. St.
T.I.L.C. 1975

READING READINESS

A mental exercise in auditory memory. Teacher pronounces unrelated words while pupils listen; then students recall named items as teacher asks.

Examples:

pup jam bell gun
something that rings
something to eat
a pet
something that goes bang

fish path hat colt
something to wear
something that swims
a young horse
walk on this

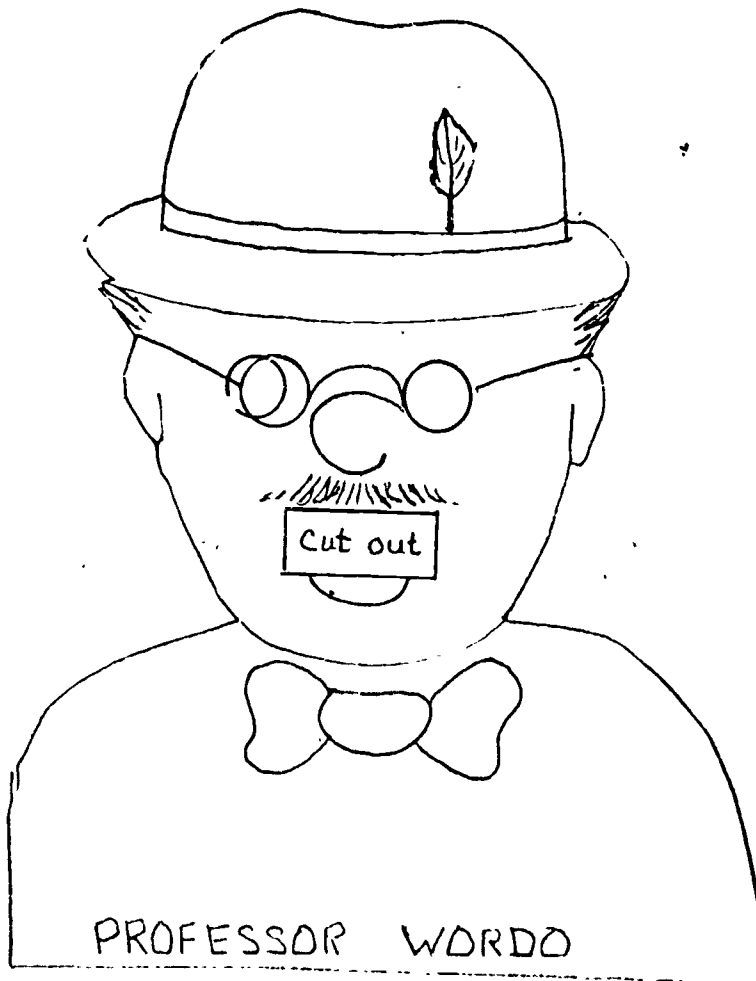
apartment chair tale
write with this
sit on it
live on this
eat off this

Grade level: 3 - 4

Jane S Labranche
Henry C. Dwight Sch., Hfd.
T.I.L.C. 1975

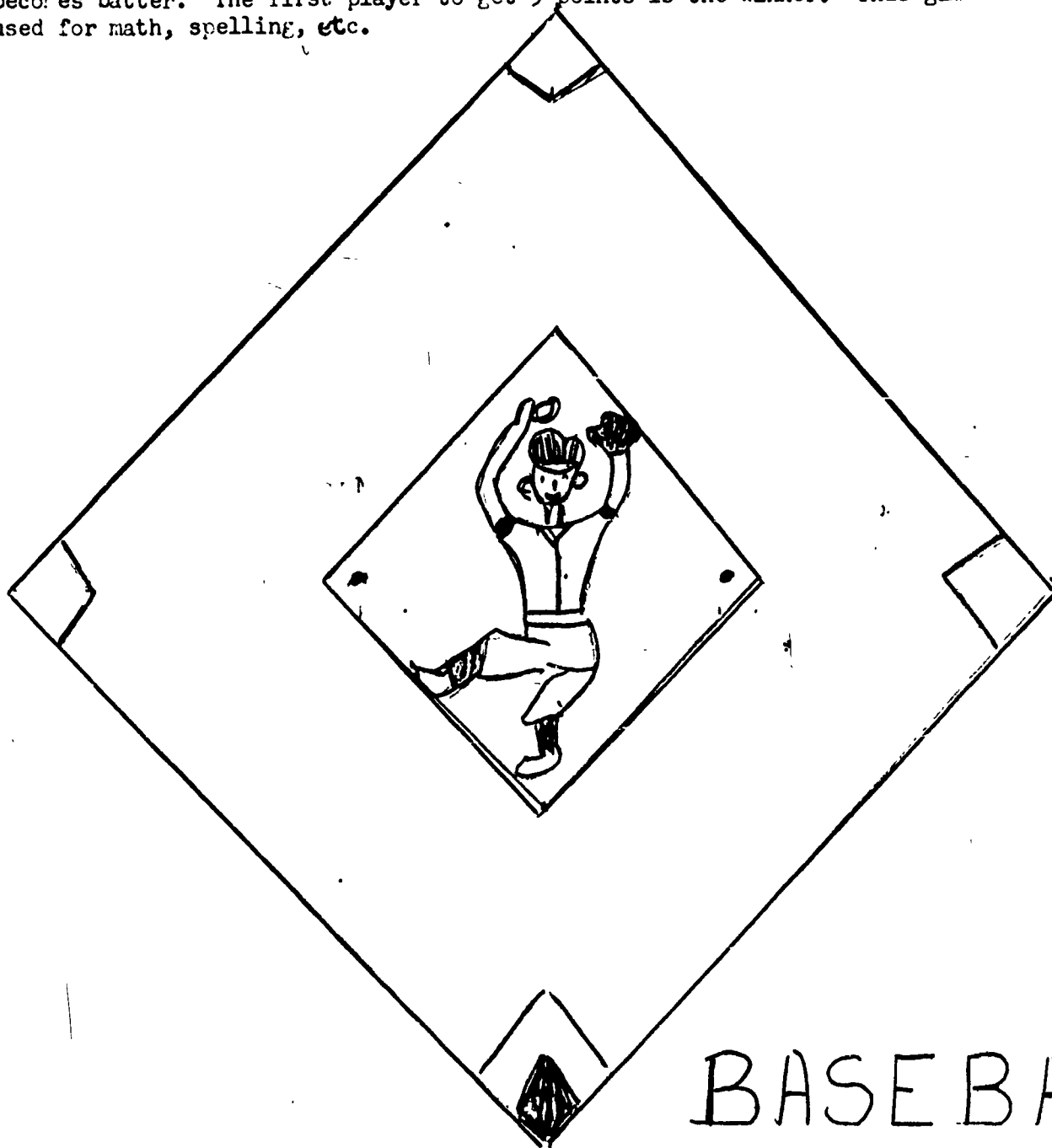
PROFESSOR WORDO

Trace outline. Use carton for tracing details. Slit top and bottom of mouth for slider. Students can create rules for this game, i.e. 5 points for each correct word. Subtract 1 point if word is incorrect.



BASEBALL

One player is pitcher, the other is batter. The batter puts his man on home plate. The pitcher puts word card upside down on pitcher's mound. The pitcher picks a word card and shows it to batter. If batter knows it, he moves his man 1 base. The batter must get to home plate to win a point. If batter misses, he is out. Then pitcher becomes batter. The first player to get 5 points is the winner. This game can be used for math, spelling, etc.



BASEBALL

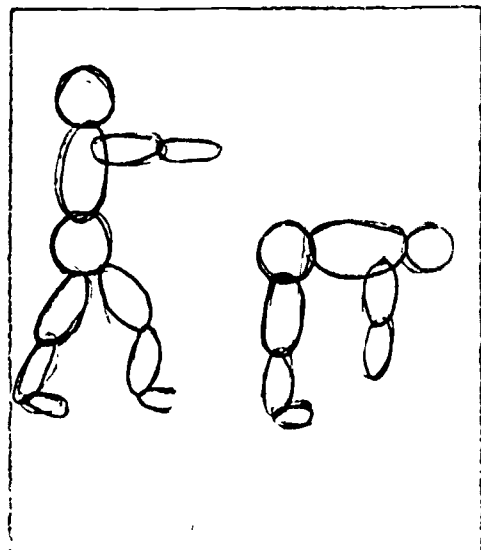
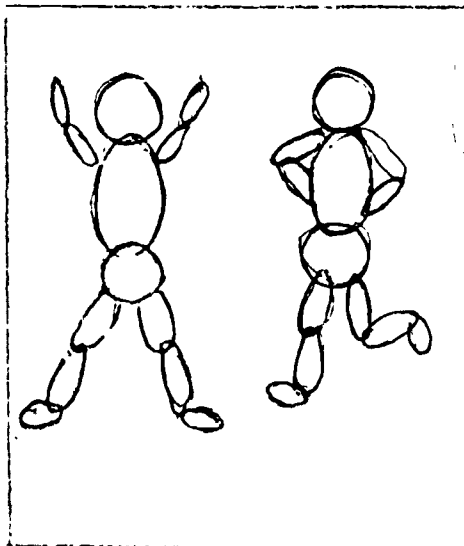
CHECKERBOARD

Teacher makes a checker board. It can be used in many ways: vocabulary drill, rhymes, vowel sounds, consonants, blends, etc. Bottle caps may be used as an inexpensive substitute for normal checker pieces. Words are printed on masking tape and placed on black squares. Teacher can then easily remove words and replace with new words. Directions: Player may not move man unless he can read word on square he is moving to.

T.I.L.C. 1975

BODY IMAGE

Skills Reinforced: Visual motor integration, problem solving. 1. Child looks at figures and imitates the body positions. 2. Child looks at figures and makes an exact match, not a mirror match. (If figure has left arm raised child also raises left arm). If child has been making exact matches then request child to make a mirror match.



Samples

Alice Luster
 Hebron Ave. Sch.
 Glastonbury
 T.I.L.C. 1975

Spin-A-Cone

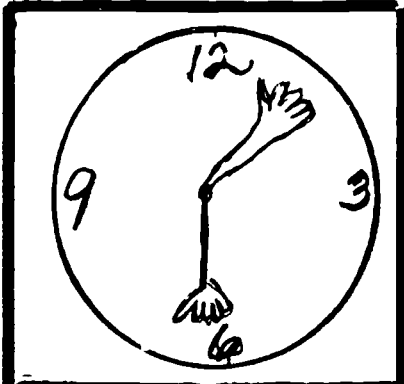
Make up a story
using all of
the words
on the
ice-cream
cone.

school
goat
cheese
clock

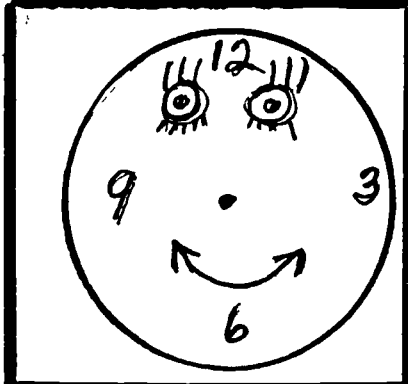
balloon
mailman
circus
lion

mouse
beach
nuts
captain

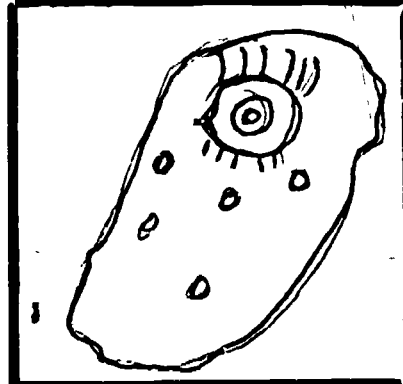
mother
skates
radio
clown



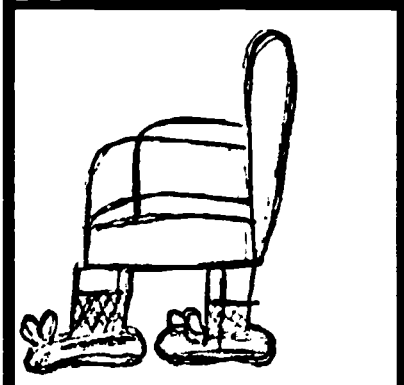
Hands of a clock



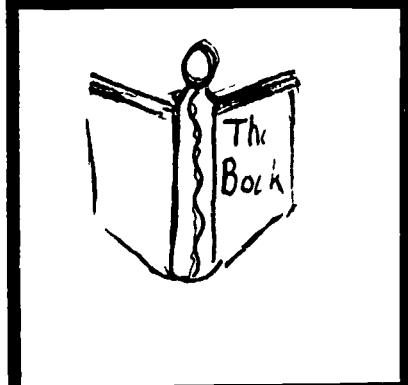
Face of the clock



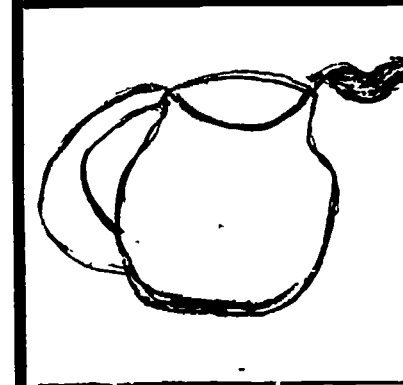
Eye of the potato



Legs of a chair



Spine of a book

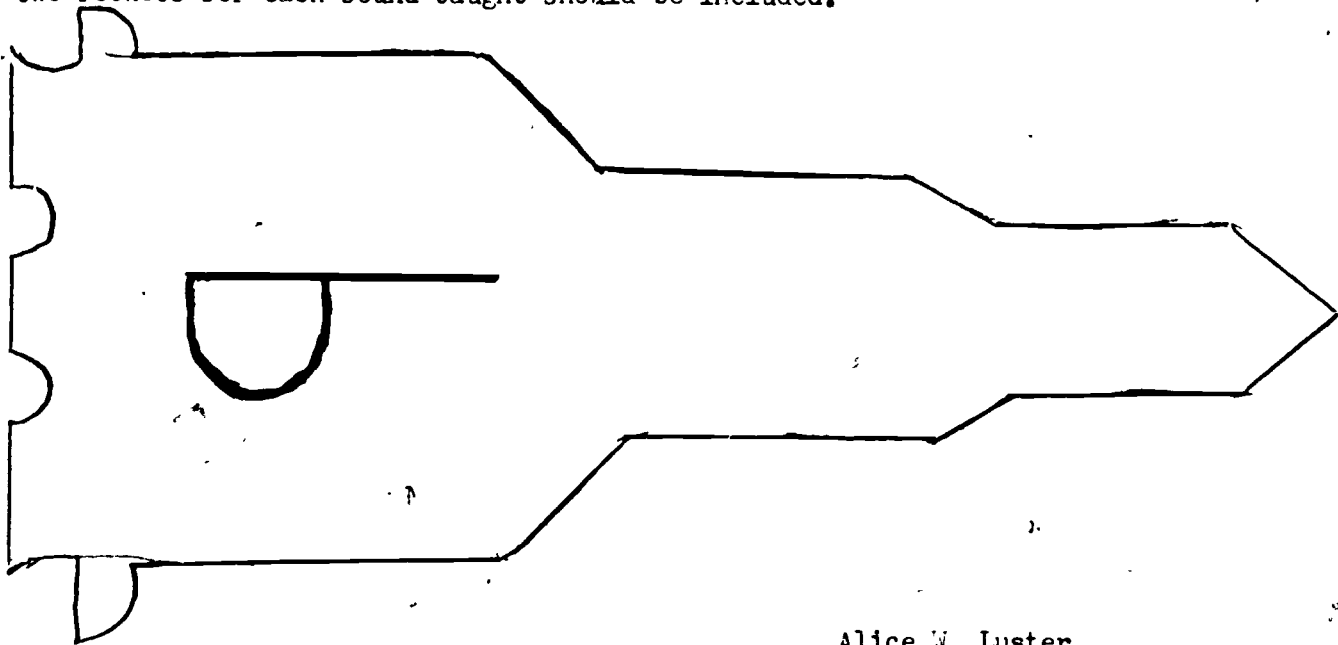


Lip of a pitcher

Tongue of a shoe Ear of corn
 Neck of a bottle Heart of town
 Eye of a needle Head of a boy

ROCKET GAME

rockets are placed face down. Child draws one - he must say 3 or more words (depending on age and experience with the skill) within a given time limit (15-30 seconds). If he is correct he may keep the rocket. If not, the next child has the opportunity to win that rocket and also try for his own rocket. (This is just a sample. One or two rockets for each sound taught should be included.)



27 Game Structures

Alice W. Luster
Hebron Ave. Sch., Glastonbury
T.I.L.C. 1975

Use a separate envelope for each book you wish children to identify. Print a short synopsis or character identification on the outside of the envelope. Have a card with the name of the book inside the envelope (self-corrective). Number the envelope and card the same. If the child does not know the book, he may be stimulated to read it.

Examples:

10

I am an elephant who
sat on an egg to hatch it.

I am _____



10 HORTON HATCHES THE EGG

card

11

Who lived in a school with
eleven other little girls?



11
FADELINE

card.

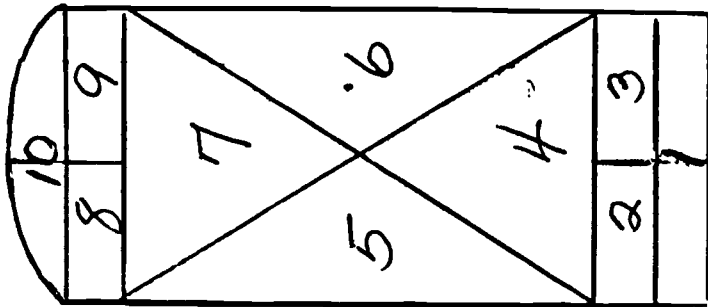
T.I.L.C. 1975

MATERIALS: Draw this pattern on the sidewalk or on the floor with chalk.

- PURPOSE:**
1. To teach recognition of numerals 1 to 10, 11 to 20, 21 to 30, etc., and to use them in serial order.
 2. The children can then play this game in reverse, going from 10 to 1, 20 to 11, 30 to 21, etc.

DIRECTIONS: Children jump from section to section, on one foot, and call out the numerals as they jump. The child cannot touch a line or touch his other foot to the ground. May be played in pairs, groups, or teams.

CAUTION: One child should be appointed as referee to clear up any uncertainties.

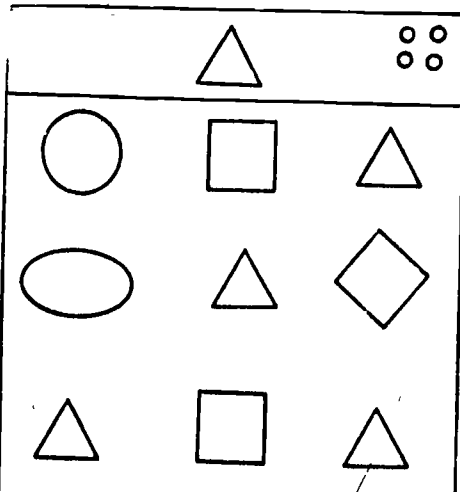


T.I.L.C. 1975

MATH-08

RECOGNIZING SHAPES

Circle the correct shape. If a square shape is at the top of the card, the child will look for all 's on the bottom of the card and circle them. The back of the card will tell the child how many he must look for.



T.I.L.C. 1975

1. Players roll the die in turn.
2. A player may cover any square that shows a number one greater than the one rolled.
3. The first player to get five adjacent markers in one row, column or diagonal is the winner.

THE NEXT NUMBER						
6	3	5	7	2	4	7
5	2	7	6	3	6	4
5	5	5	4	6	3	2
3	4	5	7	2	4	6
4	6	3	2	3	5	7
2	5	7	6	3	4	2
7	3	4	2	7	5	6

--- 1 in. squares

Math Conference **T.I.L.C.**
Atlantic City, N.J. 1975

Each player must have a card. The first player rolls a die. If the number rolled makes any of the statements true, he may put the number in that frame. If the number rolled makes more than one statement true, he may still mark only one frame. If the number rolled makes no unmarked statement true, he forfeits his turn. Players roll and mark their cards according to what they roll, in turn. The first player to fill in his whole card is the winner.

5"

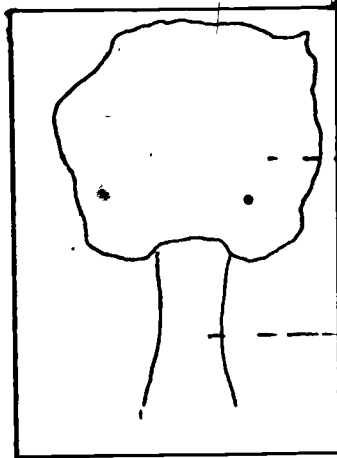
Greater or Less		
○	>	1
○	>	2
○	>	3
○	>	4
○	<	5
○	<	6

9"

T.I.L.C. 1975
Fran Valda, Math Conference

Various Ways - Some are:

1. Sequencing - 1 apple on a tree; 2,3,etc.
2. Put a number below trunk and child puts the proper number of apples on it.
3. Use in addition and subtraction work.
4. Fewest and Most concept.



-green felt

brown trunk
(color in)

10 cards 6"x8"

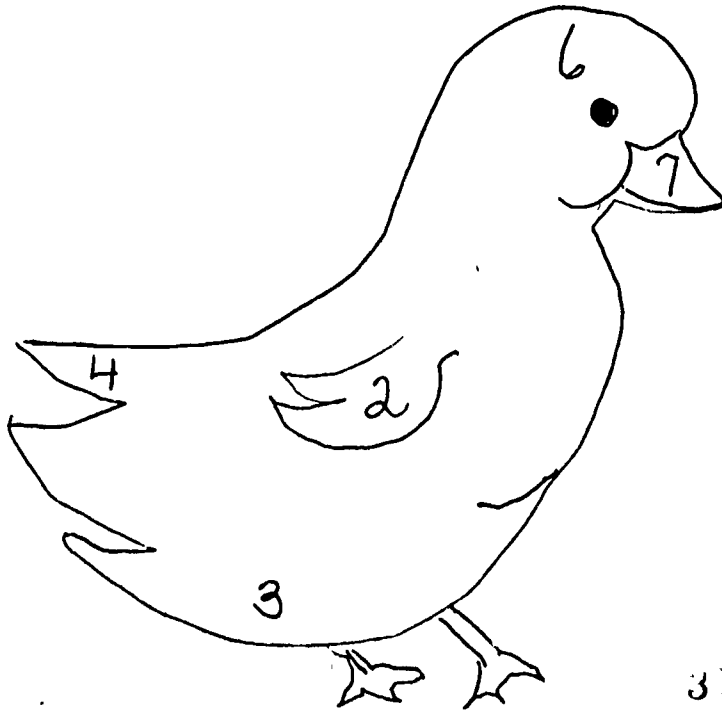
Envelope of about 30 dime size red felt

J. Jaksna, Union

T.I.L.C. 1975

DIRECTIONS

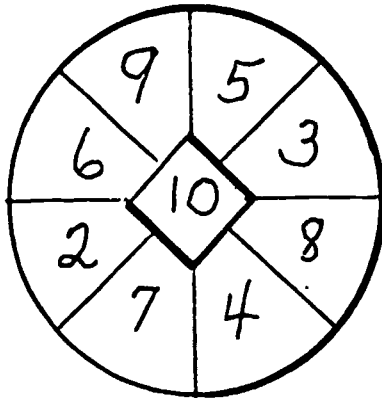
Teacher gives child a picture (coloring book etc.) Child puts several numbers on picture and then adds them up. Teacher increases difficulty as needed.



Gwenn Moseley, T.I.L.C. 197

Two children play. Player closes eyes, moves pencil around in the air, and then lowers pencil to the circle (can be made larger.) The player will score five points if pencil lands on number five area of circle, etc. Player puts his first initial in area pencil has touched. This number cannot be scored again. At end of game each player counts his points to see who is the winner.

Game can be made with larger numbers (ex: 125 or 1,250)



Ann Cooney, New Park
T.I.L.C. 1975

For Round 1, the spinner is spun three times. Each time the spinner stops, each player must choose in which of the three circles in the first row he wishes to place the numeral to which the spinner pointing. After the third spin, the player who has made the highest valued number gets a point.

For Round 2, there are also three spins.

For Round 3, and 4, there are four spins.

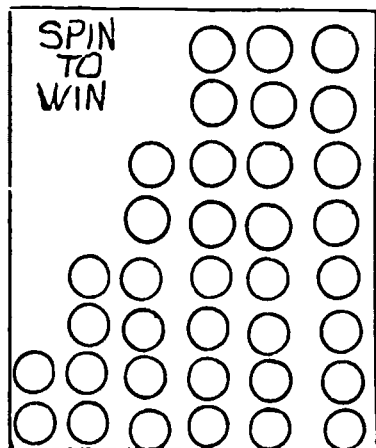
For Round 5 and 6, there are five spins.

For Round 7, there are six spins.

For Round 8, there are seven spins.

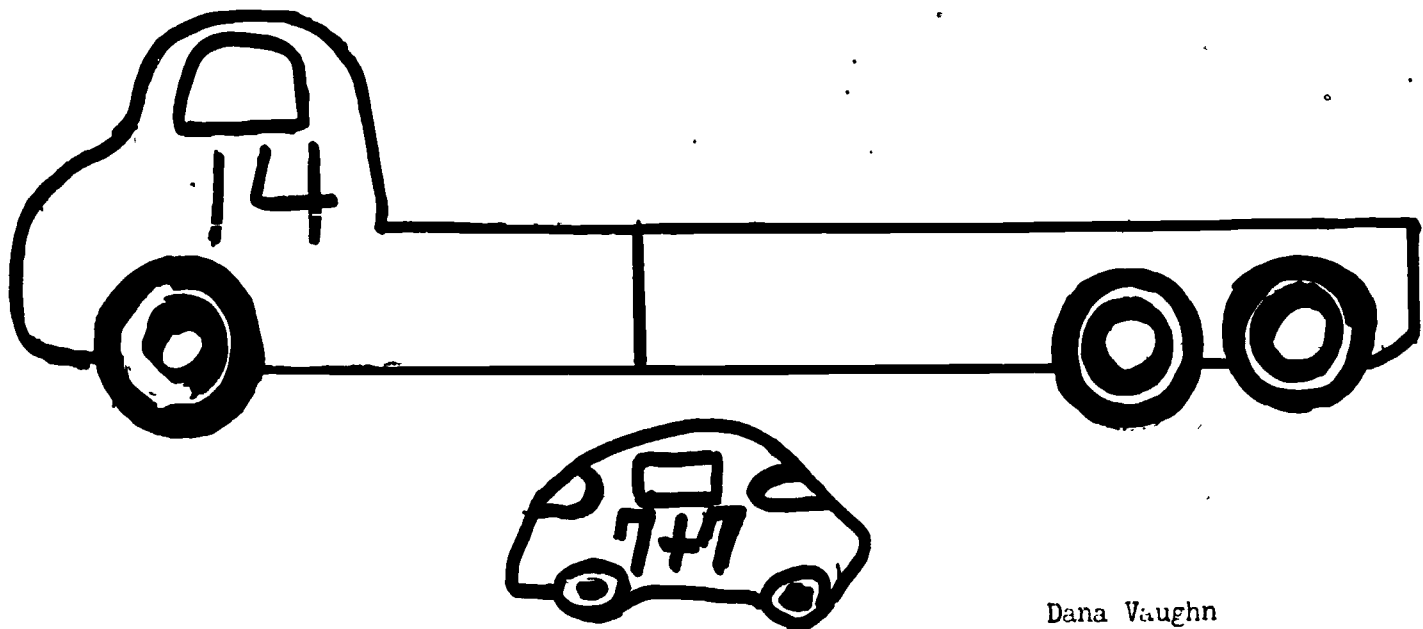
At the end of the 8th round, the player with the most points is the winner.

Spinner has ten digits 0-9 on it.



T.I.L.C. 1975
Fran Valda, from Math Confer

The child must add the example on each car and place that car in the right trailer. After all the cars are placed the child may turn them over and check his work.



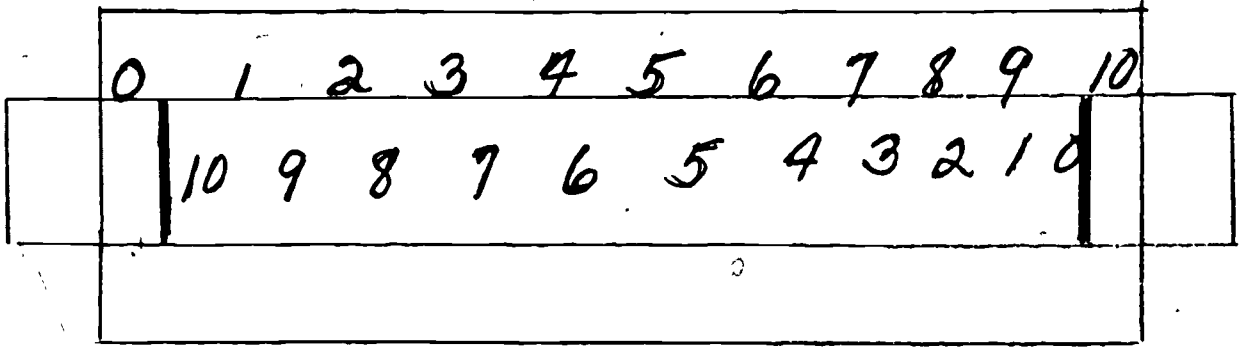
Dana Vaughn
St. Augustine
T.I.L.C. 1975

Circle 3 digits to total 9. The digits must be in a straight line on the board, but may be horizontal, vertical, or oblique.

3	4	2	5	1	4	4
5	8	2	1	6	5	7
3	1	5	7	0	2	3
1	6	3	2	3	9	1
4	0	7	2	8	3	5

T.I.L.C. 1975

SLIDE RULE

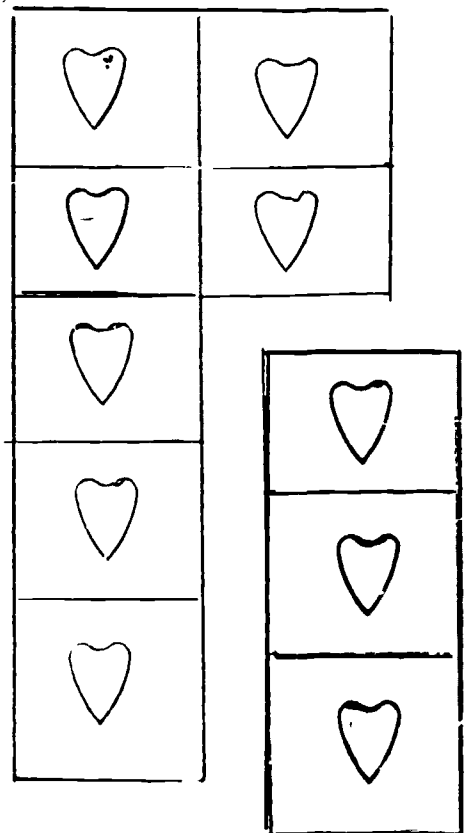
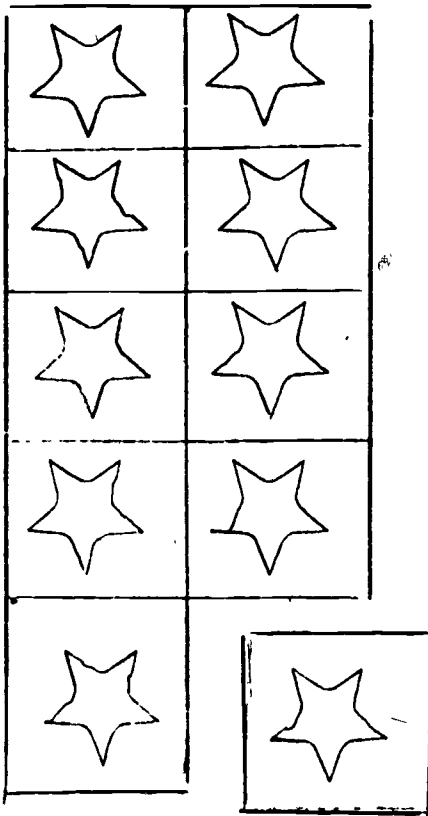


T.I.L.C. 1975

MATH - 04, 12

PUZZLE FOR ADDITION FACTS

Match the picture sets. Write the number stories.



FERRIS WHEEL

PURPOSE: To increase interest in learning addition (subtraction) facts.

PLAYERS: Two or more.

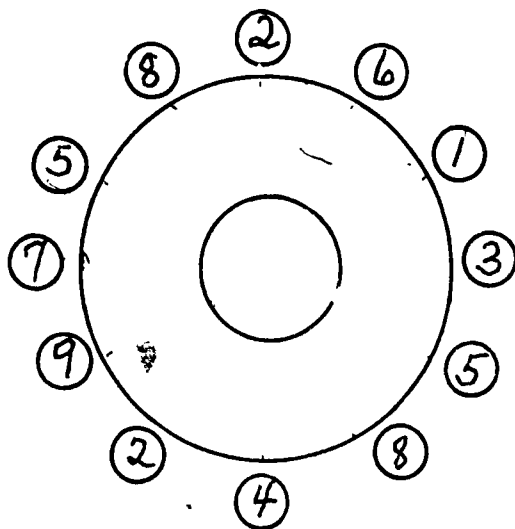
MATERIALS: A large circle drawn on the chalkboard with smaller circles around it. Each small circle has a number in it, and there is also a number in the middle of the "Ferris Wheel."

This game can also be constructed on tagboard, laminated, and slit can be made so that the central numeral can be changed by using a clip to hold it in place. Several numbers can be prepared and attached to the back of the game.

DIRECTIONS: The children see how quickly they can go around the "Ferris Wheel" by adding the middle numeral to the ones around the edge. Children may take turns, or each one may time himself.

ADAPTATIONS: This game could be played in practicing selected subtraction facts.

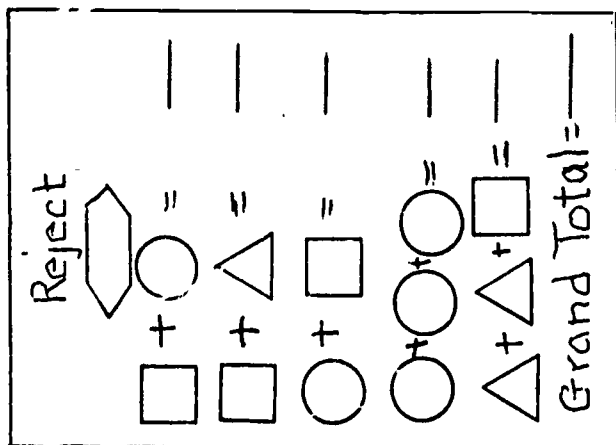
CAUTIONS: Use competitors of fairly equal abilities. Vary the numbers from time to time.



T.I.L.C.
1975

REJECT

One child rolls a die. Each child then decides what shape he wishes to put that number in. If he puts it in one square, he must put it in every square. He may choose not to use it and put it in his "reject" shape. After four numbers have been rolled, partial totals and a grand total is taken. The child with the largest grand total is the winner.



T.I.L.C. 1975
Fron Vaida
Hooker Sch. Hfd.

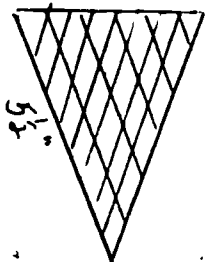
SKILLS: Counting, combining groups, recording mathematical experience with symbols.

The child puts the scoops of Ice cream on the cones. Then he records the combinations formed by pieces of strawberry or chocolate.

Ex: 1 scoop has 5 choc chips, 1 scoop has 3 strawberries

The child records - $5+3 = 8$

Cards can be laminated so they can be used many times and corrections made.



green with brown chips
and
pink with red bits

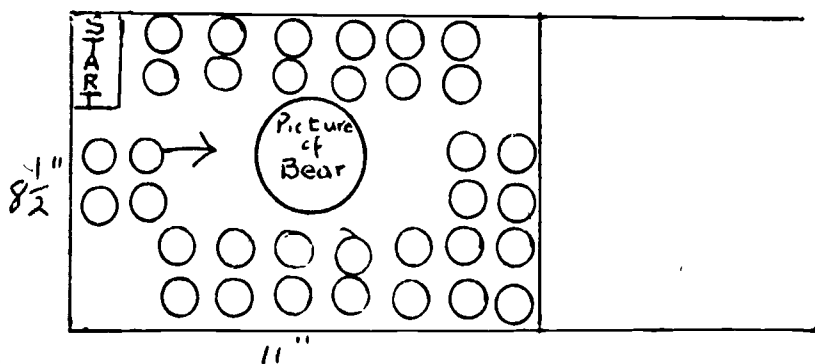
J. Jaksina, Union

Roll die and move accordingly

First one in the circle catches the bear

Note: If you are on the last colored circle before the bear - you must roll a 1 to catch the bear.

Markers (spools with colored circle on end. 1 Die)



T.I.L.C 1975
J. Jaksina, Union

SECRET FACT

Do the math under each blank. Match the answer with the letter in each block. decode the message. Children could also make up their own questions and answers. Math could get progressively more difficult.

1 A	2 B	3 C	4 D	5 E	6 F	7 G	8 H	9 I	10 J	11 K	12 L	13 M	14 N	15 O	16 P	17 Q	18 R	19 S
Who were the first people to use paper money?																		
$10+10=$			$4+4=$			$3+2=$			$2+1=$									
$5+3=$			$6+3=$			$7+7=$			$4+1=$			$10+9$						
$6-1=$			26 Z		25 Y		24 X		23 W		22 V		21 U		20 T		19 S	

Arline Himmelstein
West Middle, Hfd.

ADDITION PUZZLE

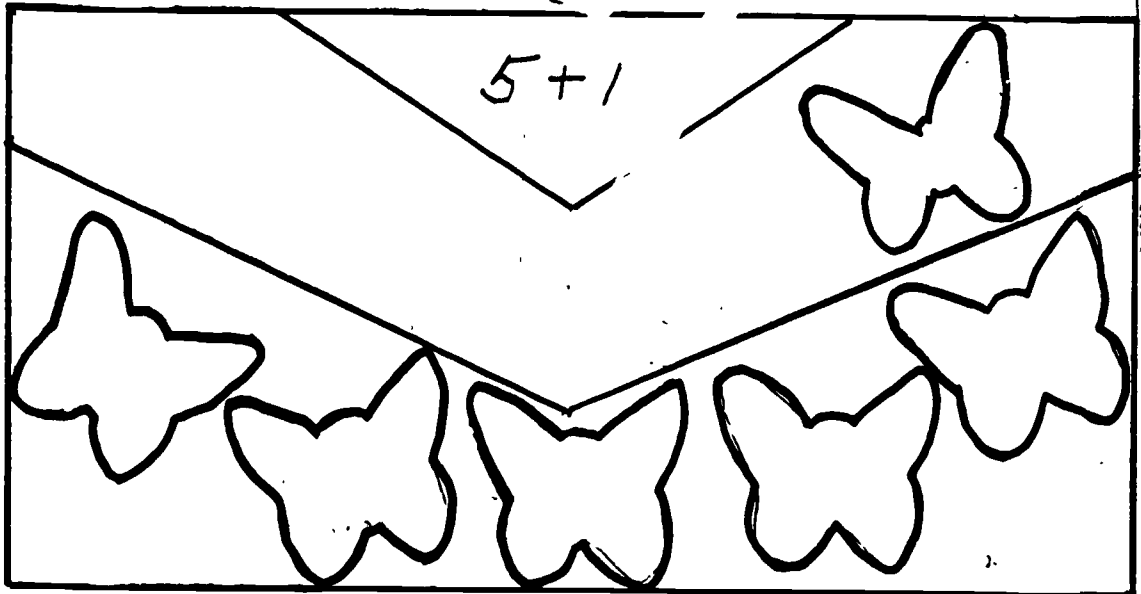
Cut squares apart. Children fit the squares together in a 4x4 array so that edges that touch name the same number.

6	3+3	3+2	5	2+1	3
2+5	8		1+3		4+2
7	3+5		4		6
10	9+1	2+2	4	10	6+4
5	4+5		2		3+4
3+2	9		0+2		7
5	1+4	8	2+6	9	7+2
0+1	6		4+4		7
1	5+1		8		6+1
3+4	7	6+3	9	8	6+2

T.I.L.C. 1975

ADDITION PUZZLE

Take two pieces with the same kind of pictures. Find the number sentence that matches these pieces. Fit these together to make a rectangle.



T. I. L. C. 1975
Fran Vaida
Hooker School, Hfd.

Puzzles can be used for a review of number pairs and number patterns.

2				6	
4		9			
	12	18		12	
8				15	
		36	30	24	
			20		17
34	44		16		22
					27
	2		8	16	

Arithmetic Puzzles

Complete the number-pattern crossword.

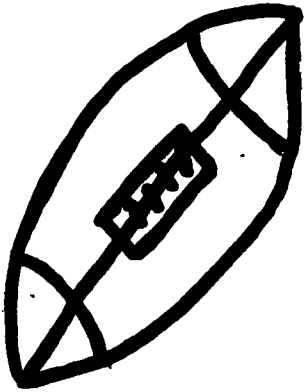
		9		
		?		
?	4	36	6	?
		3		
		?		

Name the missing factor.

			?
?	8	4	
		24	
	3	2	?
?			

Name the missing factor.

Place football on fifty yard line. The first player takes the top card from a pile of math problems. If he answers the question correctly he moves the ball 5 yards towards his opponents goal and gets another turn. Whenever he answers incorrectly, the second player takes over. Players continue to alternate until one scores a touchdown, worth 7 points. After a player scores a touchdown his opponent begins again on the 50 yard line.



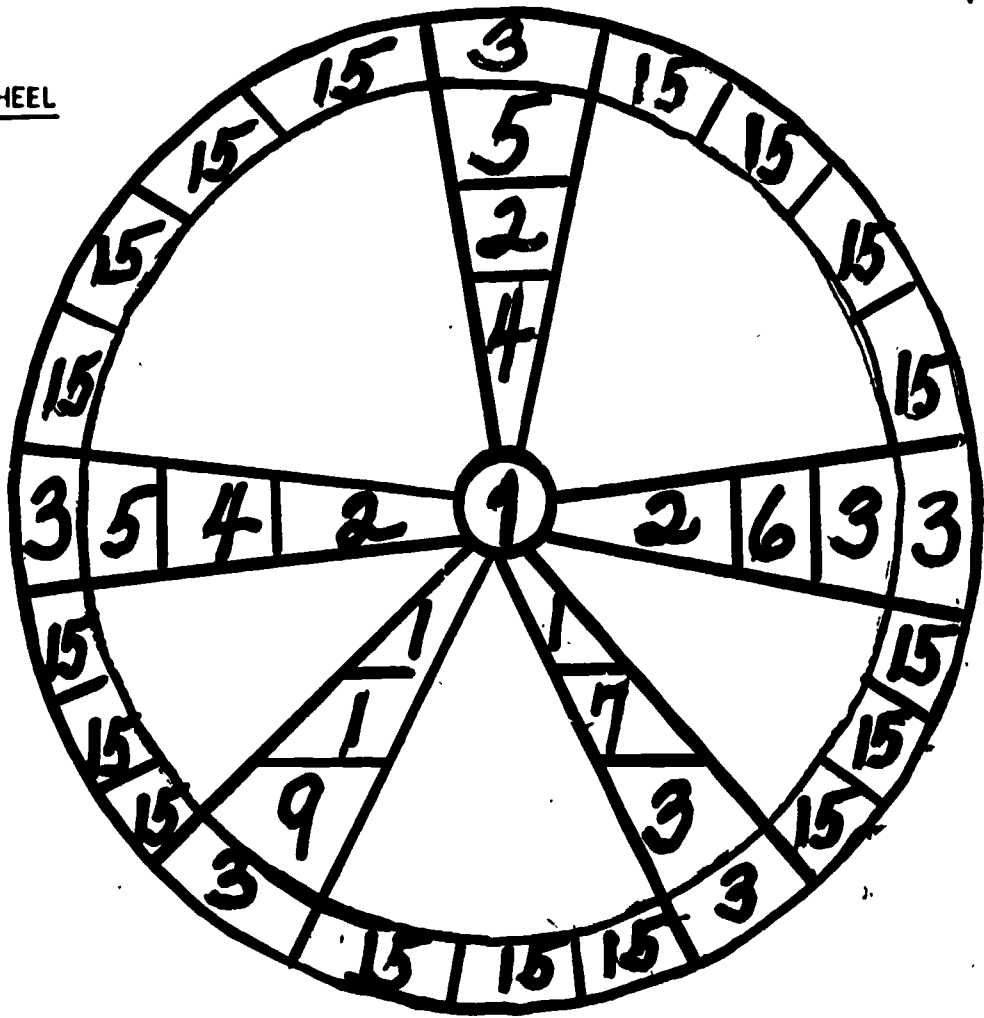
$$\begin{array}{r} 40 \\ -30 \\ \hline \end{array}$$

TOUCHDOWN	
0	
5	
10	
15	
20	
25	
30	
35	
40	
45	
50	50
	45
	40
	35
	30
	25
	20
	15
	10
	5
	0
TOUCHDOWN	

T.I.L.C. 1975
 J. Jaksina
 From SEE SAW

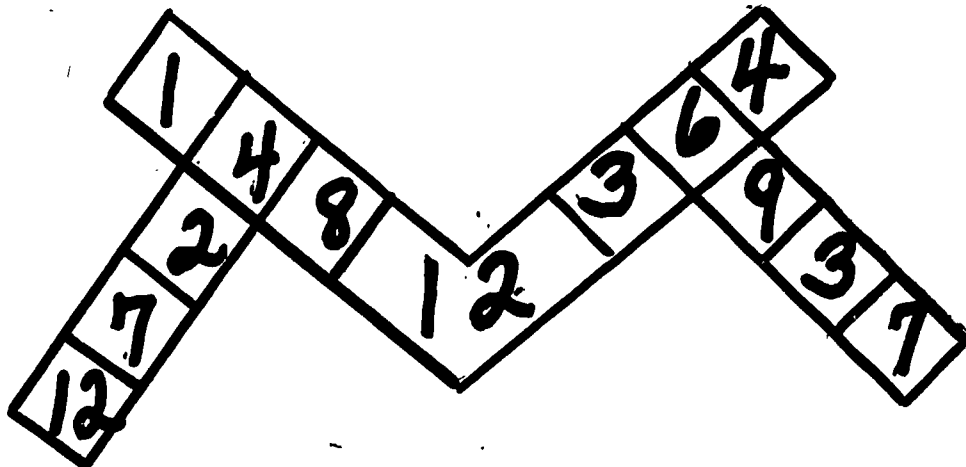
MATH-04

A FIFTEEN WHEEL



MATH-04

A TWENTY-FIVE PATTERN



MATH - 04, 12, 13, 14 CROSS - NUMBER PUZZLE

This puzzle requires the student to make thoughtful estimates which are tested on a trial and error bases. For successful solution, each trial must be based on a reasonable mathematical prediction. For each puzzle element, the starting numbers, the arithmetic sign and the answers are given. The object is to insert numbers smaller than ten in the empty spaces in an effort to arrive at the correct totals. Both vertical and horizontal exercises should be correctly solved. Students can themselves construct and exchange these puzzles with their classmates.

6	-	5	+	8	=	9
+		+		-		+
7	+		÷		=	4
-		÷		-		-
4	x		-		=	7
=		=		=		=
9	-	2	-	1	=	6

Cut rectangular pieces of oaktag apart for puzzles as indicated. Illustrate the cardinal number on the upper and left sections and the ordinal position on the third. Use colored punched circles. Bottom piece has ten circles. Place the colored circle in the correct position.

nueve

nine

novenos

ninth

tres

three

tercero

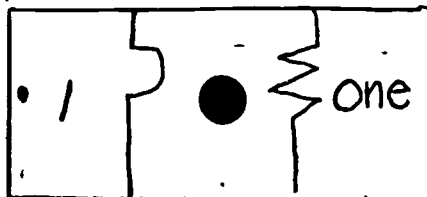
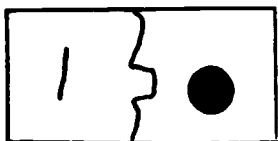
third

Samples

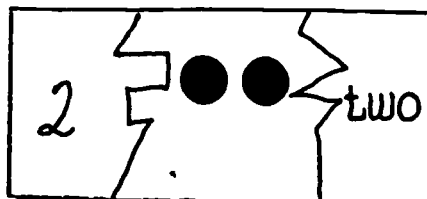
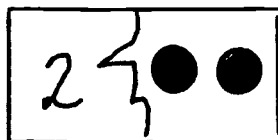
MATH - 07

MIX AND MATCH PUZZLES

Use heavy cardboard, tag board, tile, wood



OR



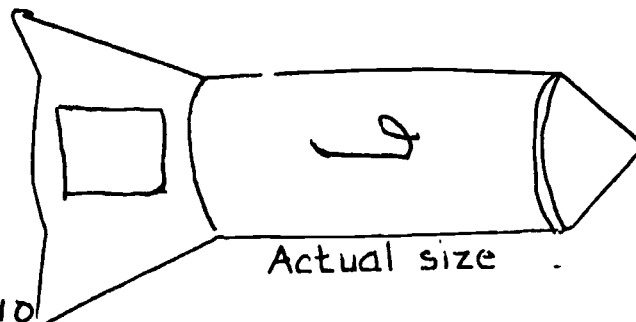
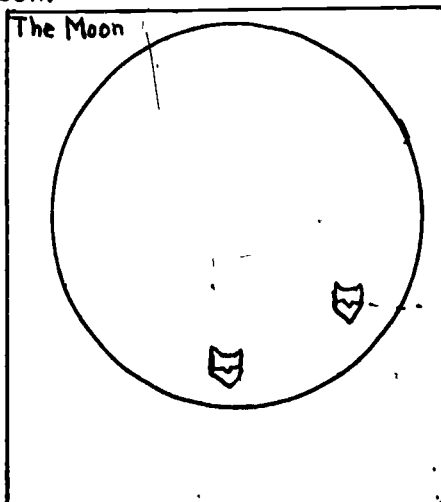
T.I.L.C.,
1975

MATH - 06

THE MOON

Land your rocket on the moon if you can give name of the number.

1. Rockets placed on table, number down. Turns are taken if more playing & each should have his own moon & rockets.
2. For 2-4 players
Hold up card with dots on it, or stickers, shapes etc. (10 cards from 1 through 10)
First child to count correct number of items on card, puts his rocket with that number on moon.

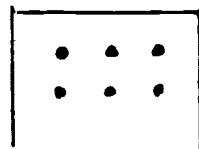


10
photo
corners

NUMBER COUNTING & NUMBER RECOGNITION

MATH-07

9 cards cut from same size cardboard which had pictures mounted on it. Other side has dots.
Card with 9 rectangles with numerals.



Example

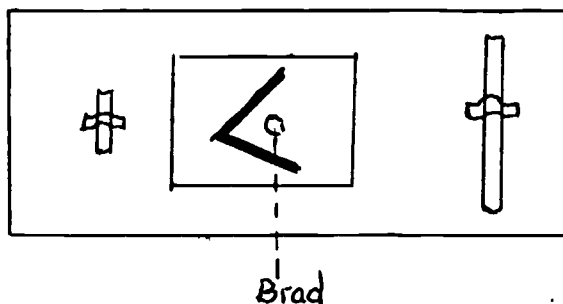
2	4	7
8	1	3
6	5	9

Fran Valda, Hooker
T.I.L.C. 1975

MATH - 02

COMPARISON BOARD

COMPARISON BOARD - Put two objects on board, turn the sign this way <
or this way >
Make it show which object is bigger.



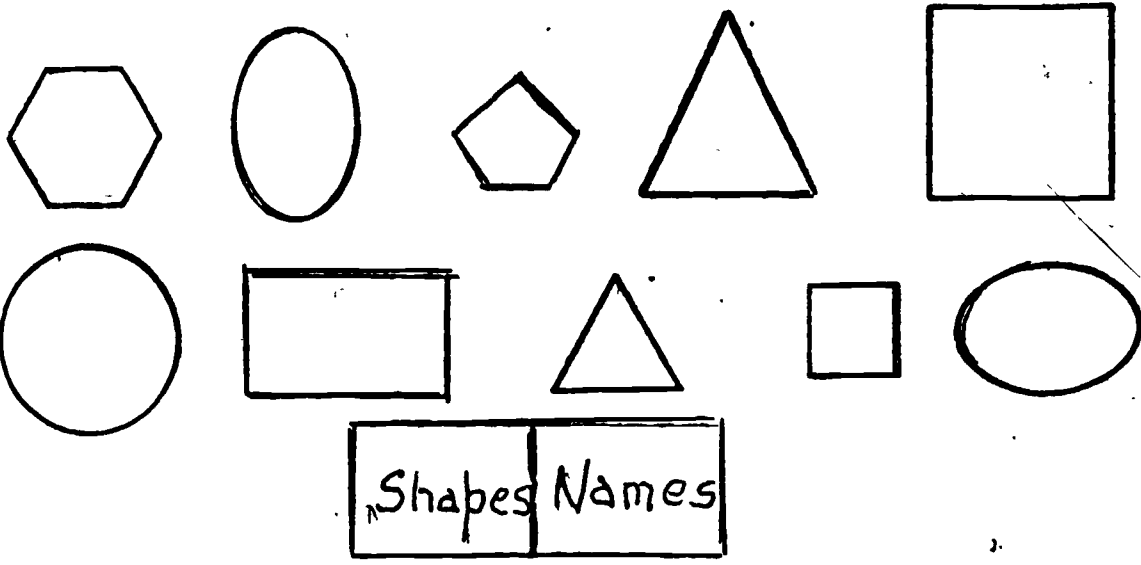
T.I.L.C. 1975
Rosmary Zendan, W. Middle

MATH - 08

MATCH THE SHAPES

DIRECTIONS:

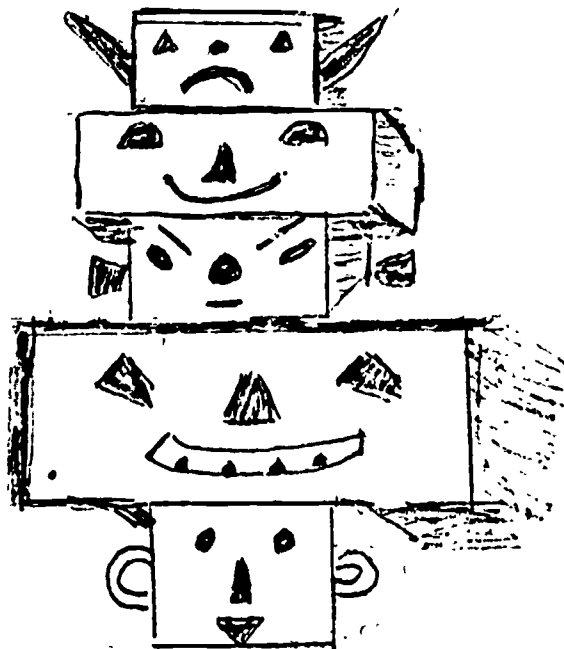
1. Make board to place shapes on. Shapes could be color coded around edges with yarn, etc.
2. Trace and cut shapes to correspond with colors on game board (Use cardboard and color or paint with felt pen)
3. Write names of shapes on strips of cardboard (1 1/2 x 5").
4. Make 2 pockets, one for shapes and one for names.



MATH - 08

TOTEM POLE

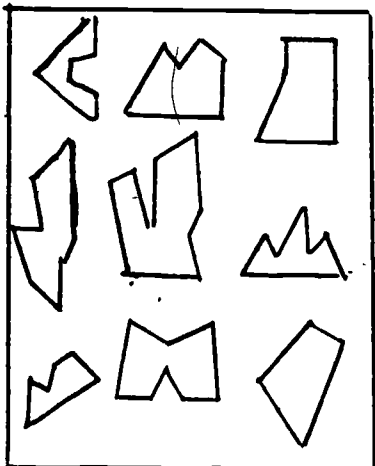
Pupils collect a variety of colorful boxes (hat boxes, shirt boxes, shoe boxes, etc.). Cut a hole in each end of each box, paint faces on boxes. Slip each box over a pole. Add cardboard ears, feet, beaks, etc. for the finishing touches. This is an excellent "hands-on" activity for teaching geometric shapes. Smaller boxes can be used to construct individual totem poles. May be a class or individual activity.



9 x 12 card with 9 random shapes drawn on it.

Envelope of the shapes cut out of colored oaktag

Match the orange shapes to the blue drawn ones.



T.I.L.C. 1975
J. Jaksina, Union

Purpose: To help children recognize groups without counting.

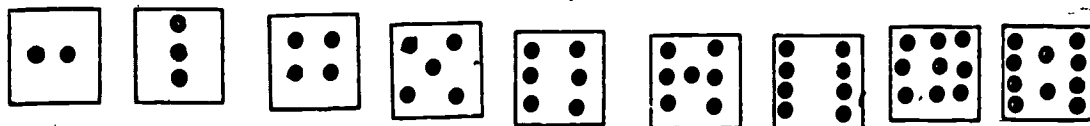
PLAYERS: Two or more children, but keep the group small.

Materials: Twenty-seven number cards (2"x4"), each of which has a number of dots arranged in a group. Three cards will have 2 dots, 3 cards will have 3 dots, three cards will have 4 dots, etc. up to three cards having 10 dots. There will be three cards for each group of dots.

DIRECTIONS: Each child is given his share of the number of cards. These cards are placed face down, and then turned up one at a time. The child whose card shows the largest number of dots on each round gets the other cards. Play proceeds until one child has all the cards, or the greatest number of cards when time is called. He then says, "CARD-0!"

ADAPTATIONS: The cards could be addition flash cards and the game played in the same way.

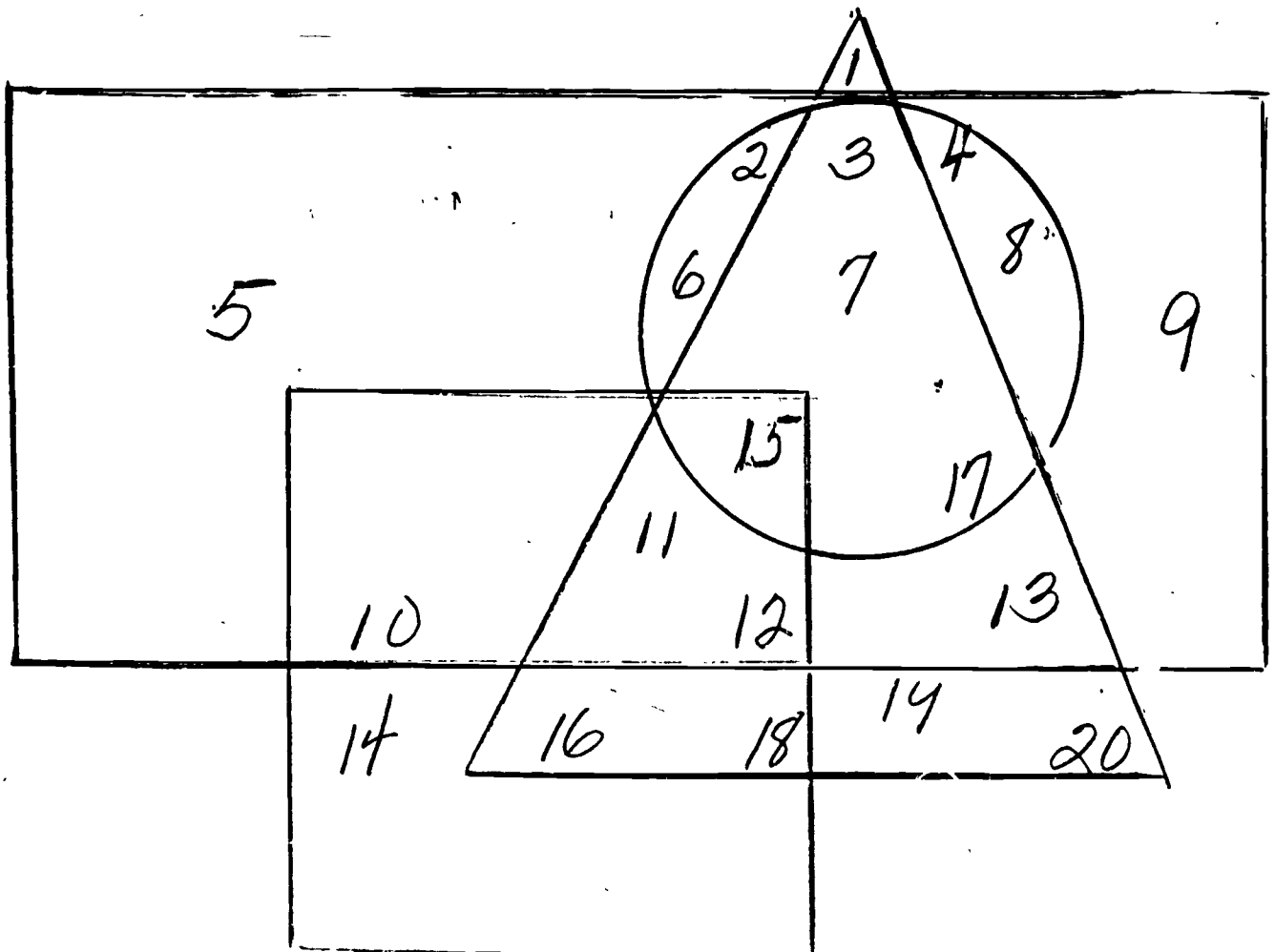
CAUTION: Children should be cautioned to play quietly, unless it is during recess time or when others are not engaged in quiet work.



T.I.L.C. 197

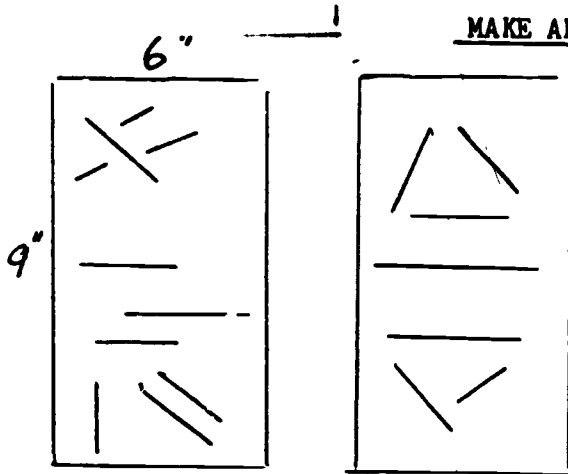
What numbers are:

1. In the rectangle, but not in the circle, square, or triangle?
2. In the triangle, but not in the rectangle or square?
3. In the square, but not in the circle or triangle?
4. In the circle, but not in the triangle or rectangle?
5. In the rectangle, but not in the triangle or square?
6. In the square, but not in the rectangle or circle?
7. In the triangle, but not in the circle or square?



T.I.L.C. 1975

MAKE AND MATCH DESIGN



Examples

Child matches pre-made design.
Variations:

1. Teacher makes design piece by piece and student works on his accordingly.
2. Child makes design and teacher or aide copy his.

Paste on designs made with stirrers or Q-tips.

Provide envelope of Q-tips or stirrers.

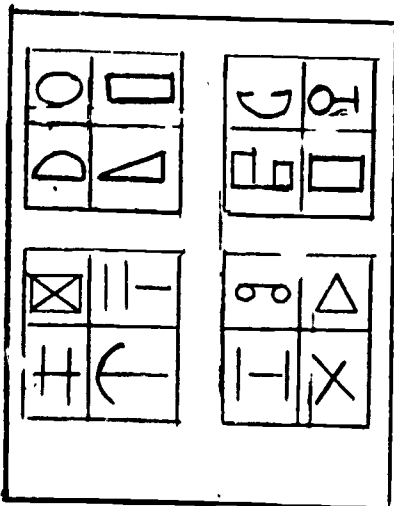
J. Jaksina, Union
T.I.L.C. 1975

SHAPES

(pre activity for writing numerals)

9x12 tag board

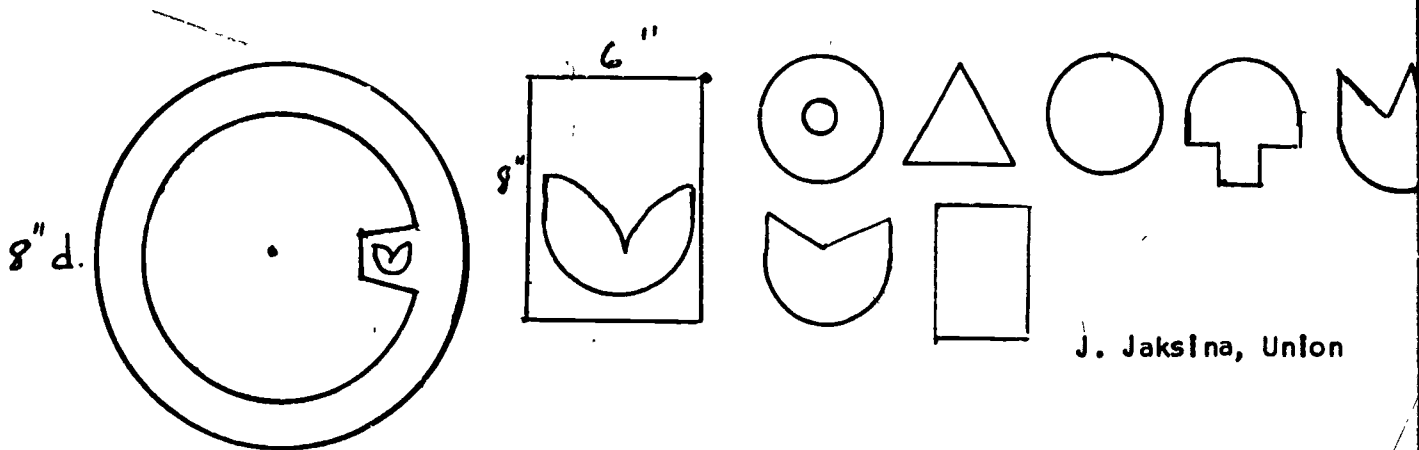
Laminate, child uses wax crayon to form shapes or trace over shapes



Teacher holds up card and student - turns to matching shape.

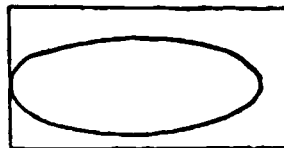
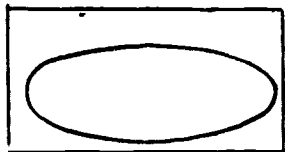
VARIATIONS

1. Give wheel to child, hold up white card-no other directions-see if child can figure out what to do.
2. Shorten time you hold up master white card. (to strengthen visual memory).
3. Shape wheels may be used by 1 or several. However, with a maximum of 6-8 you can observe each child and how he manipulates wheel, how long to match shape etc.



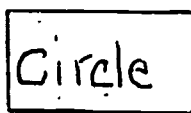
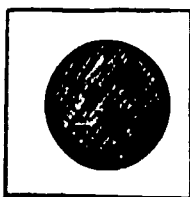
Classification game:

1. 20 - 3x5 tagboard cards
2. Make 2 identical shapes for each shape you plan to teach:
 Circle
 Square
 Rectangle
 Oval
 Diamond etc.
3. Paste onto tagboard



Child matches shapes

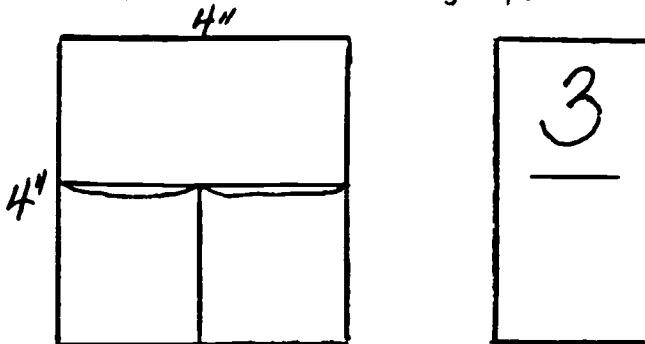
Extension: Add word cards



T.I.L.C. 1975

Card with two pockets

10 cards $1\frac{1}{2}'' \times 4''$. each marked with a numeral (1-0) for each pocket. Use a different color for each group.



MATH-09

PLACE VALUE

Match the circle with the correct square.
Then read the figure.

Can be coded to be self-correcting

Circle should tell the number of hundreds, number of tens, number of ones, etc.

A 3x4 grid of numbers is shown. Above the grid is a handwritten '11"'. To the left of the grid is a handwritten $\frac{8}{3}''$. To the right is a circle containing the labels '9 H', '5 T', and '4 O' stacked vertically.

954	73	1,067	6,391
2,674	3,750	7,030	50
4028	117	500	9,990

MATH-09

Board (9"x6") with 6 pockets.
Cards marked 0-9.

PLACE VALUE

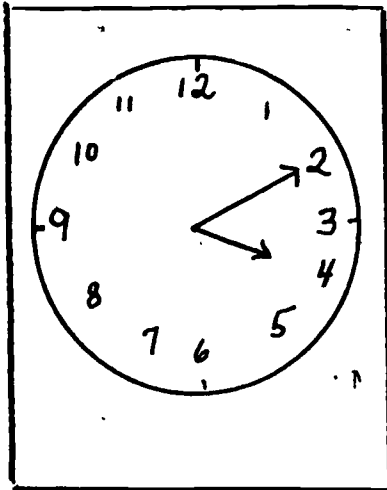
A place value board is shown with the title 'PLACE VALUE'. It is divided into two main sections: 'Thousands Period' and 'Ones Period'. Below these are six individual pockets labeled 'H', 'T', 'O', 'H', 'T', 'O' from left to right. To the right of the board is a vertical card with a horizontal line near the bottom and the numeral '0' written above it.

MATH - 10

TELLING TIME

Child reads the time on the clocks then finds the corresponding time written on the small cards.

Self Correcting - Matching designs on reverse side, lower right corner.



ten minutes
after four

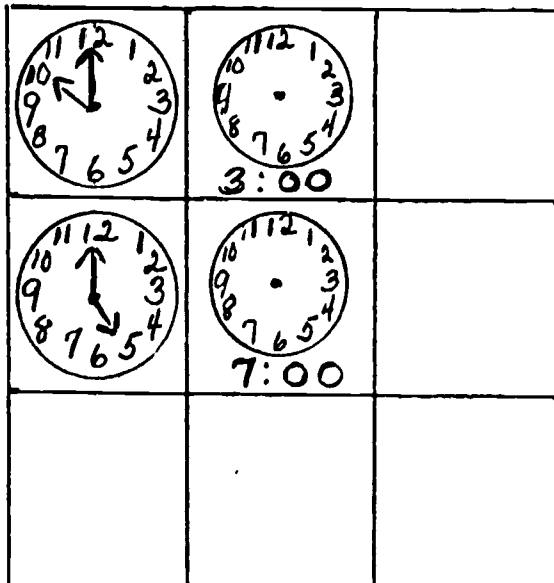
4:10

T.I.L.C. 1975
Alice Luster
Hebron Ave., Sch.

TELL THE TIME

MATH - 10

DIRECTIONS: Using a clock stamp make sheets to indicate hour, half hour, quarter of the hour etc. Laminate.
Child will use grease pencil or crayon to indicate the time or to draw the hands of the clock in the proper places.

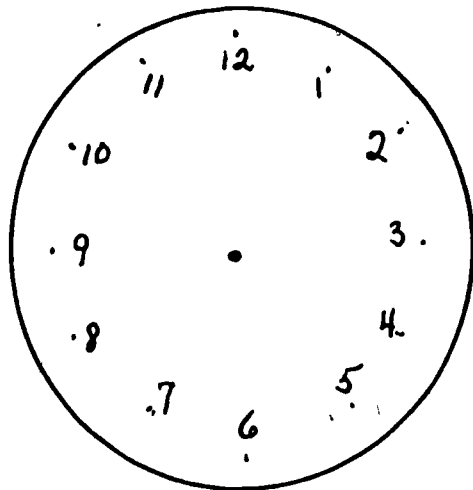


MATH - 10

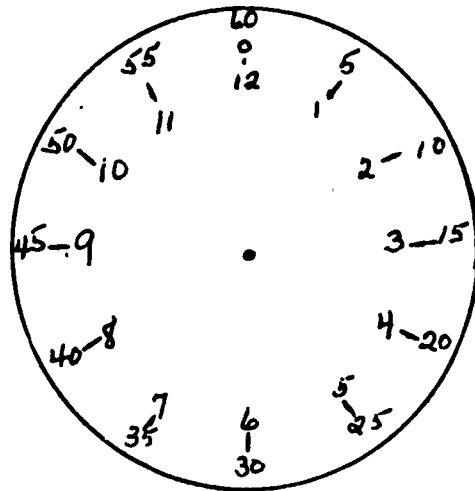
PAPER PLATE CLOCK

Clock face on front

(Brad holds hands front and back)



Front



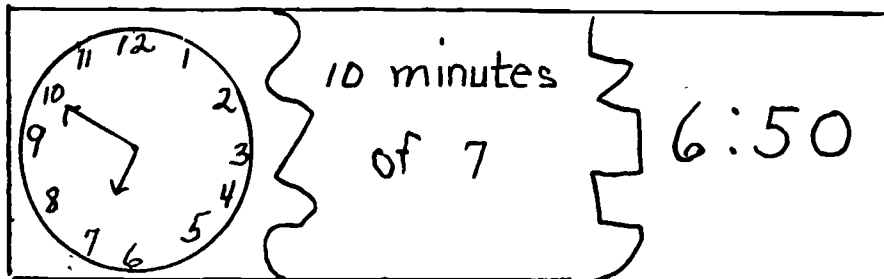
Back

T.I.L.C. 1975

MATH - 10

CLOCK PUZZLES

Match puzzle pieces to tell time with words and numerals.

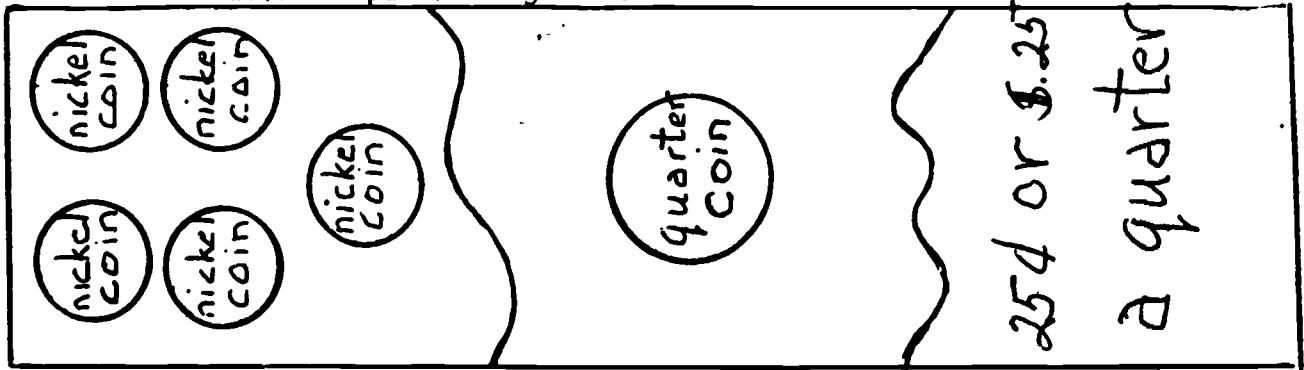


T.I.L.C. 1975
Barbara Hill
Batchelder

COIN PUZZLE

Material: Strips of tagboard, coin stamps, brown and grey construction paper, glue, felt pen.

Directions: Stamp coins on construction paper and cut out. Paste on strips with equivalent amounts. Write numeration value. Cut each strip into 3 parts so that equivalent money amounts will fit. Laminate. Child will fit puzzles together.

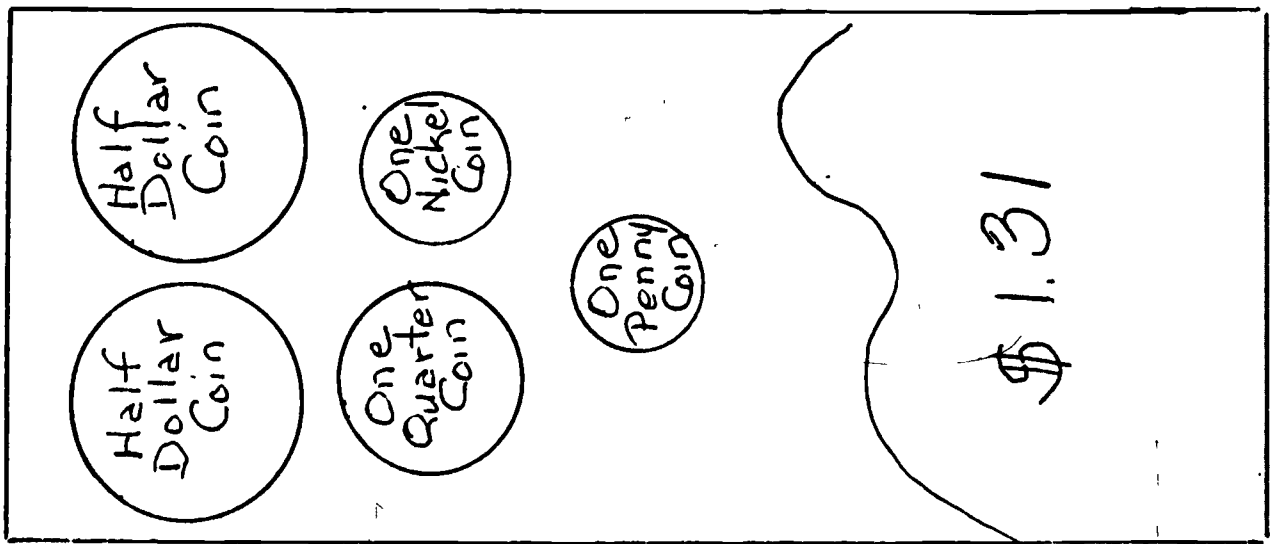


Elizabeth Schloss
Batchelder School, H

T. 19

MONEY PUZZLE

Child counts the amount of money on card, then finds the corresponding amount as it is written. Self correcting: Coin amount pieces fit with a written amount.



Alice Luster, Glastonbury

COUNT YOUR MONEY

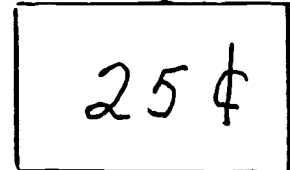
Playing directions to Count your money

2 players. Each pick a color. Have eight of each color. Players agree on a number of games (at least three). Lay 17 coin cards face down. Players take turns picking a card and placing his color card over the number on the game board that corresponds to his drawn one. When all are covered, players total the amount in any line of four covered numbers (like Tic-Tac-Toe). Player recording largest amount of money after an agreed number of rounds wins. (If no one wins a game, don't count it.)

Game Board

5¢	\$1.00	25¢	50¢
50¢	25¢	\$1.00	10¢
\$1.00	10¢	50¢	25¢
25¢	50¢	10¢	\$1.00

Coin Card



Color Card



T.I.L.C. 1975
A. Cooney
New Park Ave.

MAKING CHANGE

Divide sheet into three columns and 5 or 6 rows. In first column paste or draw pictures of items a child might buy. Mark a price one each. In another column draw (stamp) pictures of the coins given to pay. The third column is blank. In it, child tells what his change will be.

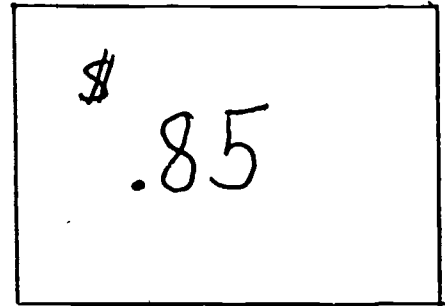
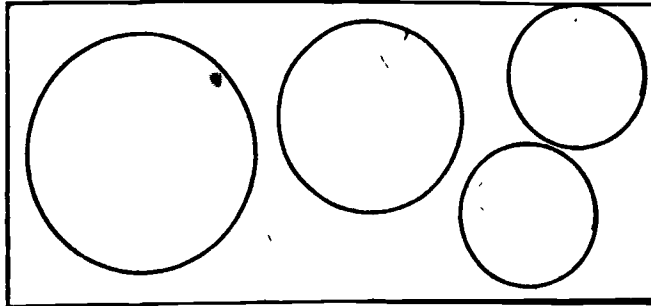
Item	Paid	Change
Picture of Crayons 22¢	(25¢) (10¢)	

You have	You Buy	Your Change will be
(50¢)	Picture of Kite 33¢	

MATH-11

MONEY MATCHING

Child counts the amount of money stamped on each card, then finds the corresponding amount written on the smaller card.
Self-correcting: Matching designs on reverse side, lower right corner.



Use coin stamps to make

T.I.L.C. 1975
Alice Luster
Hebron Ave. Sch.
Glastonbury

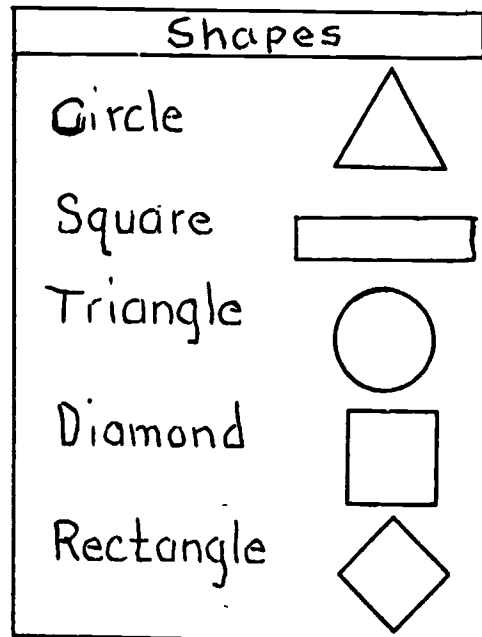
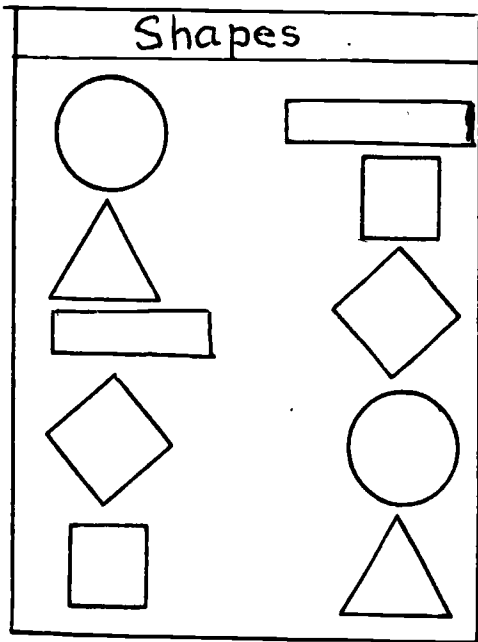
T.I.L.C. 1975
Alice Luster
Hebron Ave. Sch.
Glastonbury

MATH-08

SHAPE SORTING

9x12 tagboard, laminate

Child draws a line between matching shapes with a wax crayon.

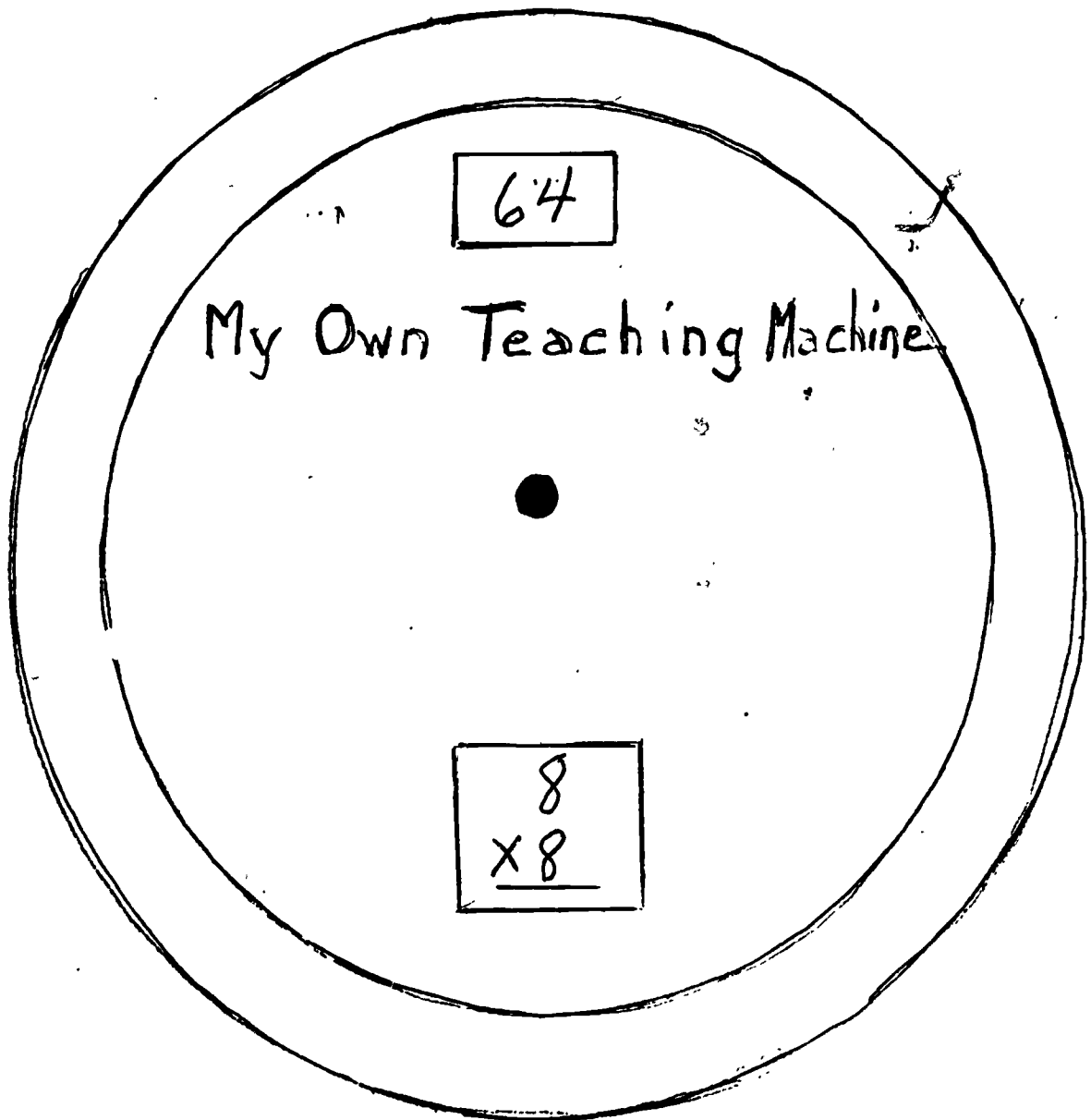


Players: One or more.

Materials: Cut a circle with a 4 inch radius. Cut another with a $4\frac{1}{2}$ " radius for the bottom. Make a 1x1" hole in the top circle and a $3\frac{3}{4}$ " flap. On the bottom part, write the multiplication facts with the products opposite the facts under the flap. The two parts are then fastened through the center with a brass fastener. Be sure that only the facts show through the 1x1" opening.

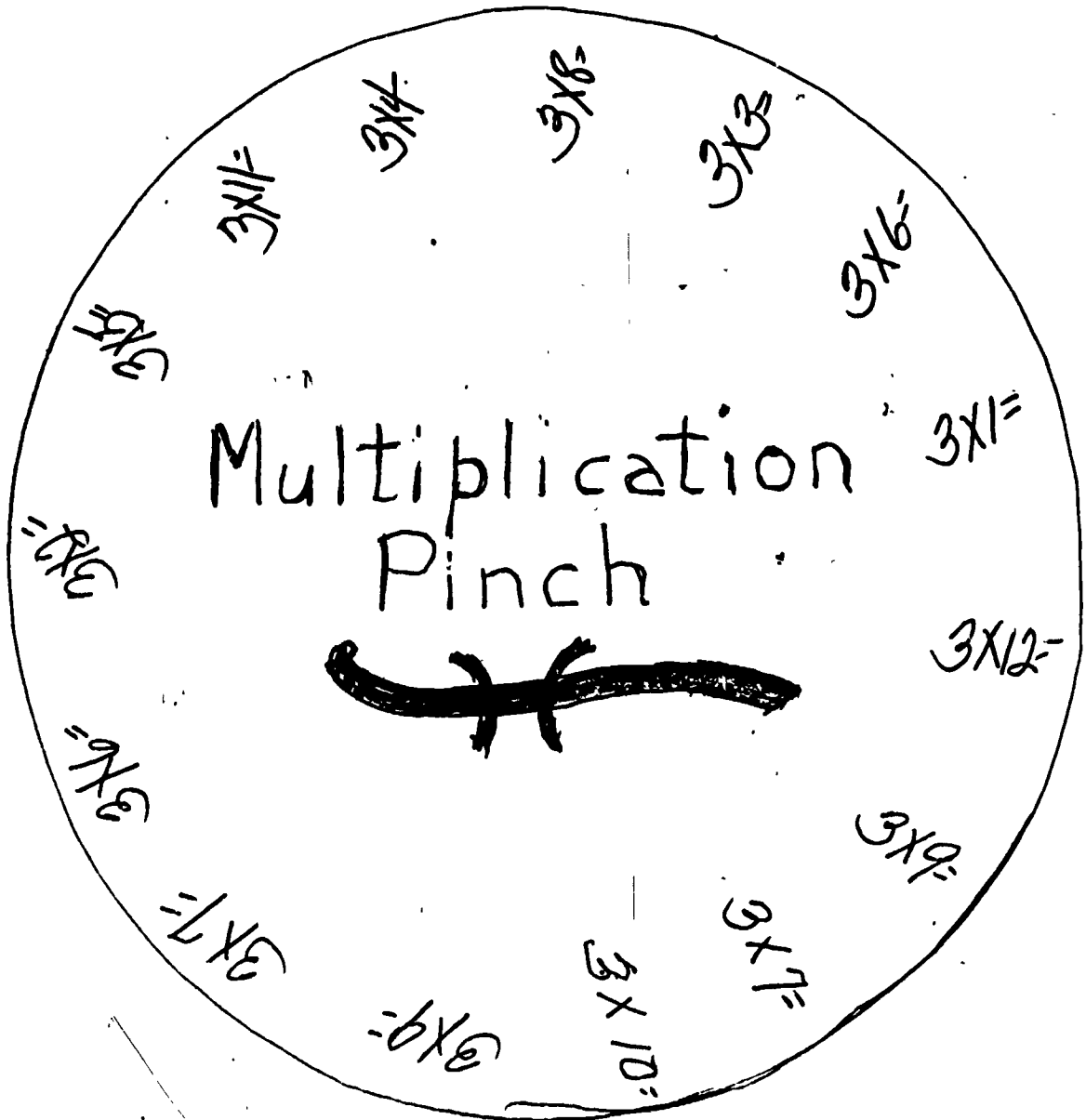
Directions: The pupil rotates the bottom circle until a fact shows through the 1x1" opening. He then thinks the product and lifts the flap to check the answer. When he knows these facts, a new bottom circle can be made.

Adaptations: Addition, subtraction, and division facts can also be learned from this game.



MULTIPLICATION PINCH

Make wheel with +, -, x, - facts. Have container with clothespins in it. Clothespins have numbers on them. Children clip or PINCH clothespin to fact for answer.



Jane S. La Branche
Henry C. Dwight Sch.
Hfd.

1. Cut squares apart. 2. Children fit the squares together in a 4x4 array so that the edges that touch name the same number. 3. Then turn over the cards in place for a picture and a message.

64	8x8 3x7	21 56:7	8
6x5	36	3x5	8x4
30	4x9	15	32
4x3	12 8x5	40	6 48:8
9	7x4	4	45:5
27:3	28	16:4	9
5	25:5 4	36:9 7	49:7
0x6	7	24:8	54
0	42:6	3	9x6
81:9 9	70:7	10 8	72:9

T.I.L.C.
1975

MATH -04

DOMINOSUMS

A set of double-six dominoes (commercial or made from oaktag).

2 players each draw three dominoes.

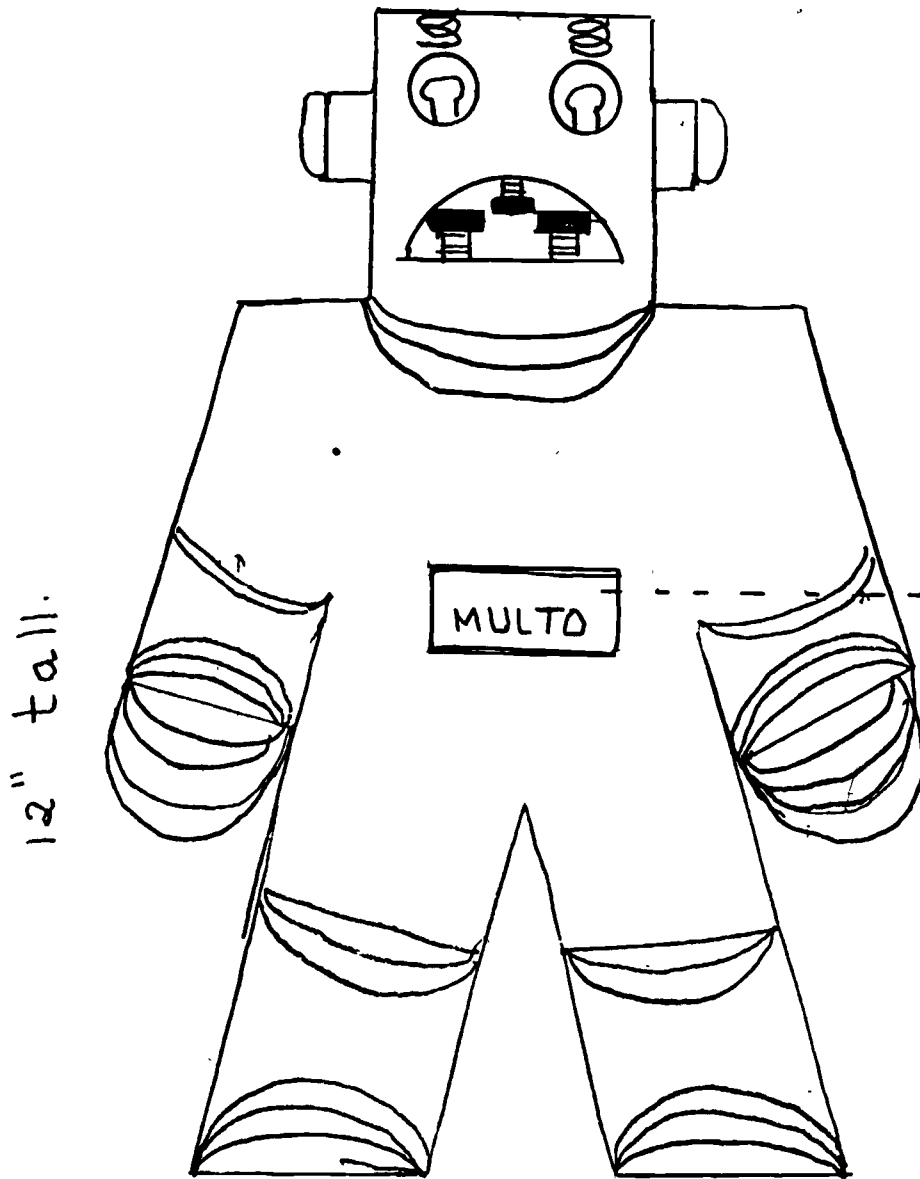
Players take turns placing domino on game board so that they add up to but do not exceed a chosen sum (ex. 100).

If a player reaches the exact number, he wins and gets 10 points; if the domino he plays exceeds the chosen sum he loses and his opponent gets 5 points. If the sum is less than the goal when all 6 dominoes have been played, more are drawn - one at a time - and played until the sum is reached or exceeded. Then players start all over, drawing 3 new dominoes, etc., until all dominoes have been used.

For lower primaries the number may be written (ex. 32) and children match with appropriate domino (ex:



For reinforcement of facts. Can be used for four fundamentals and fractions. Make strips you need.



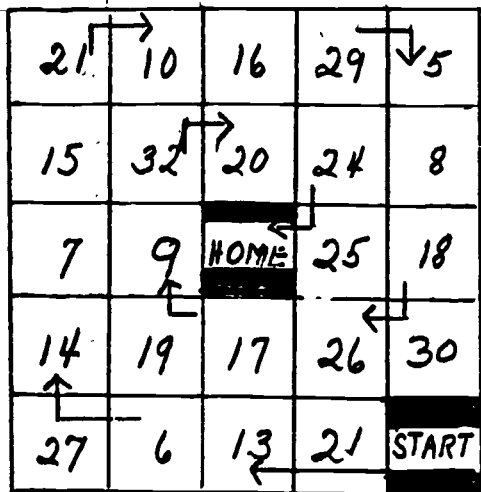
- Cut out.
Then paste
strip on back
(face down)
that top &
bottom are
free for str
to slide thro
Self correct

1/4	2x1	2	2x2	4	2x3	6	2x4	8	2x5	10	2x6	12	2x7	14	2x8	16	2x9	18	2x10	20	etc.
-----	-----	---	-----	---	-----	---	-----	---	-----	----	-----	----	-----	----	-----	----	-----	----	------	----	------

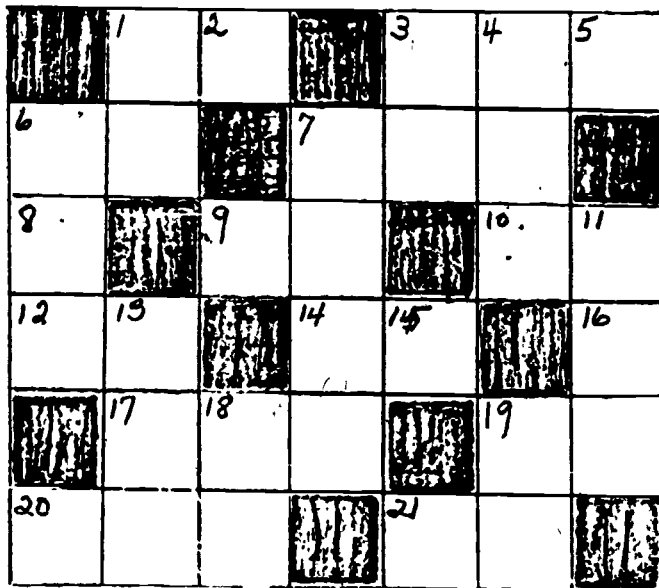
12"

REMAINDER RACE

Directions: 2 players. First player spins; divide the number he gets into the number on board; then he moves the number of spaces of the remainder he gets. A spinner or cards could be used.



MULTIPLICATION AND DIVISION PUZZLE



ACROSS

1. $9 \times 7 =$
3. $(125 \times 5) \div 5 =$
6. $7 \times 9 =$
7. $(125 \div 5) \times 5 =$
8. $9 \times 6 =$
9. $\underline{\quad} = 60 \div 5$
10. $11 \times 5 =$
12. $(3 \times 5) \times 3 =$
14. $(3 \times 3) \times 5 =$
16. $0 \times 0 =$
17. $42 \times 10 =$
19. $420 \div 42 =$
20. $10^2 =$
21. $40 \times (5 \times 2) =$

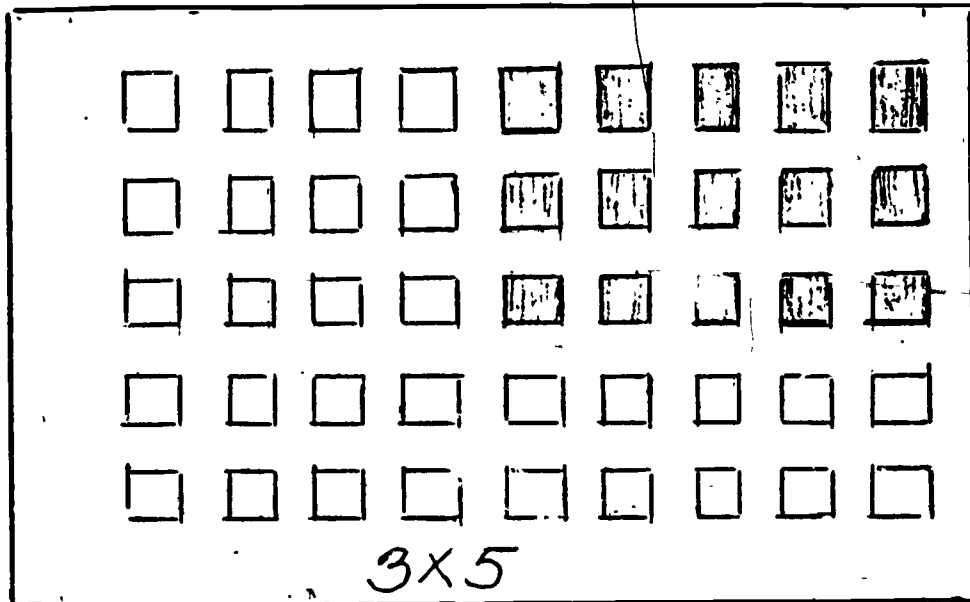
DOWN

1. $7 \times 3 \times 3 =$
2. $3 \times 1 =$
3. $2 \times 2 \times 3 =$
4. $1 \times 255 =$
5. $5 \div 1 =$
6. $\underline{\quad} = 4 \times 151 =$
7. $10 \times 124 =$
9. $\underline{\quad} \times 6 = 6$
11. $5 \times 3^3 =$
13. $9 \times 0 \times 10 =$
15. $25 \div 5 =$
18. $100 \div 5 =$
19. $1000 \div 100 =$

An activity to visualize the additive basis of multiplication.

For ex: Criss-cross any two cards and count the cut out squares; the total will be the product of the 2 numbers at the bottom of the cards.

NOTE: Have a thick magazine or newspaper under the card as you use a razor knife or utility knife.



Directions: 1. A player rolls a pair of dice and multiplies the numbers that come up (ex. 4 and 6 come up, $4 \times 6 = 24$). He writes the answer in the proper squares.

2. The second player takes a turn, recording his answer on the board but using a different color pencil. (If two colors are not available each child may initial his answer squares.)

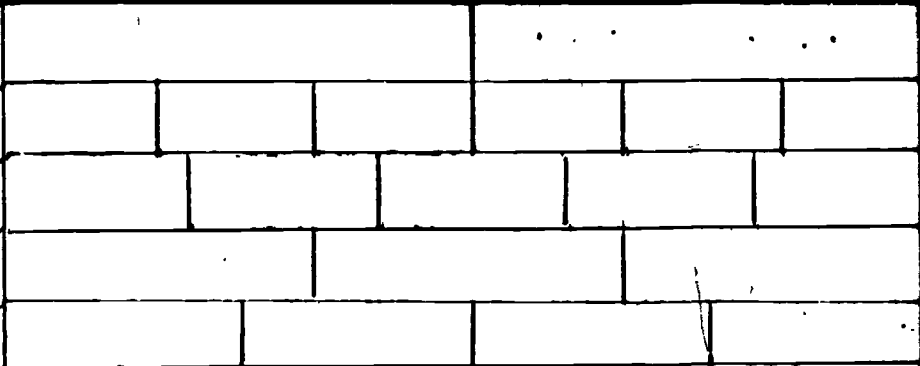
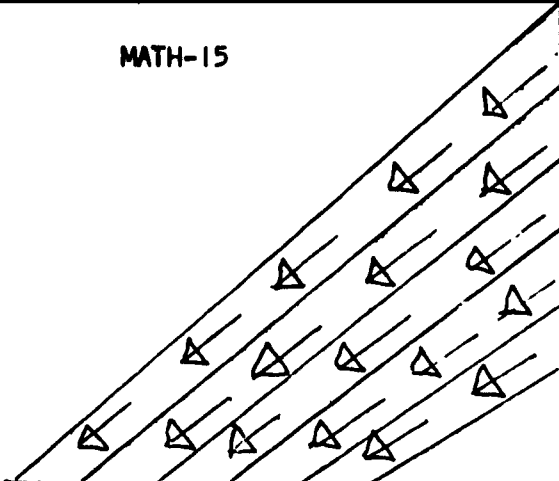
3. The first player to obtain 3 squares in a row- across, down, or diagonally-wins. Answer sheets may be provided to prevent arguments.

VARIATIONS. Game may be played until all squares are filled: player with most squares wins.

For children just beginning to learn facts teacher may wish to put answers on game board. Then child rolls dice, locates answer and places X or O in the squares.

NOTE: If practice with combinations other than 1-6 is desired, dice can be cut from ordinary sponges and marked with any combination of numbers by magic marker, mark board accordingly (ex. 2 dice with 4-9, or one with 4-9 and second with 1-6).

X	1	2	3	4	5	6
1						
2						
3						
4						24
5				20		
6						



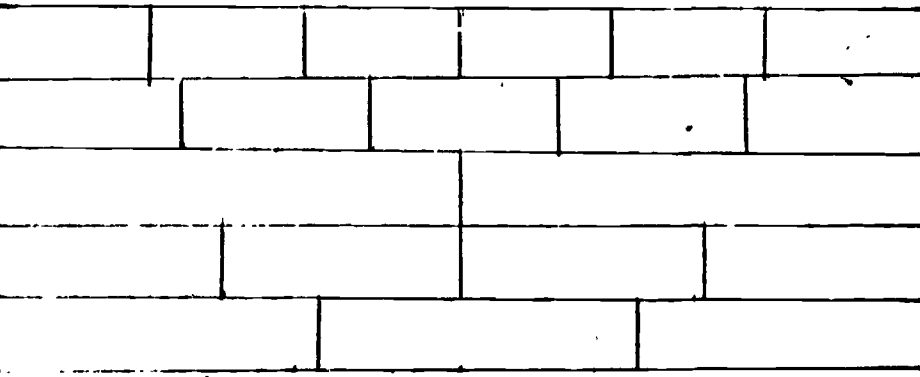
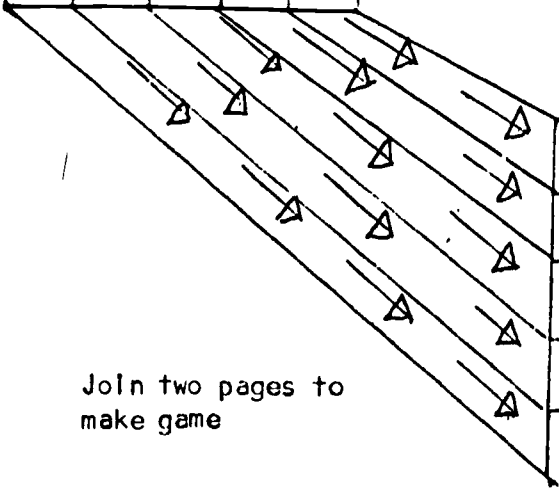
ER ACTIONS

Equipment Needed: Game board, three dice, a small marker for each player.

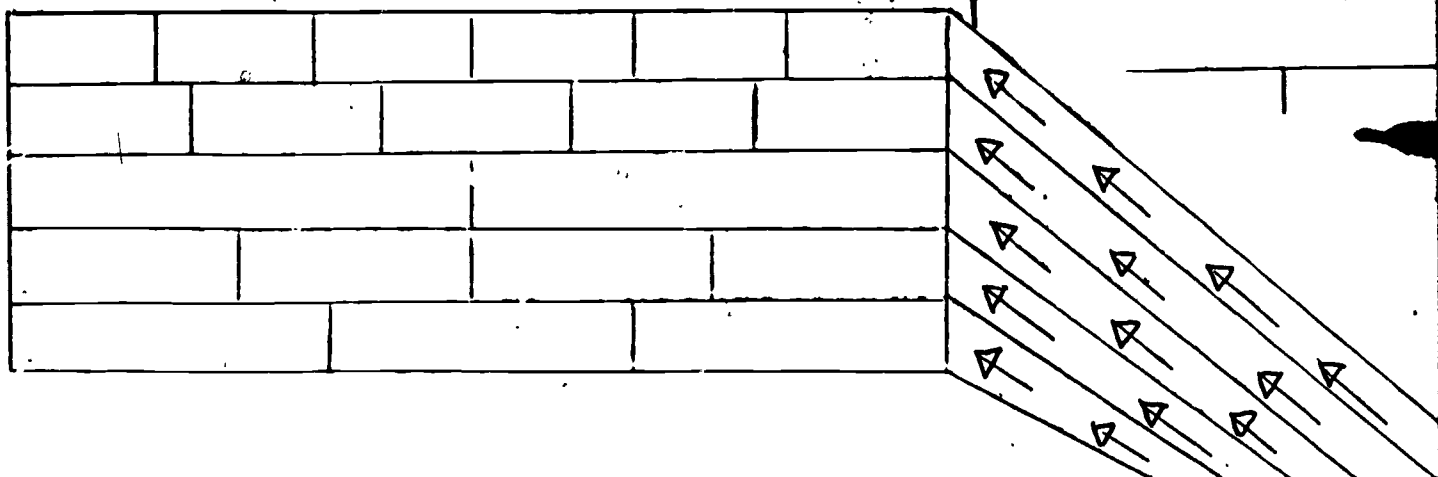
Rules:

1. Dice throw: Three dice are thrown. Player selects two of the three dice to represent a proper fraction.
2. To start play: All players throw dice. Player throwing largest proper fraction selects his lane first. Player throwing second largest fraction selects lane second, etc. Play proceeds counter clockwise.

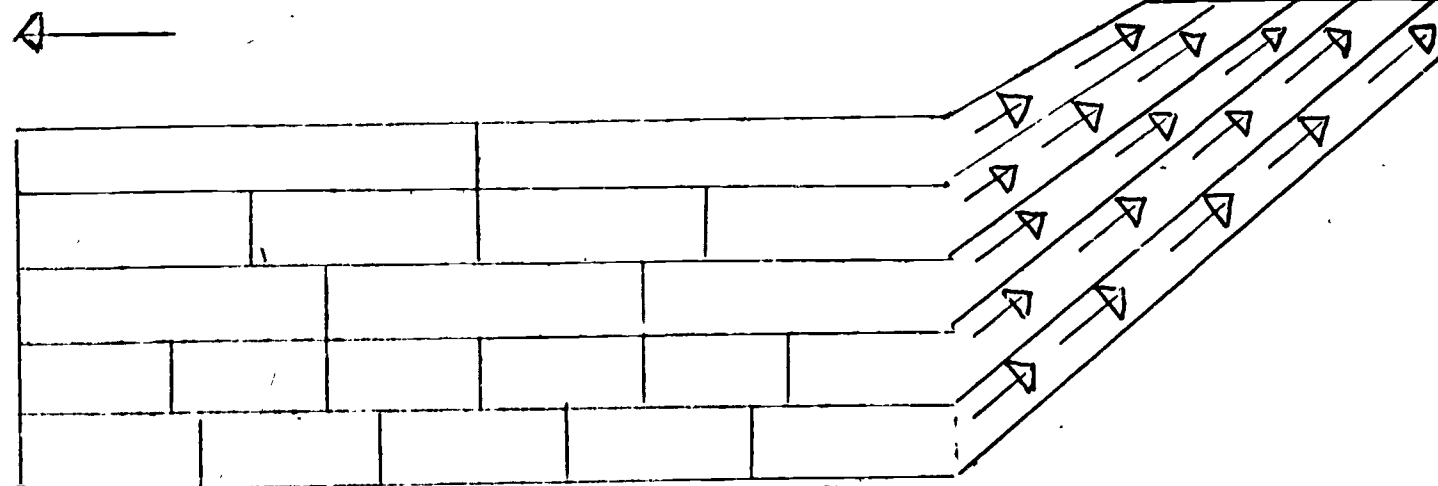
continued →



Join two pages to make game




3. Play: Throw dice. If a proper fraction formed by combination of two of the three dice shown relates to a player's lane, he may move. Moves must be exact. For example, player in the "Thirds Lane" cannot move if he throws $\frac{1}{2}$.
4. To end game: First player to cross finish line wins. (Players may agree on two or more laps to a game.)



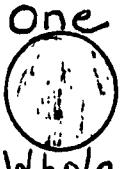
START


Fraction Dominoes


Five Sixths 

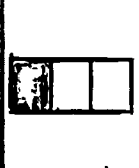
$\frac{1}{2}$ One Quarter


$\frac{5}{6}$ One Quarter


One Whole 


$\frac{1}{3}$ 


$\frac{5}{6}$ 

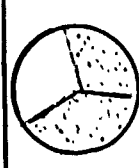
$\frac{1}{2}$ 

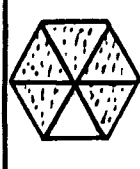
One Whole 


One Third 

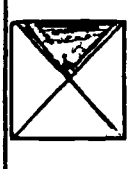
$\frac{2}{3}$ 

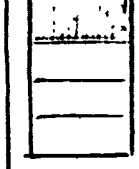
$\frac{2}{3}$ 

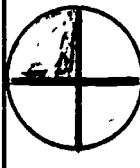
$\frac{2}{3}$ 

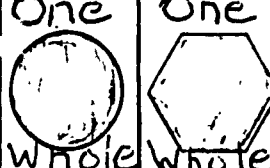
$\frac{5}{6}$ 

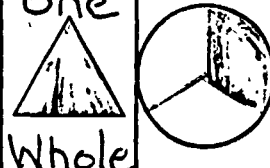
One Whole 

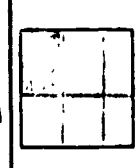
$\frac{1}{6}$ 


$\frac{1}{4}$ 

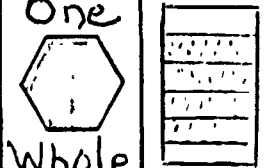
Two Thirds 

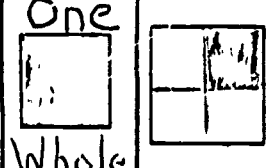
One Whole One Whole 

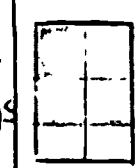
One Whole 


One Sixth 


Two Thirds 


One Whole 

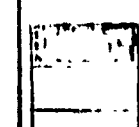
One Whole 

Five Sixths 

$\frac{1}{2}$ 

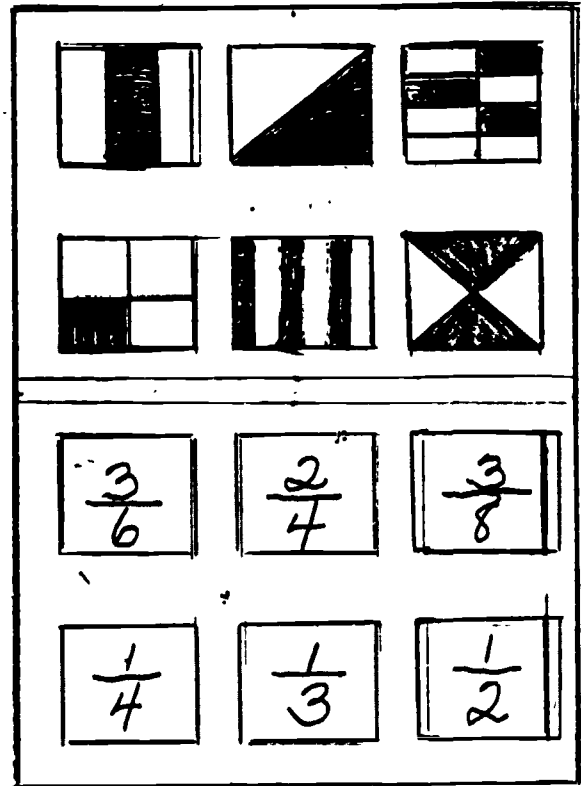
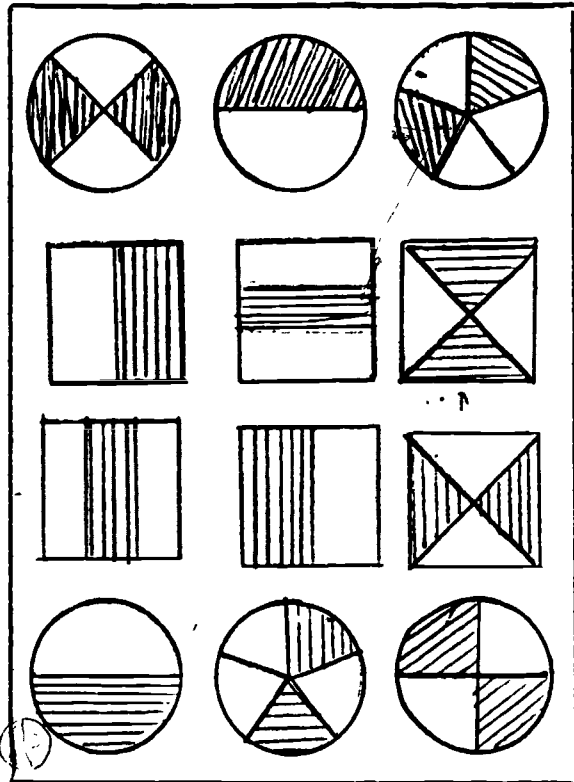
One Half 

$\frac{1}{3}$ 

$\frac{5}{6}$ 

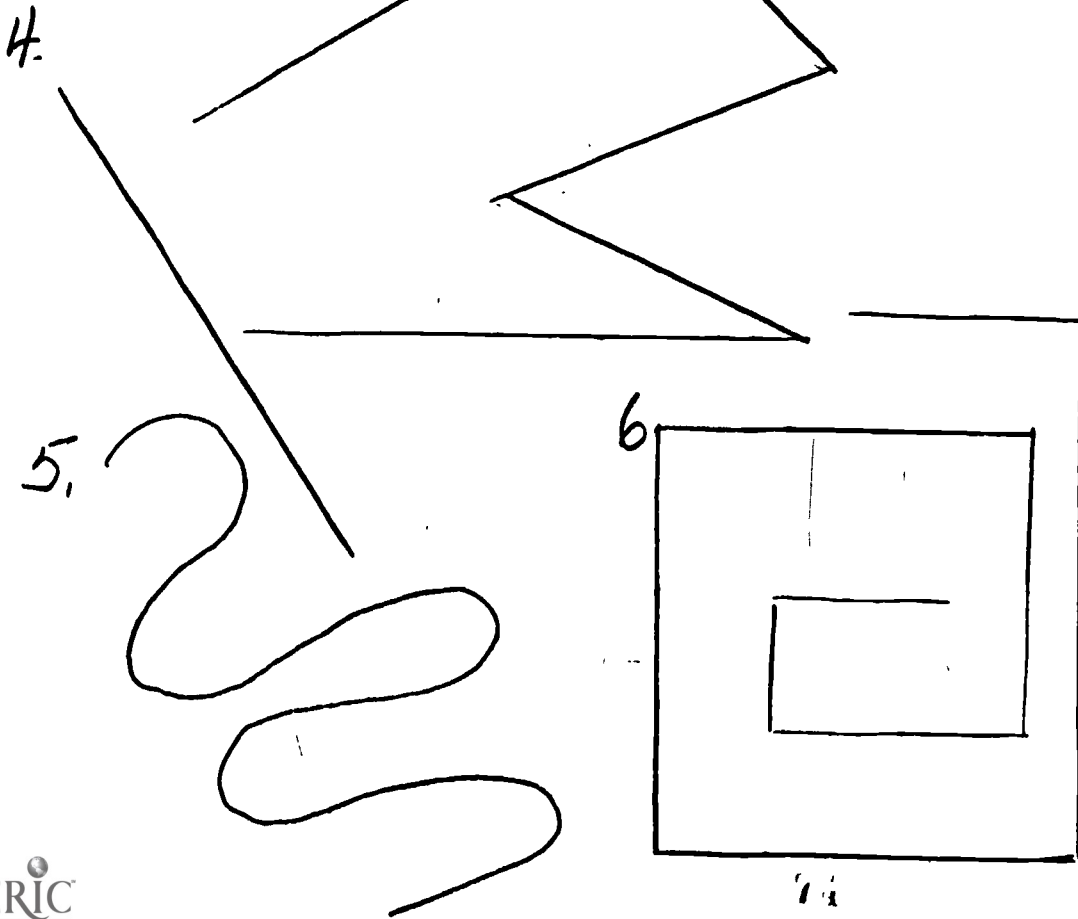
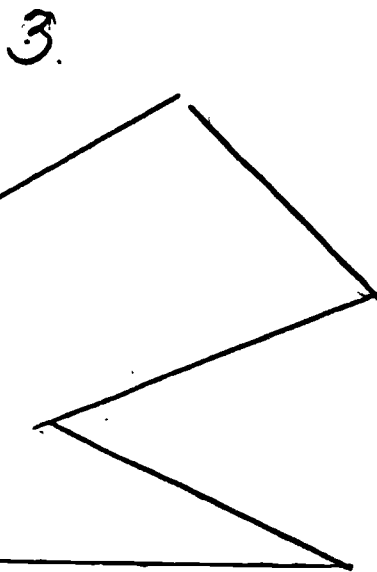
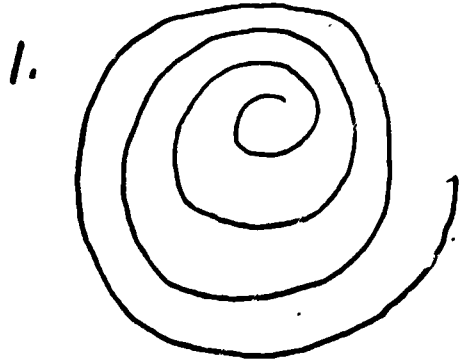
These activities reinforce fraction concepts and provide practice in number recognition and eye-hand coordination. Sheet 1 deals with identical relationships. The remaining sheets involve matching a shaded figure with its corresponding number form.

Dittoes of the sheets can be made for each child. Then he cuts out the shapes on the lower half of the page and matches them with shapes on the upper half. After the teacher verifies each placement, the child may paste together the corresponding shapes or place them in an envelope for future use.



Materials Needed
 1. Ruler
 2. Yardstick
 3. String

How Can These Lines Best Be Measured?



1. Estimated length _____
 Actual length _____

2. Estimated length _____
 Actual length _____

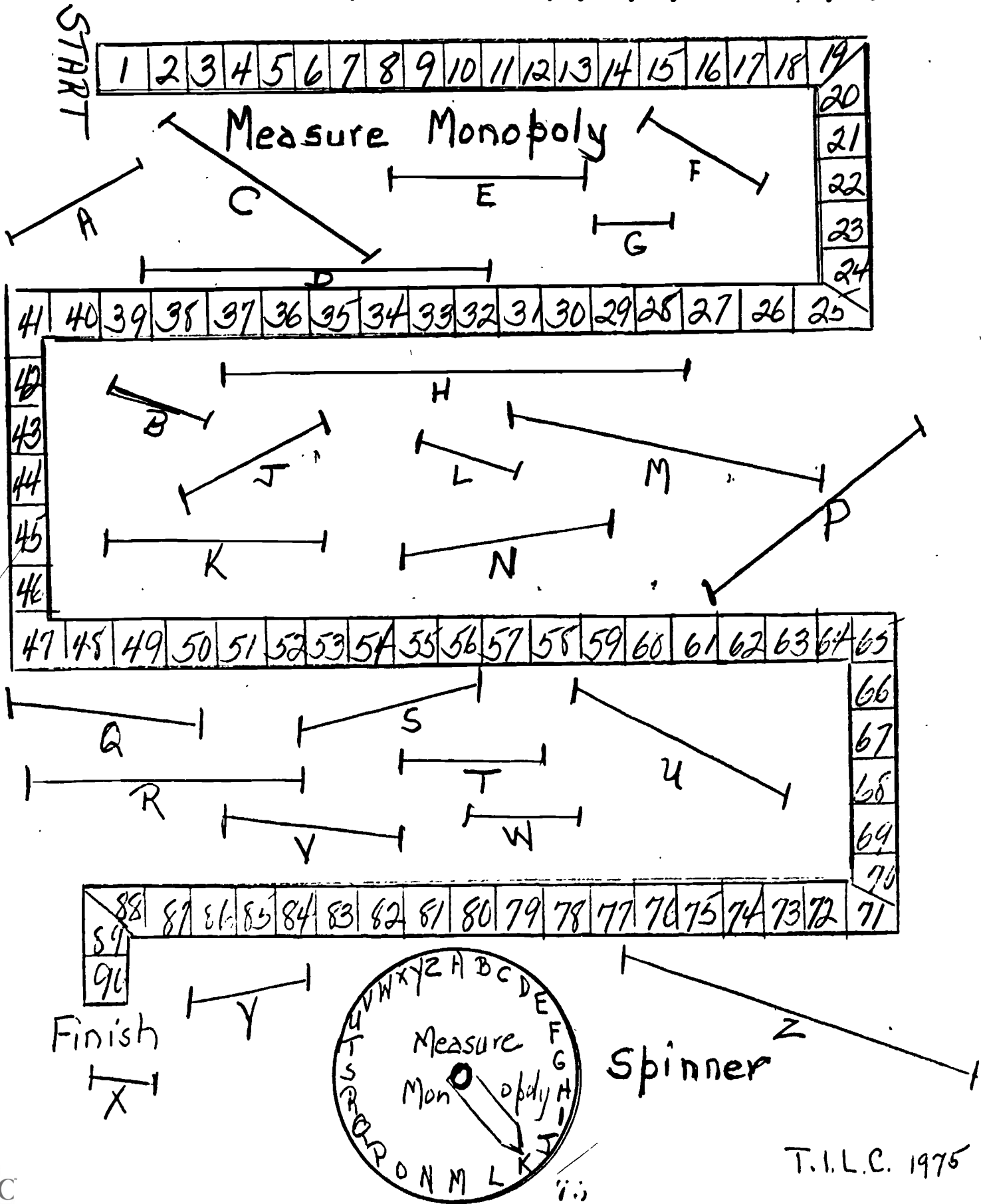
3. Estimated length _____
 Actual length _____

4. Estimated length _____
 Actual length _____

5. Estimated length _____
 Actual length _____

6. Estimated length _____
 Actual length _____

Student spins and measures the line above the letter where the pointer stops. He may move that number of spaces. Game can be played by any number of players.

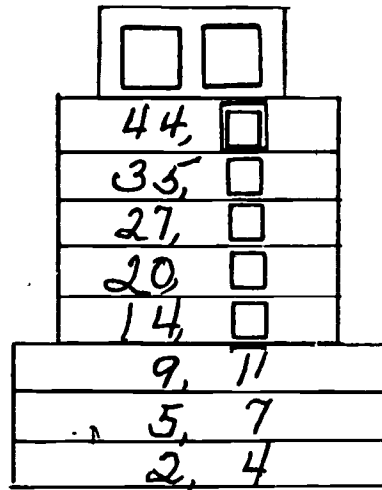


SKYSCRAPERS

Purpose: Logic of number patterns.

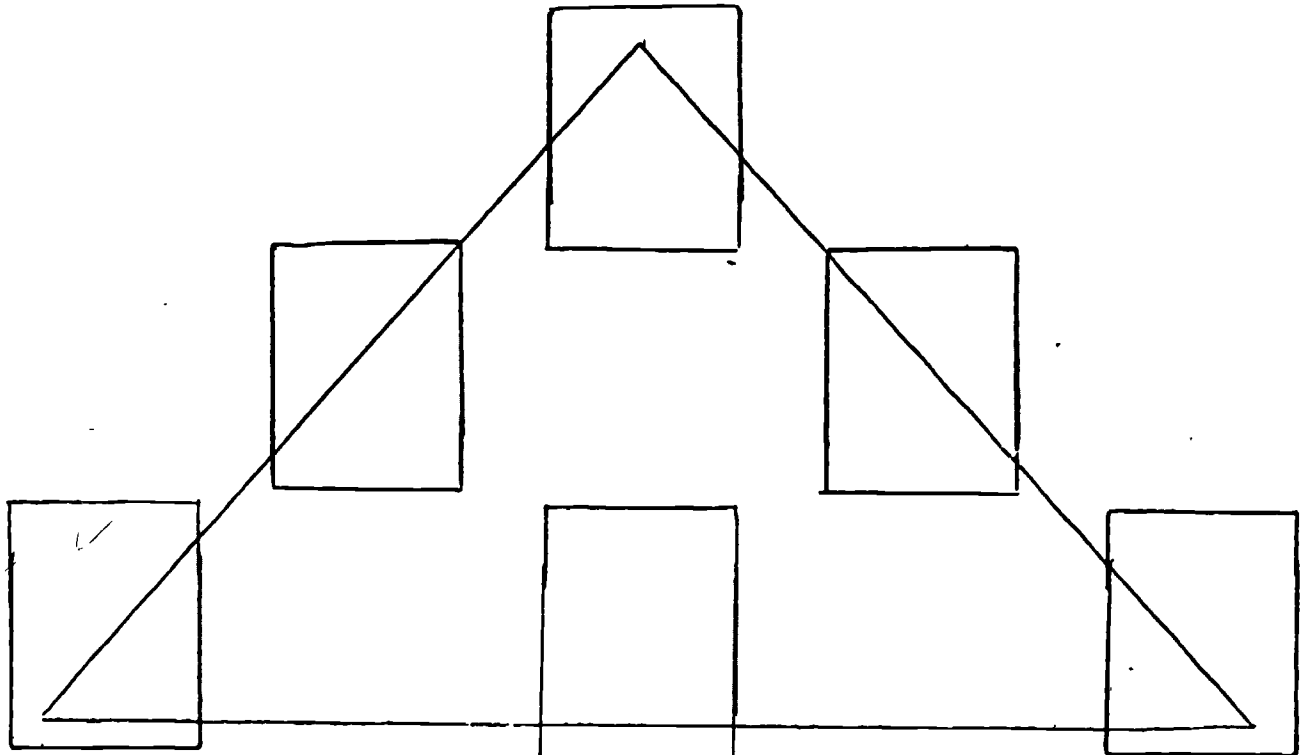
The first three floors are complete. The child is to observe the pattern, calculate what the missing numerals are, and perhaps extend the building upward with like pairs of his own.

Materials: oak tag skyscrapers with patterns such as that shown. Can be used in subtraction, multiplication, and division. A ditto record sheet with four or five skyscrapers to copy and complete would be useful.



NINE ON A LINE

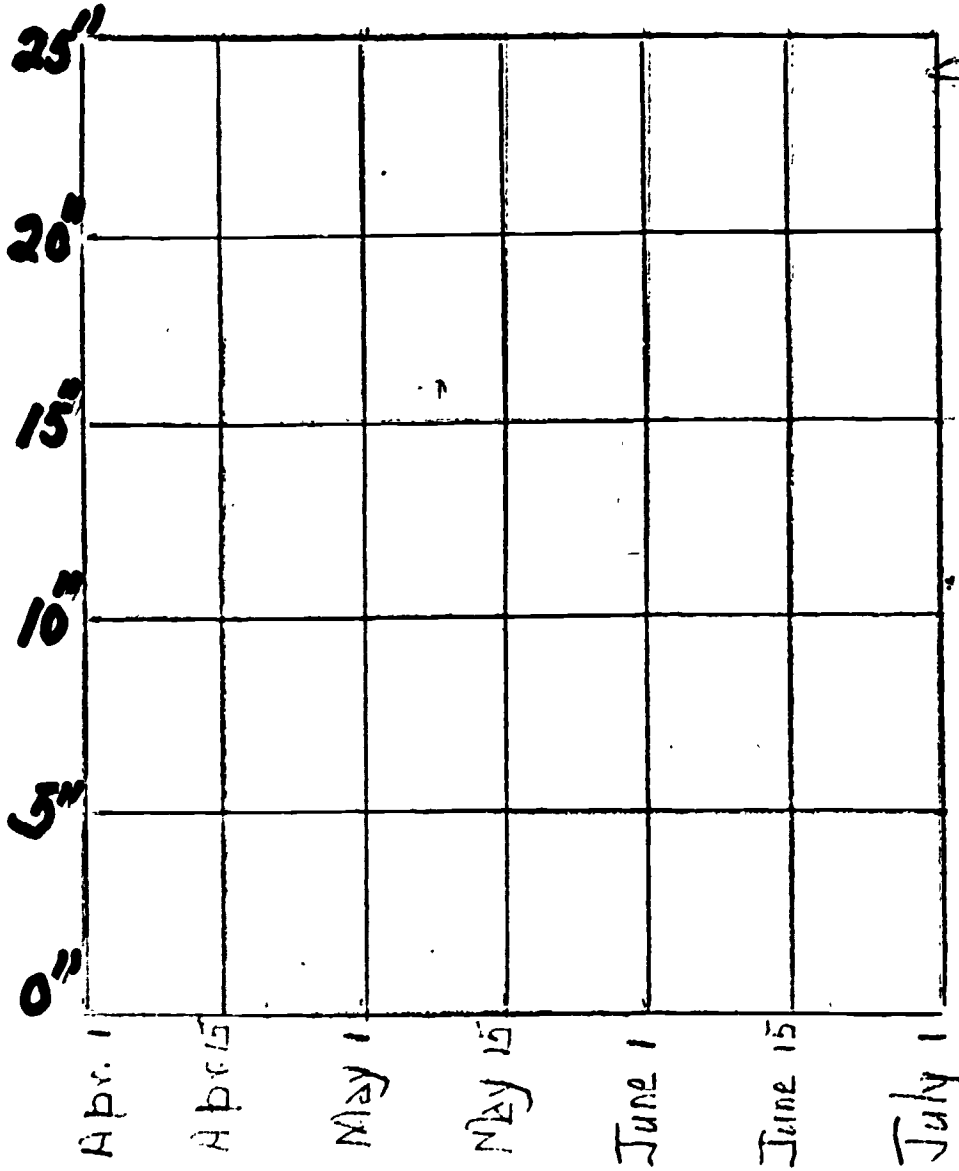
Arrange number cards (3) so that they total 9 on each side of the triangle. Cards are numbered 1 through 6.



MY SUNFLOWER GROWS UP

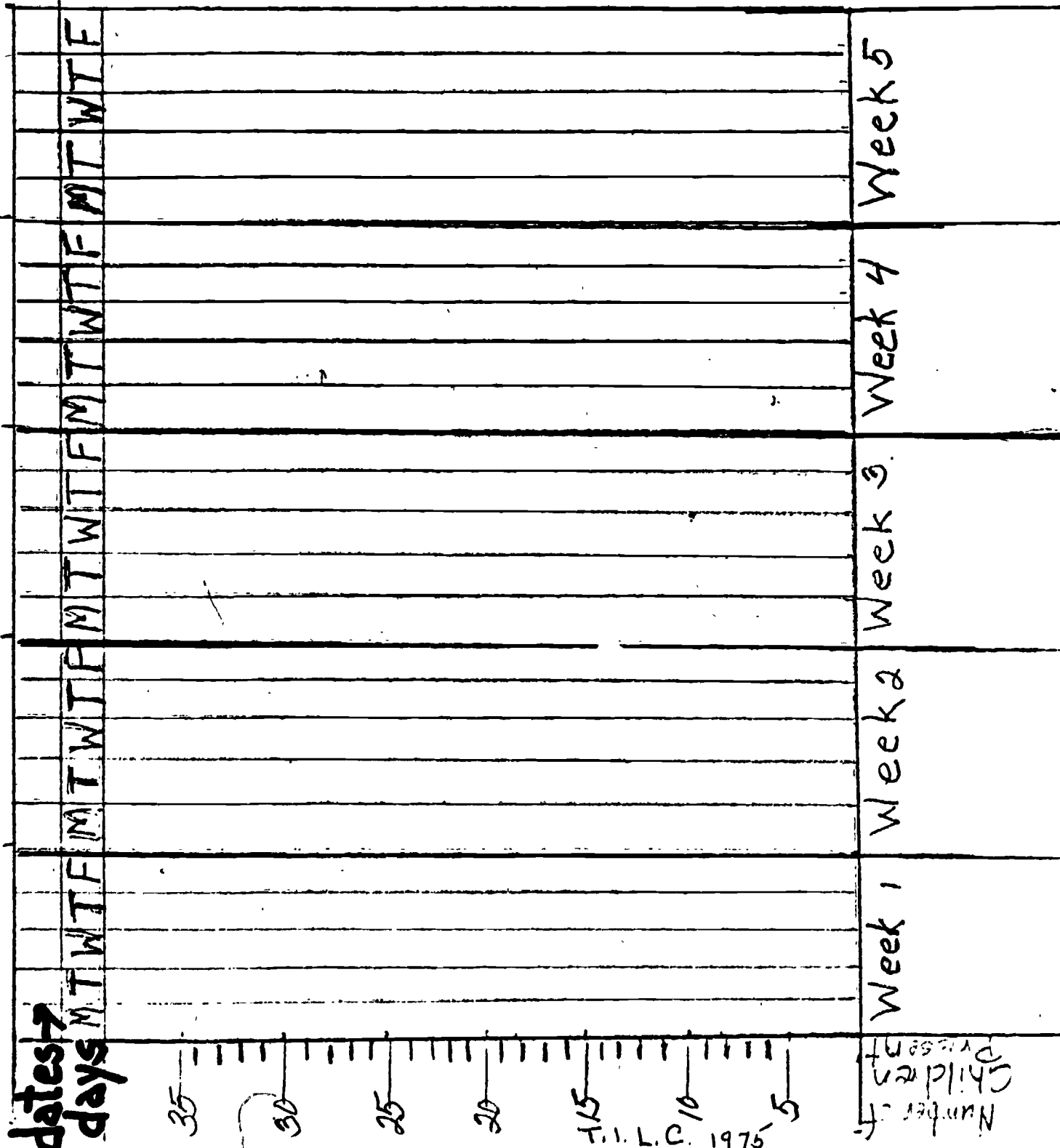
Make a line graph of this information:

- Apr. 1 ----0"
- Apr. 15 ---2"
- May 1 -----4"
- May 15 ----7"
- June 1 ----8"
- June 15 --12"
- July 1 ---20"



ATTENDANCE GRAPH

This an aid in helping students to understand graphs. It may be used as a bar or line graph. One child may take a week or month or day and mark the chart with washable pen or pencil.



You will need: Cuisenaire rods (or lengths cut to equal their lengths), meter stick, spinner, centimeter rulers, two players.

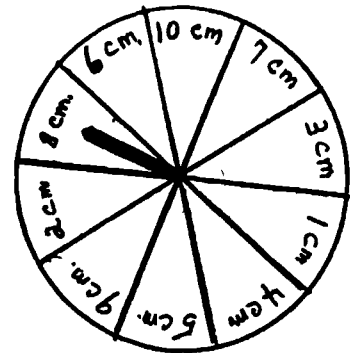
Directions:

Spin

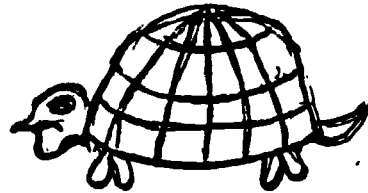
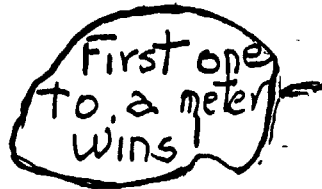
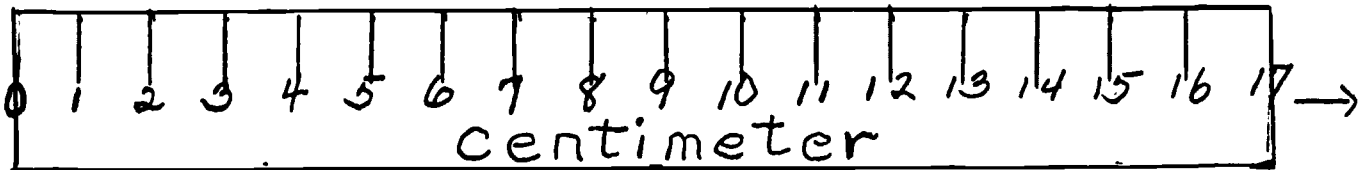
Measure to find rod length to match cm.

Place rods on each side of the meter stick.

First to 100 cm. is the winner !

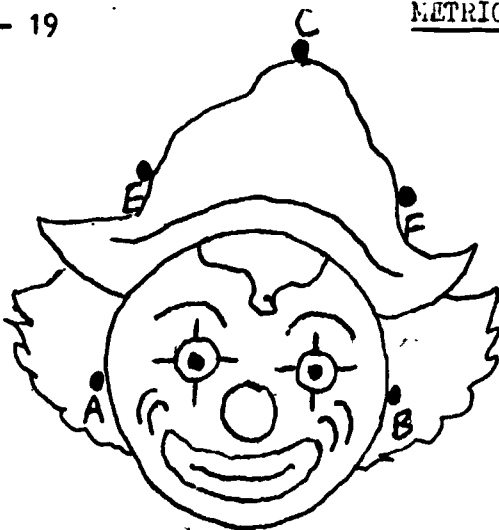


d. = 12 cm.



"The Arithmetic Teacher"
Mar., 1975

METRIC MEASUREMENT



Enlarge the clown face, placing the dots the distance apart you wish them to measure.

A to b = _____ cm.

c. to D = _____ cm.

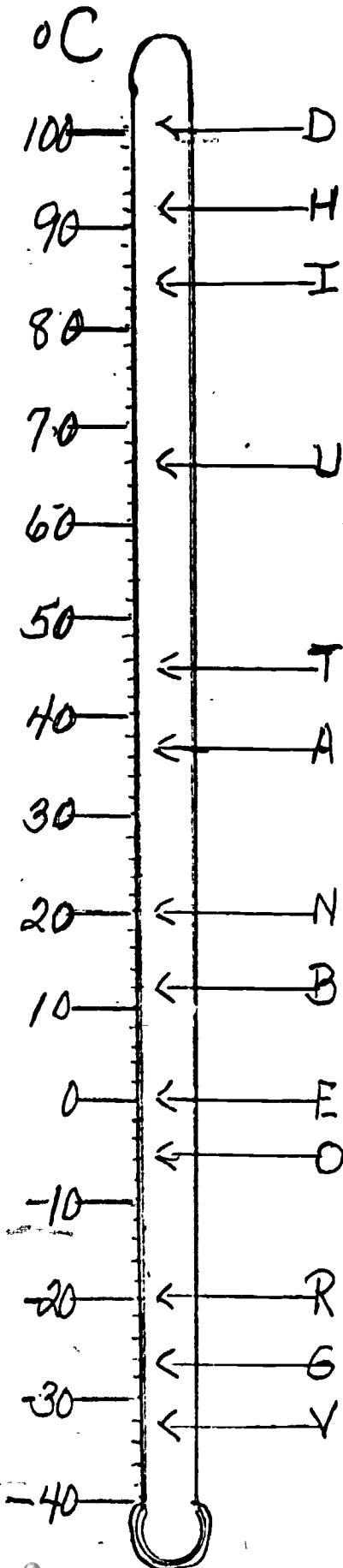
E to F = _____ cm.

Enlarge 3 times



FLUNKY FORECAST

Directions: Find each temperature on the thermometer. Take the letter from the thermometer and put it in the blank below.



- | | |
|-----------|------------|
| 1) 20° C | 7) 83° C |
| 2) 0° C | 8) 37° C |
| 3) 12° C | 9) -20° C |
| 4) 100° C | 10) -34° C |
| 5) 66° C | 11) - 5° C |
| 6) 45° C | 12) 91° C |
| | 13) -29° C |

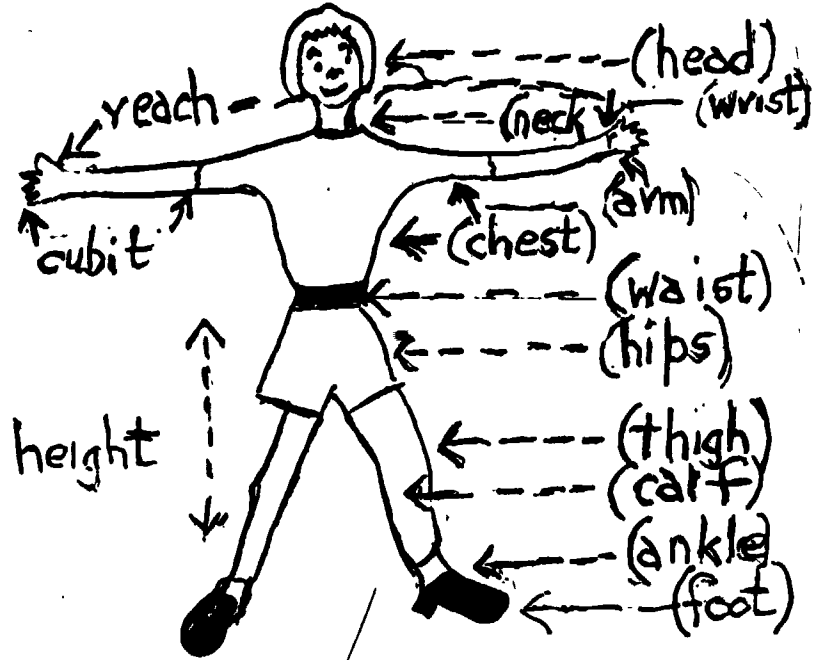
- 14) Normal body temperature
- 15) Boiling point of water
- 16) Freezing point of water

I could have been a weather-man,

$\frac{3}{3}$ $\frac{5}{5}$ $\frac{I}{I}$ $\frac{I}{4}$ $\frac{D}{7}$ $\frac{D}{1}$ $\frac{11}{11}$ $\frac{6}{6}$
 $\frac{12}{12}$ $\frac{8}{8}$ $\frac{10}{10}$ $\frac{2}{2}$ $\frac{14}{14}$ $\frac{15}{15}$ $\frac{E}{13}$ $\frac{9}{9}$ $\frac{E}{16}$ —

T. I. L. C. 1975

MEASURE YOURSELF



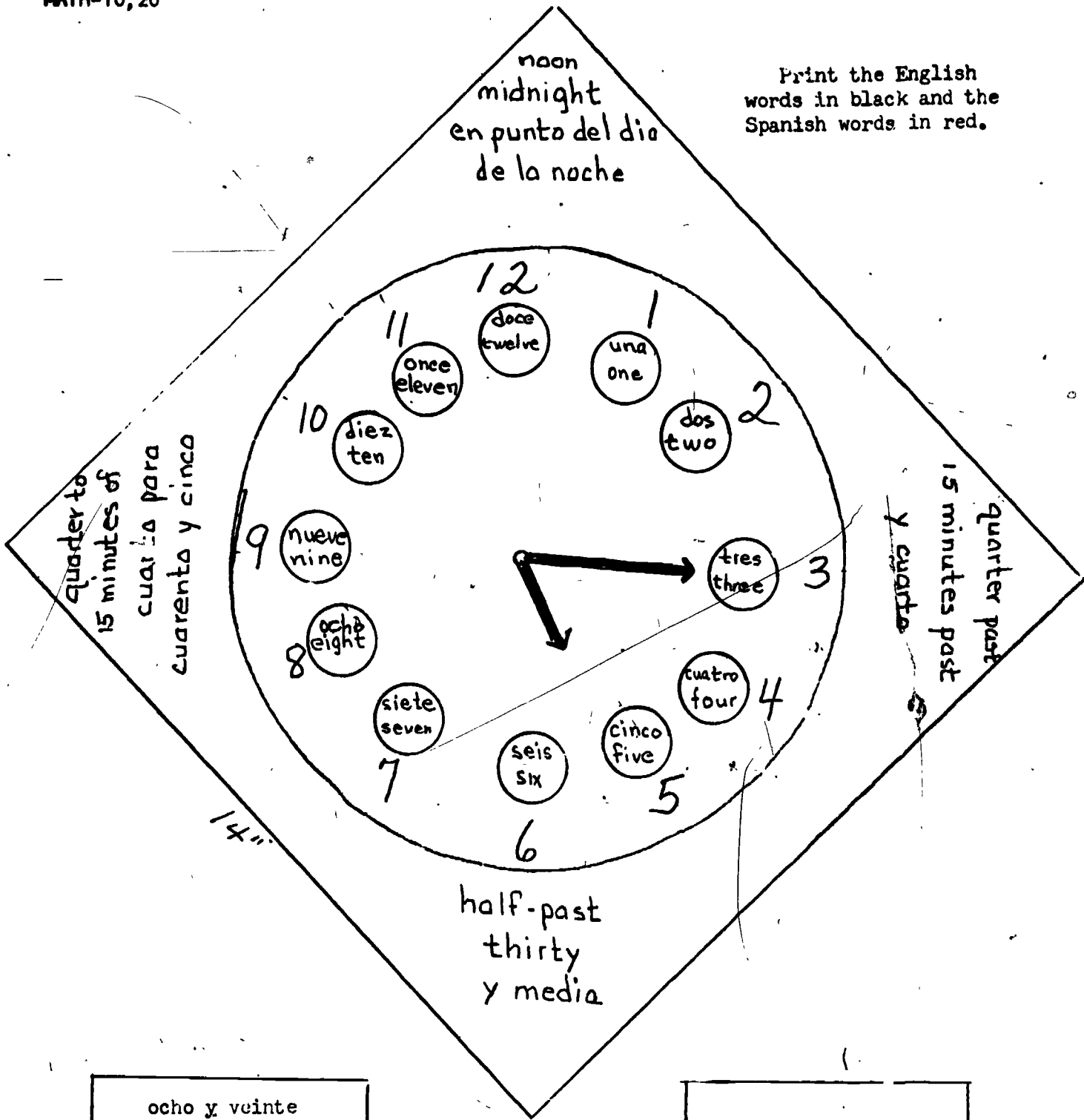
MEASUREMENT USING TAPES

() means measure around.

Measurement of:	Inches	Cms.
Wrist		
Ankle		
Calf		
Neck		
Head		
Thigh		
Waist		
Hips		
Chest		
Cubit		
Reach		
Height		

BI-LINGUAL CLOCK

Print the English words in black and the Spanish words in red.



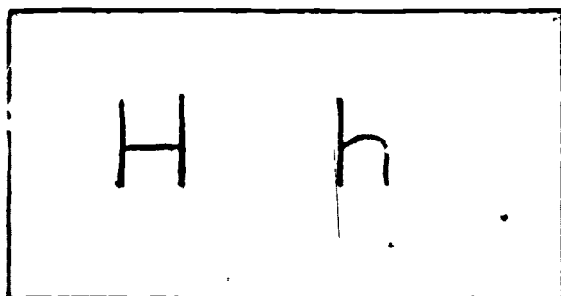
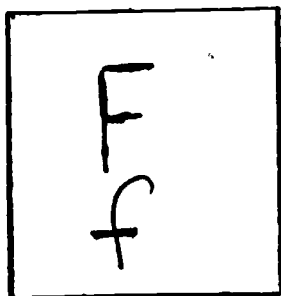
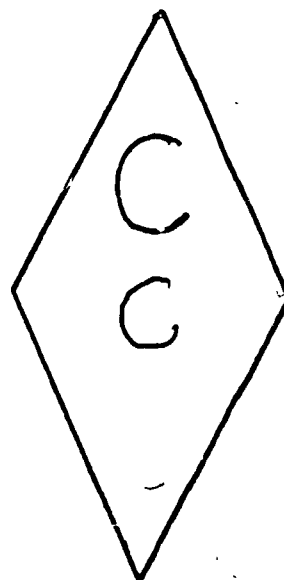
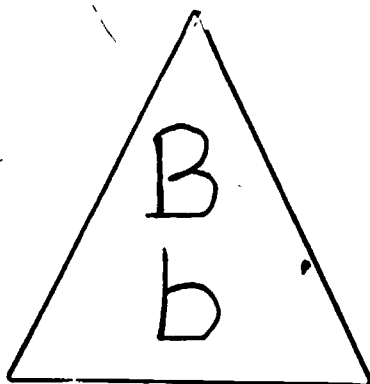
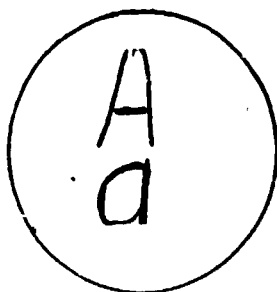
ocho y veinte
eight twenty
twenty past eight
8:20

sample cards

nueve y cuarto
nueve y quince
nine fifteen
quarter past nine
quarter after nine
9:15

INITIAL CONSONANT SOUND

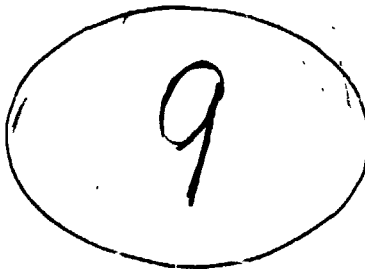
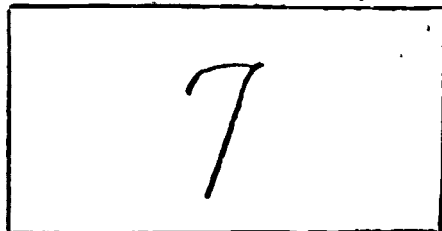
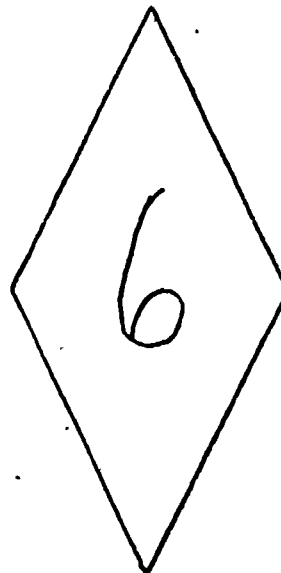
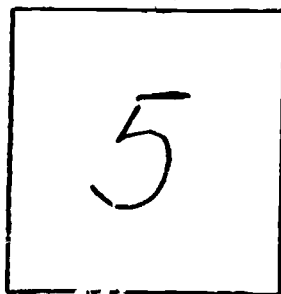
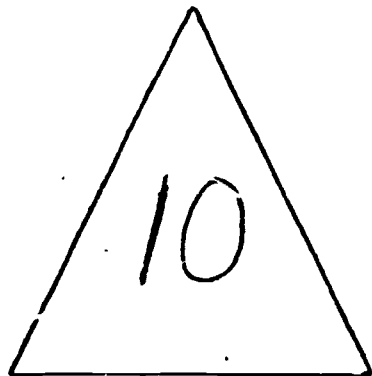
Match the proper picture to the shape containing the correct initial sound.



Fran Vaida
Hooker Sch. Htfd.

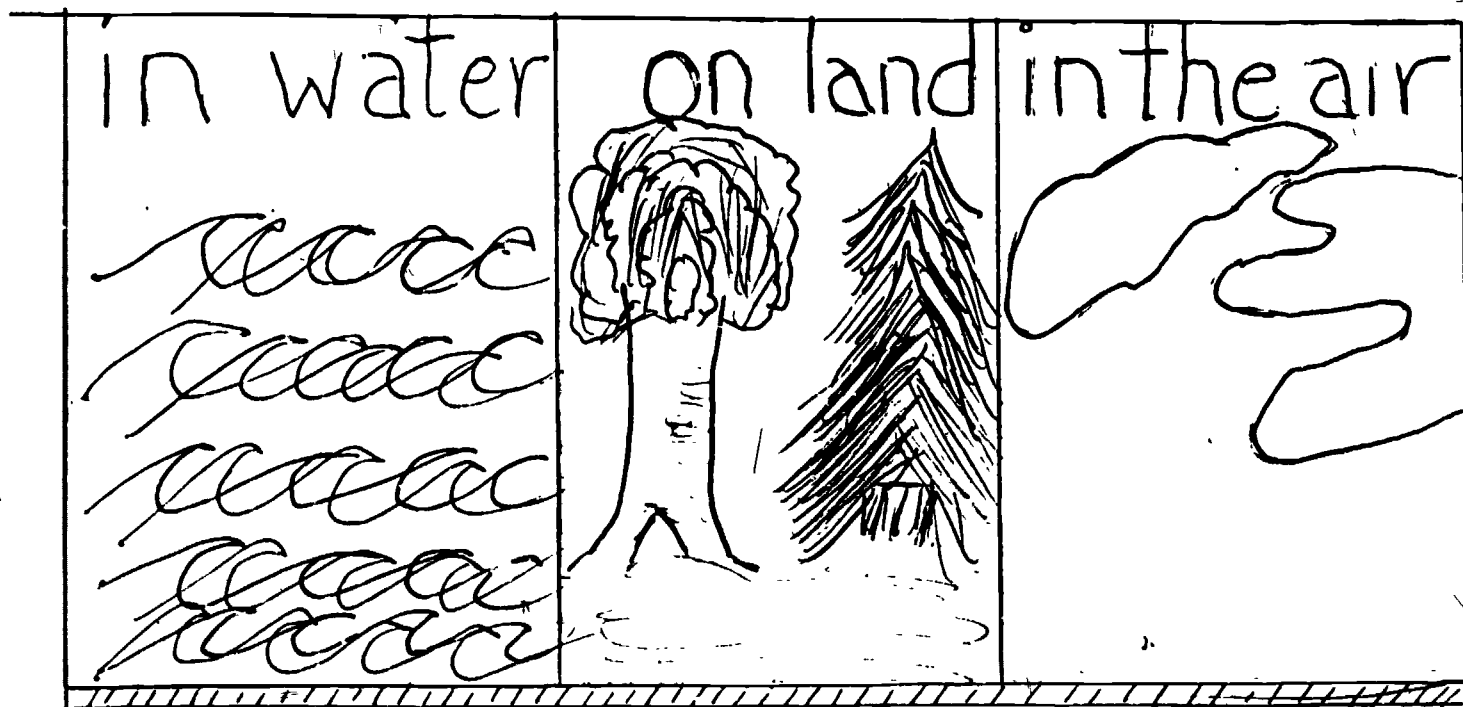
NUMBER MATCHING AND RECOGNITION

Match the proper card to the shape containing the correct numeral.



Fran Vaida
Hooker Sch., Htfd.

TILC. 1975



PICTURES OF
FISH
ANIMALS
BIRDS

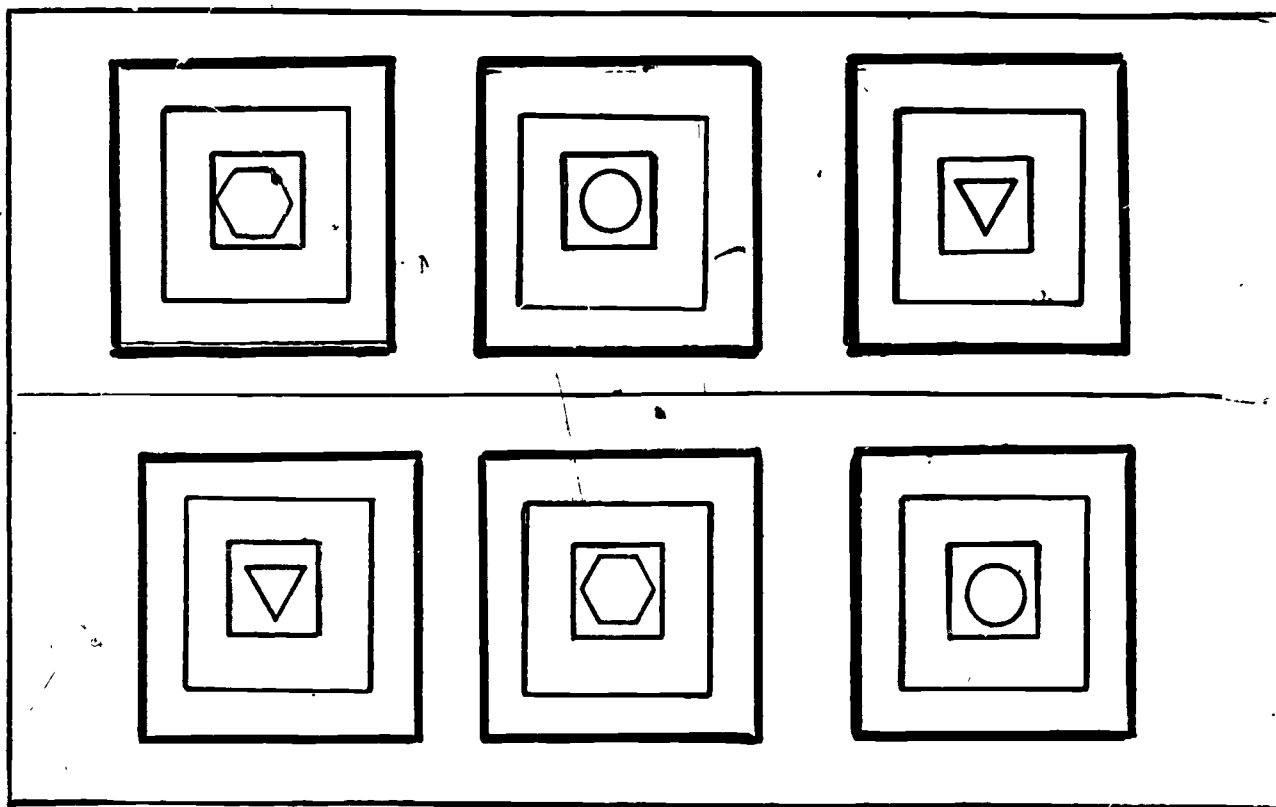
T.I.L.C. 1975

LOOK AND MATCH

2-6 players. One set of cards is placed face-up at random on table. Second set, with different colored background, is placed in pile upside-down in center of table. Card on top of pack is placed upright and children look for matching card.

When child thinks he has found a match he puts hand on card. If the cards correctly match, player keeps both cards and turns over the next card in pack. If chosen card is not a correct match player loses chance to win that turn. When all cards have been matched, player with most cards wins.

Variations: 1. For young primary children game may be played with fewer cards.
2. Level of difficulty may be controlled by materials used. Possibilities for sets are endless, ranging from: simple geometric shapes to complicated irregular shapes, a single primary color to varying shades of a color, sequenced patterns of x's and o's, position of marks on card, etc.



F. Vibert, Fox Sch., Htfd.

T.I.L.C. 1975

Learning Disabilities

This mat may be painted on a floor, in a play yard or made with tape on a canvas or oil cloth base.

The Directional Mat is a 56"x82" oil cloth mat, printed with a numbered grid. See illustration. The mat is used on the floor as a "game" to make spatial and directional concepts meaningful by isolating a portion of space and making it visible. In all his movements on the Mat, the student remains partially in touch with a center outline of a pair of shoes. Thus, the Mat has directional stability for the student. These two factors--visibility of space and stability of space--are the keys to helping the student understand space and direction.

The two broad pathways which divide the mat into quadrants represent two of the imaginary axes that intersect the body. The front-back movement pathway bisects the student in a vertical manner, creating a left body portion and a right body portion. The concepts of body midline and laterality are developed using this pathway. The left-right movement pathway bisects the student creating a front body portion and a back body portion. The concepts of front and back space are developed using this pathway.

Four directional words are printed on the Mat: front, back, left and right. Each quadrant on the Mat contains a numbered grid, such that every area can be described by a specific location. Commands for the student to execute are constructed on the basis of naming specific spaces on the Mat. For example, the student may be directed to "Move with your right foot, front to 2, right 3." The student slides his right foot forward until it is opposite the numeral 2, then slides his right foot to the right until it is within the space with the numeral 3 in it.

DIRECTIONAL MAT PLAN ON NEXT PAGE

7	6	5	4
6	5	4	3
5	4	3	2
4	3	2	1

FRONT

4	5	6	7
3	4	5	6
2	3	4	5
1	2	3	4

LEFT



RIGHT

4	3	2	1
5	4	3	2
6	5	4	3
7	6	5	4

BACK

1	2	3	4
2	3	4	5
3	4	5	6
4	5	6	7

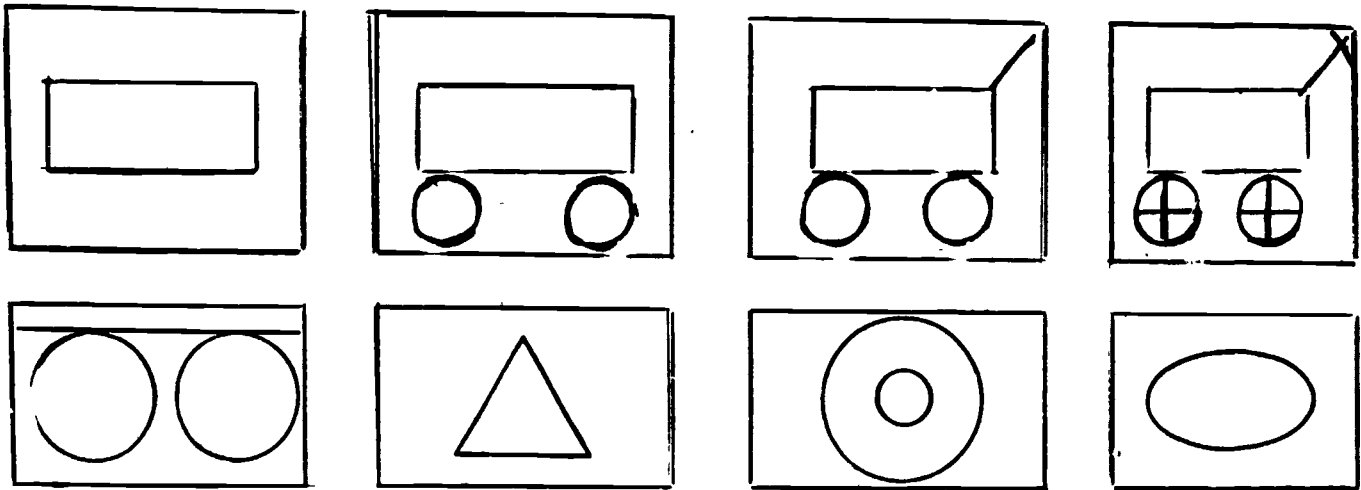
Directional Mat Plan

TILC. 1975

- 33, 35 -

COPY THE DESIGN

Use China Marking Pen or grease pencil on laminated surface and copy design below.



J. Jaksina
Union

T.I.L.C. 1975

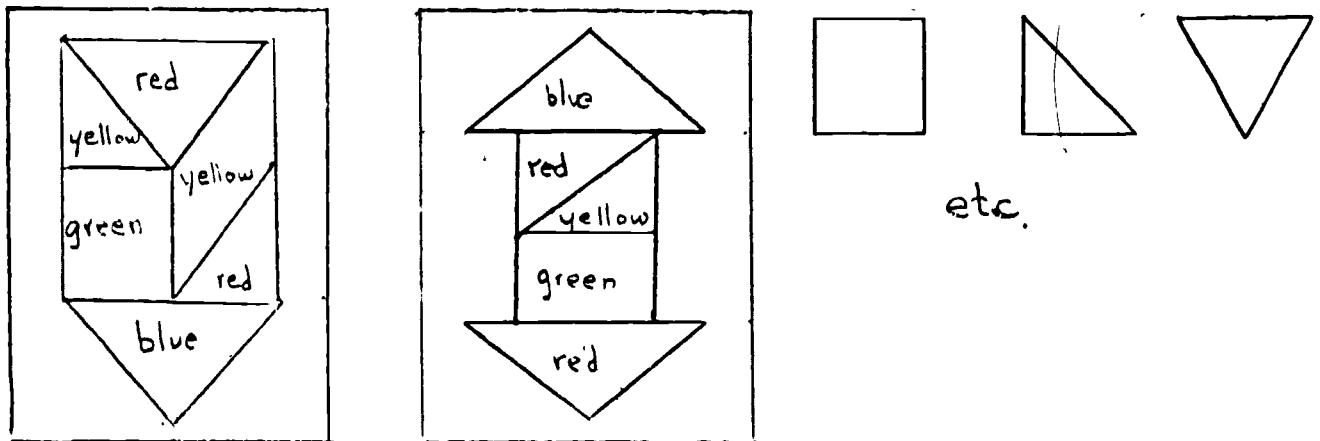
- 34, 35 -

PLACE-A-PATTERN

Objective: To help determine the child's spatial relationships; strengthen visual perception and motor skills.

Directions: Child first places the colored shapes on the designated pattern card. He then tries to copy the same pattern beside the pattern card. Children with visual perception disabilities will have difficulty in completing the second task.

Materials: Cardboard to be cut for different shapes, pattern boards, colored markers, scissors, glue, clear contact. (Blocks of wood painted different colors or plastic forms may be used instead of cardboard shapes.)



Color in. Sample designs.

N.B. Cut pieces first so sizes in design correspond.

Sister Dorothy Coulter
St. Augustine School, Hlfd.

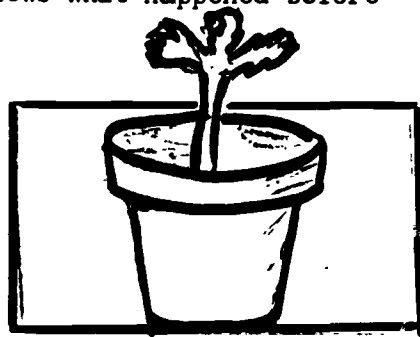
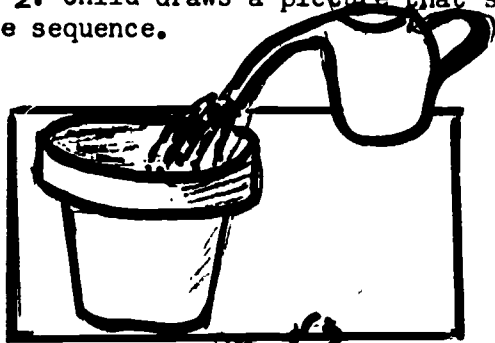
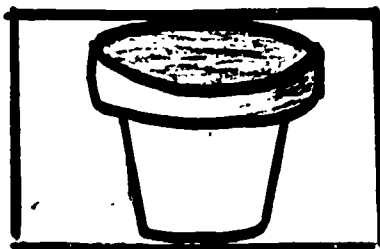
T.I.L.C.
1975

SEQUENCING ACTIVITIES

Skills reinforced: sequencing, hand-eye coordination, visual interpretation, closure. These sets of pictures range from very simple sequencing (2 pictures) to more difficult sequencing (6 pictures). Each set is coded for ease in filing and distribution.

Procedure: Child examines all of the pictures in a set. Then he places them in a set in the correct sequence from left to right. This is a self correcting task. Correct sequence is numbered on back.

Additional activities: 1. Child tells partner or teacher a story about what has happened in the cards. 2. Child draws a picture that shows what happened before and/or after the picture sequence.



G. Odoms & A. Luster
Hebron Ave. Sch. Glastonbury

T.I.L.C. 1975

Finger Maze

Skills reinforced: Hand-eye coordination, problem solving, left-right orientation, auditory memory.

Procedure: Child finds way through maze with finger or crayon.

Variations: 1. Maze is reproduced and projected via overhead projector onto chalkboard, child follows maze on blackboard. 2. Maze is projected onto chalkboard, child listens to and follows directions given by members of class. 3. Maze is projected onto chalkboard. Child draws route on overhead projector while looking at chalkboard. (This is difficult task as image is reversed.)

start

Sample: partial Maze

Directions on next page

wagg adgs zfty bylg bgiu rctz uobq
uwcd whiik revcp tuyut rfuab zdfj
qtohwk jghas fnuw diysef rtdbd gggj
itjnlup ktulo rgrt anmlq vnhm nju
mvo acer pky jacekpe jgw kilo jrkng
shawp qtnm onofuphl jpovi mlorby doza
cmclod frlbyegge azmp

_____ min. _____ sec.

T.I.L.C., 1975

pnza kqeryblf dotcmc azwd rbtolm
ivepi lnpufono mntg fwaha gnkiy
oloki wgzsp nkcaj gkkp vca olum
ujn mhnu salmna tirryz oluth
pulmjtj yagkg ddbdr jesyid hounf
ishqj hryhotg feldz buuff tuyut
rpever hirkw decwr ugebww zpsel
sigb gfyb ytfz rgeda zyarr

_____ min. _____ sec.

ALPHABET EXERCISE

Circle each letter in the group of letters in alphabetical sequence. If a letter is missed, the child must go back to the beginning. Duplicate copies should be made so that a child can determine his progress, time-wise.

abcdefghijklmnopqrstuvwxyz

fid taj korn zul sbyv jicy
jdrn lezy rnuk barz ylo
bozn frg kynno yholz eg
gersi olnje yzbon rh dec
komb albym pn opsq gel
yrin olsen pxerte uw
avzl ow prasn yloq
exgo yzbl

___ min. ___ sec.

dez in pynok gela rybo
avelc pxigt dlog uweh jocy
lfery gnuke birz xol yho
migt pxtn kroj kelzzo lu
der redm godl wnek zho
esp tdorq berz xole jelo
floay sqelo kety yhuo er
ovdm wgex kelyo zulog

___ min. ___ sec.

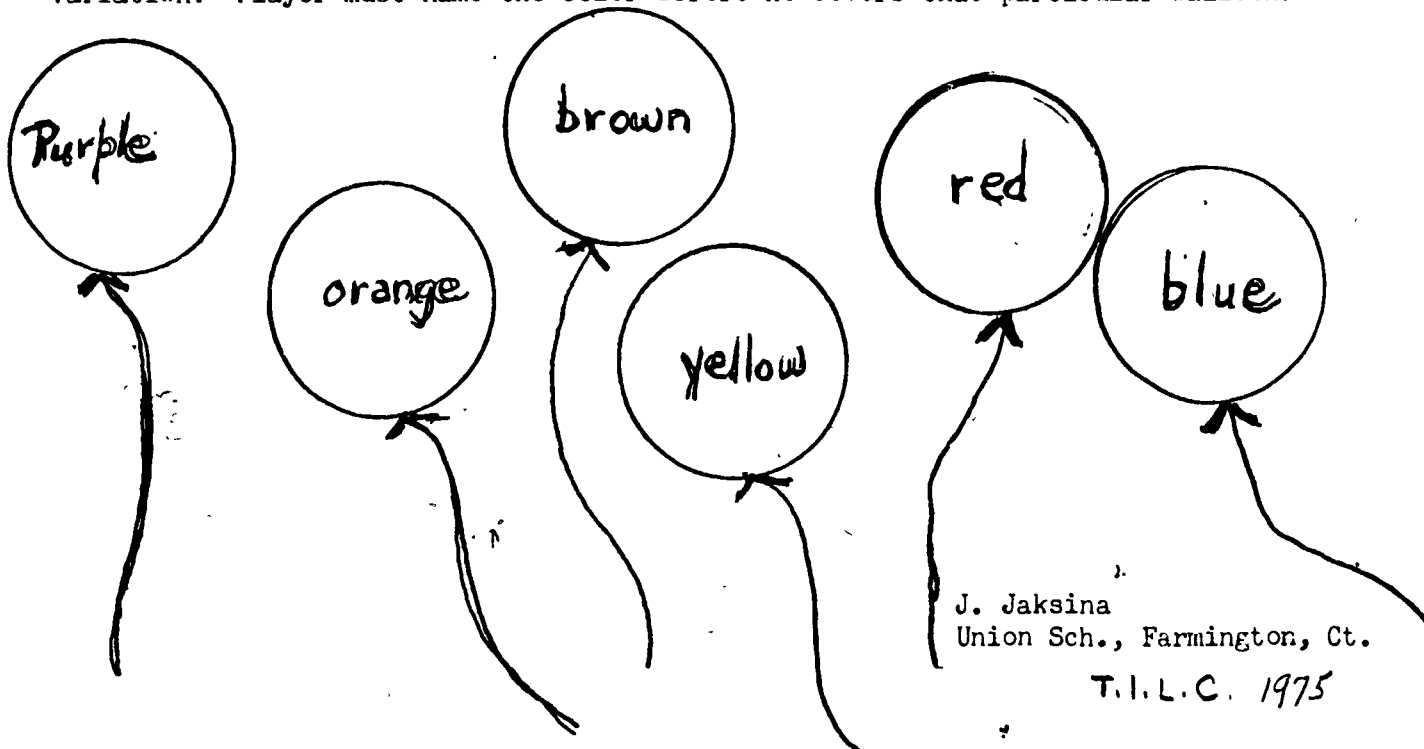
THE BALLOON GAME

4 Players - 1 card each and 8 white circles

Roll die - each player takes a turn . Die sides are different colors. Make two faces two colors.

Player covers with his white circle the color that shows on die. If he rolls the die and it lands on the 2 color part, he chooses whichever color he needs or wants to cover. First player to cover all balloons wins.

Variation: Player must name the color before he covers that particular balloon.



J. Jaksina
Union Sch., Farmington, Ct.

T.I.L.C. 1975

UNDERCOVER

2 players. 24 bottle caps (or other markers).

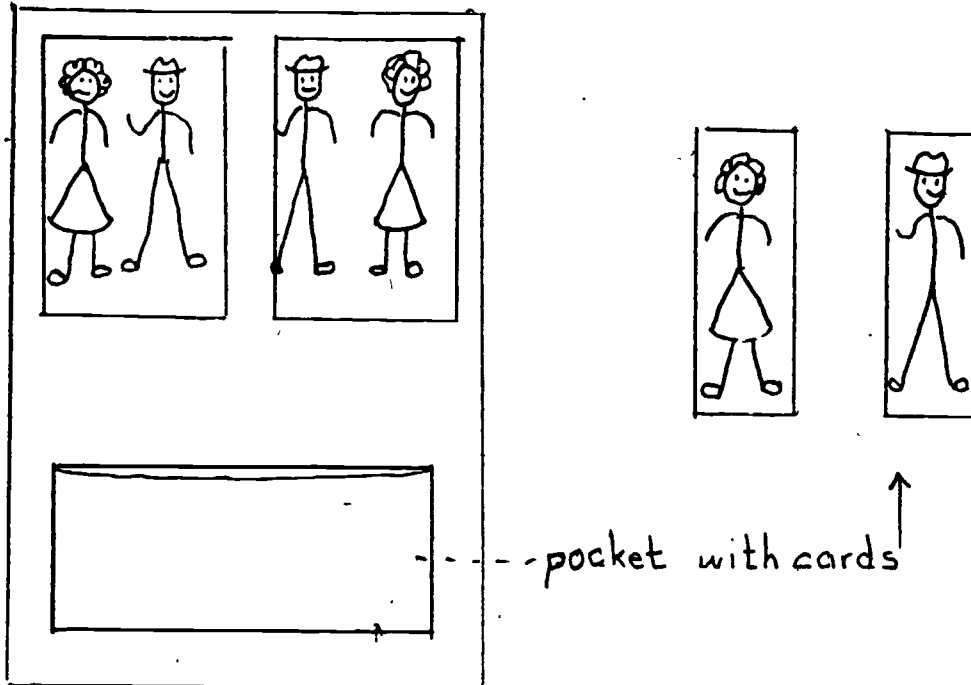
Each player covers all 12 of his numbers. Players take turns rolling a pair of dice.

Player rolls - for example, 8 - he may uncover 8 on his side of board or any combination equalling 8 (7+1, 6+2, 5+3, 4+4). Second player follows same procedure. Game continues, players alternating turns, until one player wins by uncovering all 12 numbers.

12	11	10	9	8	7
9	5	4	3	2	1
Winner?		undercover		Winner!	
1	2	3	4	5	6
7	8	9	10	11	12

TEACHING LEFT AND RIGHT

Child is to match single figures with figures on card, explaining in sentences like, "The woman is on the left." etc.

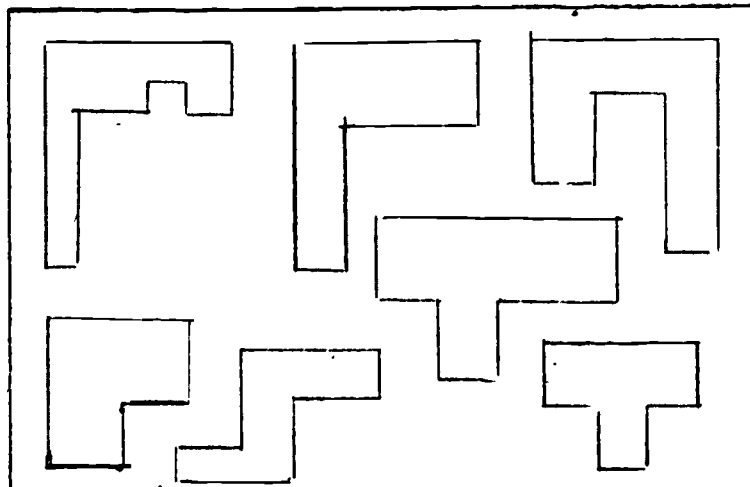


Fran Vaida
Hooker Sch. Hfd.

T.I.L.C.
1975

FORM PERCEPTION

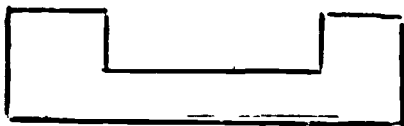
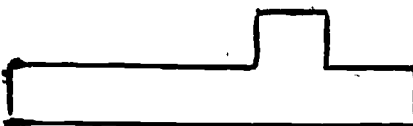
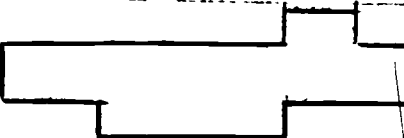
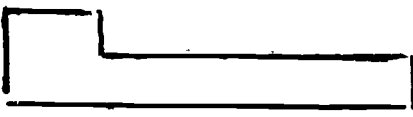

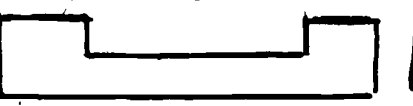
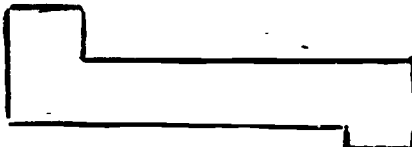
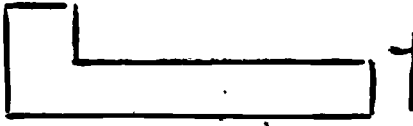
Method 1. Match shapes to Pattern board.
Method 2. Match one set of shapes to second set.
Extension: Use letters or numbers.



Make shapes to match patterns on board. Use various materials (like sandpaper, felt, or any stiff fabric)

CONFIGURATION

Child learns vocabulary words through the configuration of the word. Pictures can be taken from reading workbooks.

Picture of	Picture of
 book	 cake
 apple	 house
 table	 leaf
 bunny	 train

Cut out words



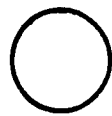













Sister Dorothy Coulter
St. Augustine Sch. Htfd.
T.I.L.C. 1975

PATTERNING

Skills reinforced: visual motor integration, left-right progression, sequencing.

Procedure: Teacher or child determines a particular action for each symbol. How this is presented to the class may vary.

Examples: 1. Teacher may show and tell the class what action is represented by each symbol. The class then "reads" the symbols by doing the actions. 2. Teacher "reads" the first line of symbols by doing the correct actions. The class must then problem-solve and match the actions and the symbols and continue "reading" with the teacher.

						
clap	stamp	stamp	hands up	clap	hands up	hands up
or						
						

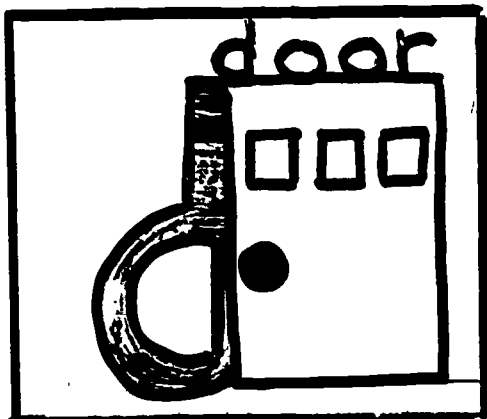
Alice Luster
Glastonbury

T.I.L.C. 1975

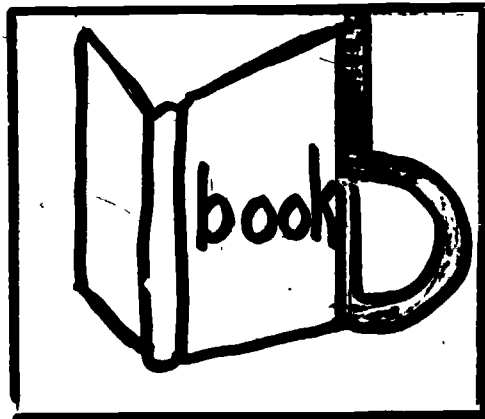
Recognizing b and d
(Initial letters)

Cards have pictures of objects whose names begin with either b or d. Child sorts them into the proper envelopes.

This activity is an attempt to remedy the common reversal of b and d.



Picture ^d Cards



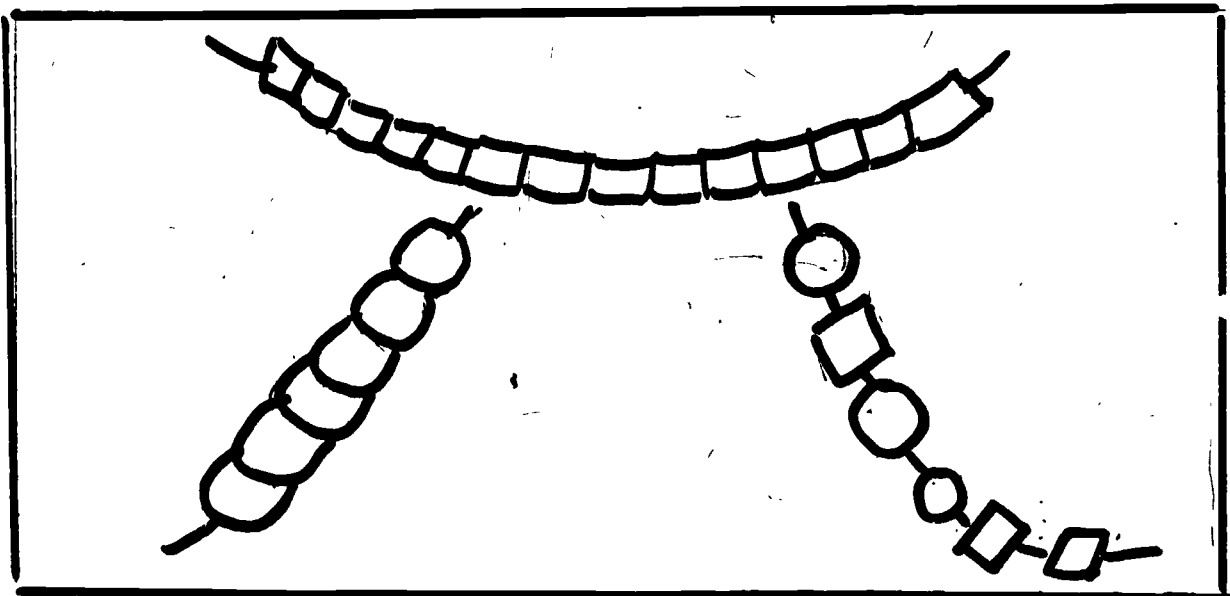
Picture ^b Cards

Denise Godin
C.C.S.C.

T.I.L.C. 1975

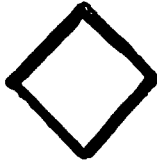
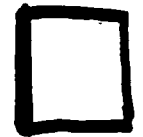
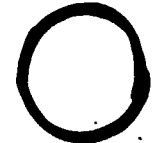
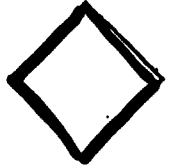
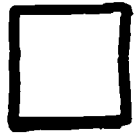
BEAD DESIGNS

Can you copy these bead designs? Purpose: To check eye-hand coordination, color blindness and discrimination of shapes.



LOOK

Two players. At the start, all figures are covered. (If bottle caps are to be used, keep figures 3/4" in size.) Each player, in turn, lifts 2 covers in an attempt to find matching pairs. When two matching shapes are uncovered player keeps the covers. When all figures have been uncovered player with the most caps/covers wins. (Game may be made with numerals, letters, colored pieces, etc.)



F. Vibert
Fox Sch. Htfd.

T.I.L.C.
1975

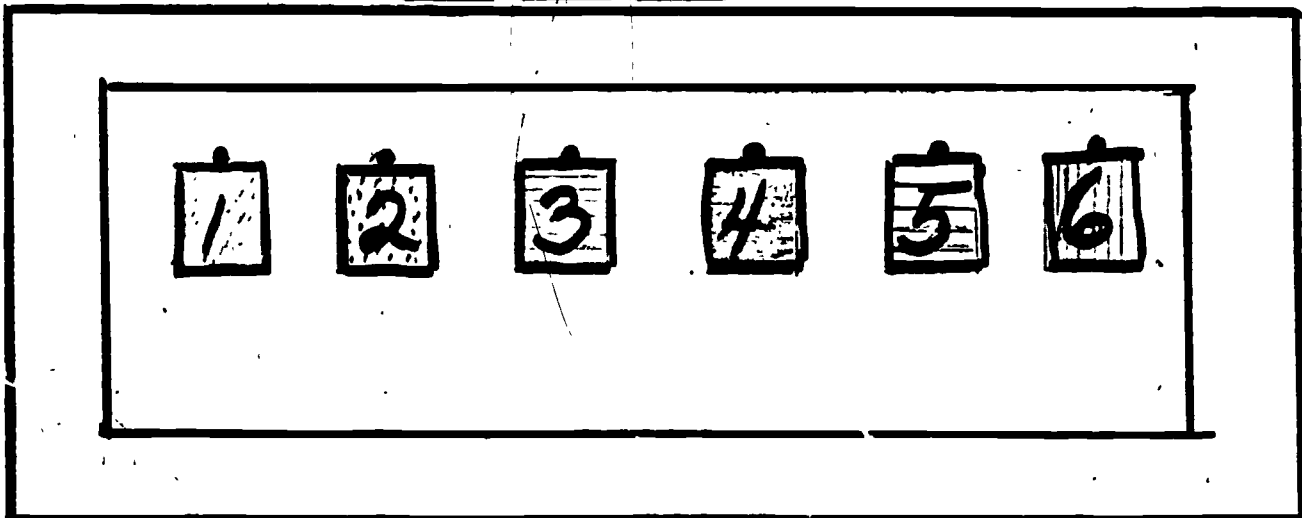


NUMBERS

This board may be used for counting, addition, and subtraction. Child places numbers on nails (eye-hand co-ordination) to set up problems and answers. Numbers are made with different materials for tactile purposes. Make a double set of numbers. Also make 3 cards for



so that child may set up a fact: $5 + 3 = 8$



Sister Dorothy Coulter
St. Augustine Sch. Htfd.

T.I.L.C. 1975