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ABSTRACT

The Integrated Teaching Units for grades three and four constitute the methodology used to implement the career education concepts of Project LET (Learning Experiences in Technology). The document is designed to be used with the project implementation guide. The units were developed from the existing elementary curriculum and are designed to be implemented, evaluated, and revised by the classroom teacher. Arranged alphabetically by topic, the units cover a wide variety of subjects emphasizing an awareness of self, of careers, and of knowledge of the way man does things. For each unit, the title, grade level, a general overview, and teaching/learning resource (reference materials and suggestions for field trips, human resources, and activities) are listed on a plansheet. Concepts (listed according to the subject area to which they relate) with corresponding behavioral objectives, methods of implementation, and resource people and materials are presented in a four-column format. Detailed directions for some student-performed activities are given. Sample instructional materials are included with some of the units. (Author/MS)

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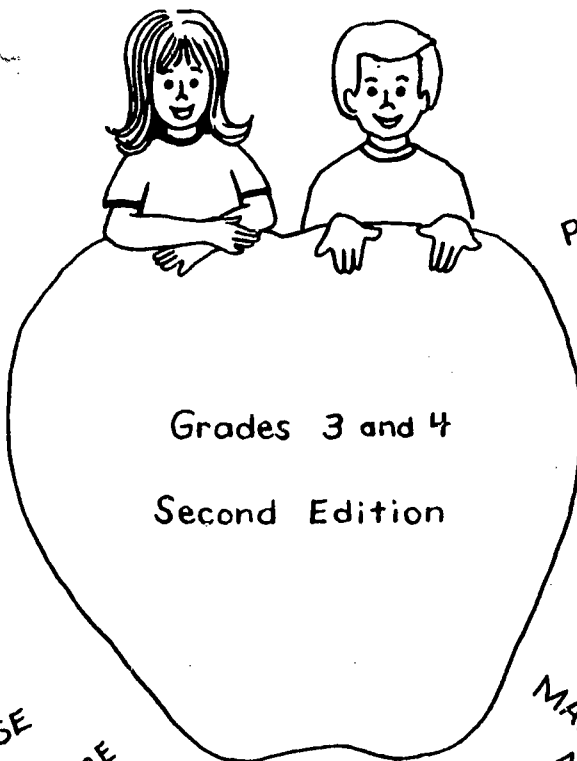
CAREER EDUCATION

INTEGRATED TEACHING UNIT HANDBOOK

CAREER / SELF-AWARENESS

SOCIAL
STUDIES

PHYSICAL
EDUCATION



Grades 3 and 4

Second Edition

PERSONNEL
SELF-CONFIDENCE

CONSUMING

PERSONAL STRENGTHS
SERVICING

DECISION-MAKING

PRODUCING

INTERESTS
MANAGING OF PEOPLE
AND THINGS

COMMUNICATION
SKILLS

2

SCIENCE

MATH

REASONS PEOPLE WORK

VALUES

DIGNITY OF WORK

ATTITUDES

FUNCTIONS OF WORK

EMOTIONS

LOCATION OF WORK

AWARENESS OF
WORK

TOOLS WORKERS USE

CAREER INTERDEPENDENCE

HEALTH

CREATIVE
ARTS

School District of the City of Royal Oak

4000 Crooks Road, Royal Oak, Michigan 48073

1974-75

PREFACE

This Revised Career Education Integrated Teaching Unit Handbook is intended to be used as a working copy for professional staff. It is not a completed document but a working copy which will be revised by teacher input, particularly in identifying resource people and materials. This document cannot stand alone but is designed to be used with the "Project LET, Guide for Implementation."

The methodology used to implement the concepts of career education is the Integrated Teaching Unit. These Integrated Teaching Units have been developed and field tested by Royal Oak Elementary Teachers involved in Project "LET." The units were developed from the existing curriculum and are designed to be implemented, evaluated, and revised by the classroom teacher. The duration of each teaching unit varies to allow for flexibility, individuality, creativity, and fulfillment of the needs and interests of each child.

Each unit evolves from the existing elementary curriculum which includes the following components:

1. general overview
2. teaching/learning resources
3. concepts
4. behavioral objectives
5. methods of implementation
6. resource people and materials
7. student activities

Inherent in each component is an awareness of self, of careers, and the knowledge of the way man does things. The additional content provided for children in the classroom is the opportunity to explore careers and technology through the utilization of the Integrated Teaching Unit, parent and community resource people, and exposure to numerous careers.

TABLE OF CONTENTS

	<u>Page Number</u>
ANIMAL LIFE - VERTEBRATES	2
Activities: Puppety (Sawdust Puppets)	10
Hatching Chicken Eggs	12
Animal Puzzles	13
Paper Mache Animals	14
Puppety (Sock)	15
ANIMAL LIFE - VERTEBRATES: BIRDS	17
Activities: Bird House	22
Pine Cone Bird Feeder	23
CANDY INDUSTRY	25
Activities: Set Up A Candy Factory	30
Making Rock Candy	32
Cake Decorators - Learning Sequences	33
Creative Writing - Sentence Structured Language Stories	34
Candy Survey - Recognizing Consumer Demands	36
Large Group Candy Manufacturing and Packaging	37
CLOTHING INDUSTRY	39
Activities: Making a Pattern and Bed Pillow	44
Making a Vest	45
MAN'S USE OF RESOURCES	47
Activities: Tie Dyeing	55
Yarn Holders - Shaped Like An Apple	56
Building a Weaving Loom	57
Meat Tray Wall Plaques	58
Wall Hangings	59
GROCERY STORE (GENERAL STORE, TRADING POST)	61
Activities: Build a Grocery Store	66
Bake Bread and Make Butter	67
FAMILIES EARN AND SPEND	69
Activities: Caramel Apple Sale	77
Cupcakes	78
School Bus	79
Assembly Line Chair Wash	80
Christmas Ornament (Mouse)	81
Making, Packaging and Sale of Candles	82
Popcorn Factory	83

TABLE OF CONTENTS

	<u>Page Number</u>
COMMUNICATIONS	85
Activities:	
Making a Newspaper	97
Build Rubber Stamps	100
Prints From Plastic	101
Want Ads For Pony Express Rider	102
Ink Making	103
Scrolls - Quill Pens	104
Making Wax and Clay Tablets	105
Block Printing	106
Shadow Puppets	116
Sending Morse Code	117
Two Room Hook-Up Telegraph	118
Writing With Pictures	120
Making Up a Code System	121
Making Flags Used to Send Messages at Sea	122
Telephone Activities - Answering Service	123
USING MAPS AND GLOBES	125
Activities:	
"Pot of Gold"	133
Enlarging Maps and Objects	134
Globes	135
Map Puzzles	136
Map Making Using Different Media	137
Relief Map of United States	138
Profile Map Showing Businesses on Eleven Mile Road Within Longfellow School District Using 3 Inches For Each Block	139
Product Map of Michigan	140
PREHISTORIC MAN	142
Activities:	
Shelter Construction	147
Tool Making	148
Communication	149
An Ancient Calendar	150
GOVERNMENT: DISCOVERY & EXPLORATION OF NORTH AND SOUTH AMERICA	152
Activities:	
Making Aztec Prints	162
COLONIAL AMERICA	166
Activities:	
Dipping Candles	179
Making Candles - Molded	180
A Day at Miller School - Greenfield Village	181
Colonial Hats	182
Preparing Applesauce	183
Making Vegetable Soup	184
Colonial Cooking - Williamsburg Ginger Cakes	185

TABLE OF CONTENTS

Page Number

COLONIAL AMERICA (Cont.)

Activities:	Making Molasses Cake	186
	Popcorn	187
	Making Corn Muffins (Southern)	188
	Making Corn Bread	189
	Making Butter	190
	Hornbooks	191
	Weaving Baskets	193
	Loom Making	194
	Trading Day	196
	Mural - Restored Town	197
	Making Paper From Pulp	198
	Recycling Paper By Hand	199
	Stilts	201
	Sled - Early American	202
	Spool Knitting	203
	Bootjacks	204
	Hand Soap	205
	Dolls	206
	Weaving Baskets	207

GOVERNMENT: EVOLUTION OF THE AMERICAN FLAG 209

Activities:	Making Books on Evolution of Flag	216
	Make a Diorama of Phase of Michigan's Growth	217

GOVERNMENT: LEVELS OF GOVERNMENT 219

Activities:	Visit to Huntington Woods City Hall	224
	Group Visit to Royal Oak City Hall	226
	Visit to Oakland County Treasurer's Office	228
	Huron-Clinton Metropolitan Authority - Detroit Headquarters	230

GOVERNMENT: ELECTIONS 232

ROYAL OAK 243

Activities:	Jigsaw Puzzle of Royal Oak	250
	Globes	251
	School Maps	252
	Map Puzzles	253
	Map Making Using Different Media	254
	Relief Map of United States	255
	Profile Map Showing Businesses on Eleven Mile Road Within Longfellow School District Using 3 Inches For Each Block	256
	Product Map of Michigan	257

TABLE OF CONTENTS

	<u>Page Number</u>
MICHIGAN	259
Activities: Vehicle Models (Putting Together)	264
Making Michigan Relief Map	265
Making Cherry Tarts	266
HOLIDAYS - THANKSGIVING	268
Activities: Making Costumes	274
Making Butter	275
Pumpkin Pie	276
Thanksgiving Dinner and Indian Dance	278
Candle Dipping	279
HOLIDAYS AND CUSTOMS - CHRISTMAS	281
Activities: Christmas Decoration Using Tag Paper, Foil and Styrofoam	289
Construction of Keyboards (Or Mitten Trees)	290
Tie Making	293
Making an Apron	294
Creative Stitchery	295
Picture Frames and Pictures	296
Holiday Cookie Making	298
Holiday Dinner Menu	299
Wooden Christmas Tree Ornaments	300
Plaster of Paris Pins	301
Holiday Pencils	302
Yarn Dolls	303
Felt Christmas Tree Ornaments	304
Egg Carton Waste Basket	305
Styrofoam Tree Ornaments	306
Santa Heads - Ornament	307
ELECTRICITY AND MAGNETISM	309
Activities: Electric Copper Plating	316
Making a Magnetic Boat	317
Eleven-Cent Battery	318
Creating Compass Needles	319
Destroying a Magnet With Heat	320
Electrolysis	321
Earth Conducts Electricity	322
Making an Electric Light Bulb	323
HISTORY OF MEDICINE	325
Activities: Vocabulary Tree	336
HUMAN BIOLOGY	339
Activities: Types of Teeth	357
Paraffin Models of Teeth	358

TABLE OF CONTENTS

Page Number

HUMAN BIOLOGY (Cont.)

Activities:	Teeth Model	359
	Teeth - Digestion Experiment	360
	Experiment - Decaying Process of Teeth	361
	Acid's Effect on Teeth	362
	Experiment - How Acids Dissolve Calcium From Sterilized, Extracted Teeth	363
	Using Disclosing Tablets to Check on Proper, Careful Tooth Brushing	364
	Toothpaste	365
	Demonstrate: "Toothbrush Foods" VS "Sticky Foods"	366
	Sweetless Party	367
	Occupation Mural for Dental Health	371
	Vocabulary Tree	372
	Constructing Mazes	374
	Maze and Tower of Hanoi	375
	Doughnuts - Small Business	377

MACHINES

		380
Activities:	Six Experiments With Simple and Complex Machines	386
	Inclined Plane and Wheel and Axle	387
	Gears	388
	Levers	389
	Letter Holder	390
	Abacus	391
	Pencil Holder	392
	Key Chain	393
	Noodle Knacher	394
	Line Production - Kite Making	395
	Bookmarks	396
	Making Notepaper For Mothers	397
	Building of Model Trucks	398
	Truck Mass Production	399
	Making Holes Through a Block of Wood	401
	Screws	402
	Tool Box and Tools	403
	Elevators - Wheel and Axle	408
	Geometric Designs - String Art	409

PLANTS AND TREES

		411
Activities:	Leaf Booklets	418
	Constructing Yo-Yo's From Wood	419
	Handy Dandy Jar Holders	420
	Planting Herb or Spice Garden	421
	Plant Propagation	422
	Tree Planter	423
	Planter Boxes	428
	Artificial Flowers - Roses	429

TABLE OF CONTENTS

Page Number

PLANTS AND TREES (Cont.)

Activities:	Artificial Flowers	430
	Dried Flower Arrangements	431
	Cornhusk Dolls	432

WEATHER 434

Activities:	Pinwheel	440
	Rain Gauge	441
	Dog Barometer	442
	Construction of Wind Sock	443
	Weather Vane	444
	Choral Reading	446

TRANSPORTATION - AIR TRANSPORTATION - (AVIATION) 449

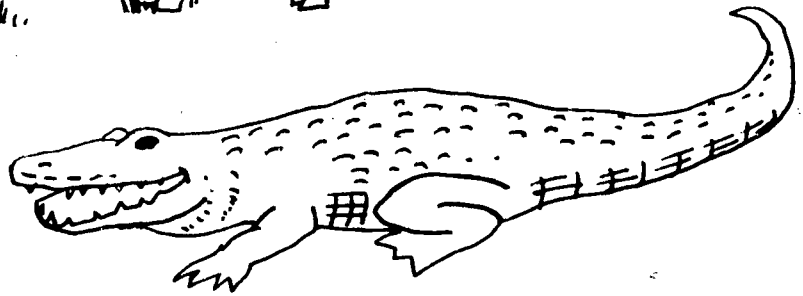
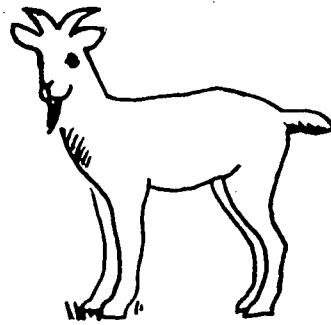
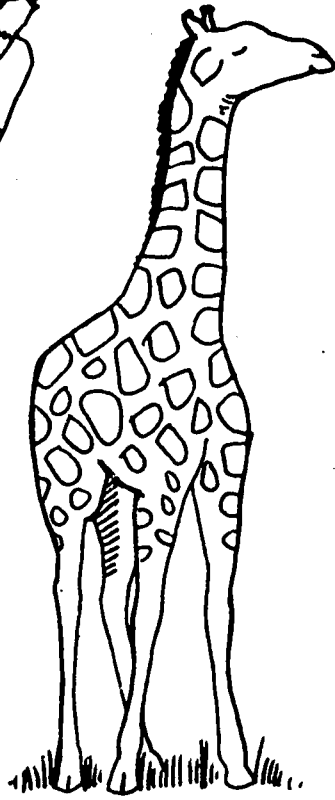
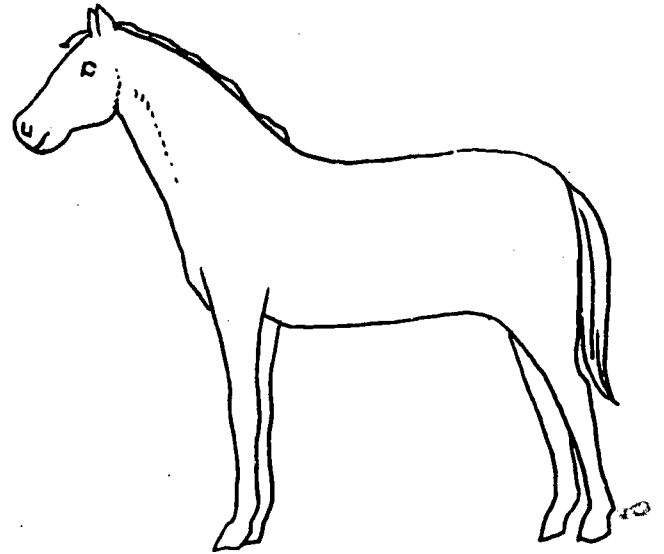
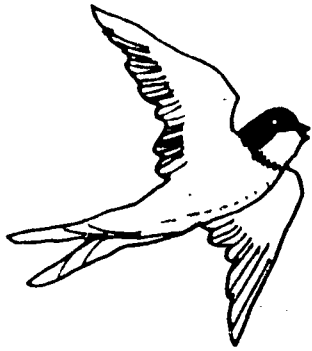
Activities:	Constructing Glider	457
	Constructing Paper Airplanes	459
	Constructing Weather Vane	460
	Construction of Wind Sock	462
	Simulated Flight to Chicago	463
	Construct Paper Airplanes to Learn Basics of Flight, Lift	464
	Construct Gliders	465
	Insignias of Airlines	466

AUTOMOBILE TRANSPORTATION 468

Activities:	Carve Soap Models	473
	Automobile Mass Production	474

RAIL TRANSPORTATION 476

Activities:	Freight Train Mural	481
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VERTEBRATES

SCHOOL DISTRICT OF THE CITY OF ROYAL OAK

INTEGRATED TEACHING UNIT
PLANSHEET

TITLE: ANIMAL LIFE - VERTEBRATES

GRADE LEVEL: 3

GENERAL OVERVIEW: Animals survive in environments to which their characteristics are best suited. Every animal group has characteristic behavior patterns. Man is affected by animals. **Animals' failure to adapt to environmental changes means extinction.**

TEACHING/LEARNING RESOURCES:

1. Reference materials:

Books: About Animals - Childcraft
Animals - Arendel, Jocelyn
When Animals are Babies - Schwartz, Charles
Reptiles and Amphibians - Mathewson
The Birds - Peterson
Insects - Baranowski
Exploring the Animal Kingdom - Selsam
World of Nature - Walt Disney Studio
The Zoo in Pictures - Sejet
Good Time Animal Book - Watts
Animals that Help Us - Fenton
All About Fish - Burger

Films: Animal Communities and Groups
Animals Protect Themselves
Animals With Backbones
Camouflage in Nature Through Form and Color Matching
Camouflage in Nature Through Pattern Matching
Development of the Chick Embryo
Instincts in Animals

Filmstrips: What is a Vertebrate?
Discovering Amphibians
Animals Fit Themselves to Their Surroundings
Some Water Animals
We Protect Animals
Eggs that Produce Chicks

Realia: Charts - Animals - Classification of the animal kingdom
Chick embryos
Flat Pictures - Animals Without Backbones
Animals That Help Us

2. Field Trips:

Seven Ponds Nature Center (Dryden, Michigan)
 Pet Shop and Veterinarian Clinic
 Merri Barr Pet Shop
 Animal Shelter: 12 Mile Dog Pound
 Holden Museum of Living Reptiles
 Upland Hills Farm
 Natural History Museum in Ann Arbor
 Cranbrook Institute

3. Human Resources:

Parents
 Guides at Seven Ponds Nature Center
 Pet Shop owners
 Veterinarians
 Director of Humane Society

4. Activities:

Paper-mache Animals
 Animal Puppets and Puppet Play - sawdust and sock
 Animal Puzzles
 Hatching Chicken Eggs
 Oral and Written Reports
 Role Playing -
 Animal charades
 Choral reading and role playing using poetry
 Film strip made by students
 Poetry, booklets about animals
 Examine live animals and list similarities and differences

UNIT TITLE: ANIMAL LIFE - VERTEBRATES

CONCEPTS	BEHAVIORAL OBJECTIVES
<p><u>Social Studies</u></p> <p>Group behavior</p> <p>Man's dependence on animals</p> <p>Location of animal homes</p> <p>Adaptation of animals to environmental changes</p>	<p>As a result of this unit, each child will be able to:</p> <p>Participate in group and identify at least two ways people behave in a group</p> <p>List at least three ways man depends upon animals</p> <p>Designate what animals do to adapt to environment relative to food, shelter, physical changes</p> <p>Give examples of how failure to adapt can spell extinction</p>
<p><u>Science</u></p> <p>Animal behavior patterns</p> <p>Affect of animals on other animals including man</p> <p>Chick development</p> <p>Characteristics and classification of animals</p>	<p>Identify the common animal groups and give examples of their behavior</p> <p>Participate in group discussion and give two examples of the interdependence of man and animals</p> <p>Make a drawing showing development of chicks</p> <p>Identify four physical characteristics of animals</p>

METHOD OF IMPLEMENTATION	RESOURCE PEOPLE & MATERIALS
<p>Group discussion</p> <p>Reading and research</p> <p>Field trip observations</p>	<p>Natural History Museum in Ann Arbor (guide furnished)</p>
<p>Group discussion</p> <p>Research</p> <p>Field trip observations</p> <p>Observation of animals brought into classroom by students</p> <p>Draw pictures</p>	<p>Seven Ponds Nature Center (with guide)</p>

UNIT TITLE: ANIMAL LIFE - VERTEBRATES (continued)

CONCEPTS	BEHAVIORAL OBJECTIVES
<p><u>Communication Skills</u></p> <p>Written reports</p> <p>Creative writing</p> <p>Thank you notes</p> <p>Recognition of words</p> <p>Reading for information</p> <p>Reading for pleasure</p> <p>Oral reports</p> <p>Group discussion</p> <p>Pantomime</p> <p>Play production</p> <p>Spelling</p> <p>Role playing</p>	<p>As a result of this unit, each child will be able to:</p> <p>Construct a written report</p> <p>Explain a story he or she read (either verbally or in writing). Dictate an ending to an unfinished animal story.</p> <p>Organize material and present it as an oral report to a group</p> <p>Take a part in role playing</p>
<p><u>Music</u></p> <p>Animal Songs</p>	<p>Sing a song about animals</p>

METHOD OF IMPLEMENTATION

REQUIREMENTS

Writing reports

Poetry prose

Thank you notes

Pantomime animals for classmates to guess identity

Giving oral reports

Small group discussions

Putting on a puppet show

Describe a live animal

Learning Resources Center

Veterinarian

Director of Wildlife Services

Zoo helper (students working in teams)

Music teacher

Records

Tape recorder

Tape songs children make up

UNIT TITLE: ANIMAL LIFE - VERTEBRATES (continued)

CONCEPTS	BEHAVIORAL OBJECTIVES
<p><u>Art</u></p> <p>Puppetry</p> <p>Paper mache techniques</p> <p>Illustrations</p>	<p>As a result of this unit, each child will be able to:</p> <p>Construct an animal or puppet</p>
<p><u>Career/Self-Awareness</u></p> <p>Managing</p> <p>Producing</p> <p>Servicing</p> <p>Hobbies with animals as career preparation</p> <p>Awareness of other people's activities</p>	<p>Identify ten occupations created <u>because of animals</u></p> <p>Classify the animal occupations into the three areas of managing, producing, and service</p> <p>List five household pets</p> <p>Give a specific example of something they learned about a person from observing the person's activities</p>

METHOD OF IMPLEMENTATION	RESOURCE PEOPLE & MATERIALS
<p>Making puppets</p> <p>Making three dimensional animals --paper mache</p> <p>Writing reports</p>	
<p>Guest speakers:</p> <p>Managing - zoo</p> <p>Producing - butcher</p> <p>Service - veterinarian</p> <p>Hobbies</p> <p>Any of the field trips listed</p>	<p>Zoo director or delegate</p> <p>Pearce Veterinary Clinic</p> <p>Children or parents who raise, train, or show animals</p> <p>Bee keeper</p>

HANDS ON ACTIVITY (STUDENT PERFORMED)I. NAME OF ACTIVITY

PUPPETRY - (SAWDUST PUPPETS)

II. ACTIVITY FORMAT:

A. Tools and Materials

Sawdust	Paint
Wheat paste	Sewing materials
3 x 5 cards	

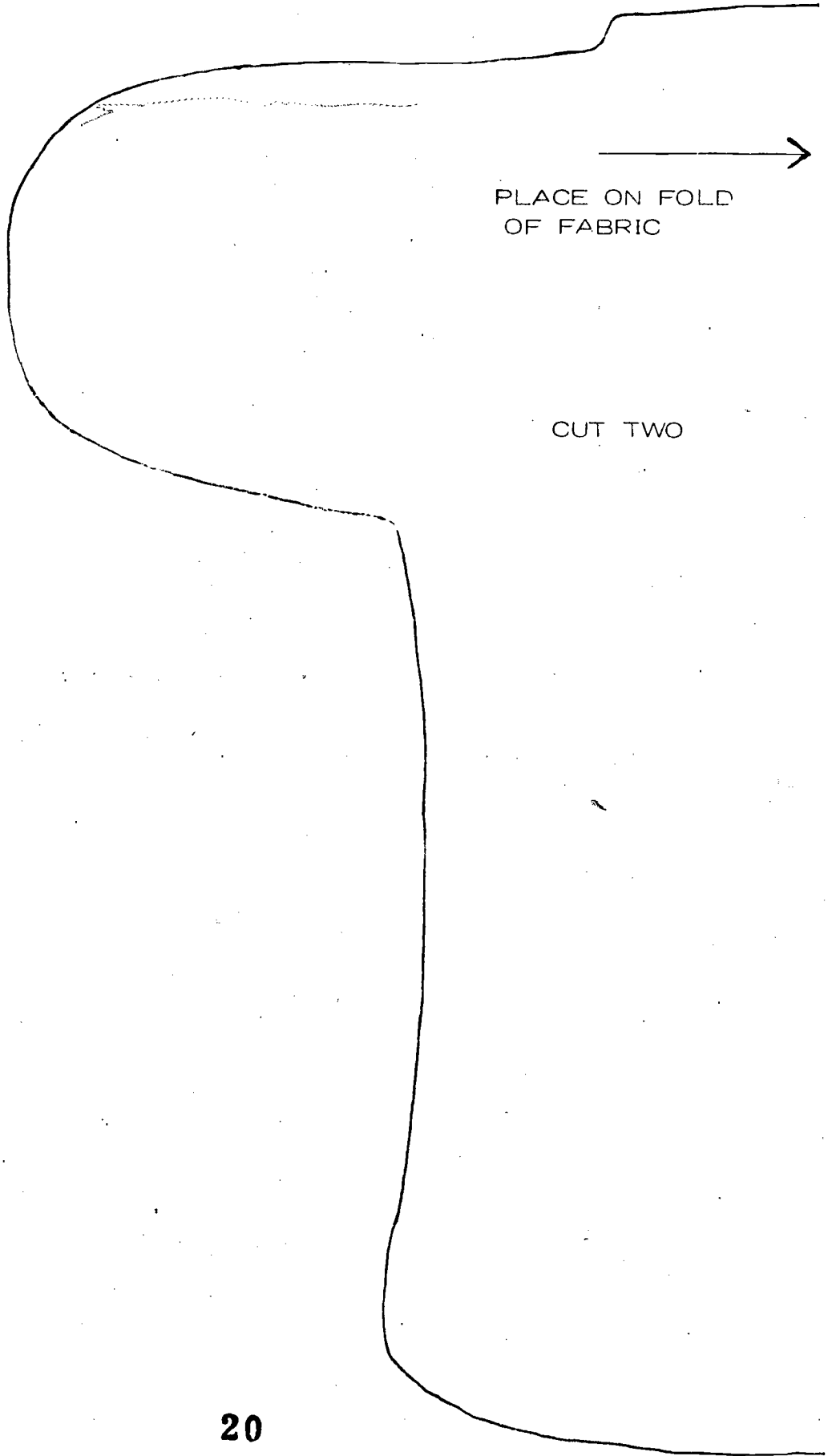
B. Human Aides and Resources

Parent helpers

C. Procedures for this activity (with helpful hints)

1. Mix sawdust and wheat paste on a one to one basis with water
2. Roll 3 x 5 card into a tube and staple
3. Model puppet head on tube in upright position
4. Dry for 2 - 3 days
5. Paint and decorate
6. Make a costume by tracing pattern and sewing

III. RESULTS OF THIS ACTIVITY (AFTER IMPLEMENTATION)



PLACE ON FOLD
OF FABRIC

CUT TWO

WANTS ON ACTIVITY (STUDENT PERFORMED)I. NAME OF ACTIVITY

HATCHING CHICKEN EGGS

II. ACTIVITY FORMAT

A. Tools and Materials

Incubator	Light bulb
Fertilized eggs	Aluminum foil
Cardboard box	

B. Procedures for this activity (with helpful hints)

- 1.a. Buy eggs from Holtz Apples and Egg Farm in Romeo
 - b. Mark eggs with an X on one side
 - c. Keep incubator at 101 degrees F.
 - d. Turn eggs over 3 - 5 times daily
 - e. Eggs take from 19 - 21 days to hatch
- 2.a. Line a cardboard box with aluminum foil
 - b. Make a hole in side of box which is 1/2 diameter of egg
 - c. Put the light bulb inside box and darken the room
 - d. Placing egg halfway in hole will allow light to shine through egg showing embryo outline
 - e. Do this frequently to watch development

III. RESULTS OF THIS ACTIVITY (AFTER IMPLEMENTATION)

HANDS ON ACTIVITY (STUDENT PERFORMED)

I. NAME OF ACTIVITY

ANIMAL PUZZLES

II. ACTIVITY FORMAT

A. Tools and Materials

Magazine
Cardboard
Glue

Mod Podge
Paint Brush
Scissors

B. Procedures for this Activity (with helpful hints)

1. Find large animal picture in magazine **or picture of self**
2. Glue picture to cardboard
3. Cover with Mod Podge (using paint brush)
4. After drying (10 minutes) cut into pieces
5. Store in envelopes with name of animal

III. RESULT OF THIS ACTIVITY (AFTER IMPLEMENTATION)

HANDS ON ACTIVITY (STUDENT PERFORMED)I. NAME OF ACTIVITY

PAPER MACHE ANIMALS

II. ACTIVITY FORMAT

A. Tools and Materials

Chicken wire	Wheat paste	Buttons
Wire snips	Paint	Shellac
Large staples	Yarn	Pipe cleaners
Newspaper strips (3" x 12")	Cotton	

B. Human Aides and Resources

Older student paired with each third grader.

C. Procedures for this activity (with helpful hints)

1. Form shape of animal with wire
2. Prepare wheat paste
3. Cover figure - 2 coats
4. Paint animal - shellac
5. Add features

III. RESULTS OF THIS ACTIVITY (AFTER IMPLEMENTATION)

HANDS ON ACTIVITY (STUDENT PERFORMED)I. NAME OF ACTIVITY

PUPPETRY (SOCK)

II. ACTIVITY FORMAT:

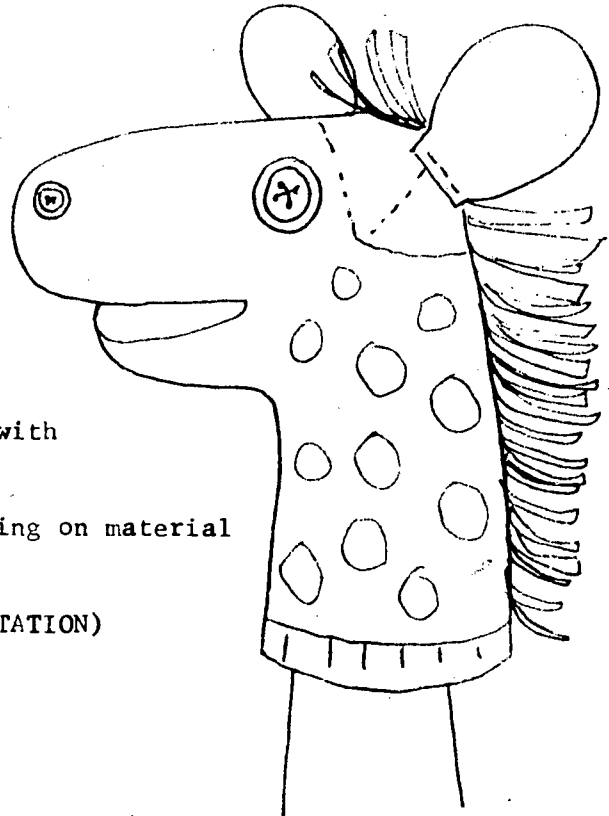
A. Tools and Materials

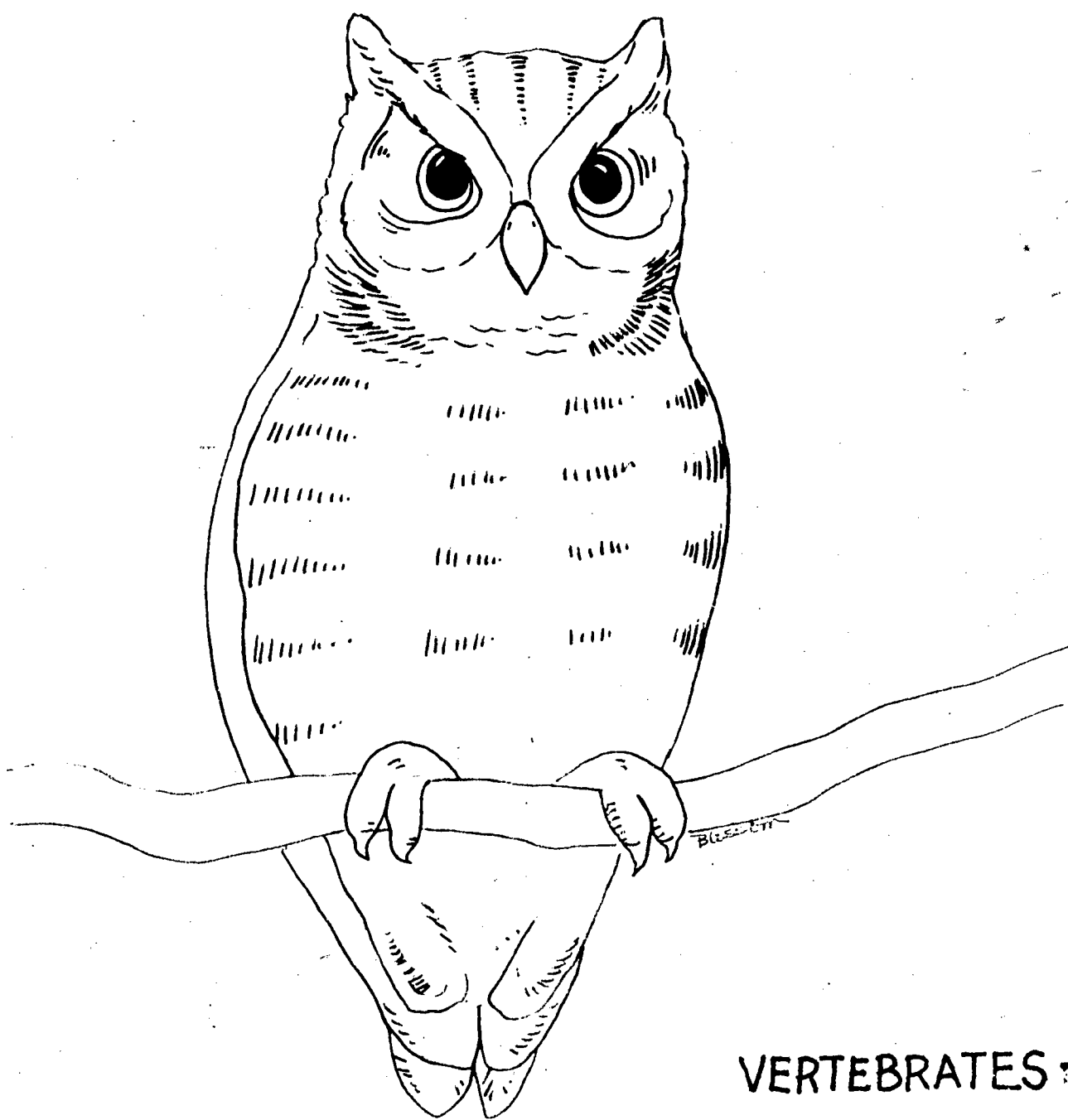
socks
yarn
felt or material scraps
glue

B. Procedures for this activity (with helpful hints)

1. Make faces on sock by glueing on material scraps

III. RESULTS OF THIS ACTIVITY (AFTER IMPLEMENTATION)





VERTEBRATES
BIRDS

SCHOOL DISTRICT OF THE CITY OF ROYAL OAK

INTEGRATED TEACHING UNIT
PLANSHEETTITLE: ANIMAL LIFE - VERTEBRATES: BIRDSGRADE LEVEL: 3rd - 4thGENERAL OVERVIEW: The purposes of this unit are:

To differentiate the kinds of birds in this area and their adaptation to environment.

To discover that birds are vertebrates.

To relate how birds help man and how man can help man.

TEACHING/LEARNING RESOURCES:1. Reference materials:Films: Birds: How We Identify Them
White Throat
Birds and Their CharacteristicsFilmstrips: Migration of Birds
How Birds Serve Man
Adaptions
Beaks and Feet of Birds
What Is A Bird?
Discovering Birds2. Human Resources:Carpenter
Poultry Farmer
Ecologists
Conservationist
Naturalist
High School Students
Industrial Arts Teacher
Ornithologist3. Activities:Making Bird Houses
Making pine cone bird feeders

UNIT TITLE: ANIMAL LIFE - VERTEBRATES: BIRDS

CONCEPTS	BEHAVIORAL OBJECTIVES
<p><u>Social Studies</u></p> <p>Bird migration</p>	<p>As a result of this unit, each child will be able to:</p> <p>Participate in class discussion and make a map showing migration routes of different birds of this area</p>
<p><u>Math</u></p> <p>Linear measurement</p> <p>Weight of birds</p>	<p>Compare and differentiate $1/4''$, $1/2''$ and $1''$ by drawing line segments</p> <p>Compare and contrast weights of birds</p>
<p><u>Science</u></p> <p>Study of birds</p> <ol style="list-style-type: none"> a. Protection b. Shelter c. Ecology 	<p>Identify 4 local birds</p> <p>List 3 ways birds are useful and/or harmful to man</p>

METHOD OF IMPLEMENTATION	RESOURCE PEOPLE & MATERIALS
<p>Introduction through:</p> <p>Class discussion</p> <p>Trade books, films and filmstrips</p>	<p>Conservationist</p> <p>Naturalist - State Park</p>
<p>Chart migration distances</p> <p>Make a chart of bird weights</p>	<p>Filmstrip - Migration of Birds</p> <p>Film - Birds and Their Characteristics</p>
<p>Class discussion of:</p> <ol style="list-style-type: none"> a. Layers of feathers b. Nests and babies c. Migration 	<p>Film - Birds--How we Identify Them</p> <p>Ecologist</p> <p>Poultry Farmer</p>

UNIT TITLE: ANIMAL LIFE - VERTEBRATES: BIRDS (continued)

CONCEPTS	BEHAVIORAL OBJECTIVES
<p><u>Communication Skills</u></p> <p>Reporting and Writing</p> <p>Creative writing</p> <p>Reading</p> <p> a. Information</p> <p> b. Pleasure</p> <p>Discussion in class</p>	<p>As a result of this unit, each child will be able to:</p> <p>List 2 ways to help birds</p> <p>Write reports of different birds</p> <p>Write a short story or poem about birds</p>
<p><u>Career/Self-Awareness</u></p> <p>Product Production</p> <p>Services</p> <p>Awareness of others</p>	<p>List 5 careers which produce products related to birds</p> <p>List 5 careers which provide services related to birds</p> <p>Identify 2 characteristics (physical skills, emotions, attitudes) that can be inferred from other people's activities</p>

METHOD OF IMPLEMENTATION	RESOURCE PEOPLE & MATERIALS
<p>After studying a number of birds, write a short story or poem on why they like or would like to be a specific bird.</p> <p>Research one classification of birds and report back to the group</p> <p>Small group discussion of ecology problems</p>	<p>Film Strip - How Birds Serve Man</p> <p>Film Strip - Discovering Birds</p> <p>Naturalist</p> <p>Film - White Throat</p>
<p>Interviewing: Carpenter Poultry farmer Ecologists Conservationist Naturalist Department of National Resources Ornithologist</p> <p>Reports</p> <p>Assembly line production of birdhouses</p>	<p>Industrial Arts teacher</p> <p>Same as those interviewed</p>

HANDS ON ACTIVITY (STUDENT PERFORMED)I. NAME OF ACTIVITY

BIRD HOUSE (Pattern (and literature) available for 25¢ from
The Grand Rapids Audubon Club, 54 Jefferson Avenue,
S.E., Grand Rapids, Michigan 49502)

II. ACTIVITY FORMAT

A. Tools and Materials

1/2" white pine	Try squares
Hand saw	Nails
Drill-bits	7 medium eye bolts
Hammer	

B. Human Aides and Resources

High School Students
Industrial Arts Teacher

C. Procedures for this activity (with helpful hints)

1. Divide class into seven groups
2. Students measures big pieces
3. Saw big pieces
4. Locate holes in bottom, front and back pieces
5. Drill holes
6. Lay out angle cuts on sides
7. Cut angle on sides
8. Assembly
9. Mount bird on trees surrounding playground at Maxwell Park. Quality control person for each group.

III. RESULT OF THIS ACTIVITY (AFTER IMPLEMENTATION)

HANDS ON ACTIVITY (STUDENT PERFORMED)

I. NAME OF ACTIVITY

PINE CONE BIRD FEEDER

II. ACTIVITY FORMAT:

A. Tools and Materials

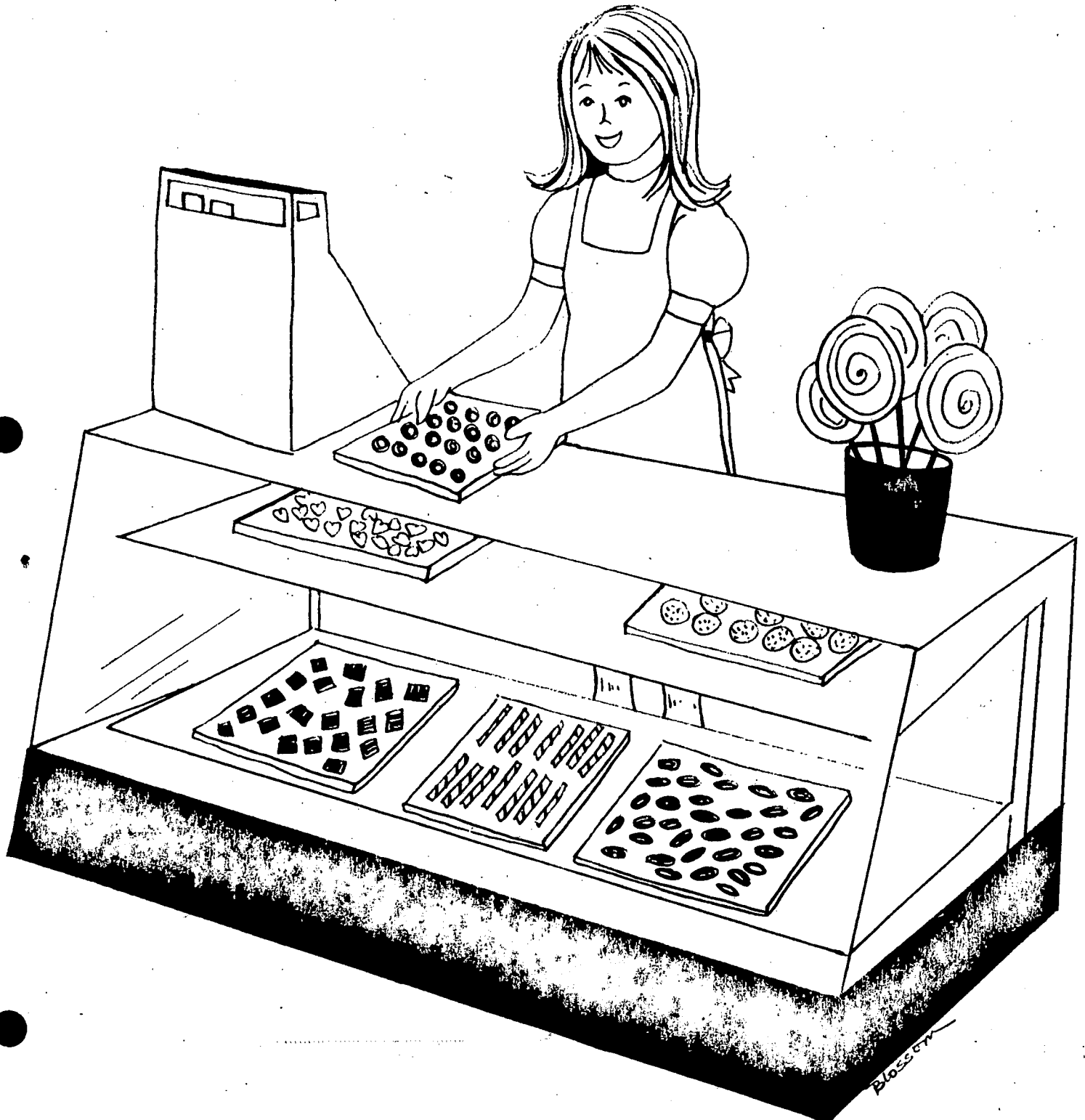
string
pine cones
peanut butter
chopped nuts

B. Procedures for this activity (with helpful hints)

1. Tie string around pine cones
2. Cover cone with peanut butter
3. Roll in nuts
4. Hang on tree

III. RESULTS OF THIS ACTIVITY (AFTER IMPLEMENTATION)

CANDY INDUSTRY



SCHOOL DISTRICT OF THE CITY OF ROYAL OAK

INTEGRATED TEACHING UNIT
PLANSHEETTITLE: CANDY INDUSTRYGRADE LEVEL: 3-4GENERAL OVERVIEW: The major purpose of this unit is to bring out career awareness and concepts of manufacturing and producing packaging and advertising.TEACHING/LEARNING RESOURCES:Reference Materials:

books: Sounds of Numbers - "One, Two, Three, Four"
Sounds of Laughter - "A Maker of Laughs"
How To Book

Movie: **Bakery Beat**

Field Trips:

Trips to candy factories are restricted due to laws established by State of Michigan law

Guest Speakers:

Candy maker
 Parents to demonstrate candy making
Speaker from S.E.O.V.E.C. Store
Representative from Nestles

Activities:

Candy Manufacturing
 Making Packages
 Writing Books
 Set up Candy Factory
Production of boxes
 Bulletin board of candy wrapper collages
 Posters to advertise candy products

UNIT TITLE: CANDY INDUSTRY

CONCEPTS

BEHAVIORAL OBJECTIVES

Communication Skills

Writing of prose and poetry
 Developing names for candy and candy companies
 Thank you notes
 Advertising slogans
 Writing commercials
 Interviewing for surveys

As a result of this unit, each child will be able to:

Write prose by following a given pattern

Write question suitable for an interview

Art

Packaging
 Advertising
 Illustrating
 Designing

Package a product
 Advertise a product
 Illustrate a book
 Design a package cover

Social Sciences

Candy around the world
 Differences in peoples taste
 History of candy

List 2 candies from around the world

Take a survey of the types of candy people like

List the origins of candy and sweets and several points of development

List 2 ways of preserving foods

METHOD OF IMPLEMENTATION	RESOURCE PEOPLE & MATERIALS
<p>Read <u>Charlie and the Chocolate Factory</u></p> <p>Produce a book</p> <p>Write thank you notes</p> <p>Have contest for advertising slogans</p>	<p>Magazines</p> <p>Newspapers</p>
<p>Candy making activities</p> <p>Make signs advertising product</p>	<p>Sounds of Laughter - "Maker of Boxes"</p> <p>Art teacher</p>
<p>Group discussion</p> <p>Survey</p> <p>Observations</p> <p>Research</p>	<p>Tape from Nestles</p>

UNIT TITLE: CANDY INDUSTRY (continued)

CONCEPTS	BEHAVIORAL OBJECTIVES
<p><u>Career/Self-Awareness</u></p> <p>Advertising</p> <p>Packaging</p> <p>Manufacturing</p> <p>Sales</p> <p>Consumer demand</p> <p>Assembly production</p> <p>Planning and decision making</p>	<p>As a result of this unit, each child will be able to:</p> <p>Design and make some form of advertisement</p> <p>Package a product made by himself</p> <p>Make candy</p> <p>Sell candy</p> <p>Take a survey and make a product that was demanded the most</p> <p>Take part in an assembly line production</p> <p>Describe one advantage of combining interests and talents to produce a product</p>
<p><u>Science</u></p> <p>Changes in the state of matter</p> <p>Plant study: How sugar is made "Chocolate" Vanilla</p>	<p>Demonstrate how a solid form of matter changes to a liquid and a liquid changes to a gas</p> <p>Demonstrate how raw materials are refined and combined to produce an edible product</p>

METHOD OF IMPLEMENTATION	RESOURCE PEOPLE & MATERIALS
<p>Selling candy</p> <p>Candy making</p> <p>Survey</p> <p>Plan a choice of jobs for Role playing assembly line production</p> <p>Assembly production of making and packaging candy</p>	<p>Representative from Nestles</p> <p>S.E.O.V.E.C. Store students</p>

Candy making

Group discussion

Experiments - ice melting, butter melting

Experiment - evaporate water - liquid to gas

Bakery Beat - Movie

UNIT TITLE: CANDY INDUSTRY (continued)

CONCEPTS

BEHAVIORAL OBJECTIVES

Math

Measurement

Surveys

Money

As a result of this unit, each child will be able to:

Measure liquids and solids

Take part in a survey

Handle money through sale of product

Calculate cost and profit of product

Determine size of package needed for product

Read a scale for weighing a product

METHOD OF IMPLEMENTATION

RESOURCE PEOPLE & MATERIALS

Candy making

Conduct survey of class's likes and dislikes

Sale of product

Measuring

- 1) calculate amount of ingredients needed for prescribed amount of candy
- 2) materials for package manufacturing

Make up shopping list for ingredients

Parents

Sounds of Numbers - "One, Two, Three, Four"

HANDS ON ACTIVITY (STUDENT PERFORMED)I. NAME OF ACTIVITY

SET UP A CANDY FACTORY

II. ACTIVITY FORMAT

A. Tools and Materials

Hot plates	Ingredients in recipe for no-
Fry pan	bake candy
Cooking utensils	Recipes

B. Procedures for this activity (with helpful hints)

1. Discuss necessity of sanitation
2. Make different kinds of no-bake candy in small groups
3. Discuss and do packaging in pie pans, labeling on scales
4. Weigh candy on scales and mark each candy box
5. List and glue contents of candy on each box
6. Give 1/2 lb. box of candy to mothers

III. RESULT OF THIS ACTIVITY (AFTER IMPLEMENTATION)ORANGE NO-COOK CANDY

3/4 box powdered sugar	1 stick oleo - melted
1 lb. package vanilla wafers (crumbled)	1 cup chopped nuts
1/2 cup small can frozen orange juice	1 can or pkg. coconut

Chop nuts fine. Crumble cookies fine with a rolling pin. Mix all ingredients except the coconut in a large bowl. Shape candy into small balls. Roll in coconut - leave some plain. Yield: 3 dozen.

CANDY RECIPES

DREAM NUT FUDGE

1 3 oz. pkg. cream cheese	1/2 cup chopped nut or coconut
2 1/2 cups confectioners sugar	pinch of salt
1/2 teaspoon almond extract	

With electric mixer at medium speed, beat cream cheese until soft and smooth. Slowly blend in sugar, extract, nuts, salt. Press into greased 9 by 5" pan. Refrigerate until firm, cut into squares. Makes about 2 1/2 dozen squares.

SKILLET FUDGE

2 squares unsweetened chocolate chopped	7 tbsp. milk
1 1/2 cups sugar	7 tbsp. white corn syrup
1 tbsp. margarine	1 tsp. vanilla
2 tbsp. butter	

Combine all ingredients in heavy 12 inch skillet. Bring to a hard boil and boil 1 minute. Cool for 5 minutes. Beat until it loses most of its gloss. Pour into greased 8 x 8 pan. Cut into squares.

MINT WAFERS

1 egg white	2 tsp. butter
2 1/2 cups confectioners sugar	1/2 tsp. peppermint flavoring

Combine ingredients in mixing bowl. Mix until creamy. Tint in shades of delicate yellow, pink, and green. Knead with hands. Shape into 1 inch balls; place on waxed paper and flatten with tines of a fork.

SNOWBALLS

1 6 oz. pkg. semi-sweet chocolate pieces	1/2 cup chopped walnuts
1/3 cup evaporated milk	13 1/2 oz. can coconut
1 cup confectioners sugar	

VANILLA WAFER TURTLES

Use two cookies for each turtle. Frost underside and attach legs of elbow macaroni. A tooth pick doubles for a tail and anchor for head of gumdrop. Frost between 2 cookies to hold toothpick.

Frosting: Mix one cup confectioners sugar and 1 tbsp. milk until smooth.

HANDS ON ACTIVITY (STUDENT PERFORMED)I. NAME OF ACTIVITY

MAKING ROCK CANDY

II. ACTIVITY FORMAT

A. Tools and Materials

Oven or hot plate
 Pot
 Cookie Sheet

Bowl
 Spoon
 Cup

B. Human Aides and Resources

Teacher
 L.R.T.
 Parent

C. Procedures for this activity (with helpful hints)

Rock Candy

3 3/4 c. sugar
 1 1/2 c. Karo light corn syrup
 1 c. water
 1 t. Lorann Flavoring Oil (at Sherman's drug)
 Desired food coloring

1. Sprinkle cookie sheet, covered with foil with powdered sugar.
2. Mix first 3 ingredients in sauce pan. Stir over medium heat until temperature reaches 310° F. Remove from heat.
3. Stir in flavoring oil and coloring
4. Pour into foil, cool, break into pieces

III. RESULTS OF THIS ACTIVITY (AFTER IMPLEMENTATION)

Great - easy to make - good to eat

HANDS ON ACTIVITY (STUDENT PERFORMED)I. NAME OF ACTIVITY

CAKE DECORATORS - LEARNING SEQUENCES

II. ACTIVITY FORMAT

A. Tools and Materials

Cakes (round)	Knives	Candy
Frosting mix	Spoons	Plates
Food coloring	Measuring tools	Bowls

B. Human Aides and Resources

Mothers

C. Procedures for this activity (with helpful hints)

1. Divide into 3 or 4 groups
2. Children will have a specific job
3. Each should have part in designing cake

III. RESULTS OF THIS ACTIVITY (AFTER IMPLEMENTATION)

HANDS ON ACTIVITY (STUDENT PERFORMED)I. NAME OF ACTIVITYCREATIVE WRITING - SENTENCE STRUCTURED LANGUAGE **STORIES**II. ACTIVITY FORMAT

A. Tools and Materials

Copies of Sounds of Numbers, pg. 108, "One, Two, Three, Four"Paper
Pencil
Crayon

B. Procedures for this activity (with helpful hints)

1. Read the story
2. Suggest title of candy and apply to the "First week of the year", etc.
3. Each child choses a number from 1-52 and writes a sentence following the pattern suggested.
4. Sentences are combined to make a book.
5. Expanding ideas - Try individual books following the pattern of "A Maker of Boxes" in Sounds of Laughter.

III. RESULTS OF THIS ACTIVITY (AFTER IMPLEMENTATION)

ORANGE NO-COOK CANDY

3/4 box powdered sugar
1 lb. package vanilla wafers (crumbled)
1 stick oleo, melted
1 cup chopped nuts
1/2 cup small can frozen orange juice
1 can or package coconut

METHOD

Chop nuts fine. Crumble cookies fine with rolling pin. Mix all ingredients except coconut in a large bowl. Shape candy into small balls. Roll in coconut - leave some plain. Yields three dozen.

HANDS ON ACTIVITY (STUDENT PERFORMED)I. NAME OF ACTIVITY

CANDY SURVEY - RECOGNIZING CONSUMER DEMANDS

II. ACTIVITY FORMAT

A. Tools and Materials

Mixing bowls	Milk	Food coloring
Tablespoons	Flavoring	Saran Wrap
Measuring cups	Measuring spoons	Fork
Confectioners sugar	Wax paper	

B. Human Aides and Resources

Parent Aides

C. Procedures for this activity (with helpful hints)

1. Prepare ahead of time 3 flavors and 3 colors of Fondant candy.
2. Each child samples one of each flavor.
3. Each child states his preference of flavor and color.
4. Answers are tallied.
5. Note the most favored flavor and color.
6. Class makes the candy according to results of survey.

III. RESULTS OF THIS ACTIVITY (AFTER IMPLEMENTATION)

RECIPE:

- 1 box confectioners sugar
- 1/4 cup milk
- 1 tsp. flavoring
- Food coloring

Combine ingredients and stir. Mixture will be stiff. Make small balls - flatten with fork. Wrap in saran wrap.

HANDS ON ACTIVITY (STUDENT PERFORMED)I. NAME OF ACTIVITY

LARGE GROUP CANDY MANUFACTURING AND PACKAGING

II. ACTIVITY FORMAT

A. Tools and Materials

Cooking utensils	Yarn
Cooking ingredients	Paper
Saran wrap	Pencils

B. Human Aides and Resources

Parent Aides

C. Procedures for this activity (with helpful hints)

ManufacturingPackaging (Assembly Line Production)

Selected candy recipes

1. Cut saran wrap
2. Wrap each candy in saran wrap
3. Tie saran wrap with yarn
4. Attach pre-made label

Small groups
One parent supervising
each small group



2 children at each of the 4
stations

III. RESULTS OF THIS ACTIVITY (AFTER IMPLEMENTATION)



CLOTHING INDUSTRY

SCHOOL DISTRICT OF THE CITY OF ROYAL OAK

INTEGRATED TEACHING UNIT
PLANSHEET

TITLE: CLOTHING INDUSTRY

GRADE LEVEL: 3-4

GENERAL OVERVIEW: The purpose of this unit is to apply social sciences, math, and career education concepts as they relate to the clothing industry, both in mass production and custom production.

TEACHING/LEARNING RESOURCES:

1. Reference Materials:

Filmstrips: Cotton Growing and Ginning
Cotton Spinning and Weaving
Story of Wool

2. Field Trips:

SEOVEC
Visit clothing store
Greenfield Village

3. Human Resources:

Art teacher
Seamstress
Parents

4. Activities:

Identifying materials used in clothing chart
Making a bed pillow
Making a vest
Making a loom and weaving a belt

UNIT TITLE: CLOTHING INDUSTRY

CONCEPTS	BEHAVIORAL OBJECTIVES
<p><u>Science</u></p> <p>Geographic and environmental factors</p>	<p>As a result of this unit, each child will be able to:</p> <p>Compare climate and how it effects what we wear</p> <p>Collect the type of materials that goes into clothing</p>
<p><u>Social Studies</u></p> <p>Map skills</p> <p>Economic behavior</p>	<p>Locate on map where we live</p> <p>Compare types of dress found in different families in countries around the world</p> <p>Explain relationship of cost of clothes to climate</p>
<p><u>Math</u></p> <p>Linear measurement</p> <p>Money concepts</p> <p>Prepare budget</p>	<p>Compare prices</p> <p>Gather data for planning budget and pay and receive correct change</p> <p>Develop a personal budget</p> <p>Measure material to make pillows</p>

METHOD OF IMPLEMENTATION	RESOURCE PEOPLE & MATERIALS
<p>On the map find where different materials are located, grown or collected</p> <p>Make a display of types of clothing materials</p> <p>Make a collage of materials</p>	
<p>Use map skills to locate countries</p> <p>Compare and contrast types of dress found in families in different countries around world</p> <p>Find pictures or make pictures of different costumes. Place them on a world map</p> <p>View filmstrips</p>	<p>Art Museum</p> <p>International Institute</p> <p>Magazines</p>
<p>Using newspaper ads or catalogues, make chart comparing prices</p> <p>Investigate spending, buying and selling within a family</p> <p>Make a personal budget</p>	

UNIT TITLE: CLOTHING INDUSTRY (continued)

CONCEPTS	BEHAVIORAL OBJECTIVES
<p><u>Communication Skills</u></p> <p>Letter Writing</p> <p>Report writing</p>	<p>As a result of this unit, each child will be able to:</p> <p>Write a letter to a manufacturer or clothes shop</p> <p>Describe in writing 5 facts about the clothing industry</p>
<p><u>Art</u></p> <p>Cutting</p> <p>Drawing</p> <p>Designing</p>	<p>Duplicate patterns for pillow</p> <p>Assemble and sew a pillow</p> <p>Design a costume</p>
<p><u>Career/Self-Awareness</u></p> <p>Producing raw materials processing packaging</p> <p>Servicing things people</p> <p>Personalized planning and decision making</p> <p>Analysis of interests</p>	<p>Identify a product and describe the stages of production from raw material to packaged product</p> <p>Investigate and describe research done on raw materials</p> <p>List 5 classes of industry and 10 types of workers in the immediate area</p> <p>Give an advantage of combining interests to produce a product</p> <p>Given a list of activities you like to engage in, identify 3 general interests</p>

METHOD OF IMPLEMENTATION	RESOURCE PEOPLE & MATERIALS
<p>Write a letter asking for price information or requesting a catalogue</p> <p>Write a report on clothing in Michigan</p>	<p>Catalogue</p>
<p>Make a pattern for a pillow and make pillow 12" x 12"</p> <p>Design a costume for self or another person. Make a costume for a play.</p>	<p>Parent (possibly one who makes costumes)</p>
<p>Discuss what type of industry and what kind of workers would be involved in making different costumes. e.g. tourist agency, survey, marketing</p> <p>Matching job to the types of workers</p> <p>Visit SEOVEC</p>	<p>SEOVEC</p>

HANDS ON ACTIVITY (STUDENT PERFORMED)I. NAME OF ACTIVITY

MAKING A PATTERN AND BED PILLOW

II. ACTIVITY FORMAT

A. Tools and Materials

Newspaper print paper
Material
Thread & needles
Old nylons

Sewing machine
Rulers
Iron
Scissors

B. Human Aides and Resources

One parent for group of four

C. Procedures for this activity (with helpful hints)

Have group demonstration with uncut pattern to show -
describe ruler and how to use it.
Using chalkboard demonstrate each line and where it would
go in respect to the others.
Have child choose two pieces of material bigger than 12" x
12".
Explain that the two outsides are put together and why.
Show seam.
Have child lay pattern correctly on material and pin.
Carefully cut.
Have each child sew through sides, trim, turn right side
out, press, stuff with nylons, slip stitch top.

III. RESULTS OF THIS ACTIVITY (AFTER IMPLEMENTATION)

HANDS ON ACTIVITY (STUDENT PERFORMED)

I. NAME OF ACTIVITY

MAKING A VEST

II. ACTIVITY FORMAT

A. Tools and Materials

Felt	Scissors
Thread & needle	Sewing machine
Pattern	Large white paper
Ruler	

B. Human Aides and Resources

One parent group of four

C. Procedures for this activity (with helpful hints)

From basic pattern make adjustments for smaller and larger child (have resource person demonstrate this).

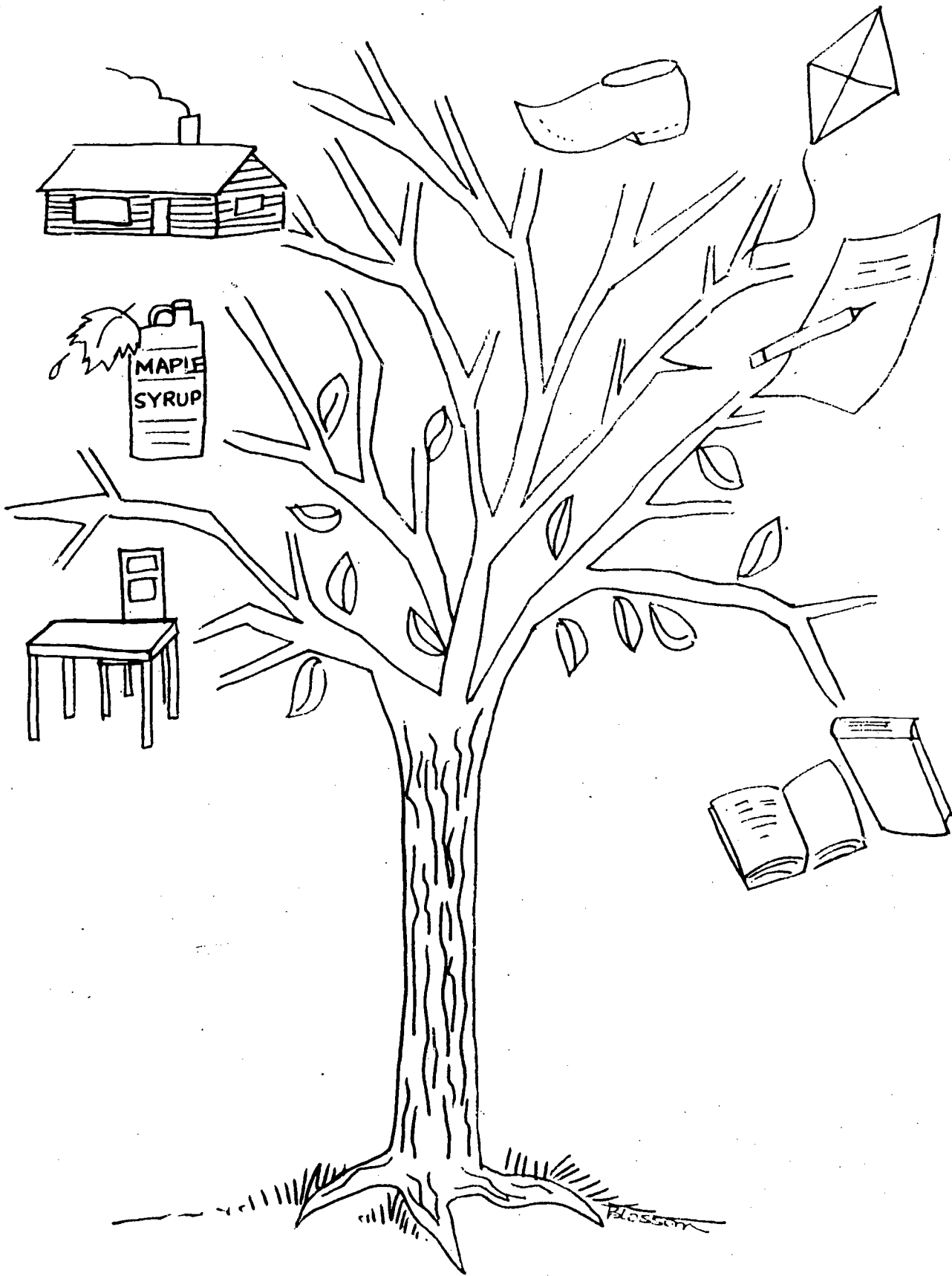
Make own pattern.

Lay out, pin, cut and sew up sides.

Add desired fringes, pockets and designs.

III. RESULT OF THIS ACTIVITY (AFTER IMPLEMENTATION)

A custom-made vest is made as craftsmen do.



MAN'S USE OF RESOURCES

SCHOOL DISTRICT OF THE CITY OF ROYAL OAK

INTEGRATED TEACHING UNIT
PLANSHEETTITLE: MAN'S USE OF RESOURCESGRADE LEVEL: 3-4GENERAL OVERVIEW: This unit is designed to integrate plants, solid earth, and water to show how man uses his resources for food, clothing and shelter. It is a general overview of each unit and how they are related rather than an in-depth study of each unit.TEACHING/LEARNING RESOURCES:1. Reference materials:

Filmstrips: Iron Ore Mining in Michigan
 Mineral Wealth
 Fishing Industry
 Seacoasts, Shipping and Fishing
 Cattle and Corn Belt
 Story of Wool
 A Dairy Farm
 Lumber Mill
 Story of Cotton

Books: Your World
Let's Visit a Farm
Let's Visit a Ship
Let's Visit a Clothing Factory
 Catalogues
 Newspaper advertisements

Poem: The World - Robert L. Stevenson

Realia: Cotton bale
 Miner's hat

Movies: The Cotton Farmer
 Dairy Farm Today
 Foods from Grains

Flat Pictures: Harvesting Wheat
 Miniature Loom
 Corn Belt Farming
 Picking Cotton
 How an Automobile is Assembled
 The Corn Farmer
 How Weather Helps Us

Kits: Wool Education Center
200 Clayton Street
Denver, Colorado 80206

The Story of Cotton
National Cotton Council of America
P.O. Box 38112
Memphis, Tennessee 38112

2. Field Trips:

Weber's Nursery
Cranbrook Nature Center (Sap tapping - good in March)
The Weavery on Washington Street - Royal Oak

3. Human Resources:

Fabric store retailer
Parents from community with special talent (e.g., knitting)
Salesmen

4. Activities:

Weaving a simple rug
Growing cotton
Building a weaving loom
Tie dying
Yarn holders
Buying toys within a price limit
Making car models out of wood or tagboard
Grand Prix Race
Cut out ads from newspaper - design own ads
Discuss toy safety
Discuss history and development of toy industry
Meat tray wall plaques

UNIT TITLE: MAN'S USE OF RESOURCES

CONCEPTS

BEHAVIORAL OBJECTIVES

Social Studies

Regional plant growth
 Transportation
 History
 Marketing
 Maps and charts

As a result of this unit, each child will be able to:

Analyze a map to gather needed information for plant growth across nation, of a certain crop

Identify and compare 3 methods of transporting goods

Science

Use of land and water
 Physical environment
 Water and air pollution
 How to use the microscope
 Identification of parts of the microscope
 Investigate and record the structure of cotton
 Principles of dyeing and mordanting

List 5 occupations created by the cotton industry

Describes what takes place at a textile mill

Name products and byproducts of cotton and their uses

Describe harvesting procedure of cotton

Describe what happens to cotton in the cotton gin

Help collect and organize data on the uses of natural resources

Analyze man's use of land and water resources

METHOD OF IMPLEMENTATION

RESOURCE PEOPLE & MATERIALS

Children will discuss the origins of clothing

Field trip to weaving shop

Draw graphs

Field trips

Airports
Shipping ports
Trucking stations
Warehouse
Rail station

Children will identify fabric from

- a. animal
- b. plant
- c. synthetic

They will state which part of animal or plant is utilized

Field trip to fabric shop or Greenfield Village

Make a classbook of samples

UNIT TITLE: MAN'S USE OF RESOURCES (continued)

CONCEPTS	BEHAVIORAL OBJECTIVES
<p><u>Communication Skills</u></p> <ul style="list-style-type: none"> Role playing Read and follow directions Writing letters Vocabulary Reports Research 	<p>As a result of this unit, each child will be able to:</p> <ul style="list-style-type: none"> Role play the picking of a cotton crop Distinguish between goods and make a chart of their usefulness List 5 things we could not do without Discuss why the allocation of resources depends on the goals of our society
<p><u>Art</u></p> <ul style="list-style-type: none"> Cutting Pasting Color wheel and color families Aesthetic value of fabrics and yarns 	<ul style="list-style-type: none"> Prepare resource chart of 5 different fabrics Paint or draw pictures of 4 ways in which the ocean is a resource Identify and draw one or more hand tools used today

METHOD OF IMPLEMENTATION	RESOURCE PEOPLE & MATERIALS
<p>Children will write hypothetical stories about various foods and goods</p> <p>Make a touch and feel book using different fabric textures and write how it feels. Ex., This feels as rough as sandpaper.</p>	<p>Clothing salesman or retailer - supply and demand</p>
<p>Use assorted fabrics for bulletin board</p> <p>Paste assorted texture of fabrics on paper identification (rough, smooth)</p> <p>Tie Dyeing</p> <p>Draw pictures after research</p>	<p>Parent w. talent in tie dyeing</p>

UNIT TITLE: MAN'S USE OF RESOURCES (continued)

CONCEPTS	BEHAVIORAL OBJECTIVES
<p><u>Math</u></p> <p>Linear measurements Number concepts Cost of product (including time and materials)</p>	<p>As a result of this unit, each child will be able to:</p> <p>Plot and graph different agricultural regions and different physical environments</p>
<p><u>Career Awareness</u></p> <p>Workers produce goods Workers producing services Transportation of people and things</p>	<p>Define ways human and natural resources are conserved</p> <p>Organize data on ways certain goods are transported</p> <p>Identify 5 people who provide us services</p> <p>Identify 5 people who provide us goods</p>

METHOD OF IMPLEMENTATION	RESOURCE PEOPLE & MATERIALS
<p>Measure yardage and patterns</p> <p>Tell equivalents - between units of linear measurement</p>	<p>Clerk from fabric store</p> <p>Seamstress</p> <p>SEOVEC - Clothing Store representative</p> <p>Tailor</p>

Make a chart listing compiled data

Class discussion on identification of services and goods

Any of the above

HANDS ON ACTIVITY (STUDENT PERFORMED)I. NAME OF ACTIVITY

TIE DYEING

II. ACTIVITY FORMAT:

A. Tools and Materials

two pkg. of Rit dye	hot plate
sink or basin	wooden spoon
rubber gloves	T-shirts or
rubber bands	blouses (white)

B. Human Aides and Resources

Teacher
Parents
Teacher Aide

C. Procedures for this activity (with helpful hints)

1. Tie fabric and secure tightly - choose white or light colored washable, dyable fabric. Wash to remove any sizing. Crumple, twist, pleat, fold, or gather an area of fabric together. Secure tightly with string or rubber bands.
2. Arrange ties in a random or planned pattern.
3. Immerse wet fabric or dip tied areas into a simmering Rit dye bath - prepare bath using 1/2 package dye for about every quart of hot water in a container large enough to avoid crowding. Dissolve completely. Stir tied fabric in simmering dye bath for 10-15 minutes or longer for thick, bulky fabric or ties. When desired color is reached, remove from dye bath and squeeze out excess dye.
4. Rinse thoroughly - rinse, remove ties and rinse again thoroughly in cool running water until runs clear. Hang to dry and iron while slightly damp.

III. RESULTS OF THIS ACTIVITY (AFTER IMPLEMENTATION)

Items must be clean before dyeing. Students should not handle hot shirts. This must be done by an adult.

HANDS ON ACTIVITY (STUDENT PERFORMED)I. NAME OF ACTIVITYYARN HOLDERS - SHAPED LIKE AN APPLEII. ACTIVITY FORMAT:

A. Tools and Materials

yarn - red and green
knitting needles
scissors
32 bone rings
8 packs yarn
felt - green

B. Human Aides and Resources

Teacher
Teacher Aide
Parents

C. Procedures for this activity (with helpful hints)

1. 17 rows straight stitch, 17 rows purl stitch. This is the stockinette stitch.
2. Cast on 20 stitches. Knit every stitch on the first row.
3. On the second row, insert the right needle into the front of the first stitch on the left needle from the right side and slip the first stitch from the left needle onto the right needle.
4. Bring yarn to the front of your work. Now you are ready to purl.
5. Insert the right needle in the front of the next stitch on the left needle from the right side.
6. Bring the yarn over the point of the right needle.
7. Draw the yarn through the stitch.
8. Slip the old stitch off the left needle, thus completing the first purl stitch.
9. Keep yarn to the front of your work and continue to purl the entire length of the row, repeating step 5 and 8.
10. Knit the third row, purl the fourth row.
11. Repeat these 2 rows alternately until you have seventeen rows, or until you have a strip 4-1/2 inches long and 11 inches round.
12. Run draw string on each end.
13. Crochet one bone ring for each apple for holder, 3/4" in diameter.
14. Cut leaves from strips of felt. Sew on ring.
15. Stuff with roll of twine.

III. RESULTS OF THIS ACTIVITY (AFTER IMPLEMENTATION)

HANDS ON ACTIVITY (STUDENT PERFORMED)I. NAME OF ACTIVITY

BUILDING A WEAVING LOOM

II. ACTIVITY FORMAT:

A. Tools and Materials

3/4" scrap wood (at least 10" long)	hammer
small screw eyes (size 214-1/2)	ruler
coat hangers or wire	pencil
1-1/4" brads	wire cutter and pliers
saw	

B. Procedures for this activity (with helpful hints)

1. Saw wood so that you will have two 8-1/2" x 1/4" pieces and two 4-3/8" x 3/4" pieces
2. Lay the two short end pieces on top of the two long side pieces so that the ends are even and the four sides form right angles at the corners
3. Nail the pieces together, using 2 nails for each corner - Drive the nails through the side piece first (long piece)
4. Mark the short ends at every 3/8 inch. You should have 10 marks
5. Screw the screw eye in first, then the finishing nails, and ending with the screw eye
6. Cut the wire into 10 inch lengths
7. Bend one side of wire into a hook
8. Insert the wire lengthwise through the screw eyes

III. RESULTS OF THIS ACTIVITY (AFTER IMPLEMENTATION)

HANDS ON ACTIVITY (STUDENT PERFORMED)I. NAME OF ACTIVITY

MEAT TRAY WALL PLAQUES

II. ACTIVITY FORMAT:

A. Tools and Materials

Yarn
Large eye needles
Styrofoam meat trays
Crayons

B. Human Aides and Resources

Adult or older student to help thread needle

C. Procedures for this activity

1. Children draw design on meat trays with crayons.
2. Use yarn to fill in pictures.
3. Punch hole in top and make a yarn loop to hang plaque.

III. RESULTS OF THIS ACTIVITY (AFTER IMPLEMENTATION)

HANDS ON ACTIVITY (STUDENT PERFORMED)I. NAME OF ACTIVITY

WALL HANGINGS

II. ACTIVITY FORMAT:

A. Tools and Materials

Burlap
Yarn
Large eye needles
Dowel rods

B. Human Aides

Parents to help cut strips and help thread needles

C. Procedures for this activity

1. Cut burlap into pieces 12" x 24", one for each child.
2. Children design picture on paper they want transferred to burlap.
3. Stitch design on burlap using crewel stitches.

III. RESULTS OF THIS ACTIVITY (AFTER IMPLEMENTATION)



STORES

SCHOOL DISTRICT OF THE CITY OF ROYAL OAK

INTEGRATED TEACHING UNIT
PLANSHEETTITLE: GROCERY STORE (GENERAL STORE, TRADING POST)GRADE LEVEL: 3-4GENERAL OVERVIEW: The class will construct a grocery store. Transportation, food distribution, food processing, label printing, history of food storage, will be explored.TEACHING/LEARNING RESOURCES:1. Reference Materials:Book: Let's Go to the SupermarketFilmstrips: Supermarket Workers
Wally the Worker WatcherFilms: Why Eat Our Vegetables
Let's Keep Food Safe to Eat
Eat Well, Grow Well

Chart: At the Store

2. Field Trips:Trip to the Grocery Store
Trip to Coca-Cola Company - Pontiac3. Human Resources:Retail grocer
Parents - one parent keeps bees and demonstrated equipment, etc.
Doctor - followed up a food sub-unit
College student
Warehouse worker
Truck driver4. Activities:Build a grocery store
Bake bread
Make butter

UNIT TITLE: GROCERY STORE

CONCEPTS

BEHAVIORAL OBJECTIVES

Communication Skills

Creative writing

As a result of this unit, each child will be able to:

Write a story as a group

Identify two activities that have taken place

Construct sentences telling about 5 pictures related to unit

Write a story about a trip to the grocery store

Math

Counting
Linear measurement

Count objects in play grocery store and list

Count the play money in cash register and total

Add the cost of 2 or 3 items for sale in the play grocery store

Make change

Assist in the measuring of lumber

METHOD OF IMPLEMENTATION	RESOURCE PEOPLE & MATERIALS
<p>Background information about goods as they travel from point of origin until they arrive in the grocery store</p> <p>Discuss and study available pictures and charts</p> <p>Field trip to a grocery store</p> <p>Follow up</p>	<p>Coca-Cola Company warehouse worker</p>
<p>Role playing:</p> <p>Playing store (storekeeper, cashier, customers)</p>	<p>Cash register cashier from a store</p>

UNIT TITLE: GROCERY STORE (continued)

CONCEPTS	BEHAVIORAL OBJECTIVES
<p><u>Science</u></p> <p>Nutrition</p>	<p>As a result of this unit, each child will be able to:</p> <p>Categorize items to be placed on shelves</p> <p>Write about the nutritional value of 5 foods</p>
<p><u>Career Awareness</u></p> <p>Job Functions</p> <p>Production</p> <p>Servicing</p> <p>Transportation of goods</p>	<p>List 5 jobs involved in a grocery store</p> <p>Describe at least 2 things which these workers do</p> <p>Write or draw about the transportation and processing of goods when they leave the factory, farm or point of origin until they reach the grocery store</p>

METHOD OF IMPLEMENTATION	RESOURCE PEOPLE & MATERIALS
<p>Place items on store shelves</p> <p>National Dairy Council charts, pictures and related materials</p> <p>Cutting and pasting pictures of foods and place them in the seven basic food groups</p>	<p>Film: "Let's Keep Food Safe to Eat"</p>
<p>View film loops and filmstrips showing actual processing and transporting of goods</p> <p>Discuss various methods of transportation of goods</p> <p>Actual making of bread and butter</p> <p>Packaging and pricing of bread and butter</p>	<p>Filmstrip: "Supermarket Workers"</p> <p>Doctor</p> <p>Retail grocer</p> <p>Truck driver</p>

HANDS ON ACTIVITY (STUDENT PERFORMED)I. NAME OF ACTIVITY

BUILD A GROCERY STORE

II. ACTIVITY FORMAT:

A. Tools and Materials

1/4" plywood 2 sheets
hammer
hand saws
saber saw
nails
yardstick

B. Human Aides and Resources

Parent aides for other activity groups

C. Procedures for this activity (with helpful hints)

1. Order lumber
2. Arrange for student aide to come
3. Set up activities for the part of the class which will not be working with tools
4. Use 2 sessions (about 1-1/2 hours) to cut wood, three sessions for nailing store together
5. Use saber saw for cutting large pieces (allow child to hold handle, while teacher guides it through). Hand saws should be used for smaller pieces
6. Five children at a time worked with student aide - other children worked in groups making food posters, play money, drew and cut out pictures of foods for bulletin board.

III. RESULTS OF THIS ACTIVITY (AFTER IMPLEMENTATION)

HANDS ON ACTIVITY (STUDENT PERFORMED)I. NAME OF ACTIVITY

BAKE BREAD AND MAKE BUTTER

II. ACTIVITY FORMAT:

A. Tools and Materials

2 bowls	paper cups
2 sets measuring spoons	jars for butter
ingredients	2 electric frying pans
napkins	2 blenders

B. Human Aides and Resources

4 parents to supervise groups

C. Procedures for this activity (with helpful hints)

1. Buy ingredients
2. Divide children into 4 groups:
 - 2 groups for bread baking
 - 2 groups for butter making
3. Each parent supervises one group
4. Drink buttermilk

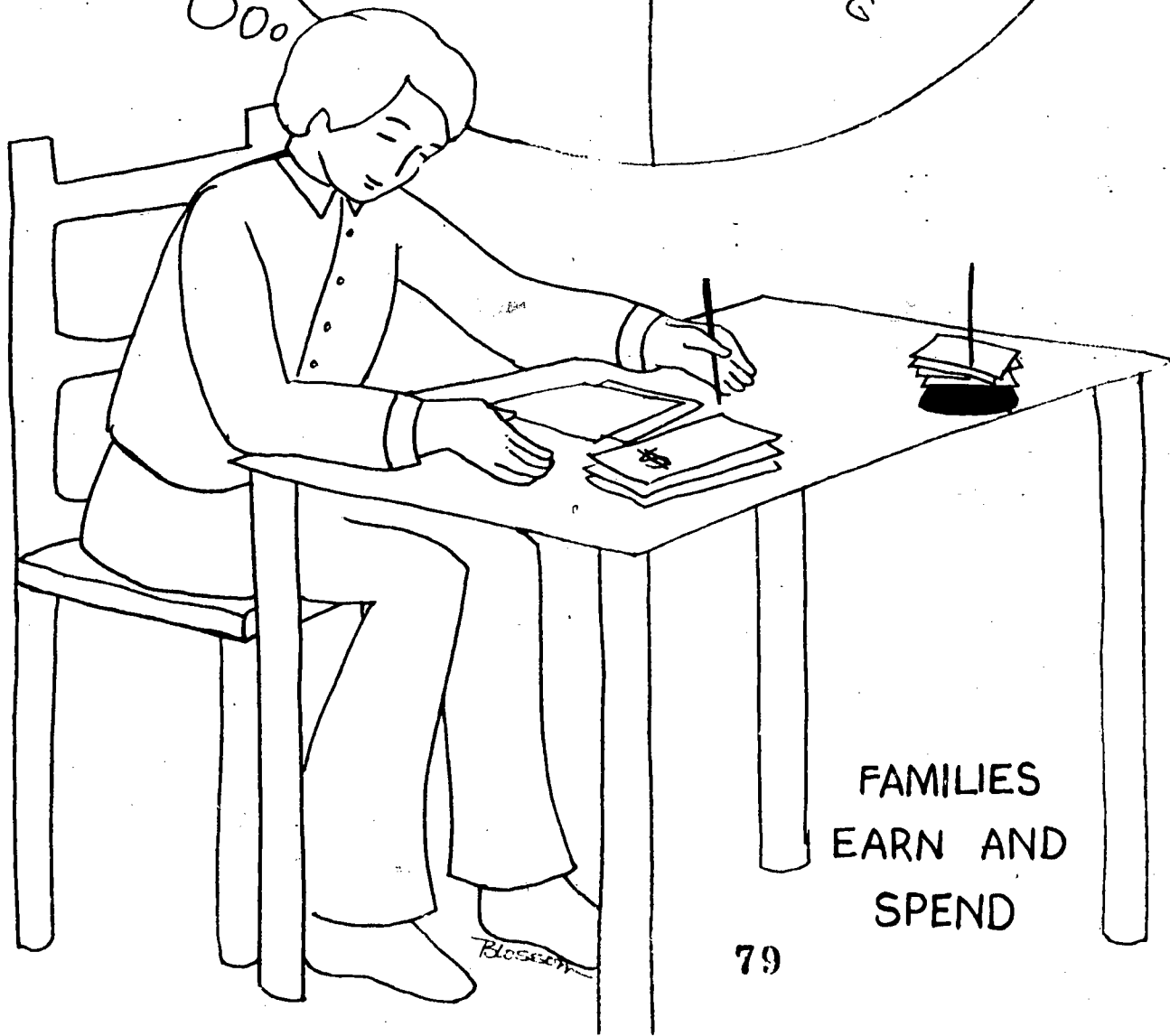
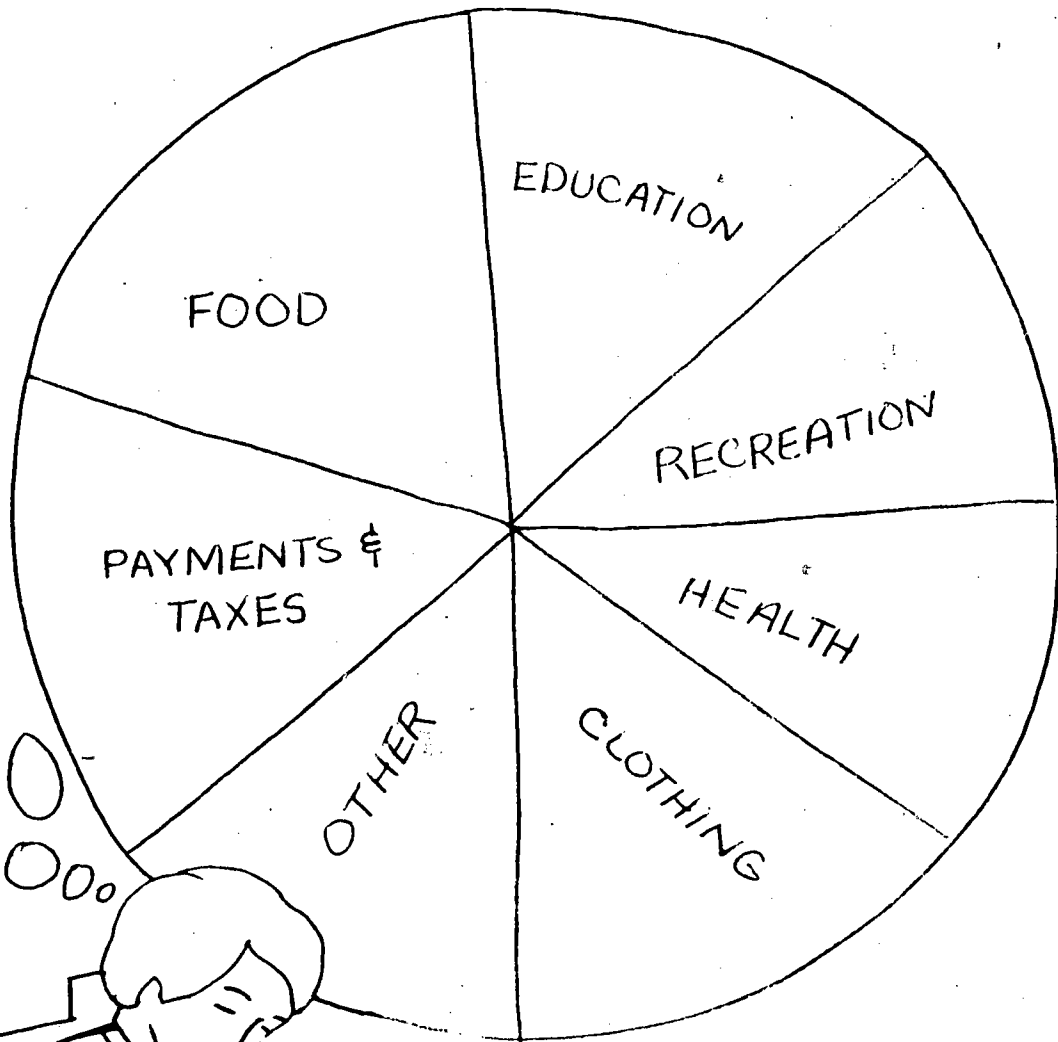
Recipe for Bread

1 cup flour
 1 egg
 1/2 teaspoon baking powder
 Bake in fry pan at 425 degrees

Recipe for Butter

1 quart cream
 dash of salt
 put 1 cup cream into a pint jar (or smaller jar)
 Let each child shake the jar a certain number of times until it turns to butter

III. RESULTS OF THIS ACTIVITY (AFTER IMPLEMENTATION)



FAMILIES
EARN AND
SPEND

SCHOOL DISTRICT OF THE CITY OF ROYAL OAK

INTEGRATED TEACHING UNIT
PLANSHEETTITLE: FAMILIES EARN AND SPENDGRADE LEVEL: 3-4

GENERAL OVERVIEW: This unit introduces the child to man's methods of producing goods and services and to each person's dependence upon the labor of hundreds of other people. He also learns that his family uses its income to buy the goods and services it needs. He will begin to recognize that people can spend their income in many different ways. He will recognize that no person can buy all the goods and services he would like; therefore, he must make choices among different ways of satisfying his needs and wants. The children will learn that people produce goods and services for others to earn income, but they also give goods and services to others to be helpful. That people perform different kinds of work due to different preference and skills.

TEACHING/LEARNING RESOURCES:1. Reference materials:

Books: Come to Work With Us In a Department Store
Come to Work With Us In a Hospital
Come to Work With Us In House Construction
Come to Work With Us In a Newspaper
How to Earn and Use Money
Let's Go to the Supermarket
Let's Build a House
Let's Visit a Hospital
Let's Visit a Bakery

Film-
strips: Wally, the Worker Watcher
Supermarket
Getting Goods to Users
Andy Lends Money to the Bank
Money We Earn
Things We Buy
Introducing Economics
Rules We Follow

Film
Loops: Bricklayers
Cooks and Chefs

Movies: Bakery Beat
 Story of the Wholesale Market

Records: World of Man - His Work

2. Field Trips:

Walk to store - observe roles of working people

3. Human Resources:

Parents who are clerks
 Manager of a store
 Parent explains how she plans her shopping
 High school boy who is a stock boy
 Assembly line worker
 Salesman
 Parents - mother volunteer aides
 2 role models: teachers' sons describe car wash job
 Personnel manager

4. Activities:

Assembly Line Chair Wash
 Making Store
 Making Pennies
 Cupcakes
 Caramel Apple Sale
 Popcorn Factory
 Christmas Ornaments (mouse)
 School Bus (assembly line concept)
 Candle Sale

UNIT TITLE: FAMILIES EARN AND SPEND

CONCEPTS

BEHAVIORAL OBJECTIVES

Math

Money
Measurement
Addition and subtraction facts

As a result of this unit, each child will be able to:

Count money, make change, make comparison of profits

State 2 purposes of money as a medium of exchange

Collect data on 3 ways people acquire income

Keep a daily log of their spending

Communication Skills

Writing
Reading books and filmstrips
Group discussions
Booklets

Prepare a chart listing 5 human needs and 5 human wants

Write a simple thank-you letter

View and read filmstrips chosen from reference list

METHOD OF IMPLEMENTATION	RESOURCE PEOPLE & MATERIALS
<p>Field trips:</p> <p>To a food market to buy apples and popcorn for the sale</p> <p>Visit a bakery to see a production line in operation</p> <p>Go to a local hospital or center to give our earnings to a group for Christmas</p> <p>Children will count the chairs and children in the room</p>	<p>Cashier</p> <p>Bank teller</p> <p>Bookkeeper</p>
<p>Discussion of what people need and want</p> <p>Compose thank-you letters to guest speakers</p> <p>Experience stories written by teacher as child describes car wash</p> <p>Children describe family visits to car wash</p>	<p>Parent - share plan for family shopping</p>

UNIT TITLE: FAMILIES EARN AND SPEND (continued)

CONCEPTS	BEHAVIORAL OBJECTIVES
<p><u>Social Studies</u></p> <p>World of work</p> <p>Interdependence of goods and services</p>	<p>As a result of this unit, each child will be able to:</p> <p>List 5 jobs which involve producing goods</p> <p>List 5 jobs which involve providing a service</p> <p>List 5 jobs which involve producing goods and one service job related to each one</p> <p>Match 2 pictures of families to 2 different climate areas in the United States and tell 2 ways how they might earn their living and what 2 things they would need to buy from someone else</p>
<p><u>Science</u></p> <p>Plant environments</p> <p>Weather conditions</p>	<p>List 5 crops and match them to a dry, wet, hot, or cold climate depending on where they are grown</p>

METHOD OF IMPLEMENTATION	RESOURCE PEOPLE & MATERIALS
<p>Role playing</p> <p>Hands-on activity - Classroom Chair Wash</p> <p>Children described family visits to car washes</p> <p>Discuss weather maps and pictures of families in different climate areas in the United States - the effect on family living, earning and spending</p> <p>Class discussion:</p> <p>What goods and services do families use:</p> <ol style="list-style-type: none"> a. Restaurant workers b. Storekeeper - clerk c. Barber d. Grocery store worker e. Construction worker <p>Why do people have different skills:</p> <ol style="list-style-type: none"> a. To provide us with the different things we need 	<p>Manager of store</p> <p>Assembly worker</p> <p>Salesman</p> <p>Restaurant worker</p> <p>Storekeeper - clerk</p> <p>Barber</p> <p>Grocery store worker</p> <p>Construction worker</p>
<p>Research and report back - chart showing plants which grow in dry, wet, hot or cold climate</p>	

UNIT TITLE: FAMILIES EARN AND SPEND (continued)

CONCEPTS	BEHAVIORAL OBJECTIVES
<p><u>Art</u></p> <p>Attractive packaging</p> <p>Advertising</p>	<p>As a result of this unit, each child will be able to:</p> <p>Design a book cover</p> <p>Make signs to advertise sales</p> <p>Draw a picture and write a story about each: the laborer, inspector and manager</p> <p>Draw a picture of each step in producing a mouse-decoration for a Christmas tree</p>
<p><u>Career/Self-Awareness</u></p> <p>Reasons people work</p> <p>Functions of work:</p> <p> goods production</p> <p> service production</p>	<p>Orally tell one reason why people work</p> <p>Tell why people have different kinds of jobs</p> <p> a. People have many and varying needs</p> <p>Operate on an assembly line basis</p> <p>Draw 2 pictures, one that shows family members working together and one that shows them working elsewhere</p>

METHOD OF IMPLEMENTATION

RESOURCE PEOPLE & MATERIALS

Make, package, and advertise a product

Draw picture of each step producing a mouse-decoration for a Christmas tree

Advertising or packaging person
(i.e. gift wrapper)

Role playing experiences:

Being a store clerk or manager of store
A mother taking her child to market to buy
food for the family

Role playing incorporated:

Act out buying and selling
Act out role of manager
Selling of candles to one another - giving
and receiving money

Role playing:

Popcorn assembly line
Selling popcorn

Make a chart together showing reasons why
people work

Personnel manager

HANDS ON ACTIVITY (STUDENT PERFORMED)I. NAME OF ACTIVITY

CAMEL APPLE SALE

II. ACTIVITY FORMAT:

A. Tools and Materials

21 - 14 oz. caramel candies	mixing bowl
1-1/2 cup water	wooden spoons
1 bushel Jonathan apples	double boiler
approx. 150 sticks	waxed paper and baggies
hot plate	

B. Human Aides and Resources

Parent
Teacher
Teacher Aide

C. Procedures for this activity (with helpful hints)

Melt caramel with water in double boiler or sauce pan over low heat. Stir occasionally until sauce is smooth. Wash and dry apples. Insert a stick into end of apple. Dip into hot caramel sauce, turn until coated. Scrape off sauce from bottom of apples. Place on greased waxed paper. Chill until firm. Keep in cool place.

III. RESULTS OF THIS ACTIVITY (AFTER IMPLEMENTATION)

HANDS ON ACTIVITY (STUDENT PERFORMED)I. NAME OF ACTIVITY

CUPCAKES

II. ACTIVITY FORMAT:

A. Tools and Materials

3 boxes of cake mix	mixer
6 eggs	wooden spoon
3-3/4 cups water	muffin pans
mixing bowl	waxed paper

B. Human Aides and Resources

Teacher
Teacher Aide

C. Procedures for this activity (with helpful hints)

Blend in large mixing bowl at low speed until moistened
cake mix, water and eggs
Beat 2 minutes at medium speed
Bake at 350 degrees for 15 to 25 minutes
Remove cakes from pan, cool 15 minutes on cooling rack
Makes 90 cupcakes

III. RESULTS OF THIS ACTIVITY (AFTER IMPLEMENTATION)

HANDS ON ACTIVITY (STUDENT PERFORMED)I. NAME OF ACTIVITY

SCHOOL BUS

II. ACTIVITY FORMAT:

A. Tools and Materials

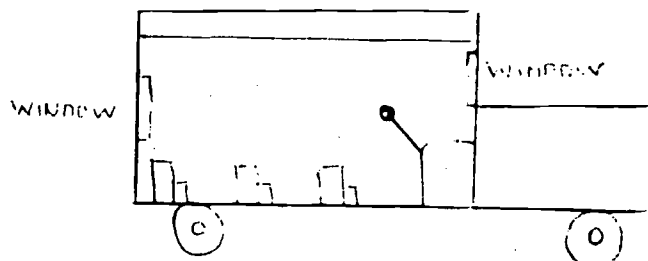
1" maple dowel rod	plywood
1/8" dowel rod	3/4 x 1/2 strips of soft wood
buttons	Elmer's Glue
paint	tacks
sandpaper	nails

B. Human Aides and Resources

Parents
Teacher Aide

C. Procedures for this activity (with helpful hints)

Wheels 1" or 7/8" maple dowel rod; steering column 1/8" dowel rod;
Steering wheel - button; headlight - button; frame - 8" x 3-1/2"
axle - 3/4 x 1/2" strips of soft wood; top 7-1/2" x 3"; back -
3 x 3-1/2"; front 3 x 3-1/2" plywood



Cut appropriate number of axles. Measure them to fit between chassis. With nails and glue, attach. With brace and bit, drill a 1/4" hole diagonally between the chassis and engine. Cut a 1/4" dowel 2-1/2" long. Glue it into hole. Place button mold in a vise so that the vise will hold grain of wood together. Attach seats, put cab; finally attach wheels.

III. RESULTS OF THIS ACTIVITY (AFTER IMPLEMENTATION)

HANDS ON ACTIVITY (STUDENT PERFORMED)I. NAME OF ACTIVITY

ASSEMBLY LINE CHAIR WASH

II. ACTIVITY FORMAT:

A. Tools and Materials

chairs	brushes
soap and water	sponges
cleanser	rag

B. Human Aides and Resources

2 mother volunteer helpers

C. Procedures for this activity (with helpful hints)

1. Ten chairs for first "line" were lined up by sink
2. First child wiped chairs with a wet sponge
3. Second child sprinkled on scouring cleanser
4. Third child scrubbed chairs with a scrub brush
5. Fourth child rinsed chairs with a sponge
6. Fifth child dried chairs with a rag
7. Mother inspected chairs to see if they were clean
8. Sixth child took chairs back to tables when clean
9. First and second child helped mop floor after first jobs were finished
10. Second mother served as "boss" on the job

III. RESULTS OF THIS ACTIVITY (AFTER IMPLEMENTATION)

HANDS ON ACTIVITY (STUDENT PERFORMED)I. NAME OF ACTIVITY

CHRISTMAS ORNAMENT (MOUSE)

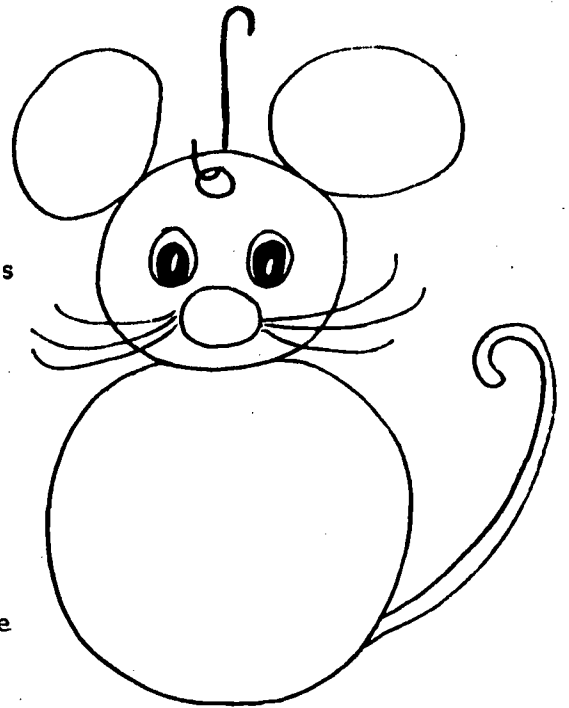
II. ACTIVITY FORMAT:

A. Tools and Materials

scissors	thread - whiskers
punch to make	yarn - tail
holes	
paste	
felt - pink,	
yellow, gray,	
red	

B. Procedures for this activity (with helpful hints)

1. Trace pattern for body of mouse
2. Cut body
3. Cut ears
4. Paste ears
5. Cut eyes
6. Paste eyes
7. Cut whiskers
8. Paste whiskers
9. Cut nose
10. Paste on top of whiskers
11. Cut tail
12. Paste tail
13. Add hanger

III. RESULTS OF THIS ACTIVITY (AFTER IMPLEMENTATION)

HANDS ON ACTIVITY (STUDENT PERFORMED)I. NAME OF ACTIVITY

MAKING, PACKAGING AND SALE OF CANDLES

II. ACTIVITY FORMAT:

A. Tools and Materials

coloring (can use crayons)	double boiler
scents	wax
small milk cartons or paper cups	string
plastic bags	paste sticks
hot plate	newspaper

B. Procedures for this activity (with helpful hints)

1. Melt wax in double boiler
2. Add coloring and scents
3. Cover work area with newspapers
4. Measure string so that end touches bottom of milk carton
5. Tie string to paste stick
6. Lay stick on top of carton
7. Pour wax into carton until it is 1/3 full
8. Let harden until real hard - approx. 1 day
9. Repeat #8 until carton is full using different colors
10. Cut string and paste stick off
11. Peel off carton
12. Put candle in plastic bag and staple sheet
13. Attach tag with product name group and made by
14. Line candles up on table in main hall
15. Several children and teachers helping sell candles to student body
16. Call children down by grade level

III. RESULTS OF THIS ACTIVITY (AFTER IMPLEMENTATION)

HANDS ON ACTIVITY (STUDENT PERFORMED)I. NAME OF ACTIVITY

POPCORN FACTORY

II. ACTIVITY FORMAT:

A. Tools and Materials

poppers	measuring cups
large garbage bags	small plastic bags
oil	tiers
popcorn	boxes
salt	
bowls	




B. Human Aides and Resources

Mothers

C. Procedures for this activity (with helpful hints)

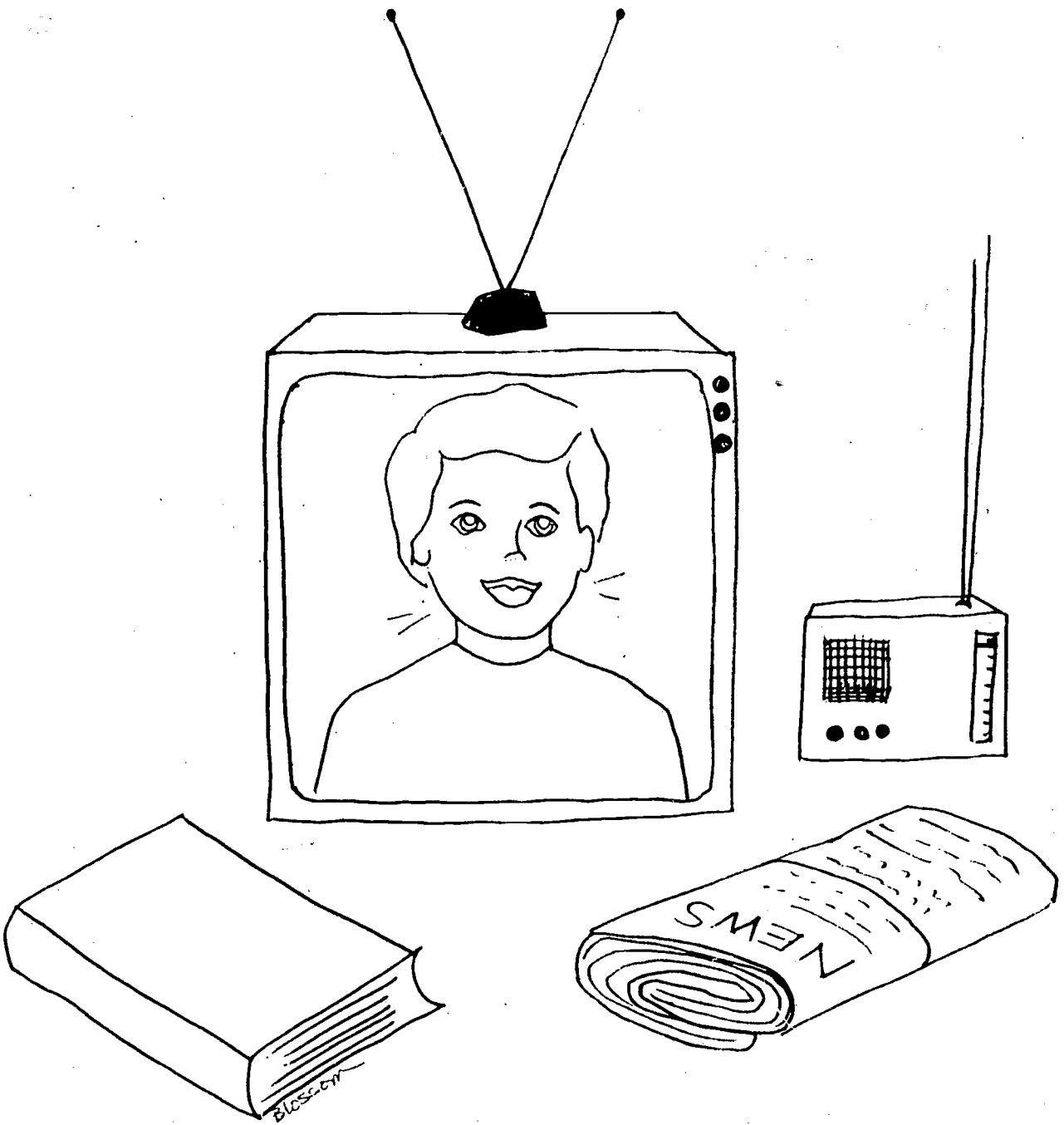
Pop the corn - two days
 Bag the corn on an assembly line - 1 day

Assembly line:

		
bag corn	tie bag	label bag

Sell corn - 2 days

III. RESULTS OF THIS ACTIVITY (AFTER IMPLEMENTATION)



COMMUNICATIONS

A.B.C.'s of Hand Tools (Booklet)
 A.B.C.'s of Hand Tools (Movie)
How Television Works (Book)
 The Globolinks, a short musical
 LET filmloop - Photographer
 T.V. Guide
 Detroit News
Teaching Children About Technology - Scobey, p. 400

2. Field Trips:

Daily Tribune - Fridays 4 p.m.
 Macomb Community College - T.V. Center
 Oakland Vocational Center
 Trip to Telephone Company
 Trip to Western Union Office
 Kimball High Print Shop
 Local Print Shops
 Royal Oak Tribune
Rochester Leader Dog Training School

3. Human Resources:

Actress
 T.V. operator, M.C.C.
 - lights, make-up, stage design
 - radio announcer, M.C.C.
 People who work at newspaper
 Detroit News Representative
Animal trainer
Person from Deaf Society

4. Activities:

Role Playing Experiences
 Characterizations in play
 Auditioning for plays
 Role-playing - printer, artists
 Printers - print lost and found article two ways
 Artists - illustrate picture of missing dog
 Activities from the Detroit News
 Activity cards

UNIT TITLE: COMMUNICATIONS

CONCEPTS	BEHAVIORAL OBJECTIVES
<p><u>Communication Skills</u></p> <p>Reading - intonation, dictionary work, understand the play format</p> <p>Creative Writing - advertising, writing letters and invitations</p> <p>Sentence construction</p> <p>Drama</p>	<p>As a result of this unit, each child will be able to:</p> <p>List 2 prehistoric ways of communication</p> <p>List 2 ways of communicating in written form</p> <p>List three inventions which have helped us learn the ideas of the past</p> <p>List 3 means of written communications which are no longer used</p> <p>Participate in group discussion on different types of communication</p> <p>Describe 3 language skills that are incorporated into a play and why</p> <p>Write a newspaper article in an area of his choice</p> <p>Write a telephone conversation</p> <p>Make advertisement posters and programs</p> <p>Write ad for Yellow Pages, classified ad</p> <p>Write thank-you notes to all outside people who helped</p> <p>Identify correct English usage in a newspaper article; subjects, predicates, etc.</p> <p>Demonstrate telephone etiquette for personal and business calls</p>

METHOD OF IMPLEMENTATION

RESOURCE PEOPLE & MATERIALS

Poetry writing

Art illustrations

Book making - running off dittos

Sewing books together

Play the game "telephone"

Replace blurbs in cartoon strips with own dialogue

Cut articles from the newspaper and display them on a bulletin board

Have the children write who would be most interested in the article:
i.e., soy bean prices, the farmer, housewives, pollution, laws and industry

Listen to poems about Valentine's Day

Listen to patterns for creative writing

Write their own patterns for poems

Write lost and found articles

Children will cut out pictures from an ad and write the ad

Find the five W's and write a feature story of their own

Develop a skit from a short story and use it as vehicle for a T.V. production

Role playing - operator - used Telezonia

Contact Michigan Bell Telephone Co.

UNIT TITLE: COMMUNICATIONS (continued)

CONCEPTS	BEHAVIORAL OBJECTIVES
<p><u>Communication Skills (Cont.)</u></p> <p>Oral communication</p> <p>Five W's - who, what, when, where and why</p> <p>Communicating by braille</p>	<p>As a result of this unit, each child will be able to:</p> <p>Role play a specific job in the newspaper: manage a newspaper, develop and compose copy, print a paper, or distribute the paper in a given simulated newspaper situation</p> <p>Participate in developing the dialogue for a T.V. production</p> <p>Write a concise effective ad identifying the five W's</p> <p>Write thank-you letters in braille</p>
<p><u>Science</u></p> <p>Lighting and its effects</p> <p>Sound effects</p> <p>Audio equipment</p>	<p>Describe the basic fundamentals of lighting</p> <p>Read a weather map</p> <p>List 2 problems of a hard-of-hearing person</p> <p>List 2 ways we can help a hard-of-hearing person</p>

METHOD OF IMPLEMENTATION	RESOURCE PEOPLE & MATERIALS
<p>Visit and present skit at M.C.C. T.V. Studio (Macomb Community College)</p> <p>Write telegrams on forms obtained from Western Union Office</p> <p>Write stories in which the letters or the message SOS was important</p> <p>Write, print, and distribute a newspaper</p>	<p>Writer</p> <p>Reporter</p> <p>Video-tape from either Royal Oak or Oakland County</p>
<p>Use lighting effects in a T.V. production of a play</p>	<p>Filmstrip: Hard of Hearing</p> <p>Person from Society for the Deaf</p>

UNIT TITLE: COMMUNICATIONS (continued)

CONCEPTS	BEHAVIORAL OBJECTIVES
<p><u>Social Studies</u></p> <p>Theater as a form of entertainment</p> <p>Function of communication media in our society</p> <p>History of communications - before telephones</p> <p>Inventors of communication equipment</p>	<p>As a result of this unit, each child will be able to:</p> <p>Describe the production problems when working on a play, relationships, etc.</p> <p>Describe the functions of theater and other communications media</p> <p>List 5 ways or reasons people use the newspaper</p> <p>List 2 inventors of communication equipment with their inventions</p>
<p><u>Math</u></p> <p>Adding and subtracting</p> <p>Money</p> <p>Multiplication</p> <p>Graphing</p> <p>Linear measurement</p> <p>Payroll department</p> <p>Measurements for scenery</p> <p>Tickets - the producing and selling of</p>	<p>List or describe 2 problems which could arise from inaccurately accounting for or handling money</p> <p>Demonstrate basic math skills</p> <p>Estimate the cost of advertisement</p> <p>Compute the difference between sale article and standard price of article</p> <p>Compare and contrast prices of food</p> <p>Explain stock market reports</p>

METHOD OF IMPLEMENTATION	RESOURCE PEOPLE & MATERIALS
<p>Brainstorm production problems</p> <p>Produce a play</p> <p>Scan the newspaper</p> <p>Research communications media and inventors</p>	<p>Producer of play</p> <p>Newspaperman</p> <p>Actress</p>
<p>Cut out ads and tally prices</p> <p>Find from five to ten items advertised in the newspaper for under \$5.00</p> <p>Call newspaper for pricing formula</p> <p>Write a menu using advertisements from food</p> <p>Determine total cost of a day's menu</p>	<p>Newspaperman</p> <p>Bookkeeper</p>

UNIT TITLE: COMMUNICATIONS (continued)

CONCEPTS	BEHAVIORAL OBJECTIVES
<p><u>Art</u></p> <p>Costume design</p> <p>Stage design</p> <p>Stage make-up</p>	<p>As a result of this unit, each child will be able to:</p> <p>Prepare a cartoon figure</p> <p>Design and construct simple set with props</p> <p>Design posters for advertisements</p> <p>Describe or explain the purpose of stage make-up and its effect</p> <p>Make a wood frame</p> <p>Identify as a group, three major functions of the payroll department</p> <p>Prepare the props for a T.V. skit</p>

METHOD OF IMPLEMENTATION	RESOURCE PEOPLE & MATERIALS
<p>Students make wood frames - to hold clay and wax for tablets - quill pens, styli, inks and scrolls, to write their newspaper articles on them</p> <p>Students make wood blocks and relief printed designs and letters to use for printing</p> <p>Try out fountain pen and ink</p> <p>Make design for wood block</p> <p>Poets to work in quiet corner</p> <p>Artists to work at easel in beret & cape</p> <p>Book-binders to sew books together</p> <p>Book-makers to run dittos off</p> <p>Draw on slate</p> <p>Trace stencil letters (old English)</p> <p>Transfer letters (old English)</p> <p>Try out straight pens with drawing ink (maybe decorative letters)</p> <p>Examine type on typewriter for example of relief printing</p>	<p>Artist</p> <p>Costume designer</p> <p>Make-up artist</p> <p><u>Robert McGloskey</u> - Illustrating book designs</p>

UNIT TITLE: COMMUNICATIONS (continued)

CONCEPTS	BEHAVIORAL OBJECTIVES
<p><u>Music</u></p> <p>. Selection of music for the play</p>	<p>As a result of this unit, each child will be able to:</p> <p>Suggest music for a T.V. skit or program</p>
<p><u>Career/Self-Awareness</u></p> <p>Managing</p> <p>Producing a product</p> <p>Personnel People and their jobs pertaining to communications</p> <p>Hiring</p> <p>Recognizing emotions and attitudes in others</p>	<p>Fill out an application for a job of their own choosing related to a T.V. production</p> <p>List 8 jobs involved in T.V. production</p> <p>Participate in a T.V. production</p> <p>List 10 jobs related to the production and distribution of newspapers</p> <p>Given a specific situation, describe person or the way the people feel</p>

METHOD OF IMPLEMENTATION	RESOURCE PEOPLE & MATERIALS
<p>Make up a skit or T. V. program and suggest music</p> <p>Make a Who's Who of Music Book from clippings in a newspaper</p>	<p>Detroit Symphony (rehearsals)</p> <p>Music teacher</p>
<p>Brainstorming jobs in a newspaper, and different sections of the newspaper</p> <p>Choose the sections they want to study and then write an original article</p> <p>Three children were selected from the class to act as auditioners</p> <p>Discuss printers jobs</p> <p>Discuss artists jobs</p> <p>Poets</p> <p>Book maker (Book binders)</p> <p>Advertiser</p> <p>Printers</p> <p>Salesman</p> <p>View or listen to a play, movie, T.V. program, record, or tape</p>	<p>Actress</p> <p>Cameraman</p> <p>Special effects man</p> <p>Reporters</p> <p>T.V. newscasters and weathermen</p>

HANDS ON ACTIVITY (STUDENT PERFORMED)I. NAME OF ACTIVITY

MAKING A NEWSPAPER

II. ACTIVITY FORMAT:

A. Tools and Materials

Typewriters
Ditto masters

B. Procedures for this activity (with helpful hints)

1. Decide on which departments will be included and jobs that will be created
2. Have children apply for the jobs
3. Teacher helps department heads to supervise their departments
4. Set a deadline for publication
5. Have students produce the paper and then distribute it

III. RESULTS OF THIS ACTIVITY (AFTER IMPLEMENTATION)

The follow-up discussion should include ideas for creating more appeal among the readers, how repetition or creativity helped or hurt the various jobs, responsibility and the success of the total adventure.

APPLICATION FOR EMPLOYMENT - NEWSPAPER

NAME _____ ADDRESS _____

PHONE _____ HOW MANY YEARS EDUCATION? _____

WHAT ARE YOUR BEST SUBJECTS? _____

WHAT DO YOU LIKE TO DO IN YOUR SPARE TIME? _____

PREVIOUS EMPLOYMENT _____

(Chores at home
Chores in neighbor-
hood
Jobs at school) _____

CHECK BELOW THE FIVE POSITIONS YOU WOULD MOST LIKE TO HAVE AND FEEL YOU ARE QUALIFIED FOR

<u>Position</u>	<u>Duties</u>	<u>Qualifications</u>	<u>Salary</u>
Publisher	Owns paper Promotes paper Interviews Pay employees Makes rules Leader of group	Good in all subjects Lots of knowledge Gets along with others Is fair, pleasant	
City Editor	Decides what goes into paper Makes decisions	Good in writing, English Reading, Social Science Good judgment Speed	
Sports Editor	Decides what goes into sports section makes decisions	Same as city editor - and knowledge of sports	
Women's Editor	Decides what goes into women's section Makes decisions	Same as city editor - and homemaking skills Science, Arts, Crafts	
Special Writers	Responsible for daily article	Good in writing, English, reading-dependable, prompt	
Reporter	Finds the news Brings it back	Good in English, writing, reading, spelling, social science Fast - good memory Good personality Must know 5 W's and H	
Photographers	Finds the news Takes pictures and brings them back	Good in science, art, Math Speed	

APPLICATION FOR EMPLOYMENT - NEWSPAPER (continued)

CHECK BELOW THE FIVE POSITIONS YOU WOULD MOST LIKE TO HAVE AND FEEL YOU ARE QUALIFIED FOR

<u>Position</u>	<u>Duties</u>	<u>Qualifications</u>	<u>Salary</u>
Rewrite Man (or women)	Writes up reporters' stories, clearly, and correctly and in interesting way	English, Spelling, writing Speed - accuracy Proper sequence Can express main idea	
Advertising Manager	Gets businessmen to advertise Helps choose good Advertisements	Good in English, Art Ability to persuade	
Classified Ad Department Clerks	Take information for ads Quotes prices	Good in math, English Reading, Spelling Accurate Pleasant	
Bookkeepers	Pay bills Pay salaries	Good in math, accuracy Manual skills (Adding machines and comptometer) Computers	

HANDS ON ACTIVITY (STUDENT PERFORMED)I. NAME OF ACTIVITY

BUILD RUBBER STAMPS

II. ACTIVITY FORMAT:

A. Tools and Materials

Wood scraps	Ink pad	10 x 10 plexiglas sheet
Inner tubes	Brayer	Scissors
Elmer's glue	Ink	

B. Procedures for this activity (with helpful hints)

1. Cut a simple shape (circle, clover) from the inner tube and glue it to a wood scrap. This is your stamp.
2. If the stamp is small the stamp pad may be used for inking the stamp. If it is large, the oil based ink may be placed on the plexiglas and spread with the brayer.
3. Letters can be cut from the inner tube and an entire alphabet be made for composing messages.

III. RESULTS OF THIS ACTIVITY (AFTER IMPLEMENTATION)

The children learn that it is easier to print if duplicates of letters are made and more than one letter at a time printed. They also learn that the letter must be reversed on the block to print correctly on paper.

HANDS ON ACTIVITY (STUDENT PERFORMED)I. NAME OF ACTIVITY

PRINTS FROM PLASTIC

II. ACTIVITY FORMAT:

A. Tools and Materials

Thick, white, plastic meat trays
 Smock/old shirt
 Pencil
 Rubber brayer
 Newspaper

Paper - (wrapping, tissue,
 construction)
 Window glass
 Block printing ink (water
 soluble)

B. Procedures for this activity (with helpful hints)

1. Wash meat trays and cut off upturned edges.
2. Cut plastic to the size of print wanted.
3. Draw your design (simple, bold designs come out best).
4. Get ready to print. Set up assembly line as follows:
 - a. The piece of glass with ink and brayer.
 - b. One whole sheet of newspaper folded three times, for rolling the ink on the plastic print.
 - c. Several sheets of newspaper folded to make a pad for the actual printing.
5. Squeeze out 1/2" of ink on glass and spread with brayer.
6. Roll the ink on the design.
7. Carefully place the print, inked side down, on printing paper.
8. Press down all over - (use fist or spoon).
9. Carefully lift plastic print and set aside to dry.
10. Frame or mount.

III. RESULTS OF THIS ACTIVITY (AFTER IMPLEMENTATION)

HANDS ON ACTIVITY (STUDENT PERFORMED)I. NAME OF ACTIVITY

WANT ADS FOR PONY EXPRESS RIDER

II. ACTIVITY FORMAT:

A. Tools and Materials

Reading text - 4th grade - Pony Express Rider
Paper
Pencil

B. Procedures for this activity (with helpful hints)

1. Discussion of the history and excitement of the Pony Express
2. Discuss qualification of Pony Express rider
3. Write a want ad for Pony Express rider as it might have appeared in a newspaper of 1868
4. Use this as a motivation to study want ad (help wanted) in the daily newspapers; discuss qualifications for jobs, how to answer a job want ad, etc.
5. Compute costs of mailing a letter via Pony Express with the costs of mailing a letter today - use a scale to determine ounces and then cost of mailing

(In 1860 the Pony Express carried mail at the rate of \$5.00 an ounce)

III. RESULTS OF THIS ACTIVITY (AFTER IMPLEMENTATION)

HANDS ON ACTIVITY (STUDENT PERFORMED)I. NAME OF ACTIVITY

INK MAKING

II. ACTIVITY FORMAT:

A. Tools and Materials

Charcoal
Beet juice
Blueberry juice

B. Procedures for this activity (with helpful hints)

Inks: Book suggested mixing with linseed oil - it tended to separate. I had better luck mixing with some Elmer's glue or cornstarch. Rubbed charcoal on sandpaper to grind it up.

Lemon juice for invisible ink. Write on lined paper with Q-tips. When dry it is invisible. Iron over paper to make words appear.

III. RESULTS OF THIS ACTIVITY (AFTER IMPLEMENTATION)

HANDS ON ACTIVITY (STUDENT PERFORMED)I. NAME OF ACTIVITY

SCROLLS - QUILL PENS

II. ACTIVITY FORMAT:

A. Tools and Materials

Dowels - up to 1" diameter. Cut into 6" lengths (or size you desire)
 Oil paints
 Shelf paper

B. Procedures for this activity (with helpful hints)

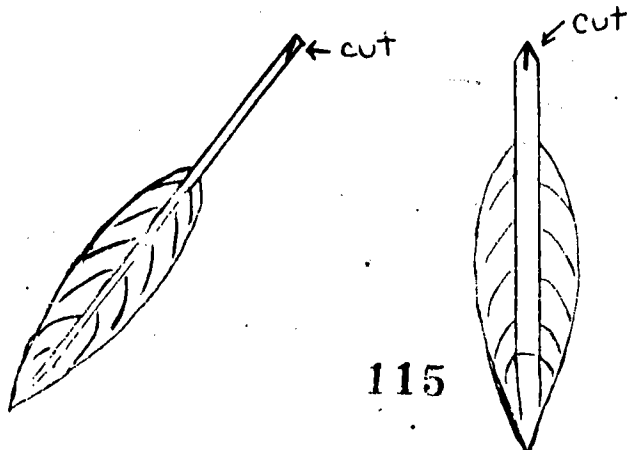
Cut dowels - write on shelf paper (scroll). Attach to two dowels thumb tacks. We decorated the wood dowels first with oil paint.

NOTE: According to what I read scroll was written in columns and was read from right to left - not top to bottom, i.e.

Some wrote with their quill pens (or straight pens using ink we made). Some used "rub off" old English style stencil letters.

QUILL PENS: Used duck and chicken feathers (had much difficulty obtaining them. Was visiting in Wisconsin farm area and got them from a farmer - couldn't find any for sale in Detroit area.

Hold quill nib, at end, sideways and cut with manicure scissors. Then cut slit through middle.



HANDS ON ACTIVITY (STUDENT PERFORMED)I. NAME OF ACTIVITY

MAKING WAX AND CLAY TABLETS

II. ACTIVITY FORMAT:

A. Tools and Materials

Wood

Wax

Natural clay (fire) (like that used for adobe)

Paint

B. Procedures for this activity (with helpful hints)

1. Cut wood about 12" lengths - about 6" wide. Cut 4 sides about 1" thick to form sides and hold clay and wax. Nail on sides. Sand pieces before nailing. We painted them but not necessary.

a. Moisten clay and pack it in frame. While still damp write in it with stick or nail. Cut stick so it forms flat triangle. Other end can be used as eraser. Dries overnight. (Some of them tended to crack unless packed quite tightly.) These areas can be filled in. It was easier to read when we went over the indentations with charcoal or paint.

b. Wax tablets - melt candles or use colorless wax with melted crayons - pour into frames. They tend to leak until wax in cracks starts to harden. When dry - write on them with stylus (we used large nails - blunt end can be used for eraser).

NOTE: I was given a suggestion which needed further explanations. To re-use wax tablets, put in oven at 165 degrees. This re-melts the wax. However, some mothers complained the wax leaked out all over their ovens.

III. RESULTS OF THIS ACTIVITY (AFTER IMPLEMENTATION)

HANDS ON ACTIVITY (STUDENT PERFORMED)I. NAME OF ACTIVITY

BLOCK PRINTING

II. ACTIVITY FORMAT:

A. Tools and Materials

Wood 2 x 4's
Rubber inner tubes or yarn

B. Procedures for this activity (with helpful hints)

1. Draw design - cut out of rubber inner tube and paste on block - or paste two or three thicknesses of yarn on wooden block.
2. Then put paint on it, and repeat the design on large sheet of paper. Some used this as gift wrapping paper. Some made their initials - had to remember to put it on backwards.

III. RESULTS OF THIS ACTIVITY (AFTER IMPLEMENTATION)

DAILY CHIT CHAT TELEVISION PRODUCTION

Announcer: Would you like to visit a newspaper? Let's take a trip through Room 17's newspaper - The Daily Chit-Chat
CAST - Diana - Hold up sign

SCENE ONE - Cast - Terri Altizer
Announcer: As we walk in, we see our switchboard operator, Miss Terri Altizer. She takes all incoming calls and connects callers with the proper person.

.....

SCENE TWO - Cast: Darren Calhoun, Cherie Juntikka, Mark Rakoczy
Announcer: Next, we'll look in on our publisher, Mr. Darren Calhoun and his secretary, Miss Cherie Juntikka. Mr. Mark Rakoczy is applying for a job.

.....

SCENE THREE - Cast: Annette Mullas, Laura Phillips
Announcer: Our advertising Manager, Miss Annette Mullas, is selling newspaper space to Miss Laura Phillips, president of J. L. Hudson's. The newspaper makes most of its money from advertising.

.....

SCENE FOUR - Cast: Darren Calhoun, Jimmy Collick, Susan Yirovec, Tom Kaiser,
Announcer: Shaw Gordon
The Classified Ad Department is always busy. Many people put ads in the paper. Mr. Darren Calhoun is talking with customers. Miss Susan Yirovec and Mr. Jimmy Collick are typing up the ads and sending them to the Composing Room.

.....

SCENE FIVE - Cast: David Dernier, George Bastuba
Announcer: Here we see Mr. George Bastuba, a clerk in the morgue. This is where copies of old newspapers are kept. Mr. David Dernier, the copy boy, is speaking with him.

.....

SCENE SIX - Cast: Becky Woods, Liz Worthen
Announcer: The Bookkeeping Department handles all the money. They put money they receive in the bank and pay all the bills. They also make out the paychecks for the employees. Miss Becky Woods is the head bookkeeper. Miss Liz Worthen is a typist.

.....

SCENE SEVEN - Cast: David Dernier, Mark Connelly, Todd Azarias, Mark Rakoczy,
Announcer: Joe Guarino
Let's follow our reporters, Mr. Mark Connelly and Mr. Todd Azarias and our photographers, Mr. Joe Guarino and Mr. Mark Rakoczy as they interview the famous Olympic swimming star, Mark Spitz.

.....

DAILY CHIT CHAT TELEVISION PRODUCTION (continued)

SCENE EIGHT - Cast: Paul Nation, Tom Flynn, Colleen Krog, Holly Jaye, Cherie Juntikka, Tom Barr, David Schumacher, Chris Bjornberg, Theresa Furlong
 Announcer: Here we see another interview. Reporter, Mr. Chris Bjornberg and Photographer, Miss Theresa Furlong are talking with Vietnam prisoners of war who have just come home.

.....

SCENE NINE - Cast: Mark Connelly, Todd Azarias, Chris Bjornberg, Joe Guarino, Mark Rakoczy, Theresa Furlong, Barb Hamby, David Dernier
 Announcer: The reporters and photographers bring their stories and pictures back to the newspaper and give them to our rewrite woman, Miss Barb Hamby. Her job is to change the stories so they are interesting and clear. She corrects all mistakes.

..... (Copy Boy - Take these to the City Editor and these to the Sports Editor)

SCENE TEN - Cast: Ken McDonough, Diana Walker, David Dernier
 Announcer: As we look in on our City Editor, Mr. Ken McDonough, he is dictating a letter to his secretary, Miss Diana Walker.

..... (Copy Boy - Take these stories to linotype operator and the pictures to photoengraving)

SCENE ELEVEN - Cast: Pat Harper, David Dernier
 Announcer: Here is our Sports Editor, Mr. Pat Harper. He is selecting the best sports stories to go in today's paper.

..... (Copy Boy - Take these stories to linotype operator and the pictures to photoengraving)

SCENE TWELVE - Cast: Beth DeWitt, Angela Pielack
 Announcer: Now let's visit our Women's Editor, Miss Beth DeWitt. Her secretary, Miss Angela Pielack is answering the phone.

.....

SCENE THIRTEEN - Cast: Tom Barr, David Dernier
 Announcer: Our copy boy, Mr. David Dernier, is taking the pictures to the photoengraving foreman, Mr. Tom Barr. He will make metal plates from them.

..... (I'll get these over to the Composing room as soon as possible)

SCENE FOURTEEN - Cast: Billy McDonald, Tom Flynn
 Announcer: We're in the Composing Room now, watching Mr. Billy McDonald, the linotype operator.
 (I'm making metal letters for the press)
 Announcer: Mr. McDonald then takes the metal slugs to Mr. Tom Flynn, the proof reader. Mr. Flynn checks them carefully for any mistakes.

DAILY CHIT CHAT TELEVISION PRODUCTION (continued)

SCENE FOURTEEN - continued

Billy: (Here you are, Mr. Flynn. Check them over.)
Tom: (You spelled prisoners incorrectly.)

.....

SCENE FIFTEEN - Cast: Tom Flynn, David Schumacher

Announcer: Mr. Flynn then takes the metal slugs to Mr. David Schumacher, our make up man. He arranges all the pictures and stories attractively for each page of the newspaper. This is called the galley.

.....

SCENE SIXTEEN - Cast: Paul Nation, Mark Connelly, Chris Bjornberg

Announcer: The galley is then made into a curved metal sheet to fit on the rollers in the press room. Then the newspaper is ready to roll. Mr. Paul Nation, our press foreman is setting up the press. His helpers are Mr. Chris Bjornberg and Mr. Mark Connelly.

..... Note: Hold up real newspaper

SCENE SEVENTEEN - Cast: Kelly Gipson, Jimmy Collick

Announcer: While we're waiting for the papers to be run off, let's look in on our Circulation Manager, Miss Kelly Gipson. She's responsible for getting the papers to the customers. She's talking to a new customer.

.....

SCENE EIGHTEEN - Cast: Todd Azarias, Shaw Gordon, Jimmy Collick

Announcer: Now, let's see what's happening to our newspapers. After Mr. Nation runs them through the press, they are taken on a conveyor belt to be loaded on a truck. Mr. Todd Azarias is loading the truck. Mr. Shaw Gordon, the driver, will deliver the papers to the newsboys.

.....

SCENE NINETEEN - Cast: Jimmy Collick, Tom Kaiser

Announcer: Finally, we see our newsboy, Jimmy Collick, delivering papers to his customers.

.....

Announcer: Tomorrow, and every day, the employees of the Daily Chit-Chat will be working hard again to bring the news to your home.

THIS WAS THE STORY OF THE DAILY CHIT-CHAT

SCENE TWENTY - Cast: Ken McDonough, Chris Bjornberg

DAILY CHIT CHAT TELEVISION PRODUCTION (continued)

Announcer: This program has been brought to you by the Elaine Meyer Square Dance Studio. And now we close with a message from our sponsor.

Ken: Amaze your friends. Learn how to square dance.

Chris: Only \$10 for twelve easy lessons. Come and see us tomorrow at the Elaine Meyer Square Dance Studio.

Announcer: Thank you for watching. So long and have a happy day.

THE BIG-LITTLE QUESTIONS

An important tool for the clear thinker is the fact. Facts are statements which a reasonable person accepts as true. Usually facts can be proved. Once you have facts, you are in a better position to form opinions, make decisions, take action.

Facts aren't to be crammed into your head as a warehouse is stuffed with furniture. Facts are really the "raw material" of your thinking. They are not the end product. The important thing is to know how and where to find the facts.

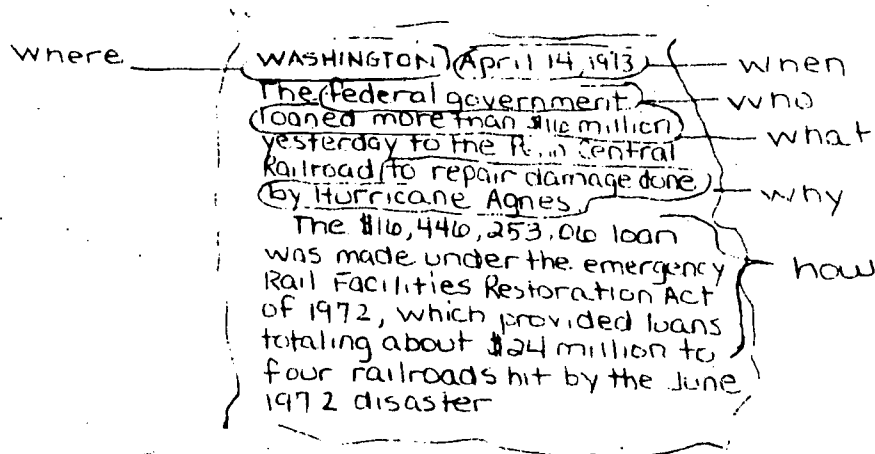
How can you find the facts? Six little words unlock some big doors to facts and answers.

Try asking yourself these big-little questions:

WHO? WHEN? WHY?
WHAT? WHERE? HOW?

They help to develop ideas, present problems, ask for opinions, dig for answers. By learning to ask and answer, a clear thinker can explore many possibilities and perhaps come up with new approaches to old problems, new ideas for old procedures, new information on old subjects.

How do the big-little questions work? Very often big-little questions are answered in the lead of a news article. In the paragraph following the lead, the reader learns more specific information - answers to questions behind the big one.



Once the big-little questions are answered, some further questions that might be raised are: Who else was in the race? What were their finishing times? How many people saw the race? Did Dave Patrick break any records? What was his reaction to winning? What was the significance of the race? These questions and many others might be answered in the rest of the article. In this way, the reader gets the main facts first and many others next.

THE BIG-LITTLE QUESTIONS (continued)

Read this lead to find the main facts, and write in answers to the big-little questions.

June 14 - An American expedition has found what it believes to be the remains of Christopher Columbus's flagship, the Santa Marie. The wreck of the famed vessel was found off the coast of Hispaniola, a large island in the Caribbean Sea. Columbus's own log and documents of the period helped the archaeologists pinpoint the location.

WHO? _____ WHEN? _____
WHAT? _____ WHY? _____
WHERE? _____ HOW? _____

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APPLICATION FOR EMPLOYMENT - TELEVISION STUDIO

NAME _____ ADDRESS _____

PHONE _____ HOW MANY YEARS OF EDUCATION? _____

WHAT ARE YOUR BEST SUBJECTS? _____

WHAT DO YOU LIKE TO DO IN YOUR SPARE TIME? _____

WHAT ARE YOU ESPECIALLY GOOD AT? _____

LIST YOUR PREVIOUS EMPLOYMENT? _____

<u>Position</u>	<u>Duties</u>	<u>Qualifications</u>
<u>Producer</u>	The leader hires everyone - pays employees - finds a company to pay for the show in exchange for advertising	Must understand people and be able to get along - Good in expressing himself (herself) - good in all subjects
<u>Writers</u>	Write plays or skits or shows. Some write commercials.	Good imagination - good in creative writing, English, reading, social studies, spelling
<u>Director</u>	Instructs actors, cameramen, etc. Responsible for seeing that the show is done well. Sits in the control room. Tells cameramen what to do. Tells sound men (with microphones) where to go	Good actor - good in speech, English, reading, science (must understand how all the equipment works), social science - understanding and getting along with his group - good leader
<u>Assistant Director</u>	Stands in front of actors on stage and gives directions with gestures. Holds up cards with their parts written so they won't forget.	Good leader. Good in reading, English. Must be fast and well organized. Must be able to make himself understood without words.
<u>Actors</u>	Learn parts. Obey directions of director and assistant director. Be willing to work long and hard at rehearsals. Be on time.	Good in speech, English. Good imagination. Must be able to put themselves in the "shoes" of the character they're playing. Must be patient, able to take orders without complaint.

APPLICATION FOR EMPLOYMENT - TELEVISION STUDIO (continued)

<u>Position</u>	<u>Duties</u>	<u>Qualifications</u>
<u>Carpenters</u>	Make scenery and props	Good in manual skills, math, following directions, accuracy
<u>Painters</u>	Paint scenery Make backgrounds	Art, creativity, following directions, math, accuracy, patience
<u>Fashion Experts</u>	Plan costumes for actors. Make costumes. Make decisions about what looks best on each actor.	Good in art, creativity, social science (history of clothing), science - kinds of materials and how they're used. Manual skills.
<u>Artists</u>	Make drawings for plays and commercials. Sometimes animated cartoons.	Good in drawing - good imagination, patience, accuracy.
<u>Cameramen</u>	Focuses camera on actors Sometimes for close-ups, sometimes at a distance Usually several cameramen Director chooses best picture	Good in science (operating and understanding camera). Good in math (distance measuring). Listening skills: director tells him what to do.
<u>Stagehand Electricians</u>	In charge of stage lighting. Many different kinds of lights (soft, strong, different colors)	Good in science, alert, good listening skills (director tells him what lights to use at different times). Speed.
<u>Propmen</u>	Put out scenery needed for skit. Change scenery when needed.	Good memory. Good attention. Well organized. Speed.
<u>Soundman</u>	Has large microphones on poles which he moves around as actors are speaking.	Good in science (sound). Alert. Careful (microphone mustn't show up on camera). Speed. Good listening skills (director tells him where to move microphones).

THE FOLLOWING JOBS WE MIGHT NOT USE:

<u>News Reporter</u>	Writes up the important news. Rehearses (practices) reading it well.	Good in social science (current events). Good in speech, English, reading. Neat appearance, pleasant.
<u>Audioman</u>	Sits in controls room and "adjusts" sound. Makes it louder or softer as necessary. Has tapes to play for sound effects, music, etc.	Good listener. Good in science. Fast, alert.

APPLICATION FOR EMPLOYMENT - TELEVISION STUDIO (continued)

<u>Position</u>	<u>Duties</u>	<u>Qualifications</u>
<u>Movie Cameraman</u>	Goes outside and takes pictures of important news. Brings it back for news reporters.	Good in science, math, social studies. Fast, accurate.
<u>Film Editor</u>	Goes through news films and picks out best scenes. Cuts out what he doesn't want.	Good in social science. Must make fast and good decisions. Good in science. Must be fast and accurate.
<u>Projectionist</u>	Picks out slides and movies to show on TV.	Good judgment. Good in social studies. Good memory and organization.

HANDS ON ACTIVITY (STUDENT PERFORMED)I. NAME OF ACTIVITY

SHADOW PUPPETS

II. ACTIVITY FORMAT:

A. Tools and Materials

Dark colored poster paper
12" sticks
Glue
Colored cellophane

B. Procedures for this activity (with helpful hints)

1. Cut out form from poster paper for puppet.
2. Cut out features you want light to shine through with color (eyes, buttons, etc.).
3. Glue cellophane on back covering cut out features.
4. Tape stick on back about 1/2 way up for handle.
5. Set up screen. Shine light on it. Children stand/sit about 4 feet back from screen.
6. Write plays, short stories, record, etc.

III. RESULTS OF THIS ACTIVITY (AFTER IMPLEMENTATION)

HANDS ON ACTIVITY (STUDENT PERFORMED)I. NAME OF ACTIVITY

SENDING MORSE CODE

II. ACTIVITY FORMAT:

A. Tools and Materials

Reading textbook - Open Highways - Grade 4

Batteries	Bell
Wood	Light bulb
Buzzer	Wire tool rack

Telegraph Key from Instructional Materials Center

B. Procedures for this activity (with helpful hints)

1. Read SOS in Open Highways - Grade 4 - p. 184.
2. Study pattern of dots and dashes making up Morse Code.
3. Send messages to classmates by writing out Morse Code.
4. Tap out longs and shorts to send messages by Morse Code.
5. Divide into small groups to devise and make some kind of transmitter which could be used to send Morse Code (bell, buzzer, light bulb, flags, etc.).

HANDS ON ACTIVITY (STUDENT PERFORMED)I. NAME OF ACTIVITY

TWO ROOM HOOK-UP TELEGRAPH

II. ACTIVITY FORMAT:

A. Tools and Materials

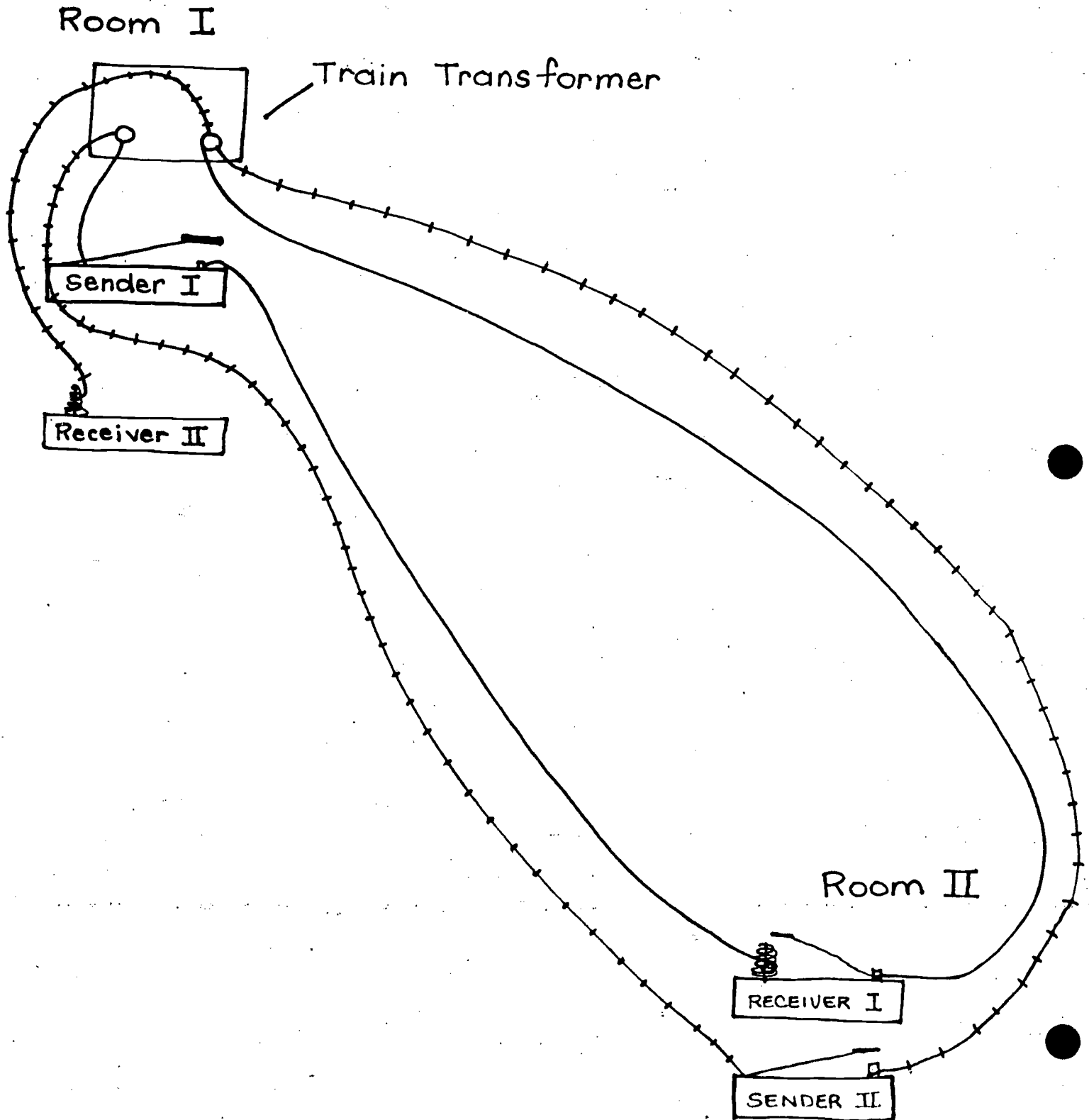
Wood
Telephone wire
Dry cells or train transformer
Screws

B. Procedures for this activity

See illustration

III. RESULTS OF THIS ACTIVITY (AFTER IMPLEMENTATION)

2 Room Hook-up Telegraph



HANDS ON ACTIVITY (STUDENT PERFORMED)I. NAME OF ACTIVITY

WRITING WITH PICTURES

II. ACTIVITY FORMAT:

A. Tools and Materials

Scissors	Encyclopedias
Colored paper	Library books on communication
Glue	

B. Procedures for this activity (with helpful hints)

1. Divide into small groups.
2. Choose form of communication for study, dramatization, and illustration; e.g. suggested topics -
 - a. Smoke signals
 - b. Cave man picture writing
 - c. Egyptian hieroglyphics
 - d. African drums
 - e. Heliograph
 - f. Indian writing
 - g. Homing pigeon 2000 B.C.
 - h. Pony Express 1860
 - i. Invention of telegraph
 - j. Invention of telephone
 - k. Radio
 - l. Television
 - m. Satellites
3. Have students dramatize their chosen form of communication.
4. Arrange individual pictures depicting each form of communication in chronological order on a bulletin board.

III. RESULTS OF THIS ACTIVITY (AFTER IMPLEMENTATION)

HANDS ON ACTIVITY (STUDENT PERFORMED)I. NAME OF ACTIVITY

MAKING-UP A CODE SYSTEM

II. ACTIVITY FORMAT:

A. Tools and Materials

First Book of Code and Ciphers by Sam Epstein

Paper and pencil

B. Procedures for this activity (with helpful hints)

1. Discuss use of code during World War II and other wars.
Discuss importance of code deciphers during wars.
2. Have each child devise his own system of code - whereby each letter of the alphabet is represented by some symbol.
3. Have children send message to friend in their original code.
See if friend can crack code by telling him certain key letter symbols.

III. RESULTS OF THIS ACTIVITY (AFTER IMPLEMENTATION)

HANDS ON ACTIVITY (STUDENT PERFORMED)I. NAME OF ACTIVITY

MAKING FLAGS USED TO SEND MESSAGES AT SEA

II. ACTIVITY FORMAT:

A. Tools and Materials

Sending the Word by Walter Buehr, pp. 56-57

sample flags	Colored paper
alphabet flags	Scissors
	Glue

B. Procedures for this activity (with helpful hints)

1. Show large chart illustrating the flag that represents each letter of the alphabet.
2. Have each child make a flag for one letter of the alphabet.
3. Mark letter on the flag so that it can be readily identified.
4. When entire flag alphabet is completed have children take turns sending messages to class with flags.

III. RESULTS OF THIS ACTIVITY (AFTER IMPLEMENTATION)

HANDS ON ACTIVITY (STUDENT PERFORMED)I. NAME OF ACTIVITY

TELEPHONE ACTIVITIES - ANSWERING SERVICE

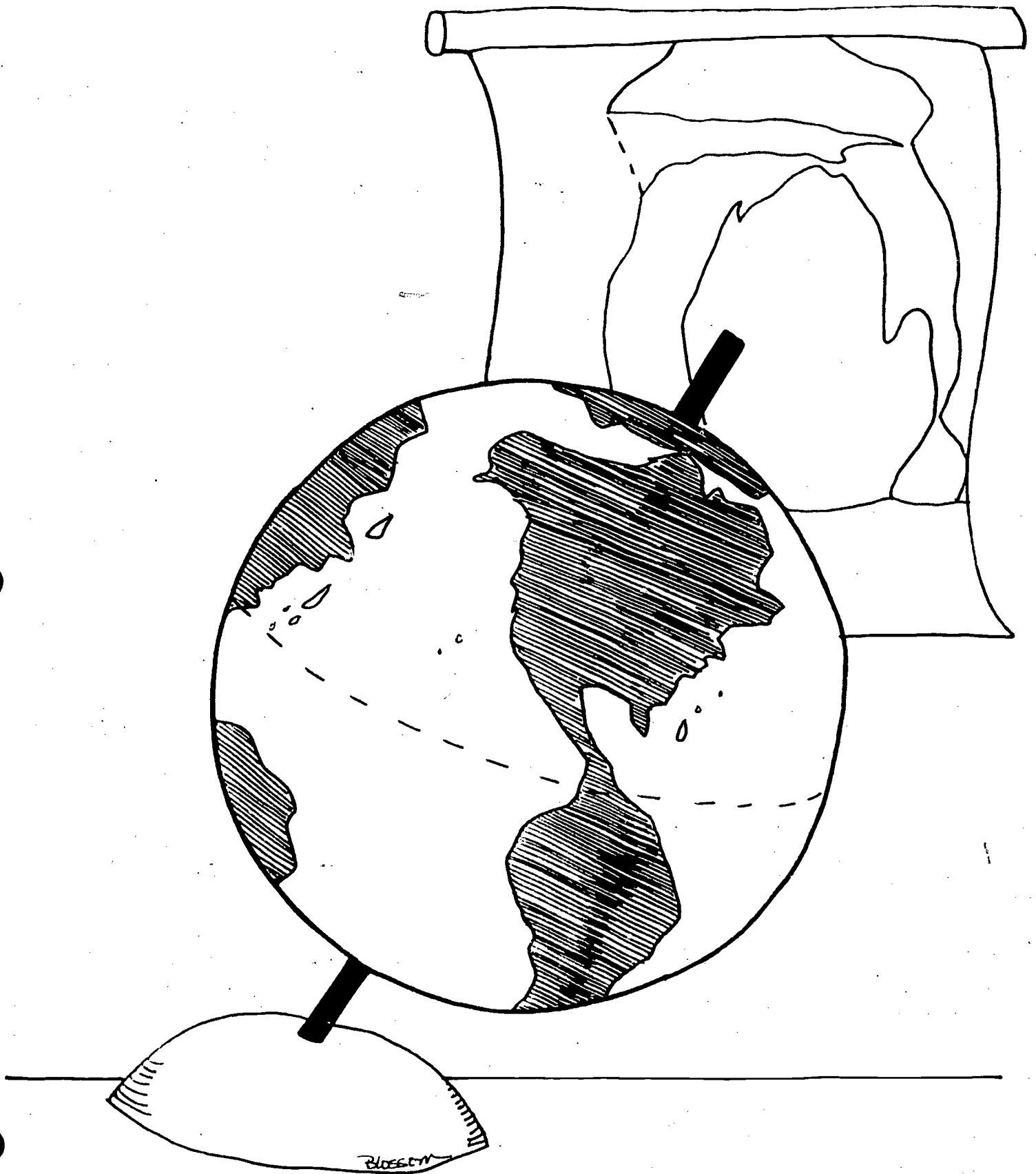
II. ACTIVITY FORMAT:

A. Tools and Materials

Telephone usage kit
Guide in kit
Tape Recorder - listening post

B. Procedures for this activity (with helpful hints)

1. Allow students to use tape recorder to establish and ask questions of Mrs. Beattie's Answering Service.
2. Children ask questions of teacher on tape recorder.
3. The next day the child will find my answer on the tape which he may listen to at the listening post in his free time.



USE OF MAPS AND
GLOBES

SCHOOL DISTRICT OF THE CITY OF ROYAL OAK

INTEGRATED TEACHING UNIT
PLANSHEETTITLE: USING MAPS AND GLOBESGRADE LEVEL: 3-4GENERAL OVERVIEW: Children should be aware of their place on this planet and what location they share with the rest of the world.TEACHING/LEARNING RESOURCES:1. Reference Materials:

Books: How We Use Maps and Globes by Muriel Stanek
A Map Is A Picture by Barbara Rinkoff
The Social Sciences - Concepts and Values, Harcourt, Brace & World
Maps Unfold the World - Part I and II (spirit masters),
 Milliken Publishers
 Related books from Oakland IMC on maps and globes

Films: Globe and Our Round Earth Reading Weather Maps
 Using Maps - Measuring Distances Reading Maps
 Climates Language of Maps
 Maps Are Fun

Filmstrips:
 Reading Directions on Maps
 Language of Maps
 Reading Physical Maps
 Reading Political and Economic Maps

Charts: Reading Map Symbols

2. Field Trips:

Following maps to classmate's homes
 Walk through neighborhood
 City Hall
 County Planning

3. Human Resources:

City Planner
 Mailman - using maps on routes
 Teachers
 Adult aides
 Student aides

4. Activities:

Map Making Using Different Media

Map puzzles

Globes

Relief Maps of U.S.

Profile Maps

Role Playing

Jobs and responsibilities of map makers

Taking a trip without use of maps

Teacher made a map that was inaccurate. Children tried to find a location in the school following a map. Discussed why being accurate is a must.

See also "Royal Oak" unit

UNIT TITLE: USING MAPS AND GLOBES

CONCEPTS

BEHAVIORAL OBJECTIVES

Social Studies

Map Study

As a result of this unit, each child will be able to:

List and locate seven continents and two major oceans

Distinguish between city, county, state, country, continent

Distinguish between flat, relief and profile maps

Differentiate between longitude and latitude

Science

Climate (Seasonal change)

Day - Night

Directions

Identify and describe 3 reasons for different climates

Cite evidence for day and night

Use a compass to help locate directions

Demonstrate where N., S., E., W. are in terms of classroom, home, school, state, world, etc. using maps and globes

METHOD OF IMPLEMENTATION	RESOURCE PEOPLE & MATERIALS
<p>Brainstorming</p> <p>Research and group discussions</p> <p>On a world map label 7 continents and 2 major oceans</p> <p>Make collection of city, county, state, country, and continent maps</p> <p>Set of flat pictures showing map symbols and types of land forms used on maps</p>	<p>Coke Game - available through Coca-Cola Distributors</p>
<p>Research and group discussions</p> <p>Find directions by using a compass</p> <p>Make a compass with cork, pins and water (See Electricity and Magnetism Unit)</p>	<p>Map makers (cartographers)</p> <p>Compass</p>

UNIT TITLE: USING MAPS AND GLOBES (continued)

CONCEPTS	BEHAVIORAL OBJECTIVES
<p><u>Communication Skills</u></p> <p>Vocabulary development</p> <p>Directions</p> <p>Describing</p> <p>Creative writing</p>	<p>As a result of this unit, each child will be able to:</p> <p>Read and follow directions on a map</p> <p>Describe climate of certain geographical areas</p> <p>Give directions to a specific location</p>
<p><u>Math</u></p> <p>Measurement</p> <p>Time</p>	<p>Construct a map drawn to scale</p> <p>Compute distance</p> <p>Identify time zones</p>

METHOD OF IMPLEMENTATION	RESOURCE PEOPLE & MATERIALS
<p>Research and individual writing assignments</p> <p>Oral presentations of reports on climates</p> <p>Find a city by using index</p> <p>Find different routes to take to particular city (i.e., I-75)</p>	<p>Map</p>
<p>Map and globe activities</p> <p>Make a map for a treasure hunt</p> <p>Draw clocks showing times around the world</p>	

UNIT TITLE: USING MAPS AND GLOBES (continued)

CONCEPTS

BEHAVIORAL OBJECTIVES

Career/Self-Awareness

Managing

Producing

Servicing

Planning and decision making

As a result of this unit, each child will be able to:

Define word: cartography

Plan and organize a map-making activity

Construct a map

Relate 2 ways map making is important and how cartographers service society

Make a list of 5 jobs that would involve using or making maps

Give an example of how a person's knowledge of his skills and interests can influence his planning for the future

METHOD OF IMPLEMENTATION	RESOURCE PEOPLE & MATERIALS
<p>Map and globe activities Topographical Flat</p> <p>Interview city and county planners, cartographer, surveyor, mailman</p> <p>Plan and organize a map-making activity</p>	<p>Cartographer</p> <p>City planner</p> <p>Surveyor</p> <p>National Geographic</p>

HANDS ON ACTIVITY (STUDENT PERFORMED)I. NAME OF ACTIVITY

"POT OF GOLD"

II. ACTIVITY FORMAT:

A. Tools and Materials

Pot of gold
Neighborhood maps
Directions to the "pot of gold"

B. Procedures for this activity

Hide the "pot of gold" in the neighborhood.
Have students look for it without a map.
After - repeat the experiment using a map (at a
different location)

III. RESULTS OF THIS ACTIVITY (AFTER IMPLEMENTATION)

HANDS ON ACTIVITY (STUDENT PERFORMED)

I. NAME OF ACTIVITY

ENLARGING MAPS AND OBJECTS

II. ACTIVITY FORMAT:

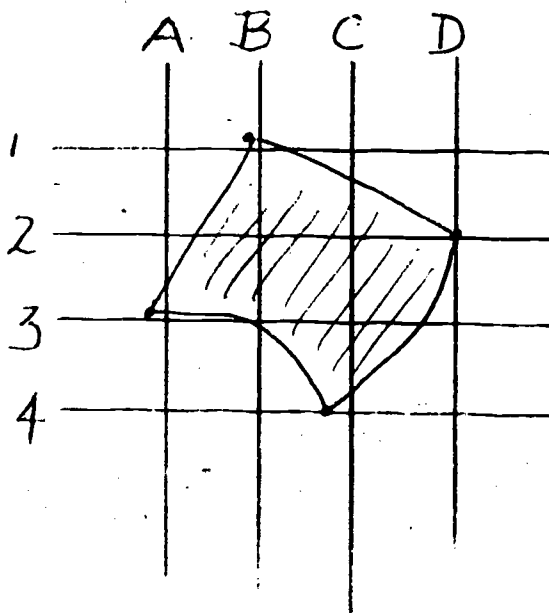
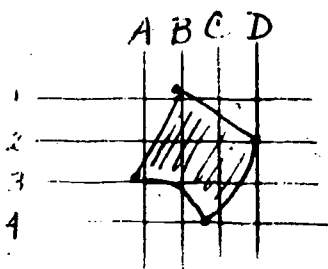
A. Tools and Materials

Graph paper
Chalkboard

B. Procedures for this activity

Draw an object and overlay it with a grid
By selecting points on the grid, copy the object on another
grid system that is larger or smaller
Emphasize size, accuracy and measurement

III. RESULTS OF THIS ACTIVITY (AFTER IMPLEMENTATION)



HANDS ON ACTIVITY (STUDENT PERFORMED)I. NAME OF ACTIVITY

GLOBES

II. ACTIVITY FORMAT:

A. Tools and Materials

Papier-mache	Balloon	Two strings
Paint	Scissors	Glue
Maps	Brushes	

B. Human Aides and Resources

Art teacher

C. Procedures for this activity (with helpful hints)

Make a wad of paper
Cover with papier-mache
Let dry
Paint blue
Cut out continents from maps and pin string for hanging
Glue continents on map
Hang with additional string

III. RESULTS OF THIS ACTIVITY (AFTER IMPLEMENTATION)

HANDS ON ACTIVITY (STUDENT PERFORMED)I. NAME OF ACTIVITY

MAP PUZZLES

II. ACTIVITY FORMAT:

A. Tools and Materials

Dremel saw	1/4 inch plywood
Shellac	Elmer's glue
Maps - flat	Paint
	Paint brushes

B. Human Aides and Resources

Adults and parents

C. Procedures for this activity (with helpful hints)

Elmer's glue - glue maps on 1/4" plywood - tempered masonite preferred
Cut maps apart
Shellac maps
Team children in two's to cut out maps into puzzles
Paint back of puzzles - color code
Shellac again
Put puzzles together to check pieces and put in coded box

III. RESULTS OF THIS ACTIVITY (AFTER IMPLEMENTATION)

HANDS ON ACTIVITY (STUDENT PERFORMED)I. NAME OF ACTIVITY

MAP MAKING USING DIFFERENT MEDIA

II. ACTIVITY FORMAT:

A. Tools and Materials

Brushes	Clay	Glue
Scissors	Paint	Tissue
Oak tag	Seeds	

B. Procedures for this activity (with helpful hints)

Use oak tag for the map's backing
Design a map key
Outline the map
Fill in areas with many materials (clay, seeds, tissue paper, etc.)

III. RESULTS OF THIS ACTIVITY (AFTER IMPLEMENTATION)

HANDS ON ACTIVITY (STUDENT PERFORMED)I. NAME OF ACTIVITY

RELIEF MAP OF UNITED STATES

II. ACTIVITY FORMAT:

A. Tools and Materials

Opaque projector	Non-iodized table salt
Map of United States	Food coloring
Bristol board	Pencil
Cornstarch	

B. Resources

Relief map of United States

C. Procedures for this activity (with helpful hints)

1. Trace map of United States on large sheet of bristol board.
2. Make Magic Modeling Goop -

MAGIC MODELING GOOP

2 cups table salt
 2/3 cup water
 1 cup cornstarch (loose)
 1/2 cup water

Mix salt and 2/3 cup water in saucepan, stirring until mixture is well heated, three to four minutes. Remove from heat and add constarch which has been mixed with 1/2 cup cold water. Stir quickly. Mixture should be consistency of stiff dough. If mixture does not thicken, place over low heat and stir, about one minute, until it forms a smooth pliable mass. Leave the mix a natural white, or divide into portions and add regular food coloring until desired brilliance is achieved. Modeled objects may also be painted or decorated when dry to give surface color. Mix can be kept indefinitely if wrapped in clear plastic wrap or foil. Makes 3/4 pounds. No refrigeration is necessary.

3. Color, using food coloring, and place on map to illustrate the elevation areas of United States.

III. RESULTS OF THIS ACTIVITY (AFTER IMPLEMENTATION)

HANDS ON ACTIVITY (STUDENT PERFORMED)I. NAME OF ACTIVITY

Profile Map showing businesses on Eleven Mile Road within Longfellow School District using 3 inches for each block.

II. ACTIVITY FORMAT:

A. Tools and Materials

Large white paper	Yardstick
Pencil	Map of Royal Oak
Marking pencil	Black construction paper
Ruler	

B. Resources

Map of Royal Oak

C. Procedures for this activity

1. Draw a scaled map of Eleven Mile Road and intersecting streets.
2. Using black construction paper make pictures of businesses. Paste in appropriate place on map.
3. Discuss role of employees in these establishments.

III. RESULTS OF THIS ACTIVITY (AFTER IMPLEMENTATION)

HANDS ON ACTIVITY (STUDENT PERFORMED)I. NAME OF ACTIVITY

PRODUCT MAP OF MICHIGAN

II. ACTIVITY FORMAT:

A. Tools and Materials

Large white paper	Crayons
Opaque projector	Pencils
Map of Michigan	Scissors
Magazines for pictures	Marking pencil
Michigan reference book	

B. Resources

Exploring Michigan by Delphine Newcomb.

C. Procedures for this activity

1. Using opaque projector, trace large map of Michigan on white paper.
2. Cut pictures of produce raised and products manufactured in Michigan and paste on map.



PREHISTORIC MAN

SCHOOL DISTRICT OF THE CITY OF ROYAL OAK

INTEGRATED TEACHING UNIT
PLANSHEET

TITLE: PREHISTORIC MAN

GRADE LEVEL: 3-4

GENERAL OVERVIEW: Man is a social animal. This unit is designed to turn back the calendar to show man's beginnings.

TEACHING/LEARNING RESOURCES:1. Reference Materials:

Books: Fire Hunter by Jim Kjelgaard
How and Why Wonder Book of Caves to Skyscrapers

Films: Ancient Egyptian (27 min)
Ancient Mesopotamia (11 min)
Ancient World Inheritance (11 min)
Cave Dwellers of the Old Stone Age (18 min)

Filmstrips:

Houses of Long Ago
New Stone Age
Old Stone Age
River Cultures: Mesopotamia

Maps: Old Worlds

2. Field Trips:

Ann Arbor - Museum of Natural History
Archaeology Museum
Detroit Art Institute

3. Human Resources:

Teachers
Speech development
Speech therapist

4. Activities:

Gathering roots, grubs
Hunting small game
Spear fishing
Making tools
Building shelters

UNIT TITLE: PREHISTORIC MAN

CONCEPTS

BEHAVIORAL OBJECTIVES

Social Studies

Tribes

Locations of digs and their ramifications on movement

Typical prehistoric day, religion and natural phenomena, family units, tribes, communication, movement, leaderships, government

As a result of this unit, each child will be able to:

List reasons for a tribe moving from area to area
Take part in role playing a typical day in the life of a prehistoric man

Predict the religious characteristics of the people based on scientific phenomena

Describe methods of prehistoric communication

Explain how leaderships were developed among families and tribes

Make tools similar to those used by a caveman

Indicate on a map where primitive remains have been found

Name the continents of above

Make a picture of a land bridge and describe how man may have used these in his migrations

Plot a map on graph paper to scale

Math

Tallying

Measurement

Tell the time eras of ancient primitives (i.e. stone age, ice age) and give simple descriptions of each

Measure object in terms of hands, paces, and sticks, with relative accuracy

Count objects by tallying

List 10 ways we measure or use measurement

List 5 major discoveries of primitives (i.e. fire, tools, weapons, farming)

METHOD OF IMPLEMENTATION

RESOURCE PEOPLE & MATERIALS

View: movies, filmstrips

Teacher read Fire Hunter

Role play after researching

Field trips to Ann Arbor

Field trips to Detroit Art Institute

Resource person from Art Institute

Parent drivers

Research and report

Make drawings and label time eras and discoveries

UNIT TITLE: PREHISTORIC MAN (continued)

CONCEPTS

BEHAVIORAL OBJECTIVES

Art

Construction

As a result of this unit, each child will be able to:

Make pictures of possible early language

Make a picture calendar of prehistoric occurrences or discoveries

Communication Skills

Development of early written language

List 5 uses of fire

Scientifically define fire

List the seasons and 3 characteristics of each State 3 problems and assets that the weather provides

Deduce why man could not build more sophisticated forms of shelter

Make with the student's committee a prehistoric display containing 2 tools, 1 weapon, and 1 form of shelter

Career/Self-Awareness

Job functions of prehistoric man

Production

Management of a prehistoric community (tribe)

Awareness of other people's activities

Identify the job roles of gatherers, hunters, food preparers, warriors, builders, leaders

Make prehistoric products

Identify the planning, organizing and controlling management functions of a prehistoric tribe

Describe 3 situations in which people's activities provide information about their characteristics

METHOD OF IMPLEMENTATION	RESOURCE PEOPLE & MATERIALS
<p>Research early languages</p>	<p>Encyclopedia</p>
<p>Report to the class Speech therapist - early speech development</p> <p>Display construction of early shelters, tools and weapons</p>	<p>Paste sticks Sawdust mache Green twigs</p>
<p>Role playing: gather roots, grubs hunting small game spear fishing making tools building shelters</p>	

HANDS ON ACTIVITY (STUDENT PERFORMED)I. NAME OF ACTIVITY

SHELTER CONSTRUCTION

II. ACTIVITY FORMAT:

A. Tools and Materials.

Papier mache	Cardboard
Sticks	Chicken wire
Stones	Clay
Dirt	Grass
Glue	String

B. Procedures for this activity (with helpful hints)

Using the materials listed, the children can construct the various kinds of structures used by primitive man including caves, lean-tos, pit homes, huts, and sod homes. A single large structure could be constructed and later used for cave drawings and role playing. Refrigerator boxes are great.

III. RESULTS OF THIS ACTIVITY (AFTER IMPLEMENTATION)

HANDS ON ACTIVITY (STUDENT PERFORMED)I. NAME OF ACTIVITY

TOOL MAKING

II. ACTIVITY FORMAT:

A. Tools and Materials

Rocks	Heavy sticks
String or twine	Basket weaving materials
Clay	

B. Procedures for this activity (with helpful hints)

After a discussion of primitive tools, make some.

Bowls	Spoons
Hammers	Baskets
Spears	

III. RESULTS OF THIS ACTIVITY (AFTER IMPLEMENTATION)

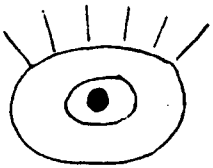
HANDS ON ACTIVITY (STUDENT PERFORMED)I. NAME OF ACTIVITY

COMMUNICATION

II. ACTIVITY FORMAT:

Give the children an opportunity to draw the things that would be found in a prehistoric environment.

Demonstrate how man can communicate only by drawings or pictures (i.e. modern)



I



SEE



YOU

III. RESULTS OF THIS ACTIVITY (AFTER IMPLEMENTATION)

HANDS ON ACTIVITY (STUDENT PERFORMED)I. NAME OF ACTIVITY

AN ANCIENT CALENDAR

II. ACTIVITY FORMAT:

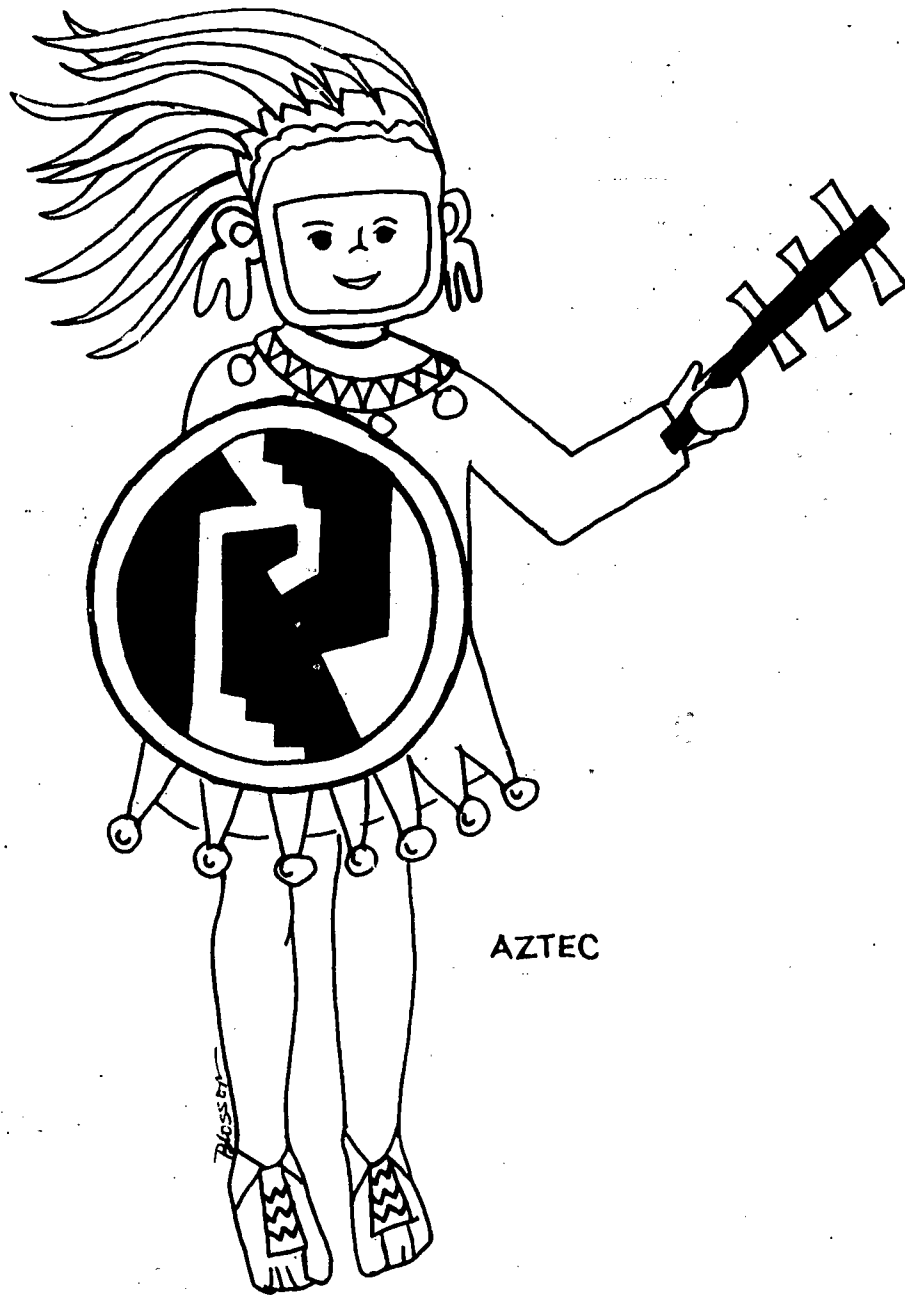
A. Tools and Materials

Paper
Writing Materials

B. Procedures for this activity (with helpful hints)

Make a time-line chart showing the various periods of prehistoric history and the flora and fauna of those periods. Man's development can also be traced on the chart.

III. RESULTS OF THIS ACTIVITY (AFTER IMPLEMENTATION)



AZTEC

DISCOVERY AND EXPLORATION OF NORTH
AND SOUTH AMERICA

SCHOOL DISTRICT OF THE CITY OF ROYAL OAK

INTEGRATED TEACHING UNIT
PLANSHEETTITLE: GOVERNMENT: DISCOVERY AND EXPLORATION OF NORTH AND SOUTH AMERICAGRADE LEVEL: 3-4GENERAL OVERVIEW: Children identify with heroes. This unit is developed to build an understanding of how and by whom North and South America were opened to white man. In order to understand the interactions between groups and individuals it is important to study the Indian kingdoms: Aztecs, Mayans and Incas of Central and South America and the interaction between them and the Spanish conquistadores.TEACHING/LEARNING RESOURCES:1. Reference Materials:

Books: The Mayans
The Aztecs
The Horse in the New World
Indian Arts and Crafts
Building Center
 Follett Publishers: Explorers - booklets
Pockets on Exploration, Discovery
 ★ The Social Sciences: Concepts and Values Level 3 -
 Harcourt, Brace & World, pp.126-138, 139-145, 151-157

Films: Age of Discovery: English, French and Dutch Exploration
 Age of Discovery: Spain and Portugal
 Canada's History: Colony to Commonwealth
 Discovery and Exploration
 French Explorations in the New World
 Story of Christopher Columbus
 The Incas
 The Viking: Life and Conquests
 American Indians Before European Settlement

Filmstrips:

Marco Polo	Francis Drake
Age of Exploration	Ponce de Leon
Balboa	Early Explorers of North America
John Cabot	Henry Hudson
Coronado	Ferdinand Magellan
Cortes	Story of Father Marquette
Samuel Champlain	Hawaii: Before the White Man (R)
DeSoto	Hawaii: Discovery and Development
Story of Hernando DeSoto	Exploring of America (R)
Story of Christopher Columbus	
Discovery of America (R)	

Realia:

Castanets
Guitar

2. Field Trips:

Detroit Historical Museum
Cranbrook Science Museum

3. Human Resources:

Mexican Consulate
Indian lore expert
Parents

4. Activities:

Making Aztec Prints
Interviewing People from Central-South America
Make Indian head ornaments
Make map of "lands claimed by North America"
Role play first encounter between Algonquin Indians
and the Spanish/Pilgrims

UNIT TITLE: GOVERNMENT: DISCOVERY AND EXPLORATION OF NORTH AND SOUTH AMERICA

CONCEPTS

BEHAVIORAL OBJECTIVES

Social Studies

Explorers of North & South
America

Different cultural traits of
Indians, settlers - English
and Spaniards

Indian stereotype

Government or structure of management
of Aztecs

As a result of this unit, each child
will be able to:

Answer 70% or more on a teacher made
test about the Explorers (by 60% of
the class)

Name 3 of the main Indian cultures
encountered by the Spaniards

List 2 stereotypes of Indians which
have caused misunderstandings

Describe the system of management that
made the Aztec civilization function

Communication Skills

Words adopted into American English
language from:

Indian
Dutch
French
Spanish
Swedish

Research and write a report

Find 2 or more words from the following
languages used in our language:

Indian
Dutch
French
Spanish
Swedish
Algonquin Indian

*Note Third Grade Text

METHOD OF IMPLEMENTATION	RESOURCE PEOPLE & MATERIALS
<p>Show movies listed</p> <p>Have children view the listed filmstrips related to their explorer/ discoverer/ Indian with partner</p> <p>Class discussion to identify:</p> <ul style="list-style-type: none"> Problems of conquerors Problems of Indians Problems of Settlers Adaptation of cultures <p>Collect, display, construct realia-type items from the various cultures</p> <p>Each pair will make a display and written report</p> <p>Share their above work with other rooms in the school</p>	<p>Movies</p> <p>Filmstrips</p> <p>Detroit Historical Museum</p> <p>Cranbrook Science Museum</p> <p>Visit Mexican Consulate</p>
<p>Prepare menus for one Spanish and an Indian meal after researching</p> <p>Investigate and assemble appropriate costumes</p> <p>Make and serve meals</p>	<p>Indian lore expert</p> <p>Mexican Consulate</p>

UNIT TITLE: GOVERNMENT: DISCOVERY AND EXPLORATION OF NORTH AND SOUTH AMERICA (continued)

CONCEPTS

BEHAVIORAL OBJECTIVES

Music

Listen
Beat Drum

As a result of this unit, each child will be able to:

Identify Spanish guitar music
Recognize and repeat 2 typical drum beat patterns of the Indian

Art

Display
Aztec print
Weave Indian design

Name 5 items that the Indians adapted into their culture from the Spaniards

Participate in a class discussion to separate fact from fiction in Indian culture (e.g. ownership - "Indian giver")

Construct a display of his explorer/discoverer, Indian group

Write a report of his explorer/discoverer, Indian group to go with his display

METHOD OF IMPLEMENTATION	RESOURCE PEOPLE & MATERIALS
<p>Listen to music of the Indians and Spanish</p>	<p>Musician</p> <p>Records</p> <p>Tapes</p> <p>Parents</p>

Make maps of lands claimed by North America
 Do the Word search puzzle on discoverers/explorers
 Make Aztec prints

Field trip to Art Institute

Art teacher

Person who has visited that area

UNIT TITLE: GOVERNMENT: DISCOVERY AND EXPLORATION OF NORTH AND SOUTH AMERICA

CONCEPTS

BEHAVIORAL OBJECTIVES

Career/Self-Awareness

People and their job roles

Tools

Functions

Characteristics

Products

Managing

Awareness of other people's activities

As a result of this unit each child will be able to:

Identify 2 techniques related to farming learned by the settler from the Indians

Identify 2 tools adopted by the Indians from the Spaniards

Identify 2 tools adopted by the settlers from the Indians

Identify 2 job roles of the male and female Indians and the reason for both

Identify 2 foods typical of Spaniards and Indians

Describe 3 situations in which people's activities provide information about their characteristics

METHOD OF IMPLEMENTATION

RESOURCE PEOPLE & MATERIALS

Research and make drawings

Take teacher-made test

Research activities of different Indian tribes
and Spaniards

EXPLORERS OF NORTH AND SOUTH AMERICA

The Vikings

Eric the Red
Leif Ericson

The Mogols

Marco Polo

Portugal

Prince Henry the Navigator
King John
Vasco da Gama
Bartholomeu Dias

Spain

Christopher Columbus
Ferdinand Magellan
Francisco Pizzaro
Ponce de Leon
Amerigo Vespucci

Italy

Giovanni da Verrazano
Hernando Cortes
Hernando de Soto
Francisco Coronado
Vasco de Balboa

France

Robert de La Salle
Jacques Cartier
Pere Marquette
Samuel de Champlain
Joliet

Holland

Henry Hudson

England

John Cabot
Henry Hudson
Sir Francis Drake
Martin Frobisher

Indian Civilizations

Mayan
Inca
Aztec
Algonquin - Sqanto

FIND ALL THE WORDS YOU CAN

D	I	S	C	O	V	E	R	E	R	S
O	N	O	T	F	O	S	S	I	L	E
C	S	O	F	F	I	C	E	R	A	R
K	I	R	T	I	N	A	L	E	A	P
A	D	R	I	C	H	L	A	C	T	E
T	N	O	M	I	N	A	T	I	O	N
H	C	A	C	A	O	T	O	P	P	T
S	I	D	E	L	O	O	M	E	A	I
T	O	E	S	D	K	R	A	K	E	N
A	H	O	Y	R	A	P	H	I	B	E
R	I	B	A	L	P	L	A	T	E	R
O	T	L	R	A	M	E	W	E	A	K
H	U	R	D	L	E	A	K	A	N	D

Circle on group of letters which make a word. The word can be found going forward, up and down or diagonally.

HANDS ON ACTIVITY (STUDENT PERFORMED)I. NAME OF ACTIVITY

MAKING AZTEC PRINTS

II. ACTIVITY FORMAT:

A. Tools and Materials

Discarded grocery sacks
Fluorescent tempera paint
Black, white paint
Soaking tubs, sinks, etc.

B. Procedures for this activity (with helpful hints)

To people in a predominately Indian-American community these designs had a very special meaning. Motifs were researched from Indian bark paintings and put on "recycled" paper bags.

1. To obtain a color and texture similar to real bark, bags were soaked in water, wrung dry, then brushed with black watercolor.
2. While still wet, diluted white tempera was brushed over the black.
3. Designs were painted with fluorescent tempera, then outlined with black markers. Where ethnic backgrounds are too mixed to suggest an art project, relate paintings to community industries or important events.

III. RESULTS OF THIS ACTIVITY (AFTER IMPLEMENTATION)

NAME _____

Exploring the New World and Exploring our Country

Here is a short story about Christopher Columbus. Circle the word in each parenthesis which makes the story correct.

When Christopher Columbus was a boy, he lived in the city of (Genoa, Venice, Rome), Italy. Columbus liked to go to the harbor and watch ships unload silks, spices, and jewels which had come all the way from China and (Africa, the Indies, North America). They had come partly by land and partly by sea. This trip was long and dangerous.

Columbus spent many hours thinking about a cheaper and easier way to get to India, China, and the Spice Islands. When he was a young man, he went to Lisbon, (Portugal, France, Spain). There his brother Bartholomew sold (maps, groceries, boats) needed by sailors. Columbus studied many maps. We think that he even got to see a globe.

When Columbus lived, many people thought the world was (round, square, flat). Columbus thought it was round. "If it is round," said he, "I can reach the Indies by sailing (north, west, east)." He decided to try. The king of (Italy, France, Portugal) would not help him, so he went to Spain. Queen Isabella of Spain finally agreed to let him have (three, five, seven) ships and necessary equipment.

One morning at sunrise, Columbus said farewell to his son and climbed aboard the ship (Santa Maria, Nina, Pinta). Columbus then sailed west across the (Indian, Atlantic, Pacific) Ocean and landed on the island of San Salvador on October 12, (1492, 1519, 1607). He had not reached the Indies, but he had discovered (China, Africa, America). The people he found there he called (Africans, Americans, Indians). Columbus made three more trips to find India, China, and the Spice Islands, but failed. We honor him, however, because he discovered the New World.

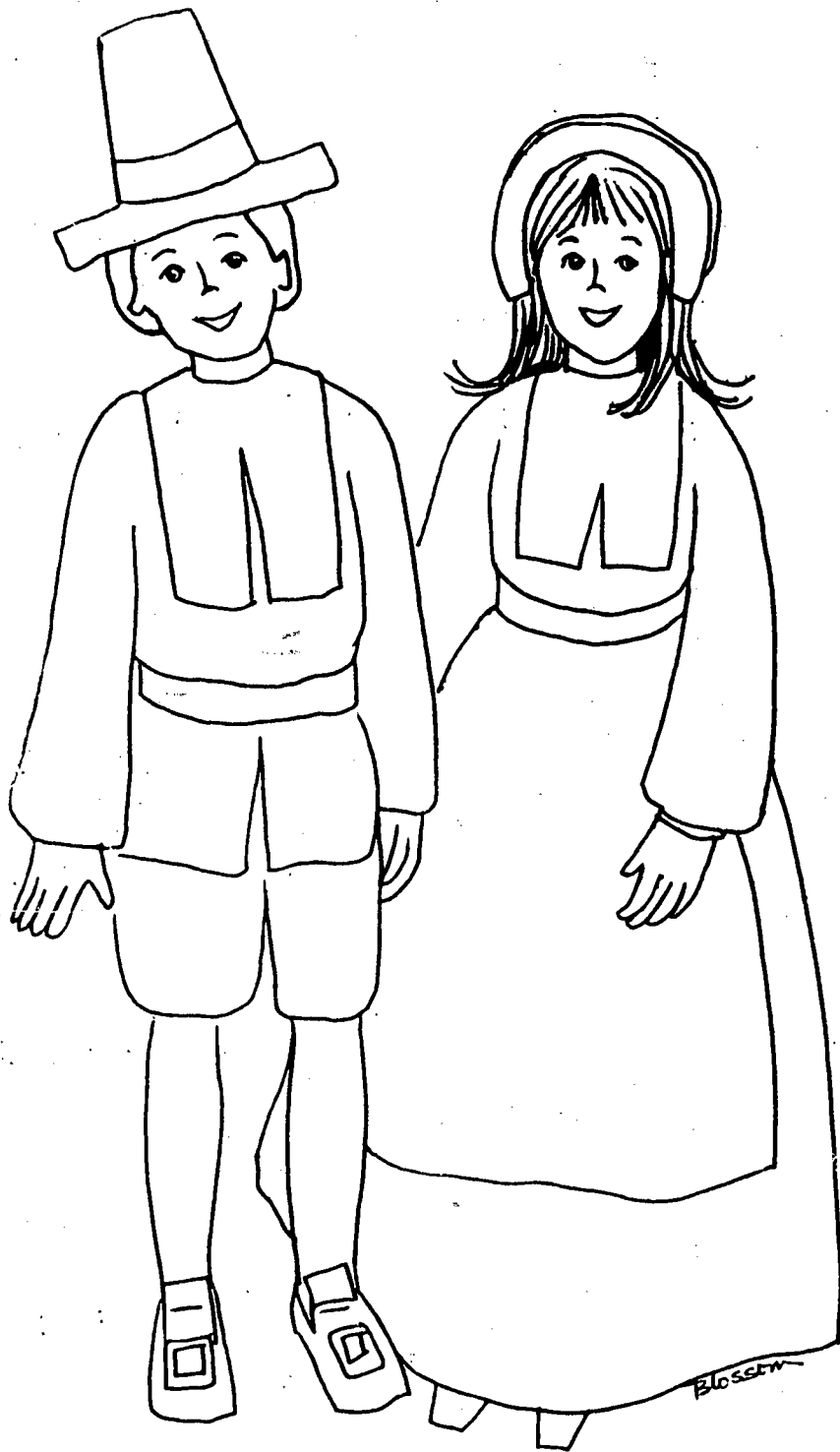
Match the following names with what they did. Write the numbers on the blank spaces to the right.

- | | | |
|-------------|------------|-----------------|
| 1. Magellan | 4. De Soto | 6. Marquette |
| 2. Cabot | 5. Cartier | 7. Leif Ericson |
| 3. Columbus | | |

1. I discovered America for Spain in 1492. _____
2. I discovered the Mississippi River. An old time automobile was named after me. _____
3. I was the leader of the first expedition to sail around the world. _____
4. I explored parts of Canada for France. The first letter of my name is the same as that of the discoverer of America. _____
5. I was a Norseman who came to America before Columbus did. _____
6. I was the French priest who explored North America with the fur trader, Joliet. _____
7. I explored parts of North America for England. My first name is John. _____

- | | | |
|---------------------|------------------|----------------|
| 1. Hudson | 4. Ponce de Leon | 6. Champlain |
| 2. Amerigo Vespucci | 5. Coronado | 7. de La Salle |
| 3. Vasco da Gama | | |

1. I discovered Florida for Spain. Notice that my name has three parts. _____
2. I explored parts of North America for the Dutch. An old time automobile was named after me. _____
3. I claimed the land drained by the Mississippi River for France. _____
4. America was named after me. Look at the first part of my name and notice the likeness. _____
5. I explored the Southwest for Spain. If you would change two letters in my name it would be Colorado. _____
6. I am a Portuguese sea captain who reached India by sailing around Africa. _____
7. I established a permanent French colony at Quebec. If you would look at a map of New York State, you would find a lake that was _____



COLONIAL AMERICA

SCHOOL DISTRICT OF THE CITY OF ROYAL OAK

INTEGRATED TEACHING UNIT
PLANSHEETTITLE: COLONIAL AMERICAGRADE LEVEL: 3-4

GENERAL OVERVIEW: This unit was written to give a general overview of colonial life: homes, customs and occupations. Students compared this with the present way of life. Children are always intrigued by their American Heritage. By taking a look at a restored village, they are better able to visualize the past. Williamsburg, Virginia provided not only an historical background but also an insight to a working community.
*Good for school-wide unit.

TEACHING/LEARNING RESOURCES:1. Reference Materials:

- Books: Children of the New Forest
Little House in the Big Woods - Wilder
First Book of Early Settlers - Rich, Louise
Frontier Living - Tunis, Edwins, World Publishing Co., New York
Colonial Craftsman - Tunis, Edwins, World Publishing Co., New York
Colonial Living - Tunis, Edwins, World Publishing Co., New York
Colonial America - Fisher, Margaret
Colonial Days - Gordy, Wilbur
A.B.C. Book of Early America - E. Sloane, Doubleday, New York
Adventures In Williamsburg - C. Seghers II & J.J. Walket
Colonial America Craftsmen (Series), L. Fisher - Franklin Watts, N.Y.
Let's Go To Colonial Williamsburg - M. J. Barreson, Putnam's Son, N.Y.
The City of Once Upon A Time - G. Waring
The Silver Mace, A Story of Williamsburg - M. & M. Petersham
Williamsburg Art of Cookery - Instructional Materials Center
If you Lived in Colonial Times (paperback - Scholastic Books)
- Films: Colonial Children
Colonial Life in New England
Early Settlers of New England (Salem)
Puritan Family of New England
The Light Here Kindled (Pilgrims)
The Jamestown Colony
Plymouth Colony: The First Year
Colonial America in the 18th Century
Colonial Birthday

Records: Pilgrim's First Thanksgiving

Filmstrips:

Pilgrims, Puritans
 English Background & Voyage to the New World (R)
 1st Year in the New World
 Massachusetts Bay
 Squanto & The First Thanksgiving (R)
 Story of Thanksgiving
 Why We Have Thanksgiving
 Early Settlers of New England
 Cooking in Colonial Days
 Plantation Life in Colonial Virginia
 Craftsman of Colonial Virginia
 Colonists are Freedom Living
 Homespun Linen
 Plantations Statesmen of Colonial Virginia
 Greenfield Village
 Life in the Early American Colonies

Pictures:

Colonial America
 Historic Williamsburg

Realia: (available from I.M.C.)

apple parer	loom
butter churn and mold	large wooden bowl and paddle
candle mold	candle snuffer
flat iron	page from grocery
iron ladle	ledger
soap stone	iron fireplace
corn husk doll	toaster
potato masher	corn broom
vegetable slicer	

Slides: Craftsmen of Colonial Virginia
 Visit to Colonial Williamsburg
 Greenfield Village

2. Field Trips:

Greenfield Village
 SEOVEC
 Edison Institute
 Upland Hills Farm
 Detroit Historical Museum
 Pioneer Park

3. Human Resources:

Parents
 Guide at Greenfield Village
 Baker
 Homemaker
 Weaver or clothing manufacturer
 People from Historical Society
 Nurse - School
 Electrician

4. Activities:

Role playing - dramatization of mans fight for freedom
 Make autobiographies
 Make hornbook
 Loom making
 Trading day
 Dipping Candles
 Colonial Cooking - Gingerbread cookies
 Weaving baskets
 Mural - Williamsburg
 18th Century Crafts
 Miller School
 Colonial Hats
 Making Soap (old time recipe)
 Making paper from pulp
 Sled - early American
 Spool knitting
 Boot jacks
 Stilts
 Dolls (Pioneer)
 Popcorn
 Made vegetable soup
 Made corn bread
 Made butter
 Molded candles
 Preparing applesauce
 Model of Colonial American village
 Flags of colonial period
 Map of 13 original colonies

UNIT TITLE: COLONIAL AMERICA

CONCEPTS	BEHAVIORAL OBJECTIVES
<p><u>Social Studies</u></p> <p>History</p> <p>Colonial</p> <p>The working community past and present</p>	<p>As a result of this unit, each child will be able to:</p> <p>Describe the political turmoil the colonies were involved in with England</p> <p>Describe several characteristics of home, school, and community life of the 18th Century</p> <p>Describe colonial America (people and settlement)</p> <p>Explain the first form of government</p> <p>Explain colonial living conditions</p> <p>State five areas in which our present day life differs from colonial life</p> <p>Draw a picture of pioneer settlement and modern city</p> <p>Write a description of pioneer life</p>
<p><u>Music</u></p> <p>18th Century</p>	<p>Identify the music characteristics of the 18th Century</p> <p>Sing songs which reflect pioneer feelings (ex. "Dry Bones")</p>

METHOD OF IMPLEMENTATION	RESOURCE PEOPLE & MATERIALS
<p>Role playing experiences</p> <p>Dramatization about man's involvement in his struggle for freedom</p> <p>Listening to pioneer stories</p> <p>Making up stories about Colonial times, including Indians and Pilgrims</p> <p>Play on early America</p> <p>Making booklets related to various areas</p> <p>Re-inactment of colonial schoolday</p> <p>Prepare one of four different rooms, the way in which colonial people did</p> <p>Split colonies into three groups - North, Middle, South</p>	<p>Speaker and film - Detroit Historical Museum</p> <p>Senior citizen</p>
<p>Choral verses</p> <p>Dances (ex. square dance or reel from early times)</p> <p>Listen to music of 18th Century</p>	<p>Folk singer</p>

UNIT TITLE: COLONIAL AMERICA (continued)

CONCEPTS	BEHAVIORAL OBJECTIVES
<p><u>Art</u></p> <p>18th Century Colonial design</p>	<p>As a result of this unit, each child will be able to:</p> <p>Participate in crafts typical of this time period</p> <p>Make decorative items</p> <p>Design a bulletin board showing how a town is restored</p> <p>Describe what is meant by a restored town</p> <p>Make at least 2 examples of crafts typical of Williamsburg's working community</p> <p>Make murals of Colonial America</p>
<p><u>Math</u></p> <p>Time</p> <p>Computing (by subtracting)</p> <p>Monetary system</p> <p>Measurement</p> <p>Linear measure</p>	<p>Compare travel time in Colonial and modern times</p> <p>Compute time between certain events and the present</p> <p>Identify examples of money used in the 18th Century and equate it to the value of today's monetary system</p> <p>Measure with measuring spoons and cups, and use the oven</p> <p>Measure in candle making activities</p> <p>Participate in the making of looms and hornbooks</p>

METHOD OF IMPLEMENTATION

RESOURCE PEOPLE & MATERIALS

Weaving baskets
 Weaving cloth on looms
 Make colonial hats
 Reconstruct by mural - Colonial
 living or town
 Field trip to Greenfield Village
 Make a mural showing how a town
 is restored
 Making pioneer dolls
 Decorating room for colonial Christmas

Weaver

Baker

People from Historical Society

Measuring for these activities:
 Colonial cooking
 Making candles
 Paper making demonstrations
 Making hornbooks
 Soap making

Parents

Coin collector

UNIT TITLE: COLONIAL AMERICA (continued)

CONCEPTS	BEHAVIORAL OBJECTIVES
<p><u>Health</u></p>	<p>As a result of this unit, each child will be able to:</p> <p>Select proper foods for well-balanced diet</p> <p>List 3 foods characteristic of colonial times</p>
<p><u>Communication Skills</u></p> <p>Researching</p> <p>Reading</p> <p>Spelling</p> <p>Writing</p> <p>Creative writing</p>	<p>Take notes</p> <p>Locate and utilize information in research text</p> <p>Report and read books about colonial America</p> <p>Make a card file</p> <p>Write letters</p> <p>Report in written form characteristics of colonial America (home, communities, schools, clothing, food, etc.)</p> <p>Write a poem</p> <p>Write colonial experience stories</p> <p>Write autobiographies - as if they were colonial children</p> <p>Participate in a group discussion comparing colonial occupations with those of today</p> <p>Examine, discuss, and illustrate famous Ben Franklin's saying ie. "Early to bed, early to rise, makes a man healthy, wealthy and wise."</p>

METHOD OF IMPLEMENTATION	RESOURCE PEOPLE & MATERIALS
<p>Make corn bread Prepare vegetable soup Make butter Research in diet planning (basic food groups) Keep diary of week's intake of food and make list of those foods which wouldn't have been available in colonial times</p>	<p>S.E.O.V.E.C. Food Services</p>
<p>Write reports Make family trees Reading cookbooks Make autobiography book of themselves as a colonial child Make a card file of words used in connection with Colonial America Write thank-you notes</p>	<p>See cover sheet for materials</p>

UNIT TITLE: COLONIAL AMERICA (continued)

CONCEPTS

BEHAVIORAL OBJECTIVES

Science

Change of state (candle-making)

As a result of this unit, each child will be able to:

Describe changing state of matter - solid - liquid - solid
Describe five spices and their importance

Machines

Describe simple machines used in colonial cooking

Light

Identify and understand the term "candle power"

Animals

List three uses of animals in colonial times

Plants

Identify and classify five herbs, spices or weeds

Weather

Explain what the colonists did during different seasons of year and how their homes were equipped to survive the different seasons

METHOD OF IMPLEMENTATION

RESOURCE PEOPLE & MATERIALS

Make candles, either by mold or by dipping. Paper clip on end of wick dipped in wax, then cold water

Research colonial tools and equipment
Compare modern tools with those in colonial times

Making popcorn

Make a spice chart

Make a mural of seasonal activities during colonial days

Herbologist

UNIT TITLE: COLONIAL AMERICA (continued)

CONCEPTS	BEHAVIORAL OBJECTIVES
<p><u>Career Awareness</u></p> <p>Man and his job roles</p> <ul style="list-style-type: none"> Reasons Their functions The location Tools Characteristics Attitudes they do Managing Planning Producing <p>Custom productions of products</p> <ul style="list-style-type: none"> Raw materials Preprocessing Services Things People 	<p>As a result of this unit, each child will be able to:</p> <p>Build a restored town</p> <ul style="list-style-type: none"> List 5 individual jobs that were required in a town during colonial time Identify 5 handcrafted colonial tradesmen, tailor, shoemaker, etc. <p>Purchase material</p> <ul style="list-style-type: none"> Receive material Store materials and products Distribute a product Advertise a product Sell a product
<p><u>Self-Awareness</u></p> <ul style="list-style-type: none"> Work cooperatively with others on a given task Feeling important by doing Recognizing abilities Recognizes likes and dislikes 	<ul style="list-style-type: none"> Work cooperatively in a group situation Identify the role he had in producing the product Identify the job he did best Identify the tasks he enjoyed most and the task he enjoyed least

METHOD OF IMPLEMENTATION	RESOURCE PEOPLE & MATERIALS
<p>Make a colonial village</p> <p>Making horn books</p> <p>Making stilts</p> <p>Making hand soap</p> <p>Making Early American sled</p> <p>Making boot jacks</p> <p>Spool knitting</p> <p>Weave baskets</p> <p>Make looms</p> <p>Have a "Trading Day" - set up definite rules as for trade-backs, etc.</p> <p>Have a Thanksgiving dinner</p> <p>Making candles</p> <p>Making colonial hats</p>	<p>Candlemaker</p> <p>Weaver</p> <p>Silversmith</p> <p>Blacksmith</p> <p>Historian</p> <p>Curator in a museum</p>

Discuss self-awareness concepts as applied to this activity (10 minutes)

Guidance Counselor

HANDS ON ACTIVITY (STUDENT PERFORMED)I. NAME OF ACTIVITY

DIPPING CANDLES

II. ACTIVITY FORMAT:

A. Tools and Materials

2 tall double boilers	Scissors
2 hot plates	11 pounds paraffin
Pencils	Wicking - 10 inches per child
Stearic acid	Coloring tablet
(2 tablespoons per pound of paraffin)	Yardstick - to hold candles when drying

B. Human Aides and Resources

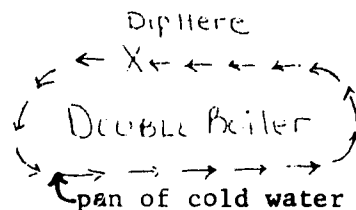
One adult at each double boiler

C. Procedures for this activity (with helpful hints)

1. Show filmstrip: Craftsmen of Colonial Virginia.
2. Show slides: Craftsmen of Colonial Virginia.
3. Prepare wicking by cutting a desired length, knotting at one end, tying the other to a pencil.
4. Prepare wax before class according to recipe: 20% stearic acid, 80% paraffin (melted but not too hot).
5. Instruct individuals to dip their wick in the wax making sure to hold it straight after - wait a few minutes and then dip again.
6. Hang to harden - 2-3 hours.

III. RESULTS OF THIS ACTIVITY (AFTER IMPLEMENTATION)

This is a very slow process. The activity took two hours and most candles were only about 3/4 of an inch in diameter. An easy way to organize the activity is as follows:



Need time for wax to cool before applying another layer of wax.
Could use pan of cold water to dip and cool wax.

HANDS ON ACTIVITY (STUDENT PERFORMED)I. NAME OF ACTIVITY

MAKING CANDLES - MOLDED

II. ACTIVITY FORMAT:

A. Tools and Materials

Candle wax	Paper cups
2 coffee cans	Candle wick
red and green crayons	Paste sticks
2 hot plates	Ladle

B. Procedures for this activity (with helpful hints)

Melt candle wax in coffee containers. Melt red crayon to color one container of wax. Use green crayon to color the second can of candle wax. Pour into individual styrofoam cups. Cut wick so that enough is left at top to roll on paste stick. This will keep it from falling down in wax. Let this dry and then tear off paper container when candle is hard.

III. RESULTS OF THIS ACTIVITY (AFTER IMPLEMENTATION)

HANDS ON ACTIVITY (STUDENT PERFORMED)I. NAME OF ACTIVITY

A DAY AT MILLER SCHOOL - GREENFIELD VILLAGE - 50¢ per pupil

II. ACTIVITY FORMAT:

A. Human Aides and Resources

Learning Resource Teacher, Student teacher and parent drivers were used in addition to teacher.

B. Procedures for this activity (with helpful hints)

Miller School is the (restored) school Henry Ford attended as a child. The village supplies McGuffey Readers and Eclectic Spellers, Dunce Caps, willow sticks, etc. We pumped our own water. The children sat in desks typical of the time and dressed appropriately. The day was conducted as it would have been 100 years ago. Typical of a one-room school house.

OUR DAY

I. Opening Exercises:

Songs
Pledge of Allegiance

II. Recitation Period:

A. Oral - reading from McGuffey Readers in small groups.

B. Seat work

1. Math drill on slate boards
2. Memorize a poem
3. Penmanship - writing in copy book
4. Sewing cards

III. Lunch - Recess.

IV. Opening Exercises

Choral Reading
Short Plays

V. Blacksmith Demonstration (provided by Village)

VI. Spell-down

HANDS ON ACTIVITY (STUDENT PERFORMED)

I. NAME OF ACTIVITY

COLONIAL HATS

II. ACTIVITY FORMAT:

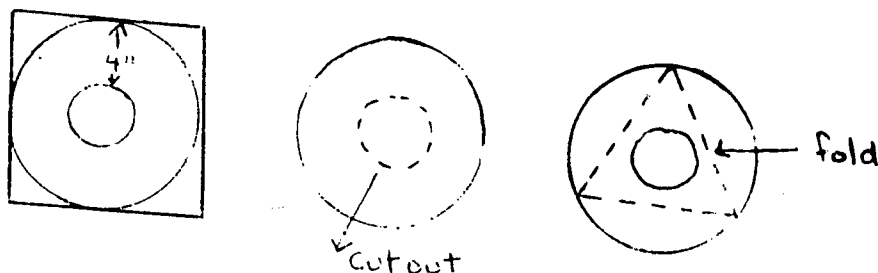
A. Tools and Materials

Scissors	12" x 12" black construction paper
Rulers	12" x 12" white construction paper
Pencils	White paper doilies 12" x 12"

B. Procedures for this activity (with helpful hints)

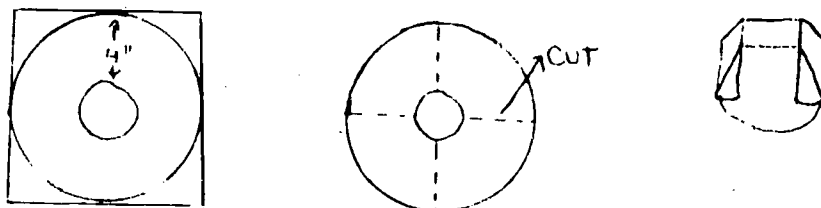
Men's Tricorn Hat

1. On a 12" x 12" piece of black construction paper draw a circle in the center (4 inches in diameter).
2. Draw another circle 4 inches larger than the first and cut along this line.
3. Cut out center circle. Fold to make a Tricorn hat.



Women's Colonial Hat

1. Draw a circle 4" in diameter in the center of white construction paper.
2. Draw a circle 4" larger than the first.
3. Cut around the larger circle.
4. Cut slits to the smaller circle.
5. Fold and paste or staple to form a cap.
(It will look like a lady's pill-box hat)
6. Trim with lace doily.



HANDS ON ACTIVITY (STUDENT PERFORMED)I. NAME OF ACTIVITY

PREPARING APPLESAUCE

II. ACTIVITY FORMAT:

A. Tools and Materials

Knives	Apples
Fats	Sugar, Cinnamon, Lemon
Apple Corer	Water
Measuring utensils	Hot plate
Spoons	

B. Human Aides and Resources:

Mothers

C. Procedures for this activity (with helpful hints)

One small group at a time core and peel apples. Place in small amount of water in large pot on hot plate. While a couple of kids are constantly stirring and mashing the apples, others are adding ingredients such as sugar, cinnamon, and lemon.

It's a good idea to have help with this such as a mother or two or an aide. Another helpful hint would be to have a masher (the kind used for potatoes) for mashing the apples down as they cook.

III. RESULTS OF THIS ACTIVITY (AFTER IMPLEMENTATION)

Children are able to see and taste a finished product. They could very easily help at home with this same kind of activity.

HANDS ON ACTIVITY (STUDENT PERFORMANCE)I. NAME OF ACTIVITY

MAKING VEGETABLE SOUP

II. ACTIVITY FORMAT:

A. Tools and Materials

Large cooking pan	Hot plate
Knife	Individual dish and spoon
Ingredients	

B. Human Aides and Resources

Teacher and students - only

C. Procedures for this activity (with helpful hints)

Wash, peel and cut vegetables. Combine large can of tomato juice, 1 can of tomatoes, 5 potatoes, 5 carrots, 5 onions. Cook until vegetables are soft. Parsley, salt, pepper, barley, rice, oleo $\frac{1}{2}$ stick, celery (grain soup mix).

D. Used small group of youngsters (5) and teacher aide.
(Beware of too many children.)III. RESULTS OF THIS ACTIVITY (AFTER IMPLEMENTATION)

Much interest and they loved the soup. Good learning experience.

HANDS ON ACTIVITY (STUDENT PERFORMED)I. NAME OF ACTIVITY

COLONIAL COOKING - WILLIAMSBURG GINGER CAKES

II. ACTIVITY FORMAT:

A. Tools and Materials

Oven	Paper	Spoons
Cooking utensils	Mixing bowls	Recipe
Cookie cutters	Measuring cups	
Cookie sheets	Rolling pins	

B. Human Aides and Resources

Parents' aides for each small group

C. Procedures for this activity (with helpful hints)

1. Show filmstrip: Cooking in Colonial Days
2. Discussion about spices
3. Cream lard, sugar and molasses
4. Sift flour, ginger, salt and soda into mixture
5. Add enough flour to make dough stiff
6. Roll very thin
7. Cut with cookie cutters
8. Bake on buttered tins in a quick oven
9. They burn easily

III. RESULTS OF THIS ACTIVITY (AFTER IMPLEMENTATION)RECIPE

Recipe for each batch of cookies made -

1/2 cup lard	2 cups brown sugar
4 cups flour	1 tablespoon ginger
1 teaspoon soda	2 cups light molasses
1/2 teaspoon salt	

HANDS ON ACTIVITY (STUDENT PERFORMED)I. NAME OF ACTIVITY

MAKING MOLASSES CAKE (Similar to Gingerbread)

II. ACTIVITY FORMAT:

A. Tools and Materials

Mixer	Baking soda
Mixing bowl	Cinnamon
9 x 12 baking pan	Ginger
Molasses	Cloves
1 egg	Whipped cream
Flour	

B. Human Aides and Resources

Mother volunteers

C. Procedures for this activity (with helpful hints)

Recipe -

1/2 cup sugar	Cream butter and sugar. Add
1/2 cup butter	egg and beat. Add dry ingredients
1 cup molasses	sifted together alternating with
1 egg	hot water.
1 1/2 teaspoon baking soda	
1 1/2 teaspoon cinnamon	Bake at 350° 35-40 minutes
1/2 teaspoon ginger	in 9 x 12 pan.
1/2 teaspoon cloves	
2 1/2 cup flour	Serve with whipped cream.
1 cup hot water	

III. RESULTS OF THIS ACTIVITY (AFTER IMPLEMENTATION)

HANDS ON ACTIVITY (STUDENT PERFORMED)I. NAME OF ACTIVITY

POPCORN

II. ACTIVITY FORMAT:

A. Tools and Materials

Materials necessary for each item to be made:

Popcorn - on ears with husks (at times available at Pop's)

B. Procedures for this activity (with helpful hints)

List (chronologically) a step by step procedure for each activity being made in the unit.

Husk corn

Allow corn to dry on ears (several weeks)

Each person has 2 ears of corn

Rub dry corn ears together

Collect loose corn

Pop the corn

III. RESULTS OF THIS ACTIVITY (AFTER IMPLEMENTATION)

HANDS ON ACTIVITY (STUDENT PERFORMED)I. NAME OF ACTIVITY

MAKING CORN MUFFINS (SOUTHERN)

II. ACTIVITY FORMAT:

A. Tools and Materials

Corn meal	Buttermilk
Salt	Oleomargerine
Soda	
Eggs	

B. Human Aides and Resources

Mother volunteers

C. Procedures for this activity (with helpful hints)

Recipe -

2 cups corn meal
pinch of salt
1/3 teaspoon soda
1 egg
1 cup (approximately) buttermilk - enough to make consistency
of cake mix
Pour into hot greased muffin tins. Bake at 400° for 20 minutes

III. RESULTS OF THIS ACTIVITY (AFTER IMPLEMENTATION)

Excellent. Muffins were served at our Southern Colonial Dinner.

HANDS ON ACTIVITY (STUDENT PERFORMED)I. NAME OF ACTIVITY

MAKING CORN BREAD

II. ACTIVITY FORMAT:

A. Tools and Materials

Mixing bowl	Buttermilk
Spoon	Crisco
Eggs	Salt
Corn meal	Muffin tins

B. Human Aides and Resources

2 parents

C. Procedures for this activity (with helpful hints)

Divide class into 4 groups. Each group made a pan of corn bread.

2 cups corn meal, 1 cup buttermilk, 1 egg and pinch of salt.
Mix together and bake in muffin tins at 375°.III. RESULTS OF THIS ACTIVITY (AFTER IMPLEMENTATION)

Children enjoyed activity and liked the bread. Good learning experience.

HANDS ON ACTIVITY (STUDENT PERFORMED)I. NAME OF ACTIVITY

MAKING BUTTER

II. ACTIVITY FORMAT:

A. Tools and Materials

Whipping cream (room temperature)

Salt

Fruit jar

Mixing bowl

Spoon

B. Human Aides and Resources

Mother volunteer

C. Procedures for this activity (with helpful hints)

1. Shake cream in sealed fruit jars.
2. Pour off buttermilk (save for making corn muffins).
3. Wash butter with cold water until water is clear.
4. Add salt to taste.

III. RESULTS OF THIS ACTIVITY (AFTER IMPLEMENTATION)

Activity turned out very well. Butter was used for our Southern Colonial Dinner.

HANDS ON ACTIVITY (STUDENT PERFORMED)I. NAME OF ACTIVITY

HORNBOOKS

II. ACTIVITY FORMAT:

A. Tools and Materials

1/4" plywood	Clear contact paper
Oak tag 6" x 6"	Black markers
Shellac	Paint brush

B. Human Aides and Resources

Two parents to supervise and work with dremmel saw

C. Procedures for this activity (with helpful hints)

1. Trace pattern on plywood and cut using dremmel saw.
2. Shellac wood.
3. Draw lines on oak tag.
4. Pencil in alphabet and numbers from 1 - 10.
5. After letters have been checked by teacher, go over with black marker.
6. Put clear contact paper over oak tag and attach to wood.

III. RESULTS OF THIS ACTIVITY (AFTER IMPLEMENTATION)

Children learned to use dremmel saw.
Children learned to measure lines.

Hornbook pattern on back of page.

A B C D E F G H I J K

L M N O P Q R S T U

V W X Y Z

a b c d e f g h i j k l m n

o p q r s t u v w x y z

1 2 3 4 5 6 7 8 9 10

cat

sun

ten

bat

fun

hen

sat

run

pen

rat

gun

men

Hornbook
Pattern

HANDS ON ACTIVITY (STUDENT PERFORMED)I. NAME OF ACTIVITY

WEAVING BASKETS

II. ACTIVITY FORMAT:

A. Tools and Materials

Water	Reeds
Wastebasket	String

B. Procedures for this activity (with helpful hints)

1. Show filmstrip - Homespun Linen
2. Show realia - Loom
3. Show slides - Craftsmen of Colonial Virginia
4. Soak the reeds in water overnight (wastebasket is excellent)
5. Each individual starts with six reeds 24" long
6. Place three spokes on a table then put the other across the middle and on top of the first three
7. Select a long piece of string to wrap around the base in an under/over manner
8. Separate the groups of 3 spokes into groups of 2
9. Select a long piece of reed to start weaving the base using the same over/under method
10. After the base is 3-4 inches wide, separate the spokes again and continue weaving
11. As the weaving piece of reed becomes smaller, add another near the short end
12. As the base becomes wider, bend the spokes upward to form the shape of the basket
13. To finish the top, turn the end of each spoke down and weave it into the basket

III. RESULTS OF THIS ACTIVITY (AFTER IMPLEMENTATION)

This took several afternoons. Remind the children to weave tightly and to keep soaking the reeds and their baskets as they go along. Baskets may be shellacked when finished.

HANDS ON ACTIVITY (STUDENT PERFORMED)I. NAME OF ACTIVITY

LOOM MAKING

II. ACTIVITY FORMAT:

A. Tools and Materials

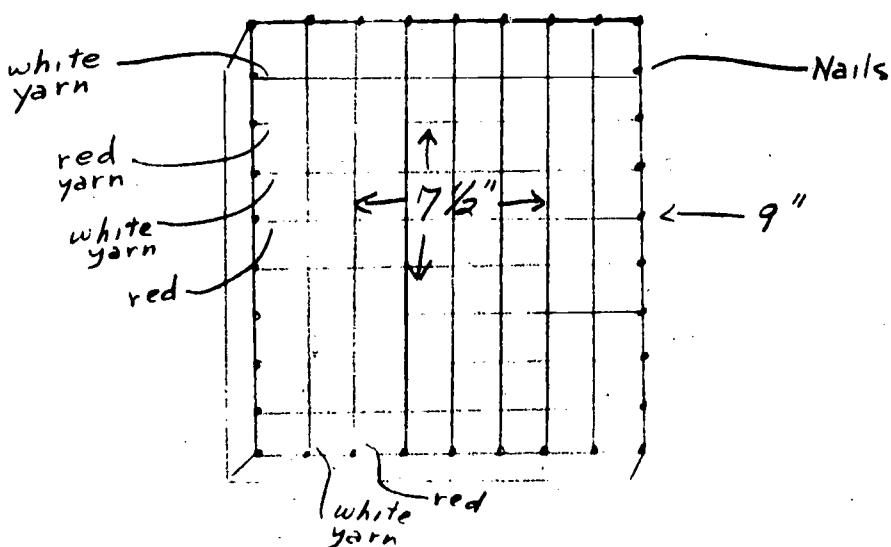
2 pcs. $3/4"$ x $3/4"$ x $7\ 1/2"$ wood
 2 pcs. $3/4"$ x $3/4"$ x $9"$ wood
 6 d finishing nails
 1" x #18 wire brads
 $3/4"$ x #16 wire brads

B. Human Aides and Resources

Two Eastern Michigan University students

C. Procedures for this activity (with helpful hints)

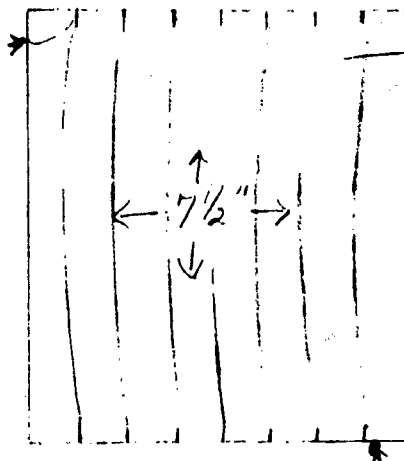
1. Using 6 d finishing nails, nail wood frame together.
2. Lay out and mark 20 equally spaced points on each side of the frame.
3. Drive a #18 wire brad at each point, leaving $1/2"$ of the brad sticking up.
4. Measure and tie yarn.
5. Nails on four sides.
6. Use alternate colors of yarn (makes it easier when weaving begins).
7. Leave $1/4"$ space between nails (larger space for younger children).



Loom Making, continued

8. Alternate method: Cardboard Looms

- a. Make equidistant slits on top and bottom of cardboard.
- b. Tie yarn at one corner and then thread yarn up and over slits.
- c. Tie at other end.
- d. Weave through threads.
- e. Take off top - tie loops together.
- f. Do same on bottom.

III. RESULTS OF THIS ACTIVITY (AFTER IMPLEMENTATION)

Projects turned out very well and children were eager to begin weaving. Good activity to show how an assembly line works.

HANDS ON ACTIVITY (STUDENT PERFORMED)I. NAME OF ACTIVITY

TRADING DAY

II. ACTIVITY FORMAT:

A. Tools and Materials

Toys, jewelry, or any used item child wishes to exchange.

B. Procedures for this activity (with helpful hints)

1. Send a letter indicating the class will be having a trading day similar to those held in colonial times when colonists exchanged products for services and items needed.
2. On the trading date, the children circulated by rows exchanging items.

III. RESULTS OF THIS ACTIVITY (AFTER IMPLEMENTATION)

So great and exciting was the activity that we held trading day twice!

HANDS ON ACTIVITY (STUDENT PERFORMED)I. NAME OF ACTIVITY

MURAL - RESTORED TOWN

II. ACTIVITY FORMAT:

A. Tools and Materials

Scissors	Magic markers
Pencils	Construction paper
Rulers	Glue
Crayons	Butcher paper
Paint	
Map of Williamsburg, Virginia	
Map of Greenfield Village	
Reference Books	

B. Procedures for this activity (with helpful hints)

1. Field trip: Greenfield Village
2. Show slides of the craft shops of Williamsburg, Virginia
3. Show filmstrip: Craftsmen of Colonial Virginia
4. Discuss advertising and how individual craftsmen advertised their products
5. Have individual students select a craft and design an advertisement to hang outside their shop
6. On the butcher paper, recreate the city of Williamsburg, Virginia
7. Hang the shop signs

III. RESULTS OF THIS ACTIVITY (AFTER IMPLEMENTATION)

The children enjoyed this activity, particularly designing shop signs.

HANDS ON ACTIVITY (STUDENT PERFORMED)I. NAME OF ACTIVITY

MAKING PAPER FROM PULP

II. ACTIVITY FORMAT:

A. Tools and Materials

Egg beater	Mold and deckle	Dish pan
2 pieces of plywood	Toilet tissue	Scissors
Wooden spoons	Felt	Starch
Water	Iron	Mixing bowl

B. Human Aides and Resources

Parent aides to assist small groups

C. Procedures for this activity (with helpful hints)

1. Tear tissue into small bits, placing shredded bits into a mixing bowl.
2. Add water to mixing bowl.
3. Beat with egg beater.
4. Fill dish pan with water.
5. Add one cup of starch.
6. Add mixing bowl contents to dish pan.
7. Place the mold and deckle in the bottom of dish pan.
8. Place a piece of felt on the top of the mold and deckle. Flip over, leaving a piece of felt with the tissue on top.
9. Squeeze out excess moisture by placing the felt and tissue between two pieces of plywood and standing on it (outside).
10. Allow to dry.
11. Remove felt pieces.
12. If needed, iron the paper.

HANDS ON ACTIVITY (STUDENT PERFORMED)I. NAME OF ACTIVITY

RECYCLING PAPER BY HAND

II. ACTIVITY FORMAT:

A. Equipment

1. Finely meshed wire screen: 5' x 6 1/2".
2. Aluminum pan 5" x 6 1/2" x 1".
3. This pan can be made from a frozen food container. Any approximately sized pan can be shaped to these dimensions. Cut out the center of the base of the pan, leaving a 1/2" base all around the pan. The screen will rest on this base.

Aluminum pan 3 1/2" x 5" x 1"

Cut out the entire base of this frozen food container, leaving the four sides in an unbroken rectangle. Bind this pan as follows: Use 1" adhesive tape around the four sides, with 1/2" on the inner side and 1/2" on the outer side of the base edge. Repeat the binding with a second strip of tape, this time going up only 1/4" on the four sides, both outside and inside. The additional edge of adhesive tape which hangs below the base rim of this pan will serve to hold in the pulp when you are working.

4. Basin, large enough to hold ten quarts of water.
5. Cleansing tissue - 30 double sheets.
6. Cellulose sponge 4" x 6" x 1".
7. Several packages of white blotters.
8. Laundry starch.
One tablespoon of instant laundry starch mixed with two cups of water.
9. Egg beater.
10. Electric iron.
11. Tray or a work surface which can take moisture.
12. Scissors

B. Resources

American Paper and Pulp Association
122 East 42nd Street
New York, New York

C. Procedures for this activity (with helpful hints)

***Need one parent helper at least.**

1. Tear 30 double sheets of cleansing tissue into small pieces and place in the basin. Cover the tissue with 1 1/2 quarts of water and stir for about ten minutes until thoroughly dissolved to pulp.
2. Add the tablespoon of starch dissolved in two cups of lukewarm water, and 8 quarts of water to the dissolved pulp. Beat with the egg beater for a few minutes until tissue fibers are thoroughly dispersed in the water.

Recycling Paper by Hand (continued)

3. Place the small pan, tape sides down, on the screen which is the base of the larger pan. Holding both, dip them into the pulp mixture edge-wise, and turn to horizontal position when submerged. Raise both pans, retaining a thin layer of pulp in the smaller one within the framework of the tape. Clear the outer pan of all extra pulp, gently with your finger. The extra pulp should be returned to the basin if you plan to make the 20 sheets.
4. Remove the inner frame and lift the screen from the outer frame. Place the screen with the pulp on it on the sponge, with the screen between the sponge and the pulp.
5. Gently press the pulp and the wire mesh on the sponge with a white blotter until the moisture is absorbed. Lift up the blotter carefully and you will find that the rectangle of pulp has adhered to it from the mesh screen.
6. Place a second blotter over the pulp lying on the first blotter. Press again to absorb the moisture that still remains.
7. Place the damp sheet between two new blotters and iron it with a warm iron (not hot). Trim the edges all around with a scissors. Your paper will be about 3" x 4 1/2" and you can write on it with a ball point pen.
8. Use the egg beater frequently to keep the pulp thoroughly mixed.
9. By placing a blotter between each wet sheet you can make a pile of about ten. Put pressure on this pile for several minutes, using wood blocks.
10. For a class of forty pupils, double the amount of tissue, starch, and the size of the pans accordingly.
11. To make larger sheets of paper, start with a large size screen and increase the size of the pans accordingly.
12. Tinted paper can be made by adding vegetable dye to the pulp and water mixture.

III. RESULTS OF THIS ACTIVITY (AFTER IMPLEMENTATION)

This activity can be conducted in the classroom with the equipment described below. Using the dimensions suggested here, you can produce about 20 sheets of paper, 3" x 4 1/2".

HANDS ON ACTIVITY (STUDENT PERFORMED)I. NAME OF ACTIVITY

STILTS

II. ACTIVITY FORMAT:

A. Tools and Materials

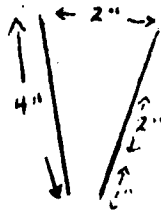
Saw	4 - 1 1/2" #8 wood screws
Screw driver	2 - 2" x 2" x 6 ft. wood
Sandpaper	2 - triangle shaped blocks of wood - 2 in. thick
	6 - 2 1/2 in. screws

B. Resources

Singing Wheels

C. Procedures for this activity (with helpful hints)

1. Sand the two 6 ft. pieces of wood.
2. Sand the two triangle blocks of wood.
Screw one triangle block to each long piece of wood.
3. Drill 2 holes 1/4" diameter through the triangular blocks as per sketch.



4. Wood screw the triangular blocks to the stilts 1' from bottom of stilt.

III. RESULTS OF THIS ACTIVITY (AFTER IMPLEMENTATION)

HANDS ON ACTIVITY (STUDENT PERFORMED)I. NAME OF ACTIVITY

SLED - EARLY AMERICAN

II. ACTIVITY FORMAT:

A. Tools and Materials

Square measurer	Wood
Saw	Rope
Hammer	Lumber
Sandpaper	Screws 1 1/2"

B. Resources

Singing Wheels

C. Procedures for this activity (with helpful hints)

1. Cut pattern for sled
2. Sand wood
3. Screw runners to top
4. Brace runners and top (from underside)
5. Sand wooden runners
6. Wax runners
7. Attach rope

III. RESULTS OF THIS ACTIVITY (AFTER IMPLEMENTATION)

HANDS ON ACTIVITY (STUDENT PERFORMED)I. NAME OF ACTIVITY

SPOOL KNITTING

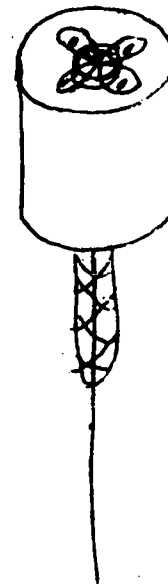
II. ACTIVITY FORMAT:

A. Tools and Materials

Wooden spool	1 - 3" nail
4 - 1/2" nails	Yarn

B. Procedures for this activity (with helpful hints)

1. Large size spool
2. Place 4 - 1/2" nails in a square around the hole (6 nails may be used)
3. Thread yarn from bottom through the hole
4. Circle nails - once
5. Circle nails - another time
6. Pull bottom loop over top loop (use long nail)
7. Continue by pulling weaving through the center hole

III. RESULTS OF THIS ACTIVITY (AFTER IMPLEMENTATION)

HANDS ON ACTIVITY (STUDENT PERFORMED)I. NAME OF ACTIVITY

BOOTJACKS

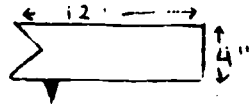
II. ACTIVITY FORMAT:

A. Tools and Materials

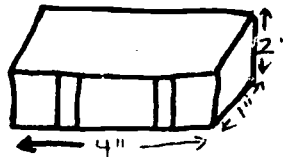
- 1 crosscut saw
- 2 #6 - 2 1/2" Slat head wooden screws
- 1 piece 3/4" x 4" x 12" pine
- 1 piece 1" x 2" x 4" pine

B. Procedures for this activity (with helpful hints)

Measure, draw, and cut a 3" V in one end of the 12 inch piece of wood (as shown in sketch)



Four inches from the "V" end fasten the 1" x 2" x 4" lift to the bootjack base. First drill 2 1/4" holes through the block (see sketch).



Then using the appropriate wood screws, fasten the lift to the base of the bootjack.

III. RESULTS OF THIS ACTIVITY (AFTER IMPLEMENTATION)

HANDS ON ACTIVITY (STUDENT PERFORMED)I. NAME OF ACTIVITY

HAND SOAP

II. ACTIVITY FORMAT:

A. Tools and Materials

Glass gallon jar
 Enamel pan (large)
 Wooden spoon
 1 wooden box - about 2 ft. x 1 ft.
 1 can lye
 8 lb. grease

B. Human Aides and Resources

Four to six people. One adult to help pour lye and work with the small group of children.

C. Procedures for this activity (with helpful hints)

List (chronologically) a step by step procedure for each activity being made in the unit:

1. About 8 pounds of grease saved from cooking
2. Heat just enough to pour
3. Strain grease
4. Place grease in double amount of water
5. Boil water and grease at least 20 minutes
6. Set aside and cool
7. Take hardened grease from top of water.
8. Use 6 pounds of grease
9. Heat just to lukewarm - use enamel dish
10. Put 5 cups of water in glass jar
11. Slowly empty one can of lye into 5 cups of water
12. Stir with wooden spoon
13. Allow to cool
14. Slowly pour cooled lye into lukewarm grease (6#)
15. Stir with wooden spoon until mixture is like whipped cream
16. Pour mixture into wooden box which has been lined with the wet sheet
17. Cover mixture with edges of wet sheet
18. Let stand 48 hours to one week
19. Cut into cakes
20. Yields 30 cakes

III. RESULTS OF THIS ACTIVITY (AFTER IMPLEMENTATION)

Long process

HANDS ON ACTIVITY (STUDENT PERFORMED)I. NAME OF ACTIVITY

DOLLS

II. ACTIVITY FORMAT:

A. Tools and Materials

Hook screws

1 ft. of 1/2 in. doweling

Cloth

Yarn

Bread & glue for clay (See Mother's Day Flower directions)

Wire - small

Saw

B. Procedures for this activity (with helpful hints)

List (chronologically) a step by step procedure for each activity being made in the unit.

Make a head with face from clay

Put yarn hair on head (pin knotted yarn to head)

Allow head to dry

Cut doweling in sections to form a doll

Put hook screws on each end of each piece of dowel

Connect each section of doll by wiring through the center of the hook screw

Cut and sew clothes for doll

III. RESULTS OF THIS ACTIVITY (AFTER IMPLEMENTATION)

HANDS ON ACTIVITY (STUDENT PERFORMED)I. NAME OF ACTIVITY

WEAVING BASKETS

II. ACTIVITY FORMAT:

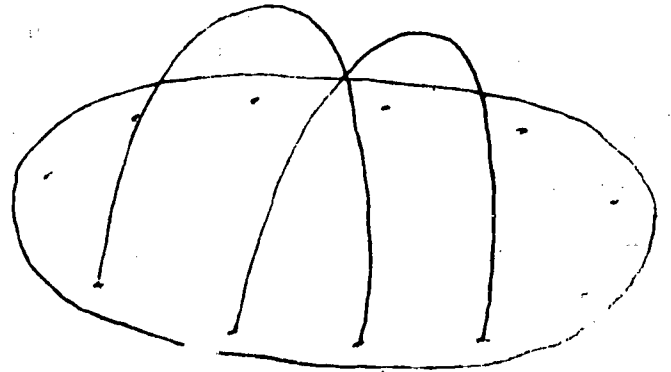
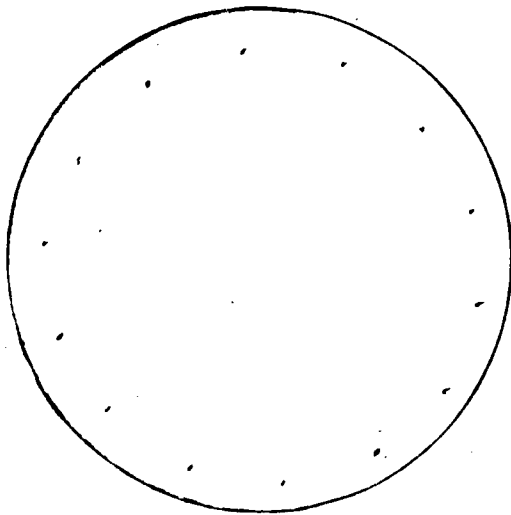
A. Tools and Materials

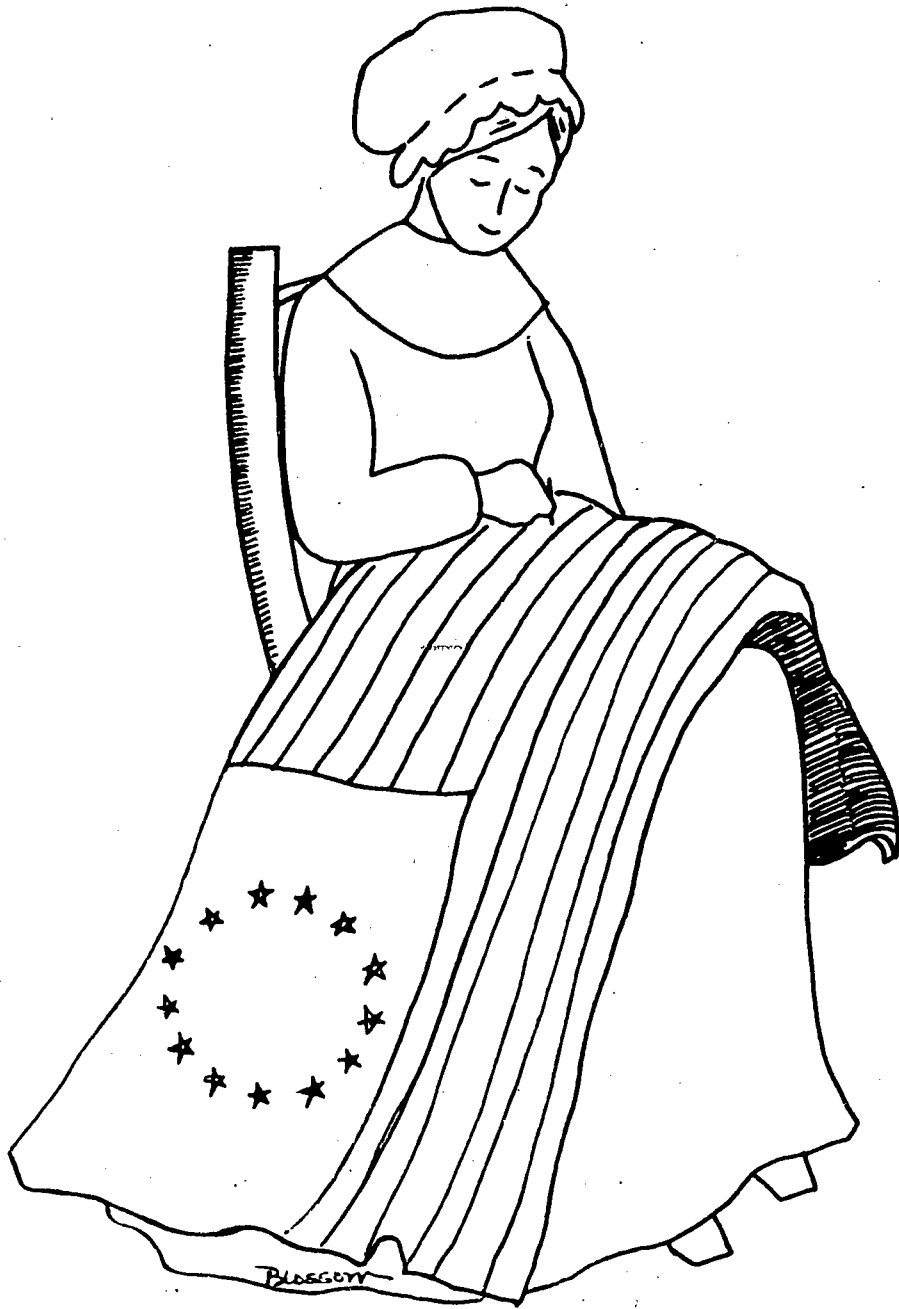
Basket kits from Delco Craft (containing base for baskets and reeds for weaving)

B. Procedures for this activity (with helpful hints)

(Note: holes for spokes need to be enlarged)

1. Soak reeds (overnight)
2. Put spokes into base.
3. Weave.





EVOLUTION OF THE AMERICAN FLAG

SCHOOL DISTRICT OF THE CITY OF ROYAL OAK

INTEGRATED TEACHING UNIT
PLANSHEETTITLE: GOVERNMENT: EVOLUTION OF THE AMERICAN FLAGGRADE LEVEL: 3-4GENERAL OVERVIEW: This unit should familiarize the student with the development of our country and our flag. It's meant to develop love and respect for our country and its flag.TEACHING/LEARNING RESOURCES:1. Reference Materials:

- Books: Social Sciences - Values and Concepts, Harcourt Brace & World
Level 3 - p. 255
Level 4 - pp. 264-266
National Geographics - check "Index to Periodical Literature"
- Films: History of Our Flag (Color, 9 min) I
Our Country's Flag (11 min b/w)
- Filmstrips: America the Beautiful
Capitol: Symbol of Our Nation
How Our Flag is Made (R)
Shrines and Monuments (R)
Statue of Liberty
Symbols of America
Visiting the Statue of Liberty
Your Flag
- Realia: This is My Country Records
Pledge of Allegiance
Flags of America

2. Field Trips:

Detroit Historical Museum
Fort Wayne Military Museum

3. Human Resources:

Teachers

4. Activities:

Drawing flags
Sewing flags
Role-playing, Betsy Ross play about flag
Make diorama of periods in our history and display the flags
Collect and make a book of early history as it pertains to different flags

UNIT TITLE: GOVERNMENT: EVOLUTION OF THE AMERICAN FLAG

CONCEPTS

BEHAVIORAL OBJECTIVES

Social Studies

Flags

Patriotism

As a result of this unit, each child will be able to:

Gather pictures, books and stories of changes in flags as our country has developed

Draw changes in the flag

METHOD OF IMPLEMENTATION	RESOURCE PEOPLE & MATERIALS
<p>Show the whole group movies and filmstrips Display pictures from local and Royal Oak Instructional Materials Center In small groups view filmstrips frames of particular flags Read sections in level 3 and 4 texts Write stories about various flags after research, e.g.</p> <ul style="list-style-type: none"> Leif Ericson - Viking flag Columbus - his flag England - Union Jack Early American Flags <ul style="list-style-type: none"> Endicott flag New England flag Washington's flag Continental flag Bunker Hill flag Bennington flag Betsy Ross flag Confederate flag Stars and Stripes <ul style="list-style-type: none"> 48 star 50 star Michigan flag Royal Oak/Huntington Woods flag <p>Perform Betsy Ross play Write creative plays or poems about some phases of flag development Make cloth flags Make dioramas Take field trips</p>	<p>Flag maker</p>

UNIT TITLE: GOVERNMENT: EVOLUTION OF THE AMERICAN FLAG (continued)

CONCEPTS

BEHAVIORAL OBJECTIVES

Communication Skills

Research history

Report writing

As a result of this unit, each child will be able to:

Analyze how different people and countries affected the country and the flag

Compare the likenesses and differences in appearance of the flags

Relate the uses and meanings of "Old Glory"

Music and Art

Patriotic songs

Learn the 3 verses of "The Star Spangled Banner"

Learn "America the Beautiful" words and melodies

Write the "Pledge of Allegiance" words from memory

Prepare two flags from paper and one from cloth

METHOD OF IMPLEMENTATION

RESOURCE PEOPLE & MATERIALS

Role playing

Read stories about flags in history

Make scrapbooks of flags and history

Make diorama of flags

Construct a flag

Seamstress

Member of V.F.W. or Disabled American Veterans

UNIT TITLE: GOVERNMENT: EVOLUTION OF THE AMERICAN FLAG (continued)

CONCEPTS

BEHAVIORAL OBJECTIVES

Career Awareness

Producing

Products

As a result of this unit, each child will be able to:

Make a book of stories and flags
Silk screen flags of our country

Construct dioramas appropriately representing geographical sections of our country

Identify jobs in flag production

Produce a flag

Identify 3 reasons for having a flag

METHOD OF IMPLEMENTATION

RESOURCE PEOPLE & MATERIALS

Produce a book

Printer

Produce a diorama

Art teacher

Produce a flag

Seamstress

Resource Guide - from Detroit Historical
Museum

HANDS ON ACTIVITY (STUDENT PERFORMED)**I. NAME OF ACTIVITY**

MAKING BOOKS ON EVOLUTION OF FLAG

II. ACTIVITY FORMAT:**A. Tools and Materials**

Paper	Paste
Cardboard	Needle
Thread	

B. Procedures for this activity (with helpful hints)

1. Make a book (Binding Method).
2. Write stories from research - from early discovery of America to present time.
3. Research and draw flags that go with these early stories (See list of people and flags listed on page 1).
4. Copy poems and songs about flag.
5. Write history of Pledge of Allegiance to the Flag.
6. Put all of above into the made book.

III. RESULTS OF THIS ACTIVITY (AFTER IMPLEMENTATION)

HANDS ON ACTIVITY (STUDENT PERFORMED)I. NAME OF ACTIVITY

MAKE A DIORAMA OF PHASE OF MICHIGAN'S GROWTH (Use dioramas on Detroit Historical Museum by a guide)

II. ACTIVITY FORMAT:

A. Tools and Materials

Box	Paper
Cloth	Small dolls

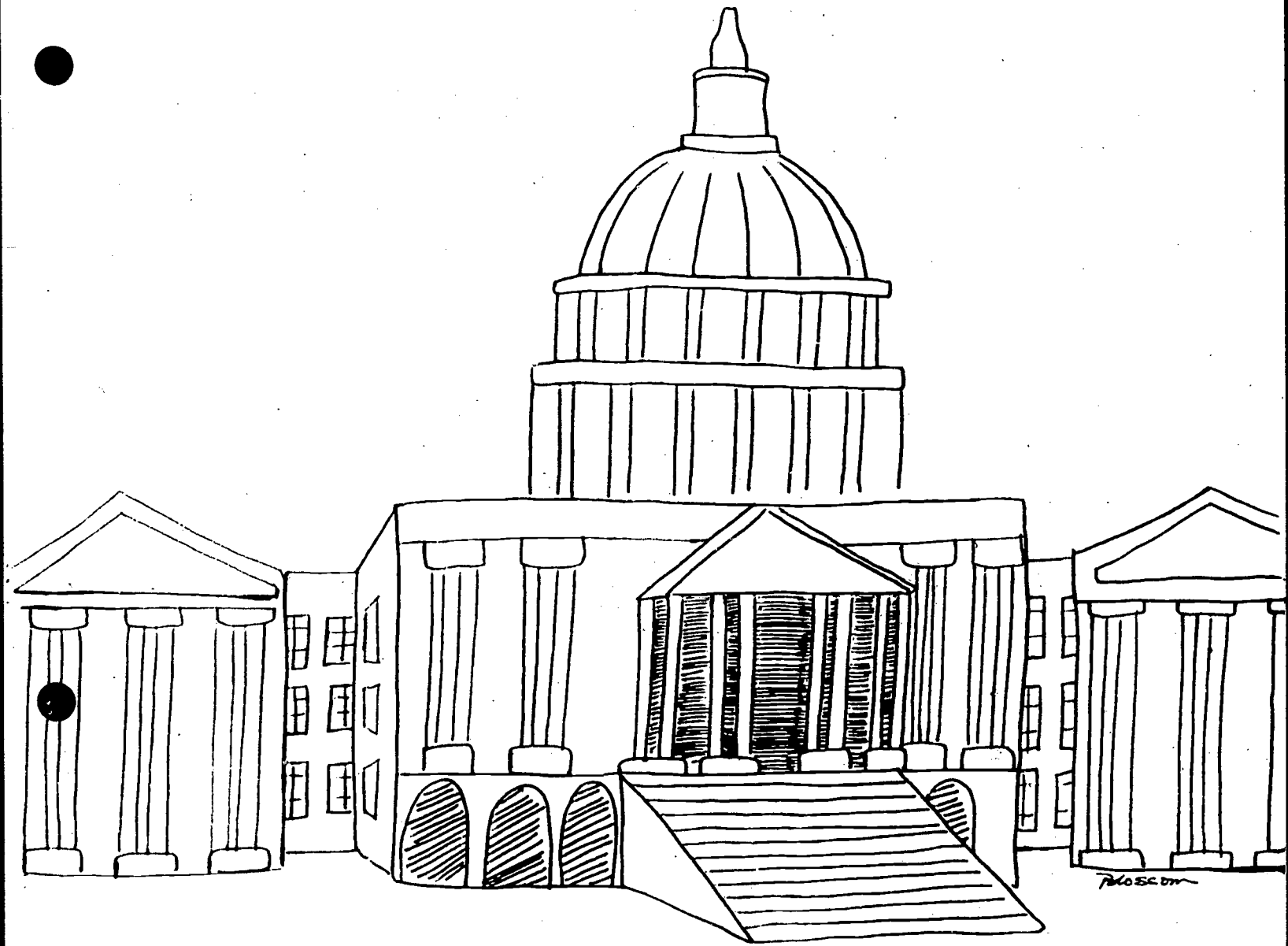
B. Human Aides and Resources

Research
Detroit Historical Museum
Fort Wayne Military Museum

C. Procedures for this activity (with helpful hints)

1. Identify one phase of historical growth such as Cadillac establishing Detroit.
2. Make clothing, boats, etc. of that period.
3. Paste some in box making diorama.
4. Display the flag of that particular period.

III. RESULTS OF THIS ACTIVITY (AFTER IMPLEMENTATION)



LEVELS OF GOVERNMENT

SCHOOL DISTRICT OF THE CITY OF ROYAL OAK

INTEGRATED TEACHING UNIT
PLANSHEET

TITLE: GOVERNMENT: LEVELS OF GOVERNMENT

GRADE LEVEL: 3-4

GENERAL OVERVIEW: The levels of government were explored. The relationship of government to the free enterprise system was stressed.

TEACHING/LEARNING RESOURCES:1. Reference Materials:

Books: The Social Sciences - Level 3 - Unit 7 (Harcourt Brace & World)
The Social Sciences - Level 4 - Units 5 and 6, pp. 184-291

Maps: School District, Huntington Woods, Royal Oak, Oakland County, Metropolitan area, State

2. Field Trips: (within and out of school)

Royal Oak Public Schools - 1026 N. Main Street
4000 Crooks Road
Huntington Woods City Hall - Treasurer
Royal Oak City Hall - Treasurer, Planning
Oakland County Court House - Treasurer
Huron Clinton Metropolitan Authority
Michigan Employment Security Office - Detroit

3. Human Resources:

Mothers to drive and supervise each small group.

4. Activities:

Make a large map of each level.

UNIT TITLE: GOVERNMENT: LEVELS OF GOVERNMENT

CONCEPTS

BEHAVIORAL OBJECTIVES

Communication Skills

Reading for information

Letter writing

Oral communication

Written reports

Creative writing

As a result of this unit, each child will be able to:

Construct an exhibit of one level of government for the school

Prepare a scale map of their political level of government

Construct a display appropriate to their areas of study

METHOD OF IMPLEMENTATION

RESOURCE PEOPLE & MATERIALS

Unit 4 of the fourth grade Social Science Book was used as a starting point for the unit.

Scale map of area chosen, with help of opaque projector.

Research to get background for questions.

Brainstormed for questions to ask resource people.

Sent business letter and questionnaire to resource person to be visited as preparation for their visit - giving background of the areas studied.

Mini field trip (with 4-5 in a group).

Compiling information from the field trip and research in preparation for exhibit to be shared within the school.

Thank-you letters.

Interchange among the various groups for comparison of services the different departments provided.

Exhibit for the school.

Student evaluation of the experiences.

Field trip:

Royal Oak Public Schools
1026 N. Main

Mr. Potthoff,
Personnel - other than
teachers

Mr. Goodall,
The budget
4000 Crooks Road
Mr. Welch,
Teaching personnel

Field trip:

Huntington Wood City Hall
LI 1-4300

Mrs. Barbara Smela,
Treasurer

Field Trip:

Royal Oak City Hall
LI 6-1000

Civil Defense,
Mrs. Rogers
Planning - treasurer,
Mr. Tubbs

Field Trip:

Oakland County Court House
Pontiac
1-645-1150

Treasurer
Mr. Shayne Murphy

UNIT TITLE: GOVERNMENT: LEVELS OF GOVERNMENT (continued)

CONCEPTS	BEHAVIORAL OBJECTIVES
<p><u>Mathematics</u></p> <p>Budget parts</p>	<p>As a result of this unit, each child will be able to:</p> <p>Identify three sources of tax revenue.</p> <p>Identify 4 uses of tax revenue</p> <p>List priorities in developing a budget</p>
<p><u>Career/Self-Awareness</u></p> <p>Man and his job role</p> <p>Managing government</p> <p>Servicing a community</p> <p>Personnel employed in public service</p> <p>Identification of personal values</p>	<p>Identify various levels of occupations in their chosen department</p> <p>Identify the qualifications for three jobs in the department - identify four types of training needed</p> <p>Identify whether the job produces a product or renders a service</p> <p>Identify different incomes of workers in the department</p> <p>Describe two characteristics that you would look for in a job if you were looking for a job.</p> <p>Identify the values reflected in those objectives (independence, good salary, financial security)</p>

METHOD OF IMPLEMENTATION	RESOURCE PEOPLE & MATERIALS
<p>Compiling information from the field trip and research in preparation for exhibit to be shared within the school</p> <p>Interviewing City Treasurer</p>	<p><u>Field trip:</u></p> <p>Huron Clinton Metropolitan Park Authority 600 Woodward, Detroit Mr. Downey 961-5865</p> <p style="text-align: center;">----</p>
<p>Role playing</p> <p>Field Trips</p> <p>Assembly line</p> <p>Evaluating</p>	<p><u>Field trip:</u></p> <p>Michigan Employment Security Office 7310 Woodward at Grand Blvd. Detroit 872-4900, ext. 430 <u>Tour leader</u> - Edison Vogel Room 515 also Mr. Don McGee Mr. Friedman</p> <p>Governor has an office for his use here.</p>

HANDS ON ACTIVITY (STUDENT PERFORMED)I. NAME OF ACTIVITY

VISIT TO HUNTINGTON WOODS CITY HALL

II. ACTIVITY FORMAT:

A. Human Resources:

Treasurer of City Hall
Parents

B. Procedures for this activity:

Interview (questions to seek answers for):

TAXES

Where do you get your money from? What kind of taxes are collected and who pays them?

How much from property taxes?

How much from sales tax?

How much from gasoline tax?

Who collects the taxes?

BUDGET

How much money is in your budget? Do you have it broken down by departments?

What are the departments?

How many people are on the police force? The fire force?

How many employees altogether do you have?

What is the average salary?

What kind of activities (services) do you have?

Huntington Woods City Hall (continued)

ZONING

Does Huntington Woods have zoning rules? How is it zoned?

Who runs the city? How is (are) he chosen?

HANDS ON ACTIVITY (STUDENT PERFORMED)I. NAME OF ACTIVITY

GROUP VISIT TO ROYAL OAK CITY HALL

II. ACTIVITY FORMAT:

A. Human Resources:

Civil Defense Tour Leader
Drivers

B. Procedures for this activity:

Interview (questions to seek answers for):

TAXES

Where do you get your money from?

How much money does it take to run Royal Oak?

How many people live in Royal Oak?

What different kinds of taxes does Royal Oak receive money from?

Who collects each kind?

BUDGET

How is the money spent?

How is the money budgeted?

How many departments do you have?

How many employees do you have? What is their average salary?

Do you help run the schools?

Group Visit to Royal Oak City Hall (continued)

JOBS

What kinds of training does Royal Oak need in the people they hire?

What are the requirements to work in Royal Oak?

ZONING

Do you have zoning? How is the city zoned? Who decided on zones?

Is there room for more houses and factories and stores in Royal Oak?

HANDS ON ACTIVITY (STUDENT PERFORMED)I. NAME OF ACTIVITY

VISIT TO OAKLAND COUNTY TREASURER'S OFFICE

II. ACTIVITY FORMAT:

A. Human Aides and Resources:

Oakland County Treasurer
Parents

B. Procedures for this activity:

Interview (questions to seek answers for):

TAXES

What kind of taxes does the county get? Who collects it?

Who pays them? Gasoline taxes - how much?
Property taxes - how much?

State money for Intermediate schools?

Other monies? How much?

How much money does it get each year to spend?

BUDGET

How much money does it spend?

How many and what departments does it have?

How many people work for the county?

In the sheriff's department?

In the welfare?

In the courts?

In the roads?

In the Health departments?

At the county offices?

At the school?

Other areas?

How many people live in the county?

Visit to Oakland County Treasurer's Office (continued)

ZONING

Is there any town planning or county planning for areas of high population and areas of recreation?

HANDS ON ACTIVITY (STUDENT PERFORMED)I. NAME OF ACTIVITY

HURON-CLINTON METROPOLITAN AUTHORITY - DETROIT HEADQUARTERS

II. ACTIVITY FORMAT:

A. Human Resources:

Director of Huron-Clinton Metropolitan Authority
Students
Parents

B. Procedures for this activity:

Interview (questions to seek answers for):

TAXES

Where does your tax money come from?

How much do you get for your taxes?

Do you have enough money? Did you request more?

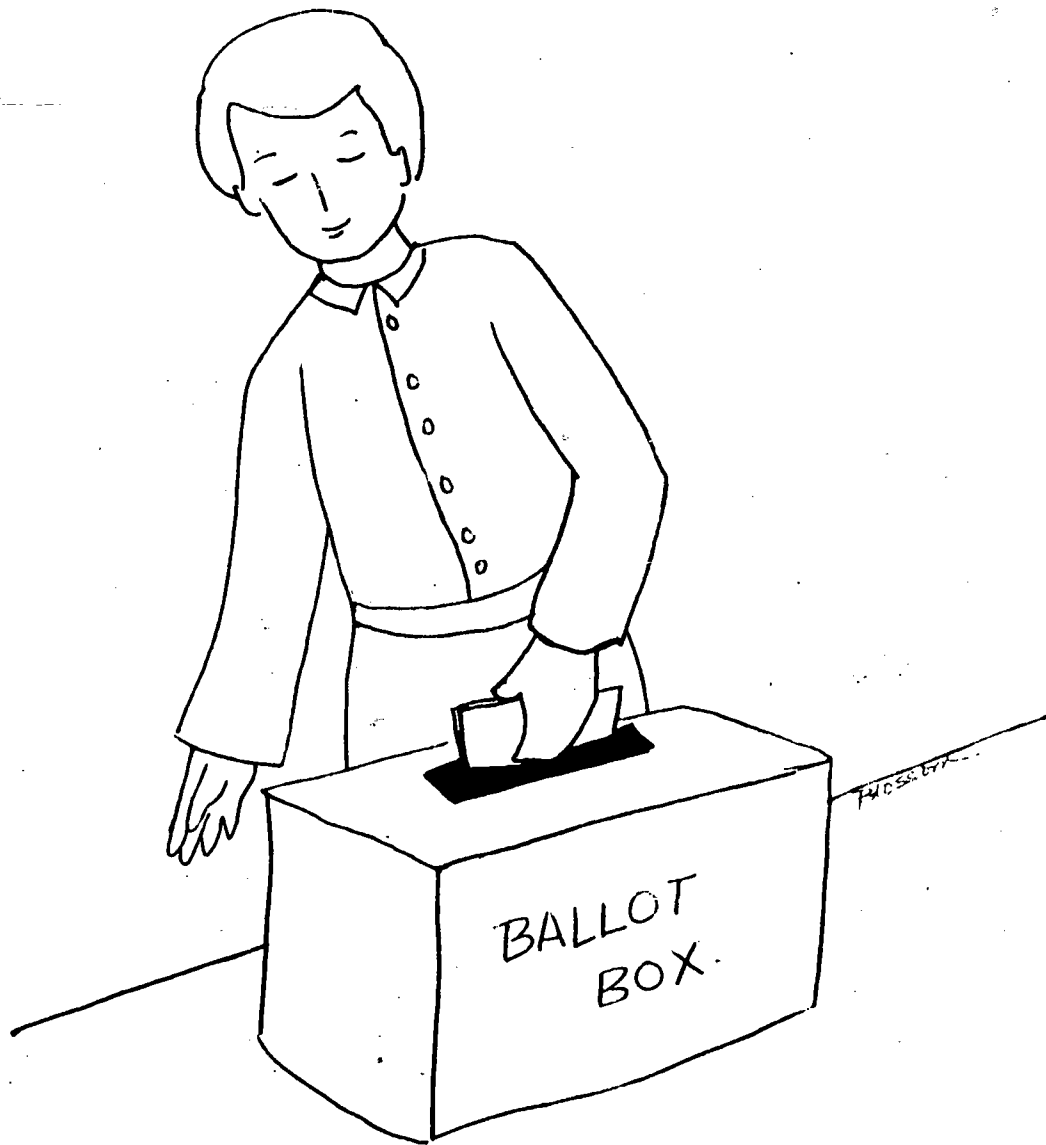
BUDGET

How do you use your money? How many parks are there in your authority?

Do you have different departments? How much money does each have to use? If there aren't departments, how is your money divided?

WORKERS

How many workers do you have? What kind of education do they have? If I want a job with you what kinds of things do I have to do or be able to do? How much money do your workers earn?



ELECTIONS

SCHOOL DISTRICT OF THE CITY OF ROYAL OAK

INTEGRATED TEACHING UNIT
PLANSHEET

TITLE: GOVERNMENT: ELECTIONS

GRADE LEVEL: 3-4

GENERAL OVERVIEW: The unit is developed as a means to acquaint students with the present form of our political system. This culminated with class elections and a play.

TEACHING/LEARNING RESOURCES:

1. Reference Materials:

Filmstrip:

The Election of a President 1972 from the Daily Tribune
The Social Sciences

2. Field Trips:

Visit to Republican and Democratic Headquarters

8 Students to Tribune

Visit precinct on day of election

Visit the news room of the Daily Tribune when a national candidate was in the area

Visit student Court Room at Starr School

Visit Municipal Court

3. Human Resources:

Headquarters' workers

Sister of Congressman

Precinct chair person

Judge, court employees

Mayor representative in Congress

Parents - in communication and allied industries

4. Activities:

Nomination petitioning

Elections

UNIT TITLE: GOVERNMENT: ELECTIONS

CONCEPTS

BEHAVIORAL OBJECTIVES

Social Studies

U.S. Political System in elections including:

Nomination of candidate

Majority rule

Plurality

Platform

Political parties

Government

- a) resolving conflicts peacefully
- b) social controls
- c) representative and direct democracy
- d) leadership and authority
- e) interest groups

As a result of this unit, each child will be able to:

Nominate classmates

Campaign for their candidate

Count ballots to reach a majority

Score 70% or more on a teacher-made test dealing with the presidency (60% of class will succeed in this)

Participate in the production of a play about the United States government

Identify information in a newspaper about a candidate running for political office or one serving in government and shall place this information in a scrap book

Analyze and resolve conflict peacefully by using social controls

Demonstrate representative and direct democracy through class election

METHOD OF IMPLEMENTATION

RESOURCE PEOPLE & MATERIALS

The viewing of 35 mm slides in the life of a U.S. Congressman including

His campaigning

His work at the Capitol

His encounters with the Executive branch

The National Democratic Convention

The process of American Government

Each student chose a person in government or a candidate in the newspapers and made a scrapbook of their work during September and October (5 weeks)

Use of texts at the 3rd, 4th and 5th level in Social Science
(See sample worksheet developed for the 3rd grade text)

The Election of a President 1972
from Daily Tribune (work sheet included)

Student supplied copies of the
Daily Tribune, Detroit News,
Detroit Free Press

UNIT TITLE: GOVERNMENT: ELECTIONS

CONCEPTS

BEHAVIORAL OBJECTIVES

Communication Skills

Creative writing

As a result of this unit, each child will be able to:

Write a skit about a career of their own interest giving the characteristics of the job

Role playing

Role play this skit to the class
Role play a career he has studied

Interviews

Interview the resource career people in class, on field trips, and others they come in contact with

Reporting

Write a report and present orally to the class the observations viewed from field trips

Letter writing

Write thank-you letters

Develop vocabulary

METHOD OF IMPLEMENTATION

RESOURCE PEOPLE & MATERIALS

Introduced unit by discussing concepts:
Why people work, etc. as related to government jobs

Students interviewed their parents and other people about their careers - asking questions from concepts

Democratic process was demonstrated by:

- a) electing 3 students by direct vote to select a game for gym
- b) the 3 students then chose the game the total class would participate in presenting an example of representative democracy
- c) class discussion followed to show advantages and disadvantages of both

Election of class leaders and class authority
president and vice-president

2 judges

sheriff

4 representatives

Duties of each office

- a) president - leader to guide and direct the class in setting up rules for class behavior
- b) vice-president - assists the president in his leadership
- c) judges
 - 1) appoint a clerk for court room procedures
 - 2) preside over court held every two weeks
 - 3) interpret the law and hand down decisions on cases brought before them
- d) sheriff - enforces the decision of the judges
- e) representatives - voice of the class to the president and vice-president (they are the electoral body). They appoint the poll clerks

Any member of the class can file a complaint to be heard in court. They could represent themselves or have an attorney represent them.

Implementation of Election:

- a) those student interested in running for elective office had petition signed by class members (10 names) ...
- b) validating petitions
- c) ballots, election polls, counting and validating the election's official results

Municipal judge

UNIT TITLE: GOVERNMENT: ELECTIONS

CONCEPTS

BEHAVIORAL OBJECTIVES

Math

Counting sequences
Inequalities
Sums
Estimation

As a result of this unit, each child will be able to:

Tabulating voting

Career/Self-Awareness

Managing a life style for people

Shall be able to describe democratic process

Reasons people work

Describe humanities, social and economic values of work

Functions of work

Shall be able to identify 4 service occupations of government

Locations of work

Shall be able to identify the federal, state and local levels of government

Tools

Shall be able to list 4 tools used in government work

Characteristics

Shall be able to list 2 likes and 2 dislikes of government work

Awareness of others

Evaluate the usefulness of observing people's activities as a source of information by comparing your conclusions about a person's feelings or interests, based on his activities, with his own perceptions of his feelings or interests

METHOD OF IMPLEMENTATION

RESOURCE PEOPLE & MATERIALS

Counting ballots for class elections

Graphing election results

Election workers

The viewing of filmstrips

Field trips

Hold elections

Role playing

Headquarters' workers

Congressman

Judge

Court employees

Mayor

THE ELECTION OF A PRESIDENT

NAME _____

This is a special year because we are _____ a president for four years. Each national political _____ selects a _____ for president and _____. The two main parties are the _____ and the _____.

The party begins in cities with workers and delegates at the _____ level. These ward or precinct workers meet to choose people to go to the national _____ conventions. To be a candidate for president you must be a citizen of the United States and be at least _____ years old.

Some states held elections last spring called presidential _____. At the nominating convention the party writes a paper about what it believes called the _____. Nominating and _____ speeches are given for each person running for the offices. Then small groups talk, in favor for their person; the group meetings are called caucuses. The person who receives a _____ of the votes is chosen as that party's presidential candidate.

Next the _____ who will be his _____ mate is picked. Now the _____ begins. These leaders work to win all their party members' help - that is they try to _____ their party behind this candidate.

The way a candidate makes people feel about him is called his _____ image. Each party tries to sell its nominee almost the same way TV tries to sell toys or cereal to you.

Next the parties work to get all possible voters _____. so they will be allowed to vote. In November, the place where people vote is called a _____. The voter votes by secret _____. This usually done on a machine. We usually have two polling places at Washington School

THE ELECTION OF A PRESIDENT (continued)

The majority winner in a state receives all of the state's votes to the electoral _____ . This group meets after election day and _____ the states' votes. This is reported to _____ .

The newly elected president takes the _____ of _____ on Inauguration Day in Washington D.C. This occurs in January. He will serve for _____ years. A person may not serve more than _____ terms as President.

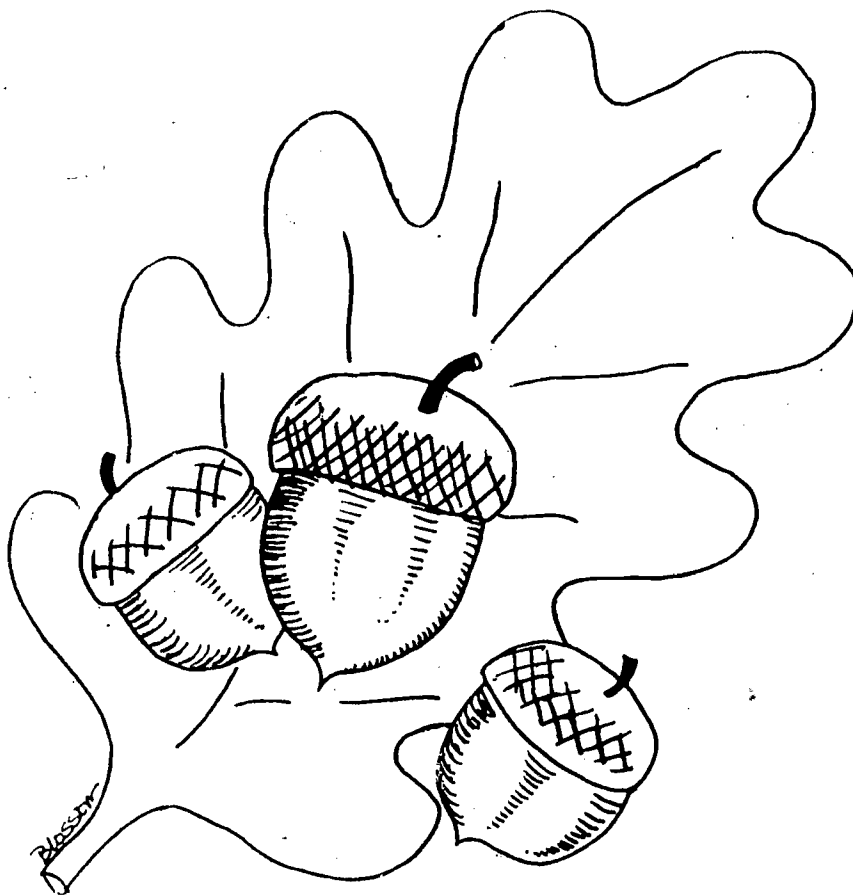
Word and Phrase List

campaigning	casts	4	vice-president
candidate	Congress	majority	Republican
Democrats	oath	2	primaries
ballot	poll	registered	35
college	unify	president	platform
leadership	office	nominating	seconding
running	vice-president		

Use each one once.

(Student's Name)

_____	_____	Frank Kelley
_____	_____	Mayor Gribbs
_____	_____	Ray Hayward
_____	_____	Kissinger
_____	_____	Ralph Nader
_____	_____	Judge Roth
_____	_____	Robert Griffin
_____	_____	Robert Huber
_____	_____	Gov. Wallace
_____	_____	Spiro Agnew
_____	_____	Gov. Romney
_____	_____	Judge Thorburn
_____	_____	Sen. Phillip Hart
_____	_____	George McGovern
_____	_____	O'Brien
_____	_____	Israel
_____	_____	Wm. Broomfield
_____	_____	Shirley Chisholm
_____	_____	Hazen
_____	_____	Mrs. Barbara Hallman and Royal Oak Beautification - Recycling Center Patterson
_____	_____	Kleindienst
_____	_____	Sen. Muskie
_____	_____	Gov. Millikin
_____	_____	U.S. Rep. candidate Cooper
_____	_____	Ted Kennedy
_____	_____	Ron Cunningham
_____	_____	H. H. Humphrey
_____	_____	V. P. candidate S. Shriver
_____	_____	Pres. Nixon



ROYAL OAK

SCHOOL DISTRICT OF THE CITY OF ROYAL OAK

INTEGRATED TEACHING UNIT
PLANSHEETTITLE: ROYAL OAKGRADE LEVEL: 3-4GENERAL OVERVIEW: Children will best understand the organization or structure of city government when they focus on their own locality. This unit is designed to appeal to Royal Oak children.TEACHING/LEARNING RESOURCES:1. Reference Materials:

Chamber of Commerce Book on Royal Oak
History of Royal Oak
History of Oakland County

2. Field Trips:

Field trip to City Hall and/or other buildings run by the City such as a fire station and the library, etc.
 Field trip to historical points of interest in Royal Oak

3. Human Resources:

Speaker on History of Royal Oak
 Police Officers
 City Attorney
 Superintendent of Royal Oak Schools
 Senior citizen - born in Royal Oak

4. Activities:

Role playing:

Acting as various members of city commission
 Acting out various roles of city court
 Acting out role of policeman

Hands-on activities:

Making city model
 Making jigsaw puzzle of Royal Oak map
 Make filmstrip of historical points of interest
 Make murals of important buildings, parks, schools, churches in Royal Oak

UNIT TITLE: ROYAL OAK

CONCEPTS

Social Studies

History and geography of area

BEHAVIORAL OBJECTIVES

As a result of this unit, each child will be able to:

Describe boundaries of Royal Oak

List four important events in the history of Royal Oak

List five physical changes in the composition of the city in the past fifty years

List five commercial businesses in Royal Oak

List four cultural organizations in Royal Oak

List important buildings in Royal Oak, e.g. Shrine, Zoo, Farmers' Market, Library

Communication Skills

Writing reports

Write letters

Make booklet

Taped reports

Write five important places of employment in Royal Oak

Write a letter requesting information and materials

METHOD OF IMPLEMENTATION

RESOURCE PEOPLE & MATERIALS

Make dioramas of Royal Oak in past

Have student do individual study and research on a large American city

Select city symbols: (a) bird (b) tree
(c) flower

Make a city model

Make puzzles from map of Royal Oak

Have a mock court

Set up a city commission

Senior citizen

Chamber of Commerce member

Mayor

School Board member

Write a letter to Recreation Department requesting a map on parks.

Make a booklet incorporating facts found out about Royal Oak

Take slide pictures on Field Trip to points of interest in Royal Oak. Have children tape description of trip

UNIT TITLE: ROYAL OAK (continued)

CONCEPTS

BEHAVIORAL OBJECTIVES

Math

Measuring

Drawing to scale

As a result of this unit, each child will be able to:

Measure a city block

Measure perimeter of a city park and compute the area

Make a time line of Royal Oak history

Career/Self-Awareness

Servicing

Managing

- a) planning
- b) organizing
- c) controlling

Job locations

- a) interior
- b) exterior

Identifying areas for development

List five services provided by city

List five important places of employment in Royal Oak

Give an example of a skill (physical, academic, or social) which you want or have wanted to develop

Describe what information made you decide to develop that skill (e.g., knowing you could do better, knowing others could do better, knowing others expected you to do better, etc.)

METHOD OF IMPLEMENTATION	RESOURCE PEOPLE & MATERIALS
<p>Make a time line of Royal Oak history Pictures of old Royal Oak 1818 first settler 1823 Hubbard settled in area Chase's Corner 1826 first store 1830 first post office 1850 first school 1891 Royal Oak became Village 1921 Royal Oak became a City Beaumont Hospital built in 1960's Our school built Graphs of population growth of Royal Oak 1940 - 25,000 1950 - 46,000 1960 - 80,000 1970 - 86,000</p>	<p>Senior citizen Historical Society</p>
<p>Visit City Hall personnel department Interviewing city workers</p>	

UNIT TITLE: ROYAL OAK (continued)

CONCEPTS

Art

Combining

Separating

Forming

BEHAVIORAL OBJECTIVES

As a result of this unit, each child will be able to:

Construct a unique City flag

METHOD OF IMPLEMENTATION

RESOURCE PEOPLE & MATERIALS

Draw an imaginary City flag - have a class contest to select best or most appropriate flag

Make a collage of flowers and plants found in Royal Oak

HANDS ON ACTIVITY (STUDENT PERFORMED)I. NAME OF ACTIVITY

JIGSAW PUZZLE OF ROYAL OAK

II. ACTIVITY FORMAT:

A. Tools and Materials

Piece of tempered masonite
Royal Oak MapMod-podge
Dremel Saw

B. Human Aides and Resources

It would be wise to have another adult to supervise the use of the dremel saw.

C. Procedures for this activity (with helpful hints)

Use Mod-podge and put map of Royal Oak on masonite, be sure that the surface is evenly glued and smoothed. Allow several days for drying. On the back of the masonite draw intersecting wavy lines - it is wisest to keep the lines fairly simple since it is difficult for the children to saw intricate lines.

NOTE: Maps of Royal Oak are available from the City Hall or School District, City of Royal Oak.

HANDS ON ACTIVITY (STUDENT PERFORMED)I. NAME OF ACTIVITY

GLOBES

II. ACTIVITY FORMAT:

A. Tools and Materials

Papier mache	Balloon	Two strings
Paint	Scissors	Glue
Maps	Brushes	

B. Human Aides and Resources

Art teacher

C. Procedures for this activity (with helpful hints)

Make a wad of paper
Cover with papier mache
Let dry
Paint blue
Cut out continents from maps and pin string for hanging
Glue continents on map
Hang with additional string

III. RESULTS OF THIS ACTIVITY (AFTER IMPLEMENTATION)

HANDS ON ACTIVITY (STUDENT PERFORMED)I. NAME OF ACTIVITY

SCHOOL MAPS

II. ACTIVITY FORMAT:

A. Tools and Materials

Measuring devices

Paper

Pencil

B. Procedures for this activity (with helpful hints)

Using an appropriate scale, have the students measure the school (room, entire school) and draw it to scale

III. RESULTS OF THIS ACTIVITY (AFTER IMPLEMENTATION)

HANDS ON ACTIVITY (STUDENT PERFORMED)I. NAME OF ACTIVITY

MAP PUZZLES

II. ACTIVITY FORMAT:

A. Tools and Materials

Dremel saw	1/4 inch plywood
Shellac	Elmer's glue
Maps - flat	Paint
	Paint brushes

B. Human Aides and Resources

Adults and parents

C. Procedures for this activity (with helpful hints)

Elmer's glue - glue maps on 1/4" plywood - tempered masonite preferred
Cut maps apart
Shellac maps
Team children in two's to cut out maps into puzzles
Paint back of puzzles - color code
Shellac again
Put puzzles together to check pieces and put in coded box

III. RESULTS OF THIS ACTIVITY (AFTER IMPLEMENTATION)

HANDS ON ACTIVITY (STUDENT PERFORMED)I. NAME OF ACTIVITY

MAP MAKING USING DIFFERENT MEDIA

II. ACTIVITY FORMAT:

A. Tools and Materials

Brushes	Clay	Glue
Scissors	Paint	Tissue
Oak tag	Seeds	

B. Procedures for this activity (with helpful hints)

Use oak tag for the map's backing
Design a map key
Outline the map
Fill in areas with many materials (clay, seeds, tissue paper, etc.)

III. RESULTS OF THIS ACTIVITY (AFTER IMPLEMENTATION)

HANDS ON ACTIVITY (STUDENT PERFORMED)I. NAME OF ACTIVITY

RELIEF MAP OF UNITED STATES

II. ACTIVITY FORMAT:

A. Tools and Materials

Opaque projector	Non-iodized table salt
Map of United States	Food coloring
Bristol board	Pencil
Cornstarch	

B. Resources

Relief map of United States

C. Procedures for this activity (with helpful hints)

1. Trace map of United States on large sheet of bristol board.
2. Make Magic Modeling Goop -

MAGIC MODELING GOOP

2 cups table salt
 2/3 cup water
 1 cup cornstarch (loose)
 1/2 cup water

Mix salt and 2/3 cup water in saucepan, stirring until mixture is well heated, three to four minutes. Remove from heat and add constarch which has been mixed with 1/2 cup cold water. Stir quickly. Mixture should be consistency of stiff dough. If mixture does not thicken, place over low heat and stir, about one minute, until it forms a smooth pliable mass. Leave the mix a natural white, or divide into portions and add regular food coloring until desired brilliance is achieved. Modeled objects may also be painted or decorated when dry to give surface color. Mix can be kept indefinitely if wrapped in clear plastic wrap or foil. Makes 3/4 pounds. No refrigeration is necessary.

3. Color, using food coloring, and place on map to illustrate the elevation areas of United States.

III. RESULTS OF THIS ACTIVITY (AFTER IMPLEMENTATION)

HANDS ON ACTIVITY (STUDENT PERFORMED)I. NAME OF ACTIVITY

Profile Map showing businesses on Eleven Mile Road within Longfellow School District using 3 inches for each block.

II. ACTIVITY FORMAT:

A. Tools and Materials

Large white paper	Yardstick
Pencil	Map of Royal Oak
Marking pencil	Black construction paper
Ruler	

B. Resources

Map of Royal Oak

C. Procedures for this activity

1. Draw a scaled map of Eleven Mile Road and intersecting streets.
2. Using black construction paper make pictures of businesses. Paste in appropriate place on map.
3. Discuss role of employees in these establishments.
4. It's good to supply a picture of the district to be mapped as part of a unit on photography.

III. RESULTS OF THIS ACTIVITY (AFTER IMPLEMENTATION)

HANDS ON ACTIVITY (STUDENT PERFORMED)I. NAME OF ACTIVITY

PRODUCT MAP OF MICHIGAN

II. ACTIVITY FORMAT:

A. Tools and Materials

Large white paper	Crayons
Opaque projector	Pencils
Map of Michigan	Scissors
Magazines for pictures	Marking pencil
Michigan reference book	

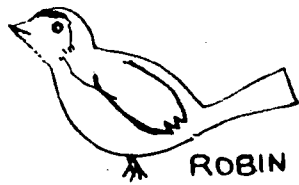
B. Resources

Exploring Michigan by Delphine Newcomb

C. Procedures for this activity

1. Using opaque projector, trace large map of Michigan on white paper.
2. Cut pictures of produce raised and products manufactured in Michigan and paste on map.

III. RESULTS OF THIS ACTIVITY (AFTER IMPLEMENTATION)



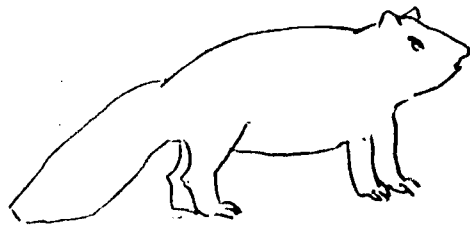
ROBIN



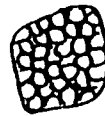
WHITE
PINE



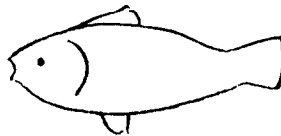
APPLE
BLOSSOM



WOLVERINE



PETOSKY
STONE



TROUT

Blossom

MICHIGAN

SCHOOL DISTRICT OF THE CITY OF ROYAL OAK

INTEGRATED TEACHING UNIT
PLANSHEET

TITLE: MICHIGAN

GRADE LEVEL: 3-4

GENERAL OVERVIEW: The purpose of this unit is: a) to calculate distances between cities; b) to learn the history of Michigan, the important people from Michigan, what Michigan offers the world in economics and industry.

TEACHING/LEARNING RESOURCES:

1. Reference Materials:

Films: History in Motion
When Michigan Was Young

Filmstrips:
Manufacturing Today in Michigan
Natural Resources of Michigan

2. Field Trips:

Greenfield Village
State Police Office

3. Human Resources:

State Highway Department
AAA Road Service
State Policeman

4. Activities:

Making Michigan Relief Map
Vehicle Models
Make Cherry Tarts

UNIT TITLE: MICHIGAN

CONCEPTS

BEHAVIORAL OBJECTIVES

Math

Calculate distances
Graph
Measurement

As a result of this unit, each child will be able to:

Calculate the distance between 5 major cities in Michigan

Science

Climate
Temperature
Geography

Plot a graph or map showing temperature, rainfall, geographical features of Michigan

Social Studies

History of Michigan
Economics and Industries
Government

List at least 5 unique features of Michigan
Describe at least 5 important cities in Michigan
List at least 4 important historical events in Michigan

List 5 important state offices

List 5 important products produced in Michigan

METHOD OF IMPLEMENTATION

RESOURCE PEOPLE & MATERIALS

Measuring for relief map

City planner

Plotting and graphing daily and monthly showing of rainfall
Discuss differences in climate and temperature in Upper Peninsula and Lower Peninsula

Weatherman

Make a book report on cereal factory
Write a book report on Charles Lindberg or any other important person in Michigan

Farmer

Congressman

Field trip to State Capitol

Research Michigan government

Make a map showing where important products are grown or produced

UNIT TITLE: MICHIGAN (continued)

CONCEPTS	BEHAVIORAL OBJECTIVES
<p><u>Art</u></p> <p>Coloring Mural Drawing</p>	<p>As a result of this unit, each child will be able to:</p> <p>Make mural on Michigan</p>
<p><u>Communication Skills</u></p> <p>Writing Reading Reporting</p>	<p>Gather data on tourist attractions in Michigan</p>
<p><u>Career/Self-Awareness</u></p> <p>Services provides distributing Managing controlling Producing raw materials processing</p> <p>Facilitating personalized planning and decision making</p>	<p>Recall at least 5 services provided by State Identify at least 10 major occupations in Michigan Identify 5 raw materials and how they are used to produce products in Michigan</p> <p>Explain why knowledge of one's self is necessary for one to effectively manage his life (e.g., he must know what his strengths and needs are in order to capitalize on the former and meet the latter)</p>

METHOD OF IMPLEMENTATION	RESOURCE PEOPLE & MATERIALS
<p>Make travel posters promoting trips to Michigan Make collage on Michigan products</p>	<p>Travel agent</p>
<p>Write reports Write stories and poems about Michigan Write letters to State Department of Commerce Make booklet called "Our Michigan"</p>	<p>Newspaper reporter</p>
<p>Role play major occupations in Michigan Play "What's My Line" as on TV show (use occupations of Michigan people)</p> <p>Visit State Police Department</p>	<p>State Policeman</p>

HANDS ON ACTIVITY (STUDENT PERFORMED)I. NAME OF ACTIVITY

VEHICLE MODELS (Putting Together)

II. ACTIVITY FORMAT:

A. Tools and Materials

Several various models
EX. plane, car, truck, boat, etc.
Model glue
Newspaper

B. Human Aides and Resources

College boys or fathers to help read directions

C. Procedures for this activity (with helpful hints)

1. Group children to work on models - keep each group small so each child gets chance to participate.
2. You should have lots of help or have pre-read all instructions so you can help when necessary.
3. Make sure desk or table tops are covered so glue doesn't ruin them.
4. Have plenty of glue.
5. Turn the kids loose to put models together.

III. RESULTS OF THIS ACTIVITY (AFTER IMPLEMENTATION)

HANDS ON ACTIVITY (STUDENT PERFORMED)

I. NAME OF ACTIVITY

MAKING MICHIGAN RELIEF MAP

II. ACTIVITY FORMAT:

A. Tools and Materials

Sawdust
Wheat paste
Board for base
Paint

B. Procedures for this activity (with helpful hints)

1. Mix 1/2 sawdust and 1/2 wheat paste.
2. Shape sawdust into Michigan map and form elevation, lakes and rivers.
3. Paint.

III. RESULTS OF THIS ACTIVITY (AFTER IMPLEMENTATION)

HANDS ON ACTIVITY (STUDENT PERFORMED)I. NAME OF ACTIVITY

MAKING CHERRY TARTS (for 60 children)

II. ACTIVITY FORMAT:

A. Tools and Materials

2 cans cherry pie filling (1 can makes 20 tarts)
1 can apple pie filling
6 cans biscuits (10 to a can)
Flour

B. Procedures for this activity

1. Roll out each biscuit on floured plastic.
2. Put in 4 cherries or 4 apple slices.
3. Fold over and pinch together.
4. Have each child place his tart in tiny aluminum pan with name on bottom.
5. Bake in 425 degree oven for ten minutes.

III. RESULTS OF THIS ACTIVITY (AFTER IMPLEMENTATION)



THANKSGIVING

SCHOOL DISTRICT OF THE CITY OF ROYAL OAK

INTEGRATED TEACHING UNIT
PLANSHEETTITLE: HOLIDAYS - THANKSGIVINGGRADE LEVEL: 3-4GENERAL OVERVIEW: A study of colonial times, particularly concerning the preparation of food and the Pilgrim-Indian relationship. Development of an appreciation of work, then and now.TEACHING/LEARNING RESOURCES:1. Reference Materials

Books: Story of the Navajos
The Pilgrims Knew
The Thanksgiving Story
Pelli's New Suit

Films: Colonial Children

Filmstrips:
Cooking in Colonial Days
(on Indians) from Lincoln M.C.

Realia: Toaster
Butter Churn
Candle Molds
Flat Iron
Record - Indian Dances

2. Field Trips:

Farmer's Market to buy pumpkins for pie

3. Human Resources:

Parents

4. Activities: Role playing experiences:

Indians Dancing
Thanksgiving Dinner

First Thanksgiving Pageant

- | | |
|---|----------------------|
| 1. Making costumes (Indians, Pilgrims) | 6. Candle dipping |
| 2. Making butter | 7. Making corn bread |
| 3. Making pumpkin pies | 8. Making applesauce |
| 4. Thanksgiving dinner and Indian dance | 9. Murals |
| 5. Make looms | 10. Weaving |

UNIT TITLE: HOLIDAYS - THANKSGIVING

CONCEPTS	BEHAVIORAL OBJECTIVES
<p><u>Communication Skills</u></p> <p>Dictation</p> <p>Reading</p> <p>Oral Communication and listening</p>	<p>As a result of this unit, each child will be able to:</p> <p>Dictate ideas for a group or individual story</p> <p>Read back charts, stories that have been dictated in whole or part, in a group or individually</p> <p>Listen to others' ideas in planning while working together during dinner, etc.</p> <p>Contribute to a sequence picture story</p>
<p><u>Mathematics</u></p> <p>Dry and liquid measurements</p> <p>Counting</p>	<p>Use measurement of liquid and dry materials in recipe</p> <p>Plan shopping lists - including costs - for festival</p>
<p><u>Social Studies</u></p> <p>Colonial life</p> <p>Indian life</p> <p>Working together</p>	<p>Draw or tell about some aspects of Indian and colonial life</p> <p>Work with a group planning and carrying out an activity</p>

METHOD OF IMPLEMENTATION	RESOURCE PEOPLE & MATERIALS
<p>Produce a group story and charts</p> <p>Brainstorm</p> <p>Making applesauce</p> <p>Making candles</p> <p>Paper weaving - place mats</p> <p>Making a mural of the story</p> <p>Making a mural of roles of Indians</p> <p>Making a mural of roles of Pilgrims</p> <p>Making a mural of tools used then - now</p> <p>Role playing about Indian customs</p> <p>Role playing about Pilgrims</p>	<p>Parents with hobbies</p> <p>Teacher</p>

UNIT TITLE: HOLIDAYS - THANKSGIVING (continued)

CONCEPTS	BEHAVIORAL OBJECTIVES
<p><u>Science</u></p> <p>Changing forms of matter Machines Historical tools</p>	<p>As a result of this unit, each child will be able to:</p> <p>Report how matter is changing to another form while cooking Compare historical tools to those used today</p>
<p><u>Art</u></p> <p>Weaving Composition Costumes</p>	<p>Cut and paste Use patterns to make a costume Dip candles Weave with paper strips</p>
<p><u>Career/Self-Awareness</u></p> <p>People and their job roles</p> <p>Production and consumption</p> <p>Management and planning</p> <p>Recognizing emotions and attitudes in self</p>	<p>Work together on a project Tell jobs important to the Pilgrims Describe what the Pilgrims and Indians learned from one another Plan a Thanksgiving meal</p> <p>Compare and contrast how you feel in a specific situation and how another person thinks you feel, based on his observation of you</p>

METHOD OF IMPLEMENTATION

RESOURCE PEOPLE & MATERIALS

Holidays - Thanksgiving

Making Indian costumes

Making Pilgrim costumes

Learning and performing Indian dances

Planning the dinner - find recipes

Preparing Thanksgiving dinner

Making butter

Making pumpkin pies

Making corn bread

Greenfield Village Staff

Historical Museum

Children's Museum (Detroit)

Royal Oak Historical Society

Costume shop

NOVEMBER _____, 19 _____

DEAR PARENTS,

THE _____ GRADES ARE PLANNING A MINI-THANKSGIVING DINNER FOR
 _____ . THE CHILDREN WILL BE GOING HOME
 FOR LUNCH AS USUAL. IF POSSIBLE, HAVE THEM WEAR DARK CLOTHING TO COMPLETE
 OUR HANDMADE INDIAN AND PILGRIM COSTUMES.

OUR MENU WILL CONSIST OF TURKEY, (the modern rolled variety!) APPLESAUCE,
 CORN BREAD, BUTTER, PUMPKIN PIE (ALL CLASSROOM PRODUCED), CORN AND CIDER.

IF YOU WISH YOUR CHILD TO PARTAKE OF OUR "FEAST," PLEASE SIGN AND RETURN
 THE PORTION BELOW. NO COST IS INVOLVED AS WE ARE BEING FUNDED BY PROJECT
 L.E.T. (LEARNING EXPERIENCES IN TECHNOLOGY).

THANK YOU FOR YOUR COOPERATION.

 HAS PERMISSION TO TAKE PART IN THE DINNER.

 PARENT'S NAME

HANDS ON ACTIVITY (STUDENT PERFORMED)I. NAME OF ACTIVITY

MAKING COSTUMES

II. ACTIVITY FORMAT:

A. Tools and materials

Construction paper	Macaroni
Patterns	Yarn
Scissors	Beads
Paste	

B. Procedures for this activity (with helpful hints)

Children used teacher made patterns to construct pilgrim costumes one afternoon and Indian costumes another day. Before the dinner they signed up to wear one or the other so we had some of each at the dinner. Pilgrim costumes consisted simply of hats, collars, and cuffs. Indians wore head dresses and hand painted macaroni and bead necklaces. Macaroni breaks easily but is so much fun it's worth it!

III. RESULTS OF THIS ACTIVITY (AFTER IMPLEMENTATION)

HANDS ON ACTIVITY (STUDENT PERFORMED)I. NAME OF ACTIVITY

MAKING BUTTER

II. ACTIVITY FORMAT:

A. Tools and Materials

2 pints whipping cream	Yellow food coloring
Baby food jars	Salt
Large bowl	Spoon

B. Human Aides and Resources

Parents

C. Procedures for this activity (with helpful hints)

1. Fill jars 1/3 full with cream.
2. Shake 15-20 minutes -
Until butter separates.
3. Collect all butter in a large bowl.
Pour off remaining milk. Rinse
several times with water. Pour off water.
4. Add salt to taste.
5. Add food coloring.

III. RESULTS OF THIS ACTIVITY (AFTER IMPLEMENTATION)

HANDS ON ACTIVITY (STUDENT PERFORMED)I. NAME OF ACTIVITY

PUMPKIN PIE

II. ACTIVITY FORMAT:

A. Tools and Materials (See attached recipe)

B. Human Resources

Parents

C. Procedures for this activity

Divide the 20 children in three groups.
One group making crust for four pies and
the other two groups each making filling
for two pies.

III. RESULTS OF THIS ACTIVITY (AFTER IMPLEMENTATION)

SPRY'S "NO-PATCH" PASTRY

(Double Crust)

2 1/4 cups sifted flour
1 teaspoon salt

3/4 cup plus 2 tablespoons Spry
1/3 cup cold water

Mix flour and salt in a bowl. Cut in 2/3 of Spry until fine as meal. Cut in remaining Spry to size of large peas. Sprinkle water, 1 tablespoon at a time, over mixture. Toss lightly with a fork. Lightly form dough into a smooth ball. Divide in half; form into 2 balls. Place dough on lightly floured board. Flatten slightly. Roll out from center to form circle 1/8 inch thick. Ease dough into pie pan; trim even with outer edge of pan. Roll out remaining dough; cut slits to allow steam to escape. Lay over filled pie shell. Trim; fold under bottom crust. Seal by fluting edge.

Recipe for Pumpkin Pie Filling

(2 10" pies enough for 1 class - we doubled this to serve 2 classes)

1 can pumpkin (large)
6 eggs, slightly beaten
2 cups light brown sugar
1 teaspoon salt

2 teaspoon cinnamon
1/2 teaspoon cloves
1/2 teaspoon nutmeg
1/2 teaspoon ginger
2 cups evaporated milk

Combine eggs, sugar, salt, and spices and beat well. Blend in pumpkin. Add milk and beat well. Turn into two pastry-lined pie pans. Bake at 450 degrees for 10 minutes, then at 350 degrees for 40 - 45 minutes. Pies are done when knife, inserted in center, comes out clean.

HANDS ON ACTIVITY (STUDENT PERFORMED)I. NAME OF ACTIVITY

THANKSGIVING DINNER AND INDIAN DANCE - For 40 children - 2 classes

II. ACTIVITY FORMAT:

A. Tools and Materials

Paper plates	Cups
Napkins	Placemats woven
Plastic forks and	from paper by
Spoons	children

Menu

2 turkey rolls	cider
corn (frozen)	pumpkin pie
applesauce	
corn muffins and butter	

B. Human Resources

Five (5) mothers

C. Procedures for this activity

The two classes of children had signed up for set up or clean up and helped the mothers in crews of five while the teachers remained in our room with the other children putting on costumes, etc. The dinner took place in the gym. We did an Indian dance we had learned and said a short blessing before taking our places at the table. Children from the two classes sat across from one another for conversation concerning their respective recipes, compliments regarding such, etc.

III. RESULTS OF THIS ACTIVITY (AFTER IMPLEMENTATION)

HANDS ON ACTIVITY (STUDENT PERFORMED)I. NAME OF ACTIVITY

CANDLE DIPPING

II. ACTIVITY FORMAT:

A. Tools and Materials

2 candle dipping vats
1 1/2 blocks of paraffin
Crayon bits (2 colors) for tinting
Wick

B. Human Resources

One mother

C. Procedures for this activity

Discuss the procedure beforehand.

1. Chop up the wax
2. Melt the wax in the two vats
3. Spread newspapers on and around two large tables
4. Dip the candles
5. Hang the candles to dry

One vat was placed on each of the two tables. Ten children surrounded each table, were given wicks, reviewed the procedure, designated the dipping point, and proceeded walking around table drying - dipping. An adult stationed at each table. Time of actual dipping approximately 1/2 hour.

III. RESULTS OF THIS ACTIVITY (AFTER IMPLEMENTATION)



CHRISTMAS

SCHOOL DISTRICT OF THE CITY OF ROYAL OAK

INTEGRATED TEACHING UNIT
PLANSHEETTITLE: HOLIDAYS AND CUSTOMS - CHRISTMASGRADE LEVEL: 3-4GENERAL OVERVIEW: The children, all new to L.E.T., and most of them uninitiated in the use and care of basic tools, need to have practical experience in using tools that would give them a finished product that they would be proud to take home at their first attempt.

This unit evolved from social studies, science, language arts, music and art. Students were enthusiastic about the holiday season activities. This was integrated with a study of the occupations involved.

TEACHING/LEARNING RESOURCES:1. Reference Materials:

Books: McCall's Book of Paper, Wood, Paint Crafts

Films: Film and Booklets - A.B.C.'s of Tools
General Motors Corporation

2. Field Trips:

Lumber yard
Fabric shop
Department store
S.E.O.V.E.C.

Greenfield Village
International Institute
Detroit Historical Museum

3. Human Resources:

Parents
Student helpers
College students

4. Activities:

Holiday cookie making
Holiday dinner
Construction of keyboards
Make a tie
Make an apron
Do creative stitchery
Make a picture frame
Design a picture
Wooden Christmas tree ornaments
Plaster of Paris pins
Holiday pencils
Yarn dolls
Felt Christmas tree ornaments
Egg carton wastebaskets
Styrofoam tree ornaments
Role play - workers producing a product on a
custom basis and compare this to quantity
production of the same product
Potato Print Christmas cards
Child silhouettes
Make butter (see Colonial unit)

UNIT TITLE: HOLIDAY AND CUSTOMS - CHRISTMAS

CONCEPTS	BEHAVIORAL OBJECTIVES
<p><u>Communication Skills</u></p> <p>Composition</p> <p>Proofreading</p> <p>Letter writing</p> <p>Poetry - Haiku</p> <p>Interviewing</p> <p>Role playing</p>	<p>As a result of this unit, each child will be able to:</p> <p>Apply the rules of letter writing Describe projects completed</p> <p>Prepare written invitations</p> <p>Send thank-you notes</p> <p>Write a Christmas greeting in Haiku poetry form</p> <p>Write 2 questions for an interview</p> <p>Take part in a role play activity</p>
<p><u>Science</u></p> <p>Simple machine</p> <p>Knowledge of basic food groups</p> <p>Planning a well-balanced meal</p>	<p>Demonstrate ability to use tools as evidenced by completed woodworking project</p> <p>List the basic food groups</p> <p>Plan a balanced meal</p> <p>Prepare a meal</p>

METHOD OF IMPLEMENTATION	RESOURCE PEOPLE & MATERIALS
<p>Make books for father's gifts Illustrated stories Wallpaper covers</p> <p>Christmas card</p> <p>Potato print Christmas cards</p> <p>3-D Christmas cards</p> <p>Christmas poems</p> <p>Shape books - Christmas shapes as story starters</p> <p>Put on a Christmas play</p>	<p>Art teacher</p>
<p>Group discussion of safety precautions</p> <p>Using tools Have room safety foreman, tool foreman, etc.</p> <p>Holiday dinner</p> <p>Keep record of one week's meals - plan balanced meals for family for one week</p>	<p>S.E.O.V.E.C. - Shop - Food Service - Greenhouses (Christmas flowers)</p> <p>Father - talk about tool safety</p> <p>Parents - help prepare meal</p>

UNIT TITLE: HOLIDAYS AND CUSTOMS - CHRISTMAS (continued)

CONCEPTS	BEHAVIORAL OBJECTIVES
<p><u>Mathematics</u></p> <p>Measuring</p> <p>Research costs of supplies</p> <p>Purchase materials</p>	<p>As a result of this unit, each child will be able to:</p> <p>Measure raw materials to be used in production</p> <p>Compute cost of materials needed for production</p>
<p><u>Art</u></p> <p>Arts and crafts</p> <p>Holiday gifts</p> <p>Christmas decorations</p>	<p>Construct crafts of different materials</p>
<p><u>Social Studies</u></p> <p>Customs of the holiday season</p> <p>History of tools, archaeology, man's adaptation to his environment</p> <p>Raw materials - where did the material come from?</p> <p>Economics - cost of items</p> <p>Human Relations - working with people</p>	<p>Read and report about customs and traditions associated with Christmas and Hanukkah</p> <p>Illustrate a simple chart of early man's tools <u>or</u> describe them in several brief paragraphs</p>

METHOD OF IMPLEMENTATION	RESOURCE PEOPLE & MATERIALS
<p>Measure materials used</p> <p>Compute needs and distribution of foods for meal</p> <p>Make menus for a restaurant (holiday menu)</p> <p>Research newspaper and magazine ads for food prices</p> <p>Collages of food prices</p>	<p>Students from SEOVEC store</p> <p>Department Store salesperson</p>
<p>Make clay candle holders - designs of different countries</p> <p>Production of Holiday crafts</p> <p>Santa faces - styrofoam</p> <p>Wall hangings - Christmas scenes, objects</p> <p>Design ornaments - cut out of plywood, paint</p>	<p>College students</p> <p>Parent</p> <p>Art teacher</p>
<p>Country reports - including customs</p> <p>Discussion and research</p> <p>TV program - presenting customs of countries</p> <p>Film strips - movies</p> <p>Murals of other lands</p> <p>Puppet shows</p>	<p>Parent - slides of other countries</p> <p>International Institute speaker</p>

UNIT TITLE: HOLIDAYS AND CUSTOMS - CHRISTMAS (continued)

CONCEPTS

BEHAVIORAL OBJECTIVES

Music
Holiday songs

As a result of this unit, each child will be able to:

Sing many of the holiday songs and Christmas carols

Career/Self-Awareness

Managing

Producing

Christmas jobs

Building self-confidence

Produce a product and manage the production system

Identify 10 jobs related to Christmas season

Describe how you feel when you are able to improve your performance of a particular skill

METHOD OF IMPLEMENTATION	RESOURCE PEOPLE & MATERIALS
<p>Christmas carols</p> <p>Musical Play - Wake Up Santa</p>	<p>Music teacher</p> <p>Film strip - How we Got Our Christmas Carcls</p>
<p>Managing/planning - logical steps from raw material to complete project</p> <p>Producing - pride in hand crafted product vs. mass produced product</p> <p>Make collage - magazine pictures - jobs related to Christmas</p>	<p>Parents</p> <p>College student helpers</p>

HANDS ON ACTIVITY (STUDENT PERFORMED)I. NAME OF ACTIVITY

CHRISTMAS DECORATION USING TAG PAPER, FOIL AND STYROFOAM

II. ACTIVITY FORMAT:

A. Tools and Materials

Needle
Scissors
Styrofoam cutter
Tag paper
Green foil
Styrofoam
Thread

B. Procedures for this activity (with helpful hints)

1. Fold foil to cover tag paper
2. Make covered paper into circle
3. Staple paper into circle
4. Make one pattern of tree, angel, star, candy cane, etc.
5. Cut figure from styrofoam
6. Thread needle
7. Put thread through styrofoam figure and then through foil ring
8. Leave loop of thread to use as tie on tree
9. The styrofoam figure should hang free inside the ring

III. RESULTS OF THIS ACTIVITY (AFTER IMPLEMENTATION)

HANDS ON ACTIVITY (STUDENT PERFORMED)I. NAME OF ACTIVITY

CONSTRUCTION OF KEYBOARDS (OR MITTEN TREES) (see attached)

II. ACTIVITY FORMAT:

A. Tools and Materials:

Wood stain	Miter box and saw
Clip clothespins	Brace and bit
Cup hooks	Hammers
White glue	Nails
Wood putty	9 paint brushes
Turpentine	Cardboard box for "spray paint booth"
Soft rags	Find and medium sandpaper
Dowel rod	Colored enamel
Black spray paint	
Sheet of 4' x 8' plywood	

B. Human Aides and Resources:

College students

C. Procedures for this activity:

Have plywood pre-cut to 8" x 10" size.
Use a miter box to cut pegs to correct length.
Apply stain with wide brush and wipe off with soft cloth.
Have plenty of turpentine!

III. RESULTS OF THIS ACTIVITY (AFTER IMPLEMENTATION)

2 brushesPEG KEY BOARDSBoards

Place block underneath
 Drill hole completely
 through board in five
 places

Glue pegs into holes with white glue.
 Fill area around hole with wood putty.
 Wipe all sawdust from board.
 Stain board with wood stain.

Pegs

(Use five pieces)
 Measure 2" for each peg.
 Cut carefully where you have
 marked.
 Dip pegs in stain (end you are
 holding onto will be glued in
 hole so does not have to be
 stained)

6 brushesPIANO KEY BOARDSBoards

Wipe sawdust from board.
 Discuss proper painting technique
 with enamel.
 Spread out newspaper.
 Paint board white.
 Clean brushes!

Clothespin Keys

Tie seven pins to strings.
 Hang inside carton
 Discuss techniques for spray
 painting.
 Spray pins black

Assembling

Mark location for keys (measured real keyboard)
 Take clothespins apart
 Drill hole in one-half of pin
 Nail through hole into board
 Re-assemble clothespin

1 brush

CUPHOOK KEY BOARDS

7 cup hooks

Other materials same as Piano Key Board

Wipe sawdust from board.

Discuss painting technique with enamel.

Spread out newspaper.

Paint board a light color.

Paint design with small brushes and colored enamel.

Screw in cuphooks.

HANDS ON ACTIVITY (STUDENT PERFORMED)I. NAME OF ACTIVITY

TIE MAKING

II. ACTIVITY FORMAT:

A. Tools and Materials:

Tie making kit with all materials in it
Sewing machines
Irons
Ironing boards

B. Human Resources

Parents

C. Procedures for this activity

Follow the instructions that are included in the tie kit.
These kits are available at most fabric stores.

Iron the finished product. Fold and wrap.

III. RESULTS OF THIS ACTIVITY (AFTER IMPLEMENTATION)

HANDS ON ACTIVITY (STUDENT PERFORMED)I. NAME OF ACTIVITY

MAKING AN APRON

II. ACTIVITY FORMAT:

A. Tools and Materials

1 yard of cloth	Sewing machine
Needles	Thread
Iron	Ironing board

B. Human Resources

Parents

C. Procedures for this activity

1. Cut large pattern out of newspaper.
2. Have children pin pattern on cloth and cut it out
3. Use machine to turn under hem and to add tie at the top
4. Add pockets if desired
5. Iron the apron
6. Fold and wrap

III. RESULTS OF THIS ACTIVITY (AFTER IMPLEMENTATION)

HANDS ON ACTIVITY (STUDENT PERFORMED)I. NAME OF ACTIVITY

CREATIVE STITCHERY

II. ACTIVITY FORMAT:

A. Tools and Materials

Burlap
Yarn
Needles

B. Human Resources

Parents

C. Procedures for this activity

1. With help of art teacher, children designed a picture on paper.
2. They cut out their picture and traced it with pencil on burlap.
3. Embroider with various stitches around picture. Use different colored yarns.
*Mothers taught special stitches to the children: French knot, running stitch, chain stitch, etc.
4. Hem edges on machine.
5. Cut dowels of wood and insert at top to hang up.
6. Add braided yarn tie at top.

III. RESULTS OF THIS ACTIVITY (AFTER IMPLEMENTATION)

HANDS ON ACTIVITY (STUDENT PERFORMED)I. NAME OF ACTIVITY

PICTURE FRAMES AND PICTURES

II. ACTIVITY FORMAT:

A. Tools and Materials

Wood	Scissors	Saws
Glue	Furniture stain	Rulers
Miter box	Poster board	

B. Human Resources

Parents
College students

C. Procedures for this activity

1. Measure amount of wood for a frame (perimeter)
2. Cut wood into desired lengths
3. Miter the corners
4. Cut poster board to desired length and width .
5. Stain the wood
6. Glue wood onto poster board
7. Cut pieces of felt to form the picture
8. Glue felt

III. RESULTS OF THIS ACTIVITY (AFTER IMPLEMENTATION)

NAME _____ Date _____ PROJECT LET ACTIVITY

1. Write the name of the students in your group _____

2. Write the names of the adults that helped you _____

3. The distance around a rectangle, square, or triangle is called its perimeter.

Show 2 different ways to find the perimeter of your picture frame.

(1)

(2)

4. How long is the piece of wood you need for your picture frame? _____
5. How long is the piece of wood that was purchased? _____
6. How many picture frames can we cut from this piece of wood? _____
7. List the materials you used for this project _____
8. What tools did you use for this project? _____
9. What tool is used to cut the corners for the picture frame? _____
10. What kind of saw is used with a miter box? _____
11. What time did you start this activity? _____
12. What time did you stop working on this activity? _____
13. How much time did you spend on this activity? _____
14. If you were doing this activity (making picture frames) on an assembly line, what kind of jobs would there be?

HANDS ON ACTIVITY (STUDENT PERFORMED)I. NAME OF ACTIVITY

HOLIDAY COOKIE MAKING

II. ACTIVITY FORMAT:A. Materials

2 1/2 cups sifted flour
1/4 teaspoon baking powder
1/2 teaspoon salt
1 cup shortening
2 teaspoon vanilla
1/2 cup sifted sugar
3 or 4 tablespoons milk

B. Human Resources

Parents

C. Procedures for this activity (with helpful hints)

Divide students into four groups - each group makes a recipe of cookies.

Procedure

Sift dry ingredients.

Mix shortening, vanilla, and sugar until creamy.

Add dry ingredients and milk alternately. Refrigerate at least two hours. Roll out 1/4 inch thick. Bake on ungreased sheets for 15 minutes at 350 degrees.

III. RESULTS OF THIS ACTIVITY (AFTER IMPLEMENTATION)

HANDS ON ACTIVITY (STUDENT PERFORMED)I. NAME OF ACTIVITY

HOLIDAY DINNER MENU

II. ACTIVITY FORMAT:

A. Tools and Materials

Hot plate	Cooking tools
Disposable tableware	Ingredients
Oven roaster	

B. Human Aides and Resources

Parents

C. Procedures for this activity (with helpful hints)

Divide class into four groups. Each group prepared two or more items for the dinner.

Turkey	Corn	Cookies
Dressing	Biscuits	Jello
Cranberry Sauce	Butter	
Baked potatoes	Milk	

III. RESULTS OF THIS ACTIVITY (AFTER IMPLEMENTATION)

HANDS ON ACTIVITY (STUDENT PERFORMED)I. NAME OF ACTIVITY

WOODEN CHRISTMAS TREE ORNAMENTS

II. ACTIVITY FORMAT:

A. Tools and Materials

Saw	Paint and brush	Horse
String	Drill	Clamp

B. Human Resources

Parents

C. Procedures for this activity

1. Student drew picture of ornament on wood.
It is helpful to first have a pattern to trace or look at. Christmas cookie cutters make good patterns.
2. The design was then cut out - using a saw.
3. Next the ornament was painted on both sides.
Some used paint and others used magic markers of different colors.
4. Last of all the ornaments were shellaced.
5. Then a string was put through hole in top so the ornament could be hung on the tree.
6. After drying, these were wrapped for Christmas gifts to be given to the parents.

III. RESULTS OF THIS ACTIVITY (AFTER IMPLEMENTATION)

HANDS ON ACTIVITY (STUDENT PERFORMED)I. NAME OF ACTIVITY

PLASTER OF PARIS PINS

II. ACTIVITY FORMAT:

A. Tools and Materials

Plaster of Paris
Plastic spoon
Small safety pin

B. Procedures for this activity (with helpful hints)

1. Mix by using twice the amount of water as plaster of Paris.
2. Each child dips a spoonful of this.
3. This must set for a few minutes until thick and then the pin is inserted, with open side up.
4. As soon as this is completely dry, the pin easily comes out of the spoon.
5. It is then painted or magic marker may be used.
6. After this dries it may be shellaced.

III. RESULTS OF THIS ACTIVITY (AFTER IMPLEMENTATION)

HANDS ON ACTIVITY (STUDENT PERFORMED)I. NAME OF ACTIVITY

HOLIDAY PENCILS

II. ACTIVITY FORMAT:

A. Tools and Materials

Pencils
Pipe cleaners
Colored tape
Small Santa or angel decoration

B. Procedures for this activity (with helpful hints)

1. Attach small decoration to pencil with a piece of pipe cleaner.
2. Roll colored tape on pencil beginning at top, to hold ornament on.
3. Roll tape down pencil to an inch or so from bottom.

III. RESULTS OF THIS ACTIVITY (AFTER IMPLEMENTATION)

HANDS ON ACTIVITY (STUDENT PERFORMED)I. NAME OF ACTIVITY

YARN DOLLS

II. ACTIVITY FORMAT:

A. Tools and Materials

Yarn
Cardboard
Felt
Scissors

B. Procedures for this activity (with helpful hints)

1. Roll yarn over ends of small piece of cardboard. May use desired thickness.
2. Tie a small piece of yarn around the top for the head and then in the middle for the body.
3. Cut some of the strands and pull out for the arms and also for the legs.
4. Small pieces of felt are cut out and used for facial features.

III. RESULTS OF THIS ACTIVITY (AFTER IMPLEMENTATION)

HANDS ON ACTIVITY (STUDENT PERFORMED)I. NAME OF ACTIVITY

FELT CHRISTMAS TREE ORNAMENTS

II. ACTIVITY FORMAT:

A. Tools and Materials

Felt	Pencil
Sequins	Scissors
Glue	Christmas card pattern
String	

B. Procedures for this activity (with helpful hints)

1. Choose color and size of felt needed.
2. Draw design on piece of felt and cut it out.
3. Glue on designs of sequins, felt, etc.
4. Attach a string for hanging on tree.

III. RESULTS OF THIS ACTIVITY (AFTER IMPLEMENTATION)

HANDS ON ACTIVITY (STUDENT PERFORMED)**I. NAME OF ACTIVITY****EGG CARTON WASTE BASKET****II. ACTIVITY FORMAT:****A. Tools and Materials**

8 styrofoam egg cartons (for each waste basket)
yarn
cardboard
large pie tin
paper punch

B. Procedures for this activity (with helpful hints)

1. Cut top off egg cartons and use only bottom half.
2. Put together with yarn, one piece of yarn is tied at top and one at the bottom.
3. A pie tin or round piece of cardboard is used for the bottom of the basket.

III. RESULTS OF THIS ACTIVITY (AFTER IMPLEMENTATION)

HANDS ON ACTIVITY (STUDENT PERFORMED)I. NAME OF ACTIVITY

STYROFOAM TREE ORNAMENTS

II. ACTIVITY FORMAT:

A. Tools and Materials

Styrofoam balls
Pins
Gold string
Beads

Lace or ribbon
Stars
Sequins

B. Procedures for this activity (with helpful hints)

1. Decorate white styrofoam balls with an assortment of stars, sequins, beads, lace or ribbon.
2. Put them on with small straight pins
3. Put a string on so it can be hung on tree.

III. RESULTS OF THIS ACTIVITY (AFTER IMPLEMENTATION)

HANDS ON ACTIVITY (STUDENT PERFORMED)I. NAME OF ACTIVITY

SANTA HEADS - ORNAMENT

II. ACTIVITY FORMAT:

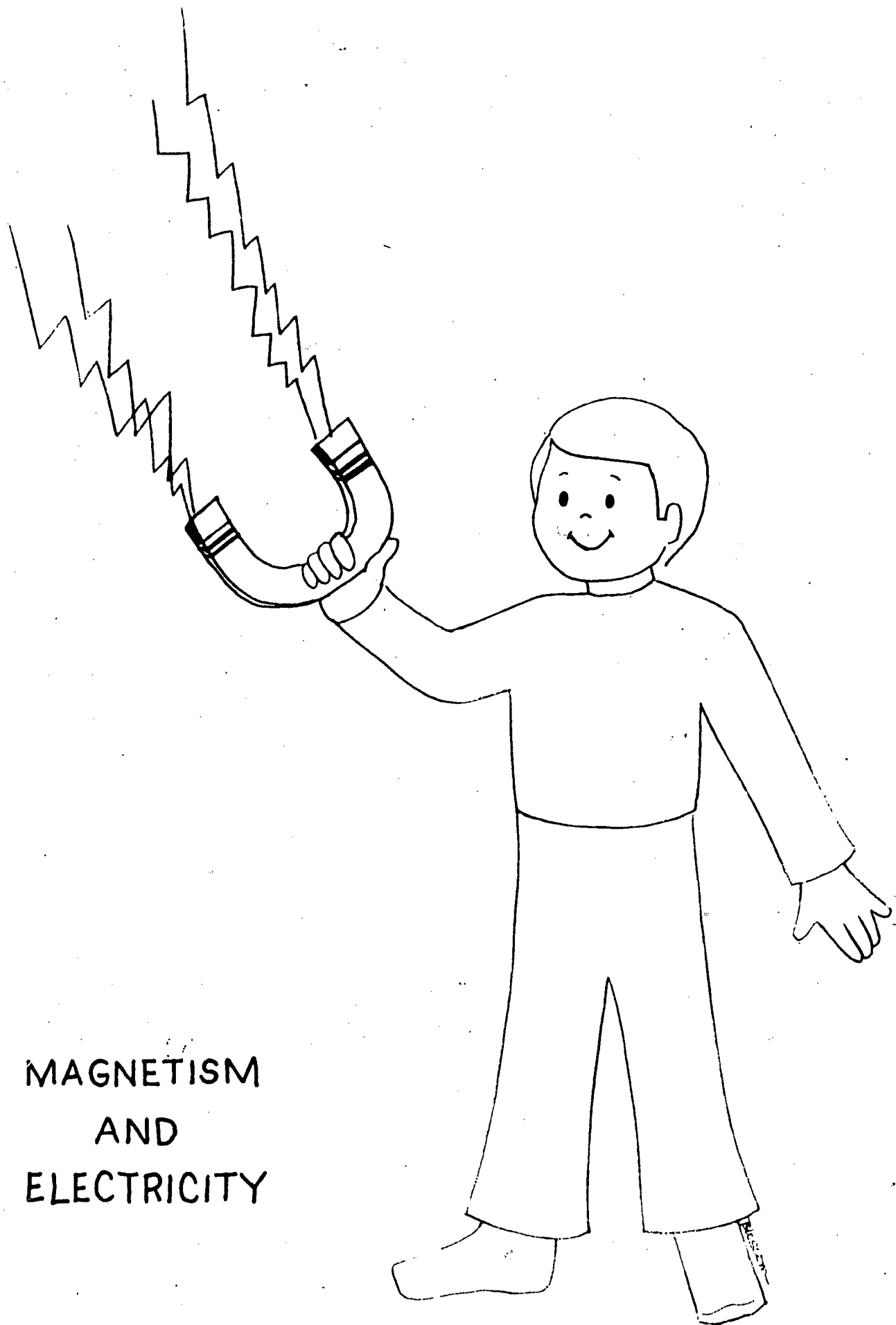
A. Tools and Materials

Toilet paper roll
Red tissue paper
Glue
Cotton or white paper
White yarn

B. Procedures for this activity (with helpful hints)

1. Take empty roll and wrap in red tissue paper.
2. Cut red hat of tissue and glue to one end - pinch of cotton on tip.
3. Cut eyes and brows of white paper or cotton - also beard.
4. Put white yarn loop on hat.

III. RESULTS OF THIS ACTIVITY (AFTER IMPLEMENTATION)



MAGNETISM
AND
ELECTRICITY

SCHOOL DISTRICT OF THE CITY OF ROYAL OAK

INTEGRATED TEACHING UNIT
PLANSHEETTITLE: ELECTRICITY AND MAGNETISMGRADE LEVEL: 4GENERAL OVERVIEW: Six weeks science unit dealing with electricity and magnetism.TEACHING/LEARNING RESOURCES:1. Reference Materials:Books: Magnetism and Magnets (How and Why Books)Films: Electricity - How It Is Generated
Electricity - Principles of Safety
Introduction to Electricity
Learning About Electric Current
How to Stimulate Your Science Program - by Vessel and Wong2. Field Trips:Greenfield Village (Henry Ford Museum)
Detroit Historical Museum3. Human Resources:Electrician - to demonstrate construction of telegraph or other
electrical device
Parents and students
Head of Royal Oak Science Department
Call Detroit Edison for resources and materials4. Activities:Electric copper plating
Eleven cent battery
Destroying a magnet with heat
Earth conducts electricityMagnetic boat
Creating compass needles
Electrolysis
Making an electric light bulb

UNIT TITLE: ELECTRICITY AND MAGNETISM

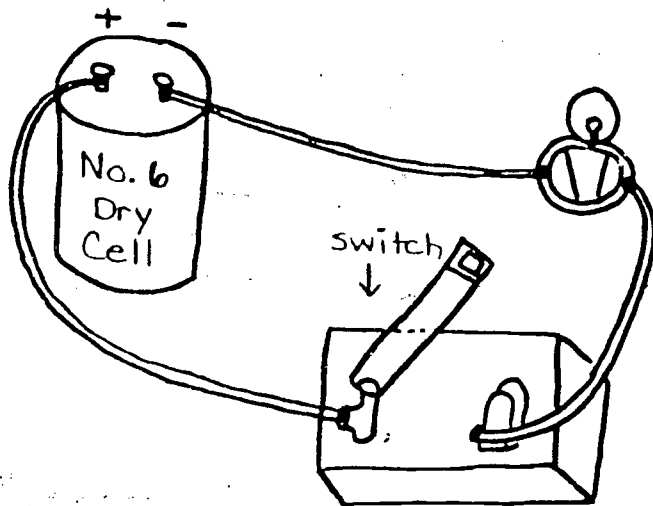
CONCEPTS	BEHAVIORAL OBJECTIVES
<p><u>Science</u></p> <p>The space around which the force of a magnet acts is called the magnetic field</p> <p>Magnets attract iron, steel, cobalt, and nickel</p> <p>Magnetic lines of force can travel through some materials Magnets have many uses</p> <p>Magnets can be made from other magnets</p> <p>An electro-magnet can be made -- magnetism can be obtained from electricity</p> <p>Static electricity is produced by friction</p>	<p>As a result of this unit, each child will be able to:</p> <p>Manipulate iron filings and magnet to show magnetic field</p> <p>List magnetic and non-magnetic materials</p> <p>Identify materials that line of force penetrates</p> <p>Name uses of magnets</p> <p>Induce a magnet</p> <p>Make an electro-magnet</p> <p>Produce static electricity</p>

METHOD OF IMPLEMENTATION	RESOURCE PEOPLE & MATERIALS
<p>Illustrate magnetic field with iron filings</p> <p>After getting a magnetic field on the pre-waxed tagboard, melt the wax with ultrared light</p> <p>Children will test numerous objects with a magnet</p> <p>Experimentation with magnets and materials</p> <p>Bring in objects such as magnetic screwdrivers, magnetic bulletin board, latches, compass, etc.</p> <p>Stroke a nail with a permanent magnet in one direction and pick up magnet materials with induced magnet</p> <p>Wrap wire coil around nail and attach to battery. Test for effectiveness of electro-magnet - test for north and south poles</p> <p>a. Suspend 2 balloons from string and rub balloons with wool cloth. Gently push balloons together and they should repel each other</p> <p>b. Comb hair repeatedly and pick up scraps of paper with static electricity in comb</p> <p>c. Make pith balls from aluminum foil. Secure silk thread inside foil. Rub metal strip with chamois or plastic wrap and observe.</p>	<p>Pre-waxed 9" x 12" piece of tagboard</p> <p>Iron filings</p> <p>Ultrared light</p> <p>Electrician</p> <p>Detroit Edison and resource materials</p> <p>Head of Royal Oak Science Department</p> <p>Book: <u>Magnetism and Magnets</u></p> <p>Balloons</p> <p>String</p> <p>Comb</p> <p>Tissue paper</p> <p>Aluminum foil</p> <p>Silk thread</p> <p>Sheet metal strip</p> <p>Pieces of chamois</p> <p>Pieces of plastic wrap</p>

UNIT TITLE: ELECTRICITY AND MAGNETISM (continued)

CONCEPTS	BEHAVIORAL OBJECTIVES
<p>Current electricity is produced by flow of electrons</p>	<p>As a result of this unit, each child will be able to:</p> <p>Make an electrical circuit with a switch</p>
<p>Electricity is produced by chemicals</p>	<p>Make a chemical battery</p>
<p>Conductors vs. non-conductors</p>	<p>Experiment with conductors and non-conductors</p>
<p>Electricity can plate materials</p>	<p>Copper plate a key</p>

METHOD OF IMPLEMENTATION



Insert a copper and zinc strip in a jar of vinegar. Connect ends of strips with wires to galvanometer. Test for electricity.

Prepare sodium sulfate solution. Experiment with different metals.

Set up circuit and switch - replace part of wire in circuit with cloth, plastic and paper - use galvanometer to detect current

See Science for Elementary School by E. Victor, page 765

RESOURCE PEOPLE & MATERIALS

Films--Electricity - How it is Generated
Electricity - Principles of Safety
Learning about Electric Current

Sodium sulfate
Different metal strips
Galvanometer
Wires with alligator clips

UNIT TITLE: ELECTRICITY AND MAGNETISM (continued)

CONCEPTS	BEHAVIORAL OBJECTIVES
<p><u>Career/Self-Awareness</u></p> <p>Functions -</p> <p> Goods</p> <p> Services</p> <p>Identification of personal values</p>	<p>As a result of this unit, each child will be able to:</p> <p>Identify 5 jobs dependent on electricity</p> <p>Identify those 5 jobs dependent on electricity as being goods producing jobs or service producing jobs</p> <p>Identify 3 aspects of your life that are important to you and which you would not want to give up (e.g., opportunity to be creative, to engage in sports, to participate in indoor activities)</p>
<p><u>Social Studies</u></p> <p>Thomas Edison made many contributions</p> <p>Inventors of electrical equipment</p>	<p>Evaluate life and importance of Thomas Edison</p> <p>List at least 2 inventors of electrical equipment</p>

METHOD OF IMPLEMENTATION

RESOURCE PEOPLE & MATERIALS

- a. Find picture in magazine showing people using electricity on the job.
- b. Children can list jobs that would not exist without electricity.

- a. See movie - Boyhood of Edison
- b. Make a chart of Edison's contributions
- c. Write a report on inventors in field of electricity

HANDS ON ACTIVITY (STUDENT PERFORMED)I. NAME OF ACTIVITY

ELECTRIC COPPER PLATING

II. ACTIVITY FORMAT:

A. Tools and Materials

Copper sulfate crystals	Copper bell wire No. 18
Dilute sulfuric acid	House key
Copper strip	Pencil
Tumbler of water	2 dry cells

B. Procedures for this activity (with helpful hints)

1. Put a heaping tablespoon of copper sulfate into a glass tumbler of warm water and stir vigorously until the copper sulfate dissolves.
2. Then add a few drops of the sulfuric acid.
3. Obtain two pieces of copper bell wire (No. 18), each piece about 24 inches long.
4. Remove quite a bit of the insulation from the end of one piece of wire and wrap a few turns of bare wire around one end of the copper strip, making sure you have a good contact between the strip and the wire.
5. Bend the copper strip so it will hang over a pencil placed across the rim of the tumbler.
6. Wrap the bare end of the second piece of wire around a house key and suspend the key in the copper sulfate solution by wrapping the wire around the pencil.
7. Now connect the other bare ends of both wires to two dry cells connected in series, as shown in the diagram, making sure that the key is connected to a negative terminal and the copper strip is connected to a positive terminal.
8. Allow the current to flow for 15 minutes, and then disconnect the wires and remove the key.
9. The key will be coated with copper.

III. RESULTS OF THIS ACTIVITY (AFTER IMPLEMENTATION)

HANDS ON ACTIVITY (STUDENT PERFORMED)I. NAME OF ACTIVITY

MAKING A MAGNETIC BOAT

II. ACTIVITY FORMAT:

A. Tools and Materials

Block of wood or styrofoam	File
Iron nail	Sandpaper
Water-proof tape or cement	Paint brushes
Aluminum pan	Magnet
Saw	

B. Procedures for this activity (with helpful hints)

1. Use a toy boat, or make one out of wood or styrofoam.
2. Cut the head off an iron nail.
3. Cut a short slot in the bottom of your boat.
The slot should be just big enough for the nail to fit into. If you're using a plastic boat, attach the nail with water-proof tape or cement.
4. Use bricks or wood blocks to prop up an aluminum pan, so that you can move your hand beneath it. Pan should be big enough for boat to float.
5. Move a magnet around on the underside of pan to make boat move.

Instead of a boat, apply the same principle to another water object.

III. RESULTS OF THIS ACTIVITY (AFTER IMPLEMENTATION)

Page

HANDS ON ACTIVITY (STUDENT PERFORMED)I. NAME OF ACTIVITY

ELEVEN-CENT BATTERY

II. ACTIVITY FORMAT:

A. Tools and Materials

Penny	Salt
Dime	Current tester
Blotting paper	

B. Procedures for this activity (with helpful hints)

1. Clean a penny and a dime.
2. Soak a small piece of blotting paper in salt water.
3. Place the wet blotting paper between the dime and penny.
4. Use your current tester by touching one wire to the dime, and one wire to the penny.
5. Is a current produced? Explain concept.

III. RESULTS OF THIS ACTIVITY (AFTER IMPLEMENTATION)

HANDS ON ACTIVITY (STUDENT PERFORMED)I. NAME OF ACTIVITY

CREATING COMPASS NEEDLES

II. ACTIVITY FORMAT:

A. Tools and Materials

Barmagnets	Drinking glasses
Ping pong balls	Dulled double-edge razor blades
Very small test tubes	Small blocks of wood
Several press studs	Several corks
Several small screws (same number as ping pong balls)	Several straight pins
Small pieces of plasticine	Dozen long needles

B. Procedure for this activity (with helpful hints)

COMPASS 1

Fix a magnetised needle to the ping pong ball by using a small piece of plasticine.

Fix another piece of plasticine on the other side of the ping pong ball and press the small screw into it.

Place the ping pong ball in a bowl of water (or glass) and it will float. Watch the needle swing round to the north.

COMPASS 2

Push a pin through the cork. Put the inside piece of a press stud through the middle hole of the razor blade and fix with a small piece of plasticine.

Put the hole in the press stud over the point of the pin and check the razor blade to make sure that it balances. Watch the razor blade swing round to the north.

Think of a way to mark the razor blade to show which is the "N" pole

COMPASS 3

Fix a magnetised needle to the top of the very small test tube by using a small piece of plasticine. Fix another needle into the middle of the block of wood so the point is sticking upwards. Place the test tube over the needle in the block of wood and make sure that the magnetised needle balances.

This compass needle is very sensitive and it will swing about for a long time before coming to rest.

HANDS ON ACTIVITY (STUDENT PERFORMED)I. NAME OF ACTIVITY

DESTROYING A MAGNET WITH HEAT

II. ACTIVITY FORMAT:

A. Tools and Materials

Bar magnet

Small pair of pliers

Pocket compass

Methylated spirit lamp

Asbestos pad to protect the desk top

A long needle

B. Procedures for this activity (with helpful hints)

1. Place the methylated spirit lamp on the pad of asbestos.
2. Magnetise the needle by using the bar magnet.
3. Test the needle with the compass to make sure it is a magnet. Remember the rule for magnets.
4. Hold the needle in the small pliers and then light the methylated spirit lamp.
5. Put the needle in the flame and very slowly pass the needle through it. Do this until the needle has been thoroughly heated.
6. When the needle has cooled down again, test it with the compass. What do you notice? What has the heat done to the magnetism?
7. Heat has destroyed the magnet.
8. Has the heat changed the needle at all? Try bending the needle. What happens?

III. RESULTS OF THIS ACTIVITY (AFTER IMPLEMENTATION)

HANDS ON ACTIVITY (STUDENT PERFORMED)I. NAME OF ACTIVITY

ELECTROLYSIS

II. ACTIVITY FORMAT:

A. Tools and Materials

Glass jam jar
Red and blue insulated copper wire
Battery
Some salt
Cloth to protect the desk or table top

B. Procedures for this activity:

1. Fill the glass jam jar with water and dissolve a spoonful of salt in it.
2. Stand the jar on the protective cloth.
3. Cut two lengths of wire 60 cm. long - have red colored wire for the positive side of the battery and blue colored wire for the negative side of the battery.
4. Carefully remove 20 cm. of insulation from one end of both pieces of wire and about 2 cm. of insulation from the other ends. Wind the long pieces of bared wire round a pencil to make a coil.
5. Connect the wires to the battery and then put the coiled ends into the jar of salt water. What do you see happening?
6. One coil of wire is giving off a lot of tiny bubbles - which one is it?
7. This is a gas called HYDROGEN.
8. After a while a gas will be given off the other wire - this is a gas called CHLORINE.
9. The name given to this process is ELECTROLYSIS and in SALT WATER two gases, HYDROGEN and CHLORINE are given off.

III. RESULTS OF THIS ACTIVITY (AFTER IMPLEMENTATION)

HANDS ON ACTIVITY (STUDENT PERFORMED)I. NAME OF ACTIVITY

EARTH CONDUCTS ELECTRICITY

II. ACTIVITY FORMAT:

A. Tools and Materials

Battery

Two long nails

A bowl

Some red and blue insulated copper wire

Galvanometer

Piece of plasticine

B. Procedures for this activity (with helpful hints)

1. Cut a length of red and blue wire and take off the insulation from the ends. Wind the ends of the wires round the tops of the nails.
2. Join one end of the coil of wire from the galvanometer to the end of the blue wire on one of the nails.
3. Fill the bowl with earth from the garden.
4. Stick the two nails into the earth. Put the nails on opposite sides of the bowl.
5. Connect the end of the red wire to the positive terminal of the battery.
6. Fix the galvanometer to the desk or table top by using a small piece of plasticine. Make sure that the compass needle is in line with the coil.
7. Now take the end of the coil and put it on the negative terminal of the battery. As you do this, look at the galvanometer and you will see the needle "kick."
8. What must happen for the compass needle to "kick" like this?
9. The circuit has been completed because the electricity is flowing through the earth.
10. Most things using electricity are "earthed." Find out what this means. A more common word used by Americans is "grounded."

III. RESULTS OF THIS ACTIVITY (AFTER IMPLEMENTATION)

HANDS ON ACTIVITY (STUDENT PERFORMED)I. NAME OF ACTIVITY

MAKING AN ELECTRIC LIGHT BULB

II. ACTIVITY FORMAT:

A. Tools and Materials

Small glass bottle and a fitting cork
2 pieces of insulated copper wire about 1 yard long
Short piece of sticky tape
6-volt battery
Some pieces of very thin iron wire
Cloth to protect the desk or table top

B. Procedures for this activity (with helpful hints)

1. Bare the ends of the copper wire. Fix the copper wire with the sticky tape on either side of the cork. Allow about 4 inches of wire to project for the connections inside the bottle.
2. Cut a piece of thin iron wire about 2 inches long and twist carefully to the ends of the copper wire. Allow about 1 inch of iron wire to separate the ends of the copper wires.
3. EXPERIMENT 1: Carry out this part of the experiment without the bottle. Connect the ends of the wires to the battery. See what happens
4. EXPERIMENT 2: Fix another piece of thin iron wire to the copper wires and put the wire and cork into the glass bottle. ~~Fix the cork~~ Fix the cork tightly. Connect the wires to the battery. What happens this time?
5. The electric "light bulb" you have made should remain lighted for some time. If it does not remain lighted, you must experiment with the length of iron wire you use.

III. RESULTS OF THIS ACTIVITY (AFTER IMPLEMENTATION)

HISTORY OF MEDICINE



SCHOOL DISTRICT OF THE CITY OF ROYAL OAK

INTEGRATED TEACHING UNIT
PLANSHEETTITLE: HISTORY OF MEDICINEGRADE LEVEL: 3-4GENERAL OVERVIEW: This unit is designed to help children compare the colonist's self-dependence in health needs to present-day interdependence in health needs.TEACHING/LEARNING RESOURCES:1. Reference materials:

- Books:
- Robinson, Monroe, Artley, Huck, & Jenkins, Roads to Follow, Scott, Foresman, and Company, Chicago, 1965
 - Scobey, Mary-Margaret, Ed. D., Teaching Children About Technology, McKnight & McKnight Publishing Company, Bloomington, Illinois, 1968
 - Colonial Williamsburg Official Guidebook, Colonial Williamsburg Foundation, 1972
 - Dodds, John W., Everyday Life in Twentieth Century America, G. P. Putnam's Sons, New York, 1965
 - Drug Crisis, Dell Purse Book, Dell Publishing Co., Inc., New York, 1971
 - Duffy, John, Epidemics in Colonial America, Kennikat Press, Port Washington, New York, 1953
 - Leavens, Neil, Director, 1972-73 Directory of Films, Instructional Materials Center, School District City of Royal Oak
 - Leavens, Neil, Director, Resources for Learning Catalog, 1972-73, Instructional Materials Center, School District City of Royal Oak
 - Wigginton, Eliot, The Foxfire Book, Doubleday, New York, 1972

- Charts:
- Bacteria
 - Circulation (Health)
 - Digestion (Health)
 - Human Ear
 - Human Eye
 - Man Uses Plants and Animals
 - Matter
 - Muscles (Health)
 - Nerves (Health)
 - The Body (Health)
 - The Senses (Health)
 - The Skeleton (Health)

- Films:
- Cities are Different and Alike
 - Cleanliness and Health
 - Colonial Children
 - Eat Well, Grow Well
 - Finding Out About the Water Cycle

Films: (continued)

Frontier Boy of the Early Midwest
 Hear Better: Healthy Ears
 Heart and Circulation
 How Sunshine Helps Us
 Indian Influences in the U. S.
 Learning About Our Bodies
 Let's Be Clean and Neat
 Let's Keep Food Safe to Eat
 Light Here Kindled, The
 Living Things in a Drop of Water
 Man's Basic Need: Natural Resources
 New England Fisherman
 Nutritional Needs of Our Bodies
 Plants That Grow From Leaves, Stems, and Roots
 Plymouth Colony: The First Year
 Puritan Family of New England
 Save Those Teeth
 Things Change - Solids, Liquids, Gases
 Woodland Indians of Early America
 You and Your Ears
 You and Your Eyes

Filmstrips: About Your Life and You (with record)
 Dental Health for the Grade School
 Ears and Hearing
 Eyes and Seeing
 Keeping Food from Spoiling
 Louis Pasteur
 Our Health Department
 Public Health
 The Doctor Examines You
 Vitamins and You
 Weapons Against Disease
 What a Doctor Sees When He Looks at You
 Why Eat a Good Breakfast
 You, the Living Machine
 Drug Store Workers (with record)

Flat Pictures:

Guide to Good Eating
 Medical Helpers
 Play for Health
 Sleep for Health

Realia: Microscope and slides, prepared and blank

Teeth

X-Rays:

Elbow and Forearm
 Foot
 Hand and Forearm
 Hands
 Ribs
 Spine

Realia: (continued)

Models:

Blood pressure cuff
 Bones
 Digestive system
 Ear
 Eye
 Heart
 Skeleton
 Skull
 Stethoscope
 Teeth
 Torso

2. Field Trips:

Detroit Historical Museum
 Greenfield Village
 Henry Ford Museum
 Drug Company
 Drug Store
 Local Hospital
 Cranbrook Institute of Science
 Medical Center or Clinic

3. Human Resources:

Nurse
 Doctor
 Dentist
 Mother
 Fireman
 Ambulance Driver
 College Medical Student

4. Classroom Activities:

Role Play
 Pantomime
 Plant a herb garden (See Plants and Trees Unit - p. 421)
 Making books
 Vocabulary tree

UNIT TITLE: HISTORY OF MEDICINE

CONCEPTS

BEHAVIORAL OBJECTIVES

Science

Study of relationships between medicines and disease

As a result of this unit, each child will be able to:

1. Give scientific reasons for the changes in medical treatments
2. Explain the origin of "patent medicines"
3. Describe the medical and dental institutions and roles found in our environment today
4. Explain the role hygiene plays in health
5. Explain one of the following:
 - a. purging
 - b. bleeding
 - c. trepanning
6. Explain one of the following:
 - a. how malaria is transmitted
 - b. how an inoculation prevents a disease
 - c. why he/she can't have measles or chicken pox twice
7. List four "childhood diseases"
8. Discuss medicines:
 - a. where do people buy medicines?
 - b. what 2 broad groups of medicines are there?
 - (1) patent
 - (2) prescription
 - c. what shows that "home remedies" still exist?
 - (1) are these medicines still grown and prepared at home?
 - (2) is this a sign of a cultural or physical change and/or cultural or physical lag?
 - d. what do people use for money in their purchase of medicines or medical service?
 - e. what trend in medicine is shown by inoculations and vaccinations?
 - f. is there evidence that our society has become too dependent upon medicines?

METHOD OF IMPLEMENTATION

RESOURCE PEOPLE & MATERIALS

Role playing

Discuss: Silhouetted
Pantomimed

Speakers

Brainstorm

Listening to pioneer stories

Committee work to gather information

UNIT TITLE: HISTORY OF MEDICINE (continued)

CONCEPTS	BEHAVIORAL OBJECTIVES
<p><u>Science</u>, continued</p>	<p>What diseases have been brought into control during the last 20 years?</p> <p>Identify, using sight, smell, taste, and touch, as many as possible of 15 spices or herbs</p>
<p><u>Mathematics</u></p> <p>Measurement</p>	<p>Be able to measure 1 teaspoon, 1 tablespoon, 1 cup, and 1 quart</p> <p>List and compare cost of medical services and medicine</p>
<p><u>Communication Skills</u></p> <p>Reporting and writing</p> <p>Reading - pleasure</p> <p> information</p> <p>Group discussions</p> <p>Poetry - group</p>	<p>Work and study skills:</p> <ol style="list-style-type: none"> 1. gather information from easy reference material 2. listen attentively to resource guests 3. interview people 4. work in small committees 5. discuss information gained from various sources 6. form generalizations from gathered data <p>Repeat "A Spoonful of Sugar Makes the Medicine Go Down" and "Dry Bones"</p>

METHOD OF IMPLEMENTATION	RESOURCE PEOPLE & MATERIALS
<p>Plant herb garden</p>	
<p>Wax paper bag rectangles. Compare these with control paper rectangles to study translucence. Discuss why these windows might have been used, i.e., heat retention, translucence, insect protection.</p> <p>Salt box to allow dry measurement with posted questions, i.e., "How many teaspoons in one tablespoon?"</p> <p>Work with old measurements of stone, pinch, etc.</p>	
<p>Reports</p> <p>Role playing</p> <p>Resource people</p> <p>Group learning</p>	

UNIT TITLE: HISTORY OF MEDICINE (continued)

CONCEPTS	BEHAVIORAL OBJECTIVES
<p><u>Social Studies</u></p> <p>History (Past and present)</p> <p>Cultural adaptation</p>	<p>As a result of this unit each child will be able to:</p> <ol style="list-style-type: none"> 1. Draw a picture of colonial settlement and a modern city (compare) 2. State 3 ways in which a farm is different from a city 3. Recall that colonial doctors dispensed and/or made their own medicines 4. State 4 professional people he could turn to for medical help 5. Explain 3 ways in which our culture has changed from colonial times 6. Describe 3 cultural adaptations which have occurred in our society since cultural times 7. Classify 2 different kinds of doctors in practice today 8. List ways man adapts to his physical and cultural environment 9. Identify medical practices of specialization 10. List social controls which identify and qualify medicine

METHOD OF IMPLEMENTATION

RESOURCE PEOPLE & MATERIALS

Murals or construct a model

Reports

Discussions - compare ways in which present-day medicine is different from colonial medicine

Compile a vocabulary tree

List way in which we worked well together

Role playing

Silhouetted - Pantomime

Speaker from local herb club

Speaker on current "health foods"

Mother

High school chemistry student

Local Life Support Unit

Pharmacist

D. D. S.

R. N.

College medical student

School Nurse

School Health Personnel

METHOD OF IMPLEMENTATION	RESOURCE PEOPLE & MATERIALS
<p>Interviewing:</p> <ul style="list-style-type: none"> Para-professional Dentist Pharmacist Physician Nurse Barber <p>Reports</p> <p>Discuss:</p> <ol style="list-style-type: none"> 1. respect the histories of medical roles and practices (not a subject for jokes, etc.) 2. respect the current opinions of other people regarding medical personnel: <ol style="list-style-type: none"> a. chiropractors b. osteopaths c. Christian Scientists d. podiatrists e. health-food advocates 3. appreciate the accessibility of medical and dental help 4. realize there has been a gradual swing in medical and dental fields to preventative care vs. cure 5. do people you know believe differently from you concerning doctors and/or medicines? 	<ul style="list-style-type: none"> Ambulance Driver Drug store owner Doctor Dentist

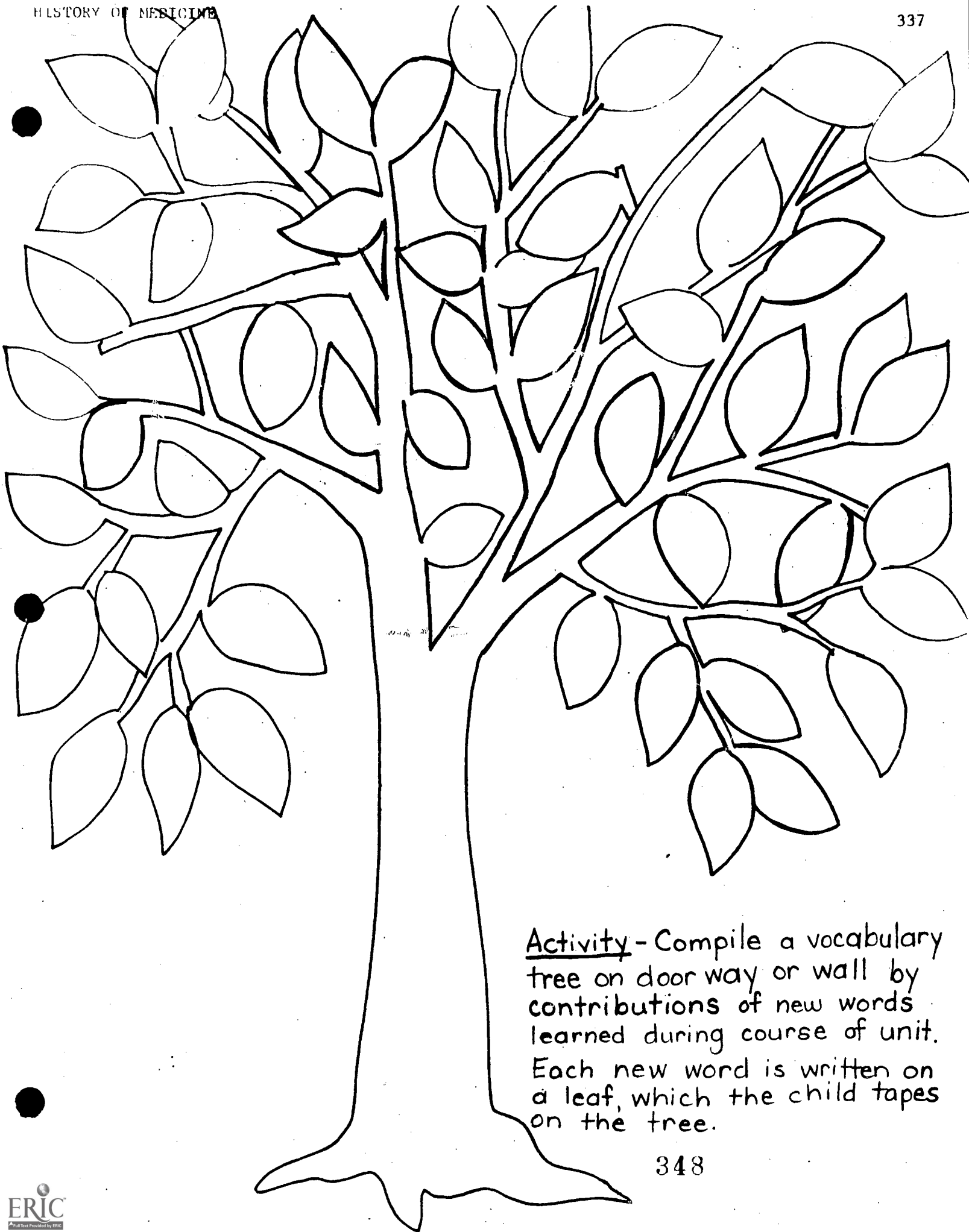
ACTIVITY

VOCABULARY TREE

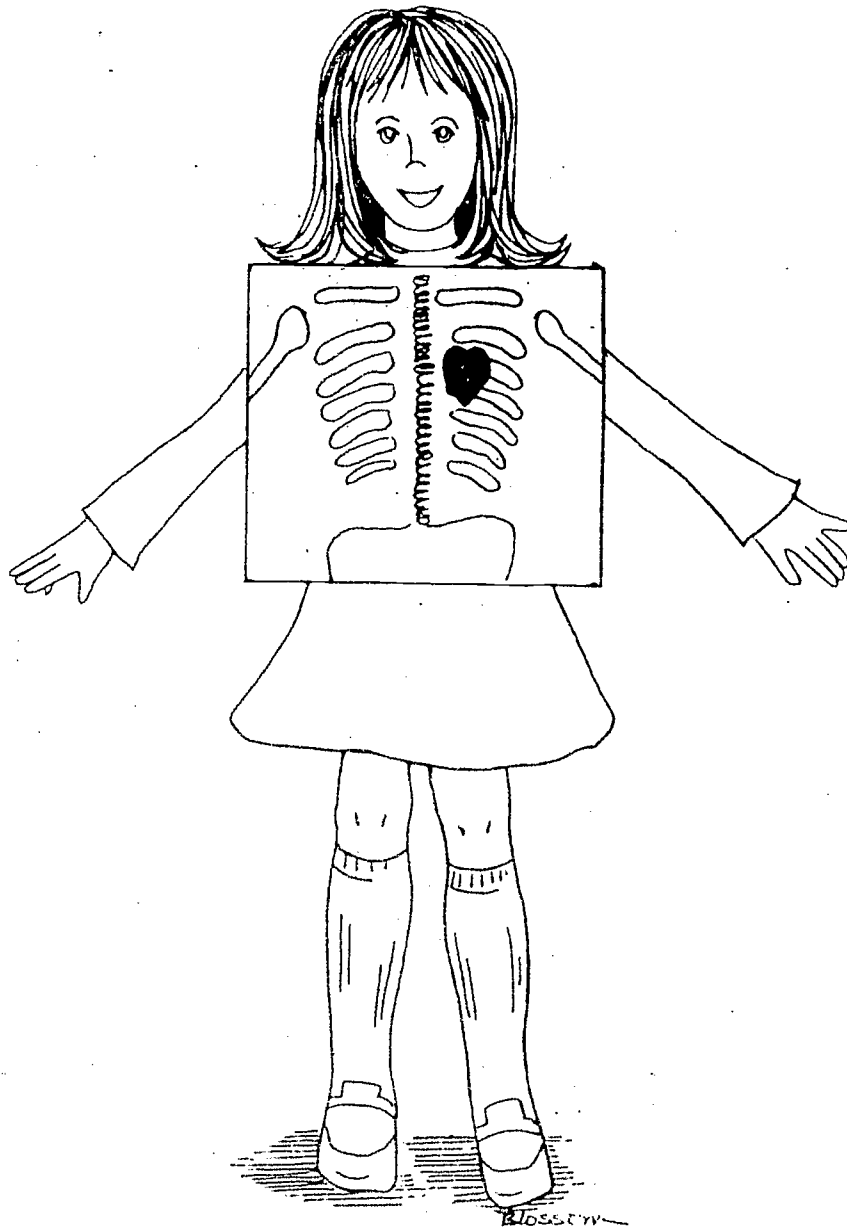
Compile a vocabulary tree on doorway or wall by contributions of new words learned during course of unit - each new word written on a leaf which child tapes on tree.

Vocabulary List:

- | | |
|--|-------------------------------|
| 1. A. D. A. | 41. patent |
| 2. A. M. A. | 42. pediatrician |
| 3. adaptation | 43. physical trait |
| 4. agrarian | 44. physician |
| 5. allergy | 45. podiatrist |
| 6. allergist | 46. practical nurse |
| 7. anesthesiologist | 47. prescription |
| 8. anesthetist | 48. registered nurse |
| 9. antibiotic | 49. seed |
| 10. apothecary | 50. slip (of plant) |
| 11. apprentice | 51. social control |
| 12. apprenticeship | 52. society |
| 13. bacteria | 53. special |
| 14. "bleeding", practice of | 54. specialization |
| 15. Board of _____ | 55. spice |
| 16. bulb | 56. surgeon |
| 17. chiropractor | 57. translucent |
| 18. colonial | 58. transparent |
| 19. colony (ies) | 59. "trepanning", practice of |
| 20. community | 60. urban |
| 21. crops | 61. vaccinations |
| 22. cultivate | 62. virus |
| 23. cultural trait | 63. volunteer workers |
| 24. decongestant | |
| 25. diploma | |
| 26. doctor | |
| 27. environment | |
| 28. "four natures of body"
(Galenic period of medical
history) | |
| 29. general practitioner | |
| 30. harvest | |
| 31. herb | |
| 32. independence | |
| 33. inoculation | |
| 34. interaction | |
| 35. interdependence | |
| 36. licenses | |
| 37. nurse's aide | |
| 38. optician | |
| 39. optometrist | |
| 40. orthodontist | |



Activity - Compile a vocabulary tree on door way or wall by contributions of new words learned during course of unit. Each new word is written on a leaf, which the child tapes on the tree.



HUMAN BIOLOGY

SCHOOL DISTRICT OF THE CITY OF ROYAL OAK

INTEGRATED TEACHING UNIT
PLANSHEET

TITLE: HUMAN BIOLOGY

GRADE LEVEL: 3-4

GENERAL OVERVIEW: In this Human Biology section, the following integrated teaching units have been combined and/or presented as a tentative guide for ideas in application to or relevance to the upper elementary classroom:

- Conditioning and Response
- Dental Health
- Human Biology
- Health
- Medicine
- Nutrition

Children express intense interest in their bodies, how they learn, their sequential development-physically and mentally, and their personal health. Food is also a favorite topic and is easily used as a basis to investigate nutrition. Since dental caries occur in 98% of the United States population, preventive dentistry is a needed area of study too.

TEACHING/LEARNING RESOURCES:

1. Reference Materials:

Books: What Good Luck What Bad Luck
How Many Teeth
Going on Ten - Health Text 4th p. 26
About Yourself - Health Text 5th
Dairy Council Materials
Human Body - Life Series

Films: Breathing
Ears: Their Structure and Care
Heart and Circulation
Heart, Lungs, Circulation
Human Body, The: Circulatory System
Human Body, The: Digestive System
Human Body, The: Excretory System
Human Body, The: Muscular System
Human Body, The: Nervous System
Human Body, The: Nutrition and Metabolism
Human Body, The: Reproductive System
Human Body, The: Respiratory System
Human Body, The: Skeleton

Films: (continued)

Human Machine
 Infectious Diseases and Natural Body Defenses
 Muscles and Bones of the Body
 Story of Menstruation
 You and Your Ears
 You and Your Eyes
 You and Your Five Senses
 Cleanliness and Health
 Save Those Teeth
 Oakland Schools Film Library
 607 Boy to Man (16 min)
 456 Fertilization and Birth (10 min)
 606 Girl to Woman (16 min)
 Narcotics and Dangerous Drugs I.D. Kit

Filmloops:

Dental Office Assisting
 Dental Lab Technician
 Dental Hygienist
 Hearts and Plucks
 School Nurse, Principal
 Regular R.N.
 Dental Lab Technician
 License Practical Nurse
 Dental Assistance

Filmstrips:

About Boys (R)
 About Girls (R)
 About Your Life and You (R)
 Billy Meets Tommy Tooth
 Breakfast and the Bright Life (R)
 Dental Health for the Grade School
 The Doctor Examines You
 Ears and Hearing
 Eyes and Seeing
 Feel of Your Skin
 Finding Out How You Grow
 Food for Good Health
 Food Makes the Difference
 Getting Acquainted with Our Bodies
 Growing Up
 Here's Your Ear
 How Bones and Muscles Work
 How Your Nose Knows
 Keeping Food From Spoiling
 Keeping Children Safe
 Look How You See
 Louis Pasteur
 Muscular System
 Nervous System
 Our Health Department
 Public Health

Filmstrips: (continued)

Skeletal System
 Skimpy and a Good Breakfast
 Skin and Its Functions
 Sleep and Rest
 Taste, Smell and Touch
 Teeth and Eating
 To Smoke or Not To Smoke (R)
 Vitamins and You
 Weapons Against Disease
 We Grow
 What a Doctor sees When He Looks at You
 What is A Cell?
 Why Eat a Good Breakfast
 Why We Breathe
 You and Your Ears
 You and Your Eyes
 You and Your Five Senses
 You, The Human Being
 You, The Living Machine
 Your Blood System, Heart
 Your Bones and Muscles
 Your Eyes at Work
 Your Food and Digestion
 Your Heart and Lungs
 Your Life Stream
 Your Muscles
 Your Nose and Throat
 Your Sense of Smell and Taste
 Your Sense of Touch
 Your Skin
 Your Skin and Its Care
 Your Tasting Tongue
 Your Teeth and Their Care

Flat Pictures:

Bathe - Enjoy the Water
 Bicycle Safety Set (Disney)
 Drama of Life Before Birth
 Guide to Good Eating
 Health Helpers (Gunter)
 History of Medicine in Pictures I, II, III
 History of Pharmacy in Pictures
 Home Safety (Disney)
 Medical Helpers (Gunter)
 Parts of the Body (EBF)
 Pedestrian Safety Rules (Disney)
 Play for Health
 Play Out-of-Doors the Year 'Round
 Safety Helpers (Gunter)
 Sit Straight, Stand Tall
 Sleep for Health
 Sleep Long Hours
 World's Within Our Body

Realia: X-rays - Elbow and Forearm
 Foot
 Hand and Forearm
 Hands
 Head or Skull
 Intestine
 Leg and Rib Cage
 Pelvis
 Ribs
 Spine

Charts

Animal and Plant Cells (Nystrom)
 Beginning The Human Story: A New Baby
 The Body (Health)
 The Brain (Health)
 Chick Embryos (Turtox)
 Circulation (Health)
 Digestion (Health)
 The Glands (Health)
 Human Ear (Turtox)
 Human Eye (Turtox)
 Muscles (Health)
 The Nerves (Health)
 Respiration (Health)
 Section of the Skin (Turtox)
 The Senses (Health)
 The Skeleton (Health)
 Typical Animal Cell
 Your Heart and How It Works

Transparencies

Animal Cell Types
 Human Circulatory System
 Human Heart
 Human Skeleton and Muscles
 Human Skin in Cross Section
 Structure of a Tooth
 Structure of an Ear
 Structure of an Eye
 Typical Animal Cell

Models

Blood Pressure Cuff
 Bones
 Brain
 Digestive System
 Ear
 Eye
 Gall Bladder
 Heart
 Heart, Lungs, Larynx
 Jaw
 Lung
 Otoscope
 Scalp
 Skeleton

Realia: Models (continued)
 Skin
 Skull
 Spirometer
 Stethoscope
 Teeth
 Tongue
 Torso
 Urinary Tract

2. Field Trips:

Suburban Ambulance
 Beaumont Hospital
 SEOVEC - Dental Office Assisting
 Macomb County Community College - TV Studio - production of play
 Henry Ford Museum - Medicine
 Detroit Historical Museum - Medicine
 Oakland County Health Department
 Bakery
 Candy Factory
 Royal Oak Farmers Market

3. Human Resources:

Dental Health
 Dentist
 Dental Hygienist
 Dental Office Assistants (SEOVEC) (students)
 Dental Laboratory Technician
 Medicine
 Pharmacist
 Public Health Nurse
 Physician
 Hospital Personnel
 Parent Drivers
 Conditioning
 Animal trainer
 School nurse
 Psychologist
 Nutrition
 Dietitian - Beaumont
 Oakland County Cooperative Extension Service
 Family Living - Home Economics Dept.
 1026 N. Telegraph Road
 Pontiac 1-334-3507
 Preventive Medicine
 Health Insurance Agent
 Life Insurance Company representative

4. Activities:

Dental

Interview Dental Health Team
Mouth Care - Each child with brush paste, coloring matter etc.
Role play - prevention of teeth decay through proper diet
Dissection - hearts and plucks of sheep
Measure pulse rate at rest, at work, and return to rest rate
Plan menus for good nutrition

Conditioning

Construct wood on mazes
Test stimuli - sour, sweet, bitter
Collect examples of advertising - classify as to appeal

Humans

Construct skeleton out of styrofoam
Growth record of selves
Record heights by ages in fall and after Easter and prepare charts
Life size mural of each student using the human body outline,
e.g. sketching in digestive system

UNIT TITLE: HUMAN BIOLOGY

CONCEPTS

CONDITIONING AND RESPONSE

Social Studies

People behave differently because of different stimuli and conditioning

People form habits because of conditioning

Responses can be inborn or learned

Communication Skills

The nervous system causes the body to respond to stimuli and to be conditioned by them

People develop and use a language because of conditioning

People become conditioned to signs and symbols

Learning to read is a process of conditioning and responses

BEHAVIORAL OBJECTIVES

As a result of this unit, each child will be able to:

List 3 examples of inborn and learned responses

List 3 habits and how they were formed

State 3 examples of or to deduce how learning or habits can be changed

Give 3 examples of stimuli

Demonstrate learning by trial and error

Identify, draw and/or label the parts of the nervous system

List 1 way the other systems are related to the nervous system

Discuss 3 ways in which people form opinions of others by their physical appearance

Compare and contrast our language with another by choosing 5 words, such as bleu (French) blue (English)

Label 3 signs and symbols and give 2 reasons why we have them

Identify 5 examples of meanings of body language

METHOD OF IMPLEMENTATION	RESOURCE PEOPLE & MATERIALS
<p>Role playing experiences:</p> <p>Pantomiming to show how the body can be used for expression</p> <p>Activities:</p> <p>Movie showing body language</p> <p>Make wooden mazes, time yourself to see how much faster you can do it, after you have done it once</p> <p>Take a new name and see how long it takes to respond to it</p> <p>Form opinions of people from observations and pictures</p> <p>Learn some of another language</p> <p>Make up a code for others to decipher</p> <p>Make a list of individual habits, then compare and contrast them</p> <p>Try to change a habit, then tell the class how you went about it, if it was successful or not, and how long it took</p> <p>Write about a belief you have, how you came to believe it, and what would have to happen for you to change your belief</p> <p>Select opposing beliefs and have a debate</p> <p>Make signs with symbols of your own</p> <p>Present various stimuli, one at a time, to students, then share their various art interpretations of the same stimuli</p> <p>Make different sounds, or play music, and either write about or discuss different people's reaction to that stimuli</p> <p>Have children think of "sound symbols," i.e. sirens, alarm clocks, etc. produce them to the class with their heads down, and have them tell what the sounds represent</p>	<p>Dancer</p> <p>Entertainer</p> <p>Music teacher</p> <p>Movie - "Body Language"</p> <p>Person working with the hard of hearing</p> <p>School psychologist</p> <p>Animal trainer</p>

UNIT TITLE: HUMAN BIOLOGY (continued)

CONCEPTS	BEHAVIORAL OBJECTIVES
<p><u>Math</u></p> <p>People are conditioned to use certain currencies, different units of measure, and time schedule</p>	<p>As a result of this unit, each child will be able to:</p> <p>Record how long it takes to learn to respond to new stimuli</p> <p>Make a metric system conversion</p> <p>By using a different alphabet or code, "read" or decode a message</p>
<p><u>Art</u></p> <p>Art expression is based upon stimuli and the response to that stimuli</p>	<p>Design their own symbol and meanings</p>
<p><u>Career/Self-Awareness</u></p> <p> Servicing advertising</p> <p> Managing researching designing</p> <p> Personnel training</p> <p>Building self-confidence</p>	<p>Produce an advertisement using attention-getting signs and symbols</p> <p>Develop opinion poll for product research based on package appeal</p> <p>Describe 2 ways conditioning and response are a part of animal training</p> <p>Describe how you feel when you know that you have done something well</p>

METHOD OF IMPLEMENTATION

RESOURCE PEOPLE & MATERIALS

Make copies of mazes from Detroit News Magazine section and give to children to check their times with the experts

Have them draw their own mazes, put on dittos, and distribute to class

Write commercials, jingles, and/or make advertising posters with special emphasis on what stimuli, i.e. color, size, art, causes people to notice and/or remember them

Sociologists study people and their behavior

Psychologists and psychiatrists diagnose and/or treat people who need help in coping with their problems, some of which are caused by conditioning

Doctors treat people for nervous disorders

Advertising people study people's reactions to certain stimuli so that they are able to sell a product more easily

Fashion designers create designs which they hope will appeal to people

Animal trainers condition animals to respond to certain stimuli

Animal trainer

Dietitian

Pharmacist

UNIT TITLE: HUMAN BIOLOGY (continued)

CONCEPTS

BEHAVIORAL OBJECTIVES

DENTAL HEALTH

Science

- Functions of the teeth
- Structure of the teeth
- Dental diseases, abnormalities, and accidents
- Control of dental disease by:
 - a) the dentist and his health team
 - b) the individual
 - c) nutrition and diet
 - d) fluoridation of water

As a result of this unit, each child will be able to:

- List three functions of teeth
- Draw and label the parts of a tooth
- Describe the roles of the dental health team
- Identify four products used in the prevention of tooth decay
- Plan a sugar free diet
- Apply proper method of tooth brushing
- Formulate a rationale for the fluoridation of water

Math

- Measuring
- Fractions
- Charts and Graphs

- Organize data into a graph or chart
- Discuss critically the meaning of the ADA seal used on products
- Relate the functions of five tools used in dentistry
- Distinguish between the seven specialities in dentistry

Communication Skills

- Interview techniques
- Spelling and vocabulary - dental terms
- Creative writing - stories, commercials
- Reading and research skills
- Dramatization (The Toothache Mystery)
- Labeling - diagrams and display table
- Record keeping - daily brushing; diet
- Critical analysis of advertising
- Letter writing - information, thank you

- Describe the four types of teeth and their uses
- List proper tooth care

METHOD OF IMPLEMENTATION

RESOURCE PEOPLE & MATERIALS

DENTAL HEALTH

Show

moview
models
filmstrips

Use with a dental resource person
tooth brush and paste and color agent
cleaning teeth
brush on color-check for cleanliness

Draw baby teeth, permanent teeth
label tooth use

Draw one tooth - label parts

Do research on one of these:
tooth pastes, powders, cleaners
floridation
decaying process of food
sugar free diet

Study

"Colgate" materials, posters,
booklets

Dentists

American Dental Association
7 specialities
worker categories who assist the
P.S.S. on the dental health team
tools (5) of dentistry
machines - x-ray - chairs, etc.

Collect pictures

Smiles
Tooth product advertising

Tooth puzzle

Dental hygienist

Dentist

Dental Laboratory Technician

Charts and Filmstrips

Dentist

Dental assistant

Students from SEOVEC

UNIT TITLE:

CONCEPTS

BEHAVIORAL OBJECTIVES

DENTAL HEALTH

Career Concepts

Products produced for consumer
Supplies and equipment for dentist's
office
Advertising of products
Tools used in dentistry
Service careers in Dental Health

As a result of this unit, each child
will be able to:

List and describe 5 occupations
centered around dental health

METHOD OF IMPLEMENTATION

RESOURCE PEOPLE & MATERIALS

363

UNIT TITLE: HUMAN BIOLOGY (continued)

CONCEPTS	BEHAVIORAL OBJECTIVES
<p><u>Communication Skills</u></p> <p>Letters Research and written reports Reading for information Oral discussion Word origins in anatomy Interviewing</p>	<p>As a result of this unit, each child will be able to:</p> <p>Make a life-size mural showing functions of one system of the body as a member of a committee Prepare and discuss critically, as a committee member, a report on the selected body system Gather data and write a booklet about nutrition, incorporating the four groups of food and menus containing the correct balance of these food groups</p>
<p><u>Science</u></p> <p>Systems of the body Nutrition calories 4 basic food areas Vaccines Medicines</p>	<p>Be able to classify food correctly, as to the basic 4 groups at the 70% level List 2 herbs used in medicine in colonial times and today</p>
<p><u>Social Science</u></p> <p>Group dynamics Geography of foods</p>	<p>Investigate and collect data into a chart of seasonal food availability Participate in a brain-storming experience to develop questions to be used in interview of a nurse, a doctor, hospital personnel, a produce farmer, an ambulance service owner or a dietitian</p>
<p><u>Self-Awareness</u> Physical development (formulating identify) self-concept</p>	<p>Compare or describe changes in physical development over a time period.</p>

METHOD OF IMPLEMENTATION	RESOURCE PEOPLE & MATERIALS
<p>HUMAN BIOLOGY - Nutrition</p> <p>Show</p> <ul style="list-style-type: none"> movies models filmstrips <p>Make a human shape containing a body system - label it</p> <p>Use research material</p> <p>Visit Beaumont Hospital</p> <p>Visit Ambulance Service</p> <p>Visit Oakland County Health Department</p> <p>Visit by a food inspector</p> <p>Visit by a pharmacist</p> <p>Visit by a restaurant owner or visit a restaurant</p> <p>Visit by a physician</p> <p>Visit by school nurse</p> <p>Visit by a produce farmer</p> <p><u>Language Arts</u> experience - each child wrote at least 3 questions he wanted Mrs. Sterling to answer</p>	<p>Mrs. J. Robert Sterling came into the class to talk to youngsters (dental hygienist)</p>
<p>Make book, "All About Me" with fingerprints, handprints, height, weight</p>	

UNIT TITLE: HUMAN BIOLOGY (continued)

CONCEPTS

BEHAVIORAL OBJECTIVES

Career/Self-Awareness

Servicing
Diagnosis and treatment

Producing

As a result of this unit, each child will be able to:

Be able to list 10 jobs in the medical service industry

List childhood vaccines given to Michigan children

Describe the progression from soil preparation and planting to harvesting and marketing a specific food product

Be able to list four jobs in the food preparation industry either hospital or restaurant

List the government agencies which pertain to food and drugs

Describe how a physician uses a diagnosis to prescribe proper care

Math

Measurement

Liquid
Dry

Read a weight scale, and compare weights of at least 5 different foods

366

METHOD OF IMPLEMENTATION

RESOURCE PEOPLE & MATERIALS

Visit Royal Oak Farmers Market in
September or October looking for
any of the following items:

- sweet corn
- lettuce
- squash
- potatoes
- onions
- green beans
- peas
- eggs
- honey
- radishes
- melons
- tomatoes
- grapes
- berries
- beets
- green sweet peppers
- carrots

Mark charts of states and federal laws
which control the kinds of drugs and
medicines on the market, the purity of
foods, the weights, (e.g. the laws
about hotdogs)

ACTIVITY

TYPES OF TEETH

1. Tools necessary for each item to be made:
Mirrors.
2. Materials necessary for each item to be made:
Collection of pulled teeth
(May be obtained from local dentist or dental school)
3. List the approximate number of students to be involved in each segment of activity.
Entire class
4. List (chronologically) a step by step procedure for each activity being made in the unit.
 1. Talk about the different types of teeth and their uses.
 2. Identify the various types of teeth from collection.
 3. Try to locate these same teeth in each individual's mouth.

HANDS ON ACTIVITY (STUDENT PERFORMED)I. NAME OF ACTIVITY

PARAFFIN MODELS OF TEETH.

II. ACTIVITY FORMAT:

A. Tools and Materials

Paraffin
Plaster of Paris (quick setting
powder to be mixed with water)
Bowl for mixing

B. Human Aides and Resources

Parents
College students

C. Procedures for this activity (with helpful hints)

1. Bite on paraffin which has been slightly warmed.
2. Fill paraffin model with plaster of Paris.
3. Allow to harden.
4. Illustrate occlusion.

III. RESULTS OF THIS ACTIVITY (AFTER IMPLEMENTATION)

HANDS ON ACTIVITY (STUDENT PERFORMED)I. NAME OF ACTIVITY

TEETH MODEL

II. ACTIVITY FORMAT:

A. Tools and Materials

Elmer's glue	Ceramic clay
White crustless bread	Paint
White paint	Brushes

B. Human Aides and Resources

Supervisor

C. Procedures for this activity (with helpful hints)

1. Break crustless white bread into little pieces.
2. Mix Elmer's glue and white paint until kneadable.
3. Shape each tooth.
4. Dry over night.
5. Form lower plate out of clay.
6. Insert teeth.
7. Dry for 4 days.
8. Paint gum.

III. RESULTS OF THIS ACTIVITY (AFTER IMPLEMENTATION)

HANDS ON ACTIVITY (STUDENT PERFORMED)I. NAME OF ACTIVITY

TEETH - DIGESTION EXPERIMENT

II. ACTIVITY FORMAT:

A. Tools and Materials

Glass jars
Sugar - granulated (1 teaspoon)
Sugar cube
Water

B. Human aides and resources

Entire class

C. Procedures for this activity

1. Fill both glass jars with equal amounts of water.
2. Drop the two types of sugar in the jars at the same time.
3. Observe
4. Discuss how chewing would help in digestion.
5. Soda crackers - saltless (sweet when chewed, digestion begins in the mouth)

III. RESULTS OF THIS ACTIVITY (AFTER IMPLEMENTATION)

HANDS ON ACTIVITY (STUDENT PERFORMED)I. NAME OF ACTIVITY

EXPERIMENT - DECAYING PROCESS OF TEETH

II. ACTIVITY FORMAT:

A. Tools and Materials

Apples

Bowl

B. Procedures for this activity (with helpful hints)

1. Bruise apples.
2. Put apple in bowl with other apples.
3. Wait a week or two.
4. Observe expansion of bruise.
5. Observe decay of apples that touch bruised one.
6. Relate this decay to that of teeth when cavities aren't filled.

III. RESULTS OF THIS ACTIVITY (AFTER IMPLEMENTATION)

HANDS ON ACTIVITY (STUDENT PERFORMED)I. NAME OF ACTIVITY

ACID'S AFFECT ON TEETH (EXPERIMENT - EGG SHELL AND VINEGAR DEMONSTRATION
TO ILLUSTRATE HOW ACID ON TEETH BREAKS DOWN ENAMEL)

II. ACTIVITY FORMAT:

A. Tools and Materials

Eggs
Vinegar
Small bowl

B. Procedures for this activity (with helpful hints)

1. Break eggs.
2. Have children feel hardness of shell.
3. Drop shell into bowl of vinegar.
4. In a few hours, let children see how easily it breaks.
5. Return shell to vinegar. - overnight.
6. Observe softness of shell.
7. Compare with action of acid on teeth.

III. RESULTS OF THIS ACTIVITY (AFTER IMPLEMENTATION)

Children were amazed at how fast acid can break down enamel.

HANDS ON ACTIVITY (STUDENT PERFORMED)I. NAME OF ACTIVITY

EXPERIMENT - HOW ACIDS DISSOLVE CALCIUM FROM STERILIZED, EXTRACTED TEETH

II. ACTIVITY FORMAT:

A. Tools and Materials

Extracted teeth from dentist
One percent solution hydrochloric acid
Two small glasses

B. Procedures for this activity (with helpful hints)

1. Place one tooth in one percent solution hydrochloric acid.
2. Place another tooth in plain water.
3. Allow to stand for one week.
4. Shows softening.

III. RESULTS OF THIS ACTIVITY (AFTER IMPLEMENTATION)

HANDS ON ACTIVITY (STUDENT PERFORMED)I. NAME OF ACTIVITY

USING DISCLOSING TABLETS TO CHECK OFF PROPER, CAREFUL TOOTH BRUSHING.

II. ACTIVITY FORMAT:

A. Tools and Materials

Disclosing tablets
Toothbrush
Toothpaste
Mirror
Water
Sink

B. Human Aides and Resources

Dental office assistants

C. Procedures for this activity (with helpful hints)

1. Brush teeth.
2. Chew disclosing tablet.
3. Look in mirror for red spots - these are areas that were missed in brushing.
4. Brush again - check.

III. RESULTS OF THIS ACTIVITY (AFTER IMPLEMENTATION)

HANDS ON ACTIVITY (STUDENT PERFORMED)I. NAME OF ACTIVITY

GOTH PASTE

II. ACTIVITY FORMAT:

A. Tools and Materials

Salt
Baking soda
Mouthwash
Paper plates

B. Human Aides and Resources

Supervisor
Oakland County Health Department

C. Procedures for this activity (with helpful hints)

1. 7 pounds salt
2. 7 pounds baking soda
3. Enough mouthwash to make paste
4. Store in pill bottle or tin foil

III. RESULTS OF THIS ACTIVITY (AFTER IMPLEMENTATION)

HANDS ON ACTIVITY (STUDENT PERFORMED)I. NAME OF ACTIVITY

DEMONSTRATE : "TOOTHBRUSH FOODS"
(such as apples and carrots)
VERSUS "STICKY FOODS" (such as
candy and marshmallows)

II. ACTIVITY FORMAT:

A. Tools and Materials

Knife
Cutting Board
Foods such as apples and carrots
Sweet foods such as marshmallows
or candy

B. Procedures for this activity (with helpful hints)

1. Cut toothbrush food - show clean edge of knife.
2. Cut sticky foods - show how it sticks to knife.
3. Explain that this is how food sticks to teeth and holds on to the enamel.
4. Therefore - we should eat less sticky, sweet foods and brush teeth often.
5. Pass out "toothbrush foods" for children to eat.

III. RESULTS OF THIS ACTIVITY (AFTER IMPLEMENTATION)

HANDS ON ACTIVITY (STUDENT PERFORMED)I. NAME OF ACTIVITY

SWEETLESS PARTY

II. ACTIVITY FORMAT:

A. Tools and Materials

Sugarless foods	Sugarless gum
Apple cider	Unsweetened fruit juices
Popcorn	Carrot sticks
Crackers/cheese	Radishes
Potato chips	Stuffed celery
Pretzels	Fruit
Peanuts	Meat (hot dogs)
	Tooth picks

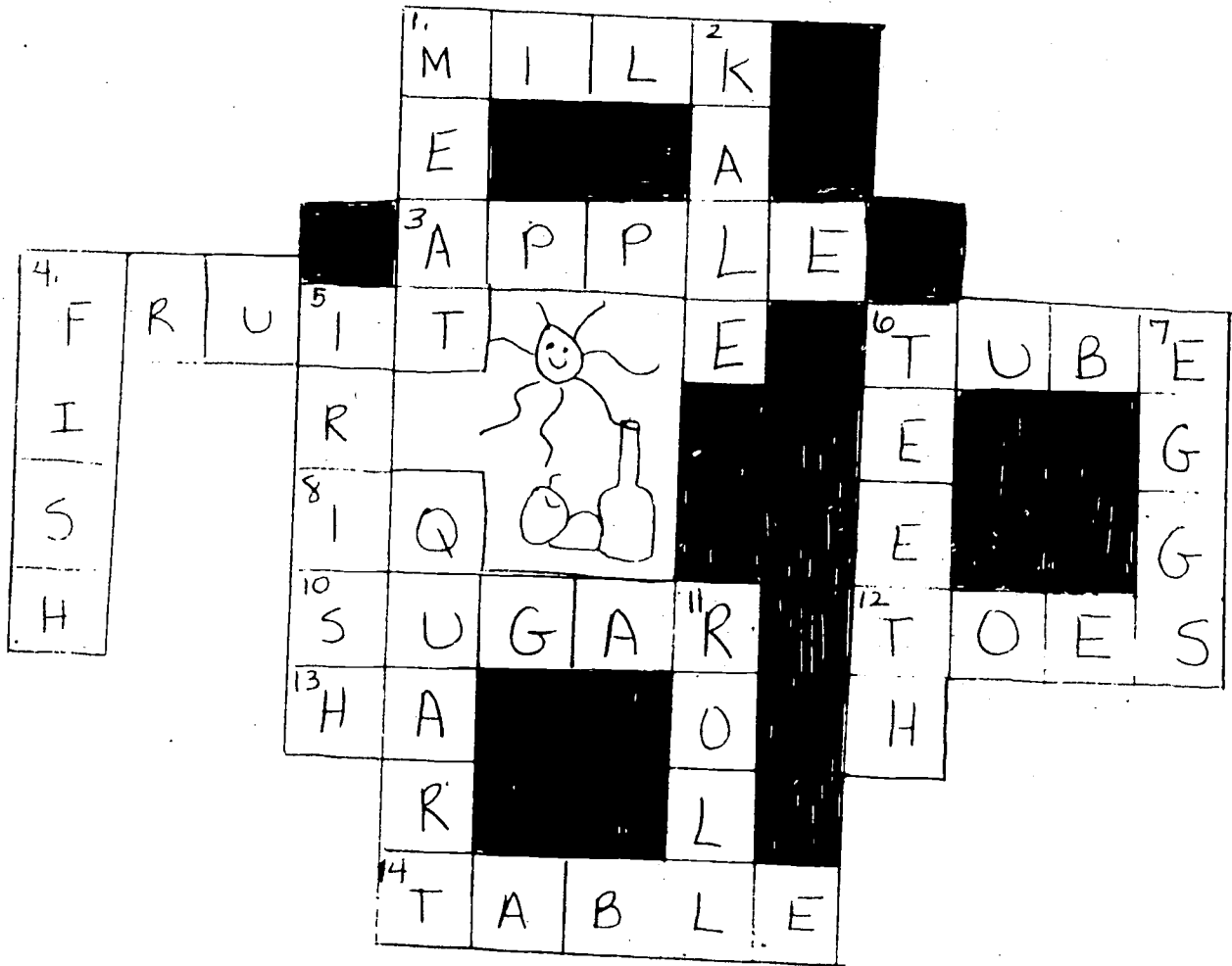
B. Human Aides and Resources

Parents
College students

C. Procedures for this activity (with helpful hints)

1. Have the children plan what foods they would like for their party.
2. Assign foods for children to bring.
3. Assign utensils - i.e.: bowls, napkins, cups, popcorn popper, ingredients, can opener.
4. Set up stations for various foods.
5. Serve.

III. RESULTS OF THIS ACTIVITY (AFTER IMPLEMENTATION)



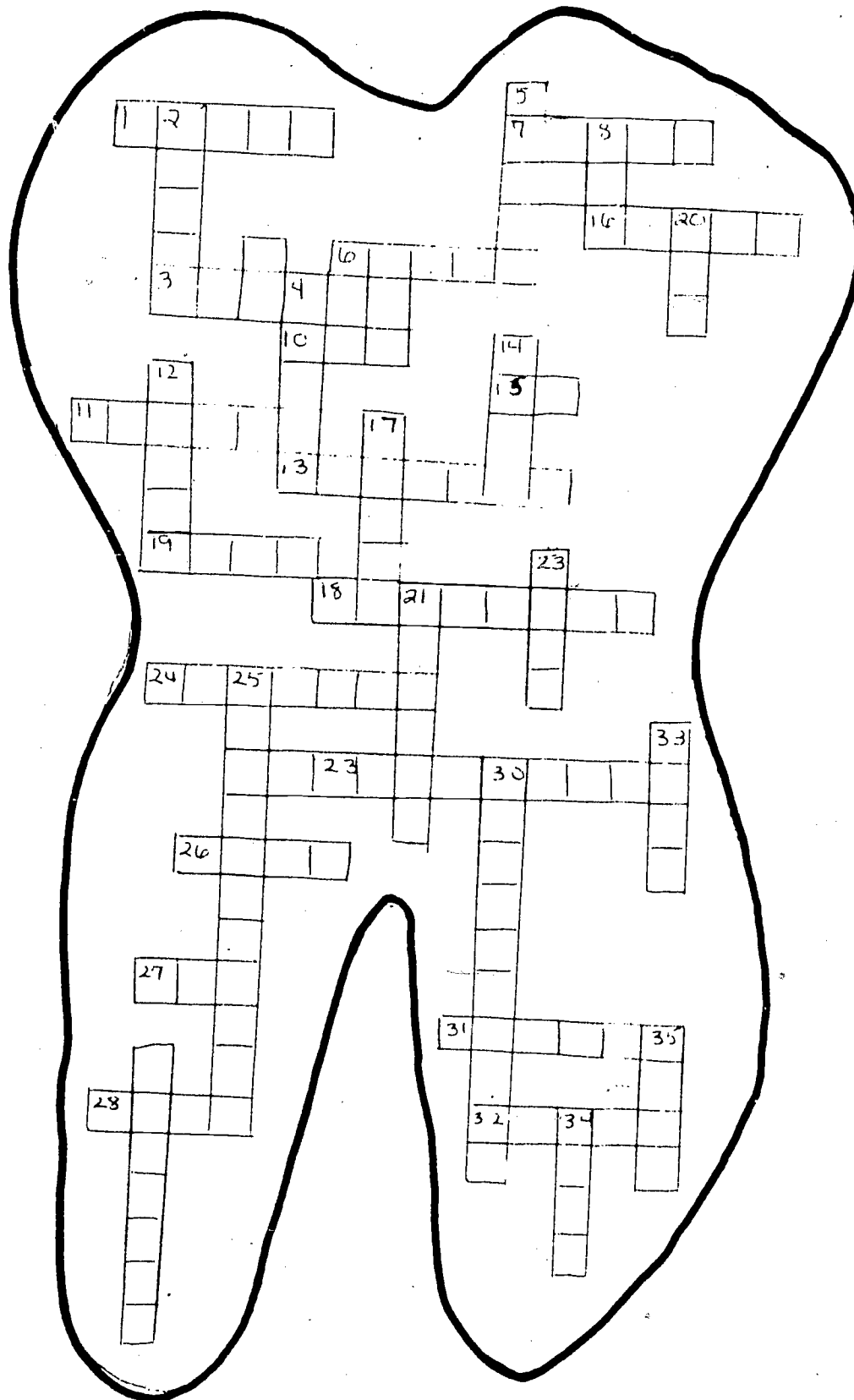
*A list of all answers should be supplied

ACROSS

1. The best food of all
3. Gives chewing exercise
4. Grows on trees and vines
6. What toothpaste comes in
8. You have a good one if you work this puzzle
10. Not so good for teeth
12. You had twice as many baby teeth as you have _____
13. Add "bit" and be sure that tooth-brushing is one
14. Elbows off at mealtime

DOWN

1. One serving a day to grow
2. A green, leafy vegetable
4. They are hard to catch
5. A kind of potato - one a day
6. Right foods help build good, strong ones
7. A source of Vitamin D - you should eat one a day
9. You need this much milk every day
11. Better for teeth when made with whole wheat flour



CROSSWORD TOOTH KEY

ACROSS

1. One of the nicest things to be greeted with is a smile.
3. The root of the tooth is that part that holds the tooth in the mouth.
6. Disease of the teeth is called decay.
7. We should eat an apple a day.
10. We should brush our teeth right after we eat.
11. The name of an orange colored vegetable carrot.
13. Enamel is the hardest substance in our body.
15. The lower teeth should be brush up (direction).
16. Tooth paste is sometimes put on our toothbrush to help clean our teeth.
18. The front teeth that help to cut our food are called incisors.
19. Decayed teeth may hurt.
22. There are thirty-two teeth in a full permanent set of teeth
24. An orange colored fruit that is high in Vitamin C would be oranges (pl.);
26. Milk is the best beverage for us to drink.
27. Some people chew gum and it is bad for their teeth.
28. Can you think of a protein we should eat everyday to give our teeth chewing exercise? Meat
31. A picture of our teeth to show the inside of them is called x-ray.
32. Foods with much sugar in them cause rapid decay.

DOWN

2. A tooth in the back of our mouths that helps us to grind our food is called a molar.
4. Teeth help us to eat, talk and make us look as we do.
5. A sticky, sweet food which speeds decay is candy.
8. A sweet drink that is bad for our teeth is pop.
9. We should see the dentist two times a year.
10. We should brush our teeth right after we eat.
12. To clean our teeth, we brush them.
14. The pink skin around our teeth is called gums.
17. The crown is the white part of the tooth that we see in our mouths.
20. We are about six years old when we get our first permanent teeth.
21. The tooth helps us to tear food. (It is also called the eye tooth) cuspid
23. The bacteria use sugar as food and produce acid.
25. We should make an appointment with the dentist before we go to see him.
29. A doctor who takes care of our teeth is called a dentist.
30. A toothbrush should have a straight back.
33. The upper teeth should be brushed down (direction).
34. In order to have good strong teeth we must eat good food.
35. We would like all of you go get your dental card in during the school year.

HANDS ON ACTIVITY (STUDENT PERFORMED)I. NAME OF ACTIVITY

OCCUPATION MURAL FOR DENTAL HEALTH

II. ACTIVITY FORMAT:

A. Tools and Materials

5' x 2' large white paper	paste
construction paper	felt pen
magazines	yarn (optional)
scissors	

B. Procedures for this activity (with helpful hints)

1. List on board occupations concerned with dental health.
2. Cut out or make pictures showing these occupations.
3. Out of construction paper make a large tooth.
4. Place tooth in middle of large white paper.
5. Arrange occupations around tooth.
6. Label pictures and connect to tooth either by drawing a line or by yarn.

III. RESULTS OF THIS ACTIVITY (AFTER IMPLEMENTATION)

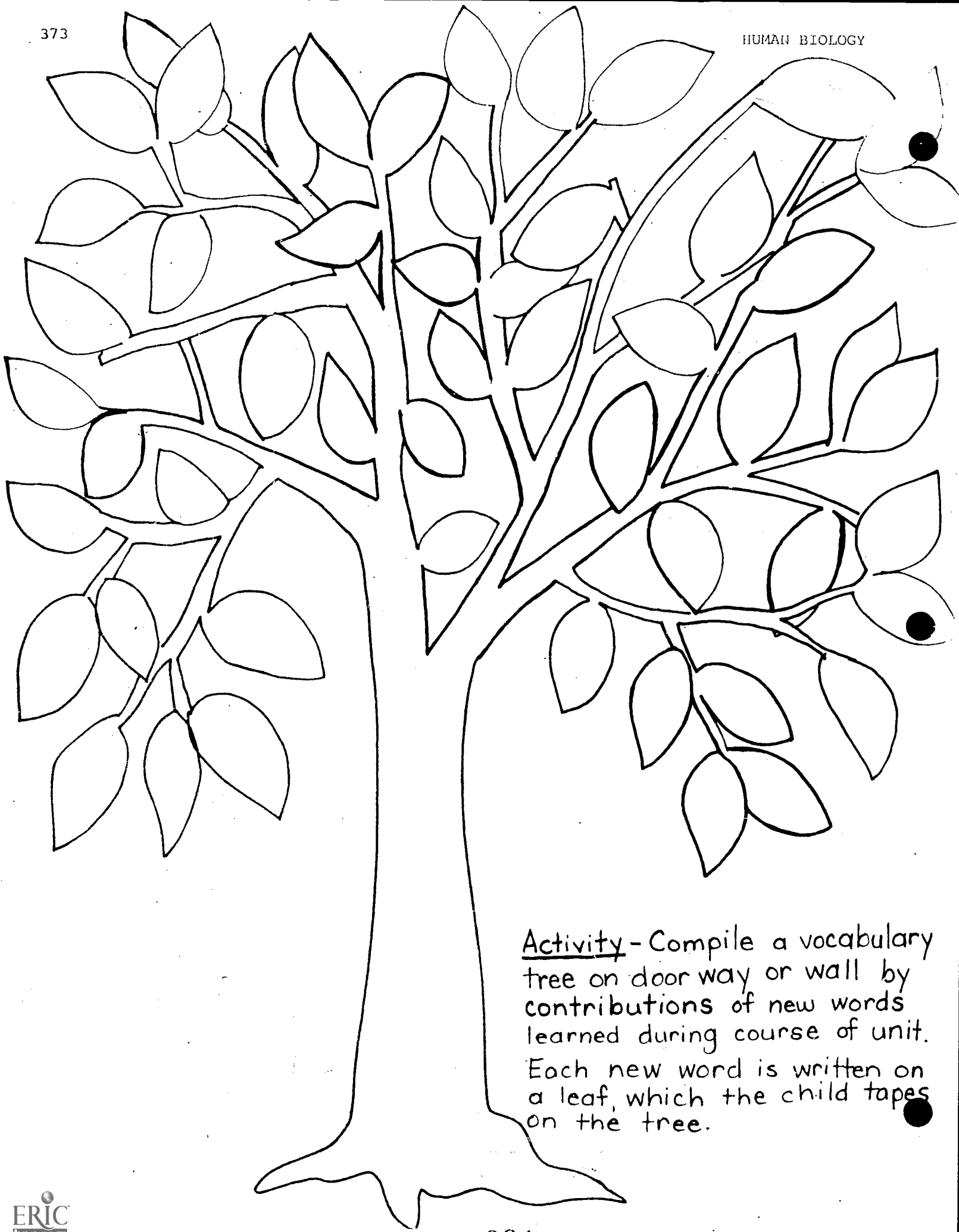
ACTIVITY

VOCABULARY TREE

Compile a vocabulary tree on doorway or wall by contributions of new words learned during course of unit - each new word written on a leaf which child tapes on tree.

Vocabulary List:

- | | |
|--|-------------------------------|
| 1. A.D.A. | 41. patent |
| 2. A.M.A. | 42. pediatrician |
| 3. adaptation | 43. physical trait |
| 4. agrarian | 44. physician |
| 5. allergy | 45. podiatrist |
| 6. allergist | 46. practical nurse |
| 7. anesthesiologist | 47. prescription |
| 8. anesthetist | 48. registered nurse |
| 9. antibiotic | 49. seed |
| 10. apothecary | 50. slip (of plant) |
| 11. apprentice | 51. social control |
| 12. apprenticeship | 52. society |
| 13. bacteria | 53. special |
| 14. "bleeding", practice of | 54. specialization |
| 15. Board of _____ | 55. spice |
| 16. bulb | 56. surgeon |
| 17. chiropractor | 57. translucent |
| 18. colonial | 58. transparent |
| 19. colony (ies) | 59. "trepanning", practice of |
| 20. community | 60. urban |
| 21. crops | 61. vaccinations |
| 22. cultivate | 62. virus |
| 23. cultural trait | 63. volunteer workers |
| 24. decongestant | |
| 25. diploma | |
| 26. doctor | |
| 27. environment | |
| 28. "four natures of body"
"Galenic period of medical
history) | |
| 29. general practitioner | |
| 30. harvest | |
| 31. herb | |
| 32. independence | |
| 33. inoculation | |
| 34. interaction | |
| 35. interdependence | |
| 36. licenses | |
| 37. nurse's aide | |
| 38. optician | |
| 39. optometrist | |
| 40. orthodontist | |



Activity - Compile a vocabulary tree on door way or wall by contributions of new words learned during course of unit. Each new word is written on a leaf, which the child tapes on the tree.

HANDS ON ACTIVITY (STUDENT PERFORMED)

I. NAME OF ACTIVITY

CONSTRUCTING MAZES

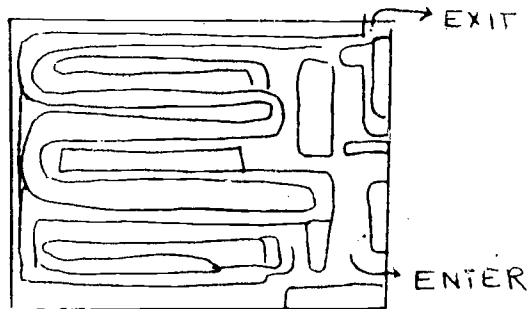
II. ACTIVITY FORMAT:

A. Tools and Materials

Wood (or heavy cardboard)	Paper
Saws	Pencil
Glue, or nails -	Ruler
(dependent on thickness	Carbon or ditto paper
of wood)	

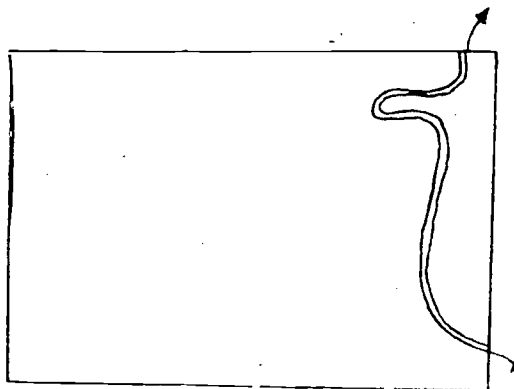
B. Procedures for this activity (with helpful hints)

1. Copy or make up an original maze on paper.
2. Trace maze onto an appropriate piece of wood or heavy cardboard with carbon paper or ditto.
3. Cut pieces of wood to dimensions of the lines.
4. Glue or nail those pieces to the pattern on the wood.



RESULTS OF THIS ACTIVITY (AFTER IMPLEMENTATION)

It is best to have them glue the path in first, then add the other pieces. Some of the children closed their path and didn't realize it.



HANDS ON ACTIVITY (STUDENT PERFORMED)I. NAME OF ACTIVITY

MAZE AND TOWER OF HANOI

II. ACTIVITY FORMAT:

A. Tools and Materials

Saws	Dowel rods
Glue	Wood for Towers of Hanoi
Paint	

B. Procedures for this activity (with helpful hints)

I. Maze

- a. Reproduce a maze (good ones are in Sunday's Detroit News Magazine)
- b. Time students
- c. Time a second time
- d. What conclusions do they form?
- e. Have the students fake hitting the person next to them. What happens? Why?

II. Towers of Hanoi

- a. Saw a rectangle of wood - 12" x 4" x 1"
- b. Drill 3 holes to match diameter of dowel rods
- c. Glue dowel rods in holes
- d. Saw 5 discs of decreasing diameters
(object is to move the 5 discs one at a time to another dowel rod without placing a larger disc on a smaller one)

III. RESULTS OF THIS ACTIVITY (AFTER IMPLEMENTATION)

QUESTIONS

1. Do you help with operations?
2. What do you like about your job?
3. What don't you like about your job?
4. How many years of schooling is required to be a nurse?
5. What an EKG?
6. Do you like being a nurse?
7. Do you work at a desk?
8. Why did you want to be a nurse?
9. What were your favorite subjects?
10. What school do you go to for training?
11. Do you know how to take out stitches?
12. What kind of nurse is she? How many kinds of nurses are there?
13. Do you give shots?
14. Do you work long hours?
15. What do you like best about your job?
16. Can you start an IV?
17. Do you give blood transfusions?
18. Did you ever see a heart operation?
19. Have you ever assisted in a brain operation?
20. How long have you been a nurse?
21. Have you ever given a TB test?
22. How do you feel when you see someone badly hurt?
23. How could you help someone with a hearing problem?
24. Can you read doctors' prescriptions?
25. What kind of patients do you have?
26. Have you ever seen a kidney transplant?
27. How many people have you worked on?
28. Do you answer phones at the hospital?
29. Did you ever see an amputation?
30. How do nurses help during operations?
31. Has any patient died while you were there? How did you feel?
32. What are some of the instruments you use?
33. Does it take a lot of studying to be a nurse?
34. Do badly burned people come to the hospital?
35. Did you ever have a red code?
36. Did you ever have a patient who was shot?
37. What hospitals have you worked in?
38. What is an aneurism?
39. If someone had a hand cut off, could another one be transplanted on?
40. What are the most important instruments you use?
41. Have you ever ridden in an ambulance?
42. Have you ever worked with babies in the hospital?
43. What causes a dislocation of the hip?
44. Do you work on holidays?
45. Were you ever a patient in the hospital you work in?
46. Did you ever see anyone with bad polio?
47. Have you ever seen a patient being rushed into the emergency room?
48. Did you ever treat an epileptic?
49. Did you ever work in X-rays?
50. Were you ever badly hurt and had to be rushed to the hospital?
51. Is there a place in the hospital that is quarantined?
52. Have you ever seen a tumor?
53. Did you ever take blood for tests?
54. How many patients do you treat each month?
55. Are you short on blood donations at the hospital?

HANDS ON ACTIVITY (STUDENT PERFORMED)I. NAME OF ACTIVITY

DOUGHNUTS - SMALL BUSINESS

II. ACTIVITY FORMAT:

A. Tools and Materials

Order paper	Pencils
Electric fry pan	Wax paper
Brown paper	Bowls
Oil	Hole maker
Puffin Buttermilk Biscuits	Napkins
Granulated sugar	Paper plates
Cinnamon	

B. Human Resources

Parents
 Student helpers
 Principal
 School Secretary

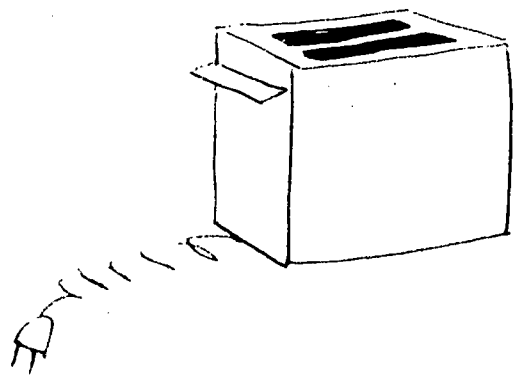
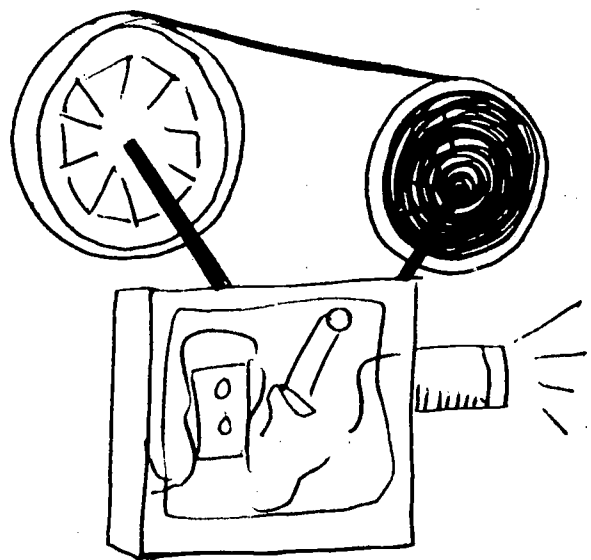
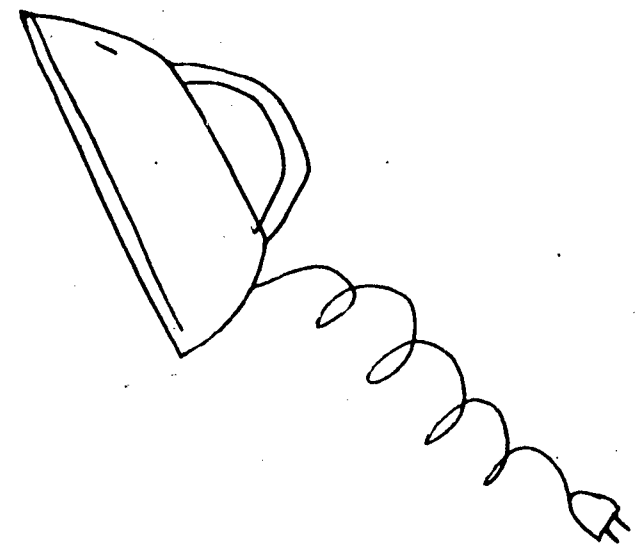
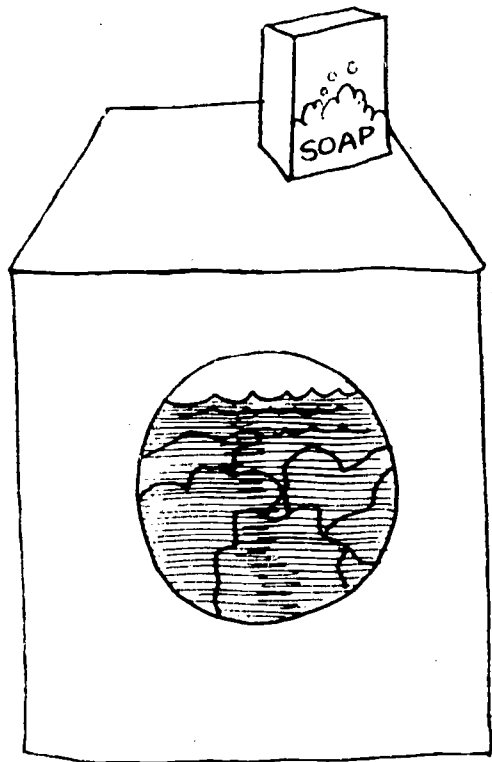
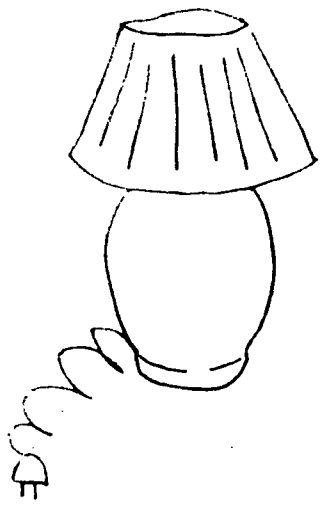
C. Procedures for this activity (with helpful hints)

1. List jobs
2. Diagram jobs on assembly line
3. Elect manager
4. Make up application form for jobs
5. Apply for jobs
6. Interview for jobs
7. Distribute jobs
8. Set up assembly line stations
9. List out supplies needed from recipes
10. Figure quantities of doughnuts to be made
11. Figure out quantities
12. Make out application for loan
13. Interview for loan
14. Figure interest to be paid on loan
15. Pick up loan and sign for loan and date to be paid
16. Purchase supplies
17. Make advertisement posters
18. Place supplies on stations on assembly line
 - a. Openers - open packages
 - b. Separators - separate biscuits
 - c. Hole makers - poke hole in biscuits (let rise)
 - d. Cookers - let oil heat (medium)
 - e. Turners - place in oil and turn when brown
 - f. Removers - remove from oil to drain on brown paper
 - g. Place on paper plates
 - h. Fill orders and place in paper bags
19. Cashiers
20. Order takers

III. RESULTS OF THIS ACTIVITY (AFTER IMPLEMENTATION)

Outstanding - the children took over completely on responsibilities.

	NUMBER	COST
CINNAMON		
PLAIN		
SUGAR		
TOTAL		COST



MACHINES

SCHOOL DISTRICT OF THE CITY OF ROYAL OAK

INTEGRATED TEACHING UNIT
PLANSHEETTITLE: MACHINESGRADE LEVEL: 3-4GENERAL OVERVIEW: By exploring the six simple machines through hands on experiences and activities involving mass production, children will appreciate how work is eased by machinery.TEACHING/LEARNING RESOURCES:1. Reference Materials:

- Books:
- Tools for Andy, James Tippett (Abington-Cokesbury Press)
 - Man and His Tools, William Burns (McGraw-Hill Book Co.)
 - Child's Book of Carpentry, Jeanne Taylor (Greenberry Publishing)
 - True Book of Tools for Building, Jerome Leavett (Children's Press)
 - Woodworking, Roger Lewis (Alfred A. Knopf)
 - What Does It Do and How Does It Work, Russell Hoban (Harper Bros. Pub.)
 - Machinery, Darby
 - Machines, Adler
 - Machine Experiments, Sootin
 - Machinery, Saunders
 - Simple Machines, Stone
 - About Wonderful Wheels, Feenie Ziner
 - Friction, Edward Victor
 - Levers, Lisa Miller
 - Simple Machines and How They Work, Elizabeth Sharp
 - What is a Machine, Boleslaus Syrocki
 - What is a Simple Machine, Gene Darby
 - Wheels, Lisa Miller
 - Royal Oak Science Guide
 - Probe
 - Third grade science text - Mallinson
 - Blough - Schwartz: Elementary School Science
3rd edition - Holt, Rinehart & Winston

- Films:
- ABC of Tools
 - Simple Machines - Wheels and Axles
 - Wheels, Wheels, Wheels
 - Machines Make Work Easier
 - What is Automation?

Film loops:

- Simple Machines
- All-round machinists
- Sheet Metal Workers
- Bricklayers
- Appliance Servicemen
- Welders
- Oxygen and Arc Cutters

Filmstrips:

Finding out about Simple Machines
 What my Father Does - What my Mother Does
 How Wedges Help Us
 How Wheels Help Us
 Levers At Work
 How Ramps and Screws Help Us
 Pulleys
 How Levers Help Us

Realia: Gears
 Levers
 Pendulum
 Water Wheel
 Wheel and Axle
 Screws
 Nails
 Pulleys

2. Field Trips:

SEOVEC - Machine Shop and Woodworking, Appliance Dept.
 Greenfield Village
 Tool and Die Shop
 Ford Motor Company - Wixom Plant
 Rouge Plant
 Pontiac Motor Car Company
 Lumber Yard
 Bakery
 Building Site
 Squirt Bottling Factory - Ferndale
 Upland Hills (farm machinery)

3. Resource People:

Parents, aides and guest speakers
 Builders in area
 Plant managers
 College students
 Custodian
 Mailman
 Secretary
 T.V. Actress
 Employee from tool company

4. Activities:

Mass production - kites, book markers, note paper, model trucks
 Six experiments with simple and complex machines
 Wheel and axle and inclined plane
 Screws
 Letter holder
 Abacus
 Gears
 Pencil holder
 Levers

Tic-Tac-Toe Board
 Make tool box and tools
 String art

UNIT TITLE: MACHINES

CONCEPTS	BEHAVIORAL OBJECTIVES
<p><u>Science</u></p> <p>6 simple machines</p> <p>Complex machines</p> <p>Tools</p>	<p>As a result of this unit, each child will be able to:</p> <p>Differentiate the 6 basic simple machines</p> <p>Identify simple machines found in complex machines</p> <p>Use six simple machines</p> <p>Apply proper use and care of tools</p>
<p><u>Math</u></p> <p>Measurements</p>	<p>Measure distance, volume and time</p>
<p><u>Social Science</u></p> <p>Machines affect on man</p> <p>History of tools and machines</p>	<p>List 5 ways machines help man</p> <p>List 3 ways machines make work easier</p> <p>Describe the history of a tool</p>

METHOD OF IMPLEMENTATION	RESOURCE PEOPLE & MATERIALS
<p>Activities involving simple machines</p> <p>Take apart an old alarm clock</p>	<p>Machine shop workers</p>
<p>Activities</p>	<p>Parents</p>
<p>Group discussion reading and research</p> <p>Have each child select a machine and report how it was invented, how it works, who invented it</p> <p>Have each child invent their own machine, tell what it is used for, how it is made, etc.</p>	<p>Guide at Greenfield Village</p>

UNIT TITLE: MACHINES (continued)

CONCEPTS

BEHAVIORAL OBJECTIVES

Communication Skills

Creative writing

Research

Choral reading

As a result of this unit, each child will be able to:

Write a story

Read and research an aspect of machinery

Participate in choral reading

Tell what simple machine to use in a given situation

Career / Self-Awareness

People and their job roles

Tools

Management

Producing

Servicing

Recognizing emotions and attitudes in self

Explain the concept of mass production

Describe 5 ways machines are used to produce products and services

Describe how your actions reflect a particular attitude (e.g., reading is fun--read a lot of books, talk about what you've read, etc.)

METHOD OF IMPLEMENTATION	RESOURCE PEOPLE & MATERIALS
<p>Field trip</p> <p>Report on field trip</p> <p>Role play</p> <p>Set up assembly line</p>	<p>Parents</p> <p>College students</p> <p>School custodian</p>
<p>Activities</p> <p>Guest speakers and field trips</p> <p>Make a mural, after a field trip, of the machines seen and how they make work easier</p>	

HANDS ON ACTIVITY (STUDENT PERFORMED)I. NAME OF ACTIVITY

SIX EXPERIMENTS WITH SIMPLE AND COMPLEX MACHINES

II. ACTIVITY FORMAT:

A. Tools and Materials

Claw hammer and nail
Hand drill with gear
Brace and bit
Screw driver and screw
Blocks of wood
Inclined plane and pulley from IMC

B. Procedures for this activity

Each child performs the six experiments and records observations on given sheet.

1. Pound nail into wood block with claw hammer.
2. Drill hole using hand drill into wood block.
3. Drill hole using brace and bit into wood block.
4. Write up differences in using the hand drill and brace and bit.
5. Using screw driver, turn screw into wood.
6. Using the IMC pulley display write up observations in lifting different weights.

III. RESULTS OF THIS ACTIVITY (AFTER IMPLEMENTATION)

HANDS ON ACTIVITY (STUDENT PERFORMED)I. NAME OF ACTIVITY

INCLINED PLANE AND WHEEL AND AXLE

II. ACTIVITY FORMAT:

A. Tools and Materials

Long board
Roller skate
Large rubber band
Ruler

B. Human Aides and Resources

Royal Oak Science Guide M-8

C. Procedures for this activity (with helpful hints)

1. Use a board to make an inclined plane.
2. Attach the rubber band to the roller skate.
3. Pull the skate (on its side) up the board.
4. Measure the length of the rubber band.
5. Try it a second time using wheels.
6. Alter the slant of the board and try again.
7. Explain the reasons for the difference in length of the rubber band.
8. Using a spring-loaded weighing device, have the students decide if it takes more effort to get the roller skate started from a fixed position or to keep it in motion once it is moving.

III. RESULTS OF THIS ACTIVITY (AFTER IMPLEMENTATION)

HANDS ON ACTIVITY (STUDENT PERFORMED)I. NAME OF ACTIVITY

GEARS

II. ACTIVITY FORMAT:

A. Tools and Materials

Plywood	Dremel saw
Nails	Hammer
Scrap wood	Cardboard

B. Procedures for this activity (with helpful hints)

1. Trace a circle on cardboard.
2. On its outer edge draw ridges to assimilate a gear.
3. Cut out.
4. Use the gear as a pattern for making gears on a larger circle.
5. Cut out.
6. Trace the 2 patterns on plywood.
7. Cut out wheels with dremel saw.
8. Using a nail and hammer, start a hole in the center of each wheel, and drill a hole.
9. Make a handle out of a small block of scrap wood and nail on to one of the wheels.
10. Fasten the 2 wheels to a large piece of wood - side by side.
11. Turn the handle. The 2 wheels should move in opposite directions. The smaller wheel should move at a faster rate than the large wheel.

III. RESULTS OF THIS ACTIVITY (AFTER IMPLEMENTATION)

HANDS ON ACTIVITY (STUDENT PERFORMED)I. NAME OF ACTIVITY

LEVERS

II. ACTIVITY FORMAT:

A. Tools and Materials

2 x 6 board 1/2" thick
Short 2 x 4 to be used as a fulcrum

B. Human Aides and Resources

Royal Oak Science Guide M-9

C. Procedures for this activity (with helpful hints)

Using board and fulcrum, place fulcrum in
different positions to experiment with
lifting, pushing, and balancing.

III. RESULTS OF THIS ACTIVITY (AFTER IMPLEMENTATION)

HANDS ON ACTIVITY (STUDENT PERFORMED)I. NAME OF ACTIVITY

LETTER HOLDER

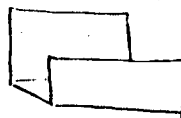
II. ACTIVITY FORMAT:

A. Tools and Materials

Dremel saw	Paint brush	Varnish
Sandpaper	2 1" nails	
T-square	Woodburning tool	
4 x 1/2 board - running feet to be cut into 6" pieces		

B. Procedures for this activity (with helpful hints)

1. Measure 6" long 4 x 1/2 wood.
2. Measure 6" piece into 3 sections - width 2 1/2 - 2 - 1 1/2.
3. Cut measured pieces.
4. Nail 1 1/2" piece bottom
2 1/2" piece back
2 " piece front
5. Burn design on front.
6. Sand
7. Varnish

III. RESULTS OF THIS ACTIVITY (AFTER IMPLEMENTATION)

HANDS ON ACTIVITY (STUDENT PERFORMED)I. NAME OF ACTIVITY

ABACUS

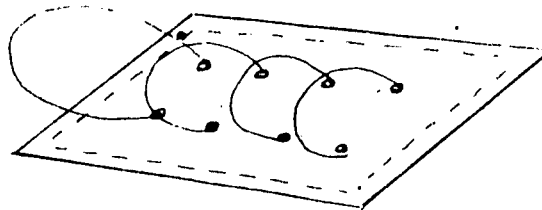
II. ACTIVITY FORMAT:

A. Tools and Materials

Saws (cross cut and dremel)	Wire
Drill	Sandpaper
T-square	Pencil
Template for holes to be drilled	Ruler
Wood	Elmer's glue
Beads (red, blue, yellow, green 100 per color)	Reed

B. Procedures for this activity (with helpful hints)

1. Measure blocks of wood 9" long, square the edges and sand smooth.
2. Measure and mark 1" from each end and 1" from each edge.
3. Mark where holes are to be drilled (2 rows of holes 1 3/4" apart).
4. Drill holes
5. Cut reed to 10" lengths.
6. Soak in water 24 hours.
7. Thread beads of one color on each of four cut reeds.
8. Place drop of Elmer's glue in hole, gently bend reed and insert in holes.

III. RESULTS OF THIS ACTIVITY (AFTER IMPLEMENTATION)

HANDS ON ACTIVITY (STUDENT PERFORMED)I. NAME OF ACTIVITY

PENCIL HOLDER

II. ACTIVITY FORMAT:

A. Tools and Materials

Cross cut saw

Drill

T-square

Wood (2x2x4)

Sandpaper

Paint brush

Varnish

Woodburning tool

B. Procedures for this activity (with helpful hints)

1. Measure 4" piece of 2 x 2.
2. Using a cross cut saw cut the piece of wood.
3. Measure 1" from each edge.
4. Drill holes in the wood within the edge.
5. Burn a design
6. Varnish

III. RESULTS OF THIS ACTIVITY (AFTER IMPLEMENTATION)

HANDS ON ACTIVITY (STUDENT PERFORMED)I. NAME OF ACTIVITY

KEY CHAIN

II. ACTIVITY FORMAT:

A. Tools and Materials

1/4 plywood (3 x 3)
Beaded chain (at Frenz)
Acrylic paint
3 paint brushes
Clear varnish
Sandpaper
Carbon paper

B. Procedures for this activity (with helpful hints)

1. Cut wood into 3 x 3 pieces and drill hole for chain.
2. Sand smooth.
3. May be own design - lay design on carbon paper on top of wood - transfer design.
4. Paint design using acrylic paint.
5. After dry (next day) apply clear varnish.

III. RESULTS OF THIS ACTIVITY (AFTER IMPLEMENTATION)

HANDS ON ACTIVITY (STUDENT PERFORMED)I. NAME OF ACTIVITY

NOODLE KNACHER (LET Me Tease You)

II. ACTIVITY FORMAT:

A. Tools and Materials

(2 x 4) 14" level
1/2" dowel (about 24")
Saber saw
Sandpaper
Drill and bit

B. Procedures for this activity (with helpful hints)

1. Cut (2 x 4) at angle
2. Space hole every 2 inches (6)
3. Drill holes with drill and bit at different depths.
4. Cut dowels so when in holes they are all on the same level
5. Please note dowels will be different lengths because holes are different depths.

III. RESULTS OF THIS ACTIVITY (AFTER IMPLEMENTATION)

HANDS ON ACTIVITY (STUDENT PERFORMED)I. NAME OF ACTIVITY

LINE PRODUCTION - KITE MAKING

II. ACTIVITY FORMAT:

A. Tools and Materials (Materials for 30 kites)

5 - 90 feet of brown craft paper - 3 feet wide
60 lengths of wood strips $1/8 \times 1/4 \times 3$ feet
3 - 100 feet of kite string
One roll - 20-24 gauge soft aluminum wire
1 box gum reinforcements
Assorted tempera paints
Assorted rags for kite tail
1 quart rubber cement

B. Procedures for this activity - Refer to model kite for detailed measurements

Make labels for work stations

1. Cut paper to shape using template.
2. Use template to mark four fold lines and punch 2 holes.
3. Fold along lines.
4. Attach 2 gum reinforcements.
5. Use fixture to cut string to length - 2 pieces 100" length 30" length.
6. Use fixture to cut wood strips to two lengths (see your kite model).
7. Notch ends.
8. (Optional) Drill hole in each wood strip (see your kite).
9. Wire strips of wood together.
10. Cut cloth for tail.
11. Tie lengths together.
12. Tie string using fixture and glue paper.
13. Inspect.
14. Paint design on paper.
15. Attach wood strips to kite.
16. Attach flying string to kite.
17. Cut and attach bow string.
18. Attach tail.

Equip stations with tools

III. RESULTS OF THIS ACTIVITY (AFTER IMPLEMENTATION)

HANDS ON ACTIVITY (STUDENT PERFORMED)I. NAME OF ACTIVITY

BOOKMARKS

II. ACTIVITY FORMAT:

A. Tools and Materials

Scissors	Decorations
Pencils	(Rick-rack,
Tooth picks	sequins,
Felt scraps	glitter,
Glue	ribbons)
Patterns	

B. Procedures for this activity (with helpful hints)

Two assembly lines and one control group for comparison.

Assembly Line Stations

1. Tracers) — main body of
2. Cutters) — bookmark
3. Tracers) — design or decoration on
4. Cutters) — one end of bookmark
5. Feature tracers
6. Feature cutters
7. Decoration adders
8. Gluers
9. Inspectors

III. RESULTS OF THIS ACTIVITY (AFTER IMPLEMENTATION)

HANDS ON ACTIVITY (STUDENT PERFORMED)I. NAME OF ACTIVITY

MAKING NOTEPAPER FOR MOTHERS

II. ACTIVITY FORMAT:

A. Tools and Materials

Paper cutter	Small-size business envelopes
Rulers	Small boxes from home
Scissors	
Bond paper	

B. Human Aides and Resources

Some from Hallmark (or some other business which profits from sentimentality).

Older grade children for assembly assistance.

C. Procedures for this activity (with helpful hints)

Set up assembly line in Y formation:

1. On one leg of Y, assemble odds and ends and crayons for designing of envelopes. This station could handle five or six.
2. On other leg of Y, assemble two substations:
 - a. 4 children folding pre-cut rectangular pieces of paper
 - b. 4 or 6 children creating designs on folded notepaper.
3. Quality control at merging of lines.
4. 3 children slipping notepaper sheet with each envelope.
5. 3 children placing 12 notepapers and envelopes in box.
6. 3 children wrapping finished products.

III. RESULTS OF THIS ACTIVITY (AFTER IMPLEMENTATION)

HANDS ON ACTIVITY (STUDENT PERFORMED)I. NAME OF ACTIVITY

BUILDING OF MODEL TRUCKS

II. ACTIVITY FORMAT:

A. Tools and Materials

Board of tools	Thumbtacks
Extension cord	Axle material (coat hangers)
Lumber	1/2" doweling
Wheels	

B. Human Aides and Resources

College students to assist precutting and on line
 2 fathers of students: Auto Design Man - Machine Builder

C. Procedures for this activity (with helpful hints)

1. Measure axle guide lines on bottom of flat bed
2. Attach engine block to flat bed
3. Attach cab to flat bed
4. Drill hole by adult for steering column
5. Attach seat to flat bed
6. Use template, mark and drill doweling hole
7. Using guide lines, nail staples to bottom of flat bed
8. Rough and fine sand edges of trucks
9. Inspection
10. Cut axles to 4 1/2" lengths
11. Attach one wheel to axle
12. Slip axle through staples and attach other wheel
13. Inspect wheel alignment
14. Attach headlights
15. Glue and insert four precut pieces of doweling in truck bed
16. Final inspection.

III. RESULTS OF THIS ACTIVITY (AFTER IMPLEMENTATION)

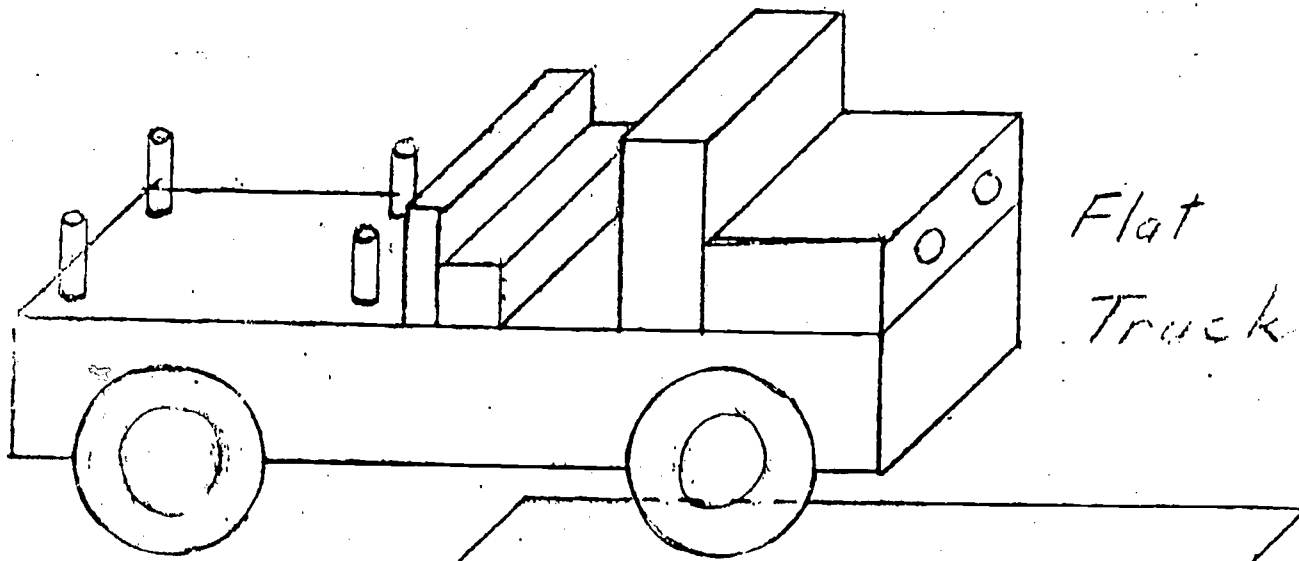
Children selected one truck and applied: 1) linseed oil; 2) first coat of latex paint; 3) second coat of latex paint; 4) highlights using acrylic paints (brushes clean with soap and water if done quickly).

TRUCK MASS PRODUCTION

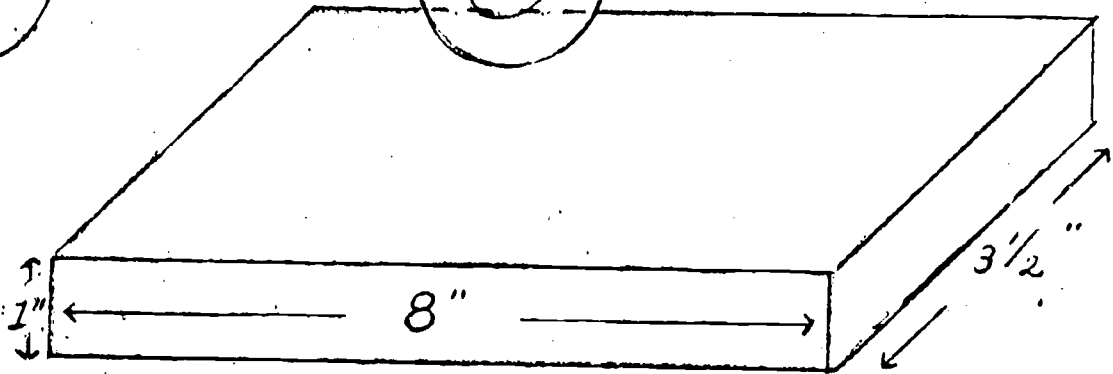
Parts List Per Truck (Multiply number of parts of length of wood to determine total material needed for class).

4 wheels
*2 coathanger wire, 4 1/2"
4 1/2" Staples
*1 Pine, 3/4" x 1 1/2" x 8"
*1 Pine, 3/4" x 3 1/2" x 8"
8 Brads
4 1/8" I.D. - 3/8" O.D. Steel Washers
*2 1/2" x 1" x 3 1/2" Pine
*4 1 1/2" x 1/2" O.D. doweling

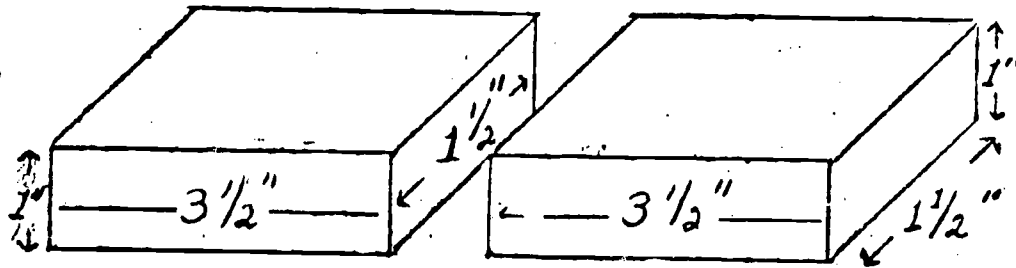
Assembly line will have to be planned to fit your individual classroom with electrical outlet taken into consideration.



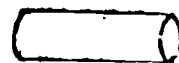
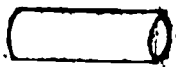
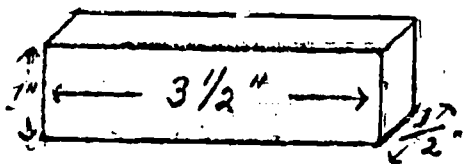
Flat Bed



Cab & Hood



Seat Back



1/2" O.D.

L = 1 1/2"

Plan Sheet for Flat-bed Truck

Ditto completed and included!

HANDS ON ACTIVITY (STUDENT PERFORMED)I. NAME OF ACTIVITY

MAKING HOLES THROUGH A BLOCK OF WOOD

II. ACTIVITY FORMAT:

A. Tools and Materials

Hand file or awl	12 board feet 3/4 x 4"
Hand drill	Saws
Electric drill	Wooden horse
Hammer	Sandpaper

B. Human Aides and Resources

Father who's a carpenter
Parent aides during activity

C. Procedures for this activity (with helpful hints)

1. Assemble children in small groups around activity centers. Provide paper activities until each group can cut 1' length off long boards.
2. Have children mark one surface into three sections.
3. In left section, allow children to use various tools other than drills to attempt to make a hole.
4. In middle section, have children use a hand drill.
5. In right section, supervise children as they make a hole using electric drill.
6. Evaluate effectiveness of three methods.

III. RESULTS OF THIS ACTIVITY (AFTER IMPLEMENTATION)

Children had a real appreciation for amount of work that tools save the person doing the work.

HANDS ON ACTIVITY (STUDENT PERFORMED)I. NAME OF ACTIVITY

SCREWS

II. ACTIVITY FORMAT:

A. Tools and Materials

Scissors	Screw drivers
Pencils	Screws
Crayons	Wood
Paper	

B. Procedures for this activity (with helpful hints)

Screws (show how screw is an inclined plane)

1. Cut a piece of paper in triangular shape.
2. With a crayon, color the slanting edge.
3. Wind the paper around the pencil.
4. The colored edge should show the rivets of a screw.
5. Try using a screw driver and screws on scrap paper.

III. RESULTS OF THIS ACTIVITY (AFTER IMPLEMENTATION)

HANDS ON ACTIVITY (STUDENT PERFORMED)I. NAME OF ACTIVITY

TOOL BOX AND TOOLS (Give as gift to younger child)

II. ACTIVITY FORMAT:

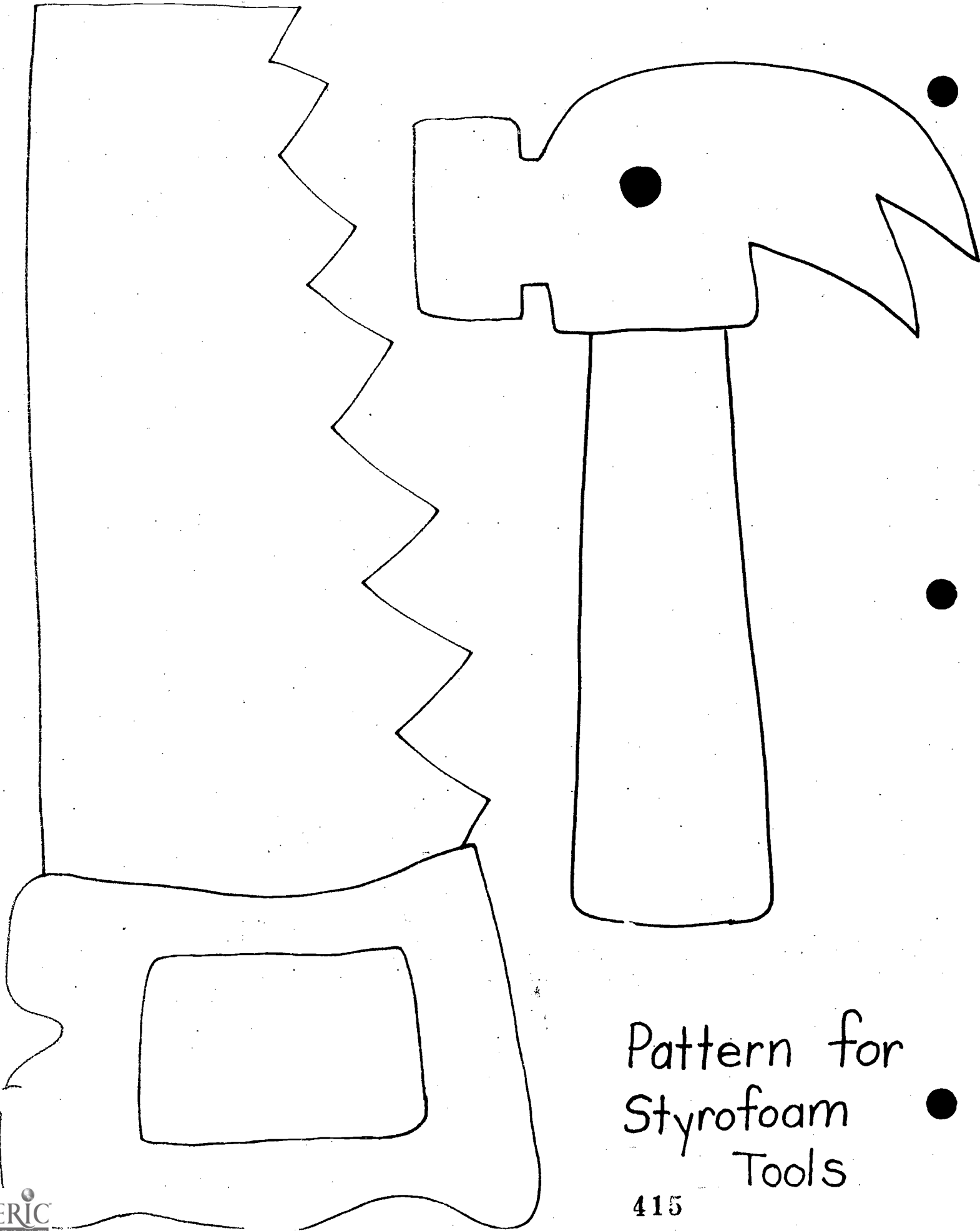
A. Tools and Materials

shoe boxes
paper fasteners
rubber bands
styrofoam
dremel saw

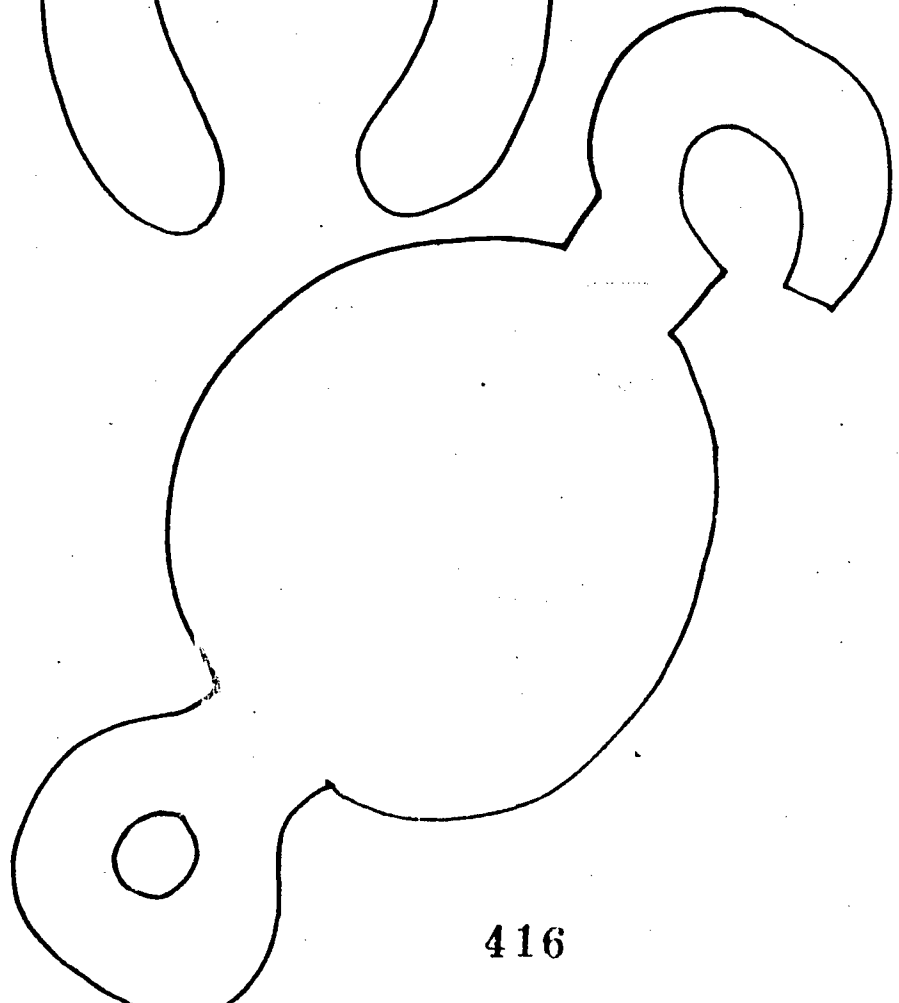
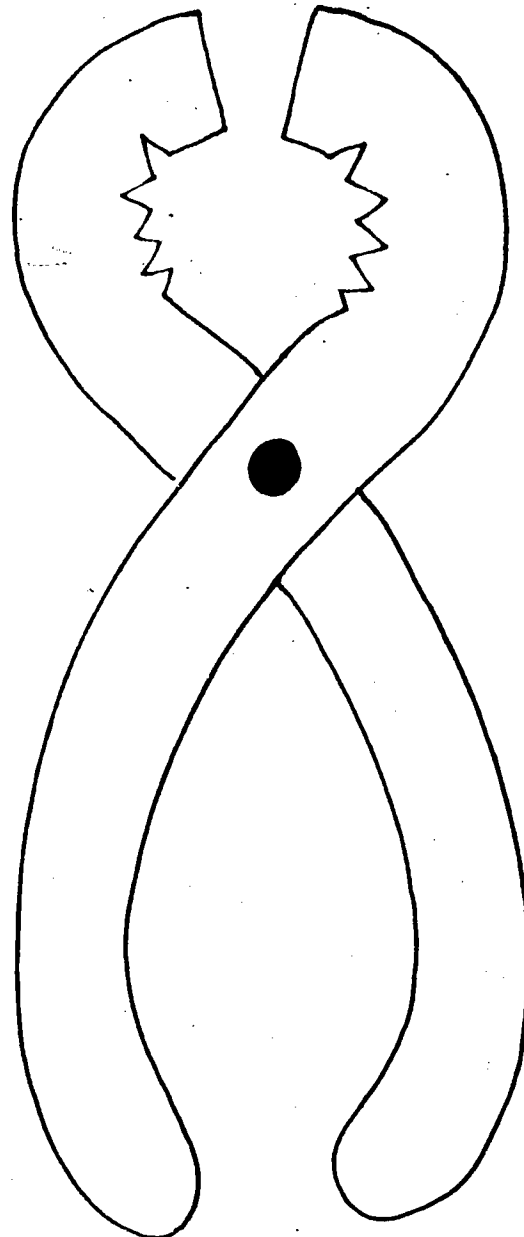
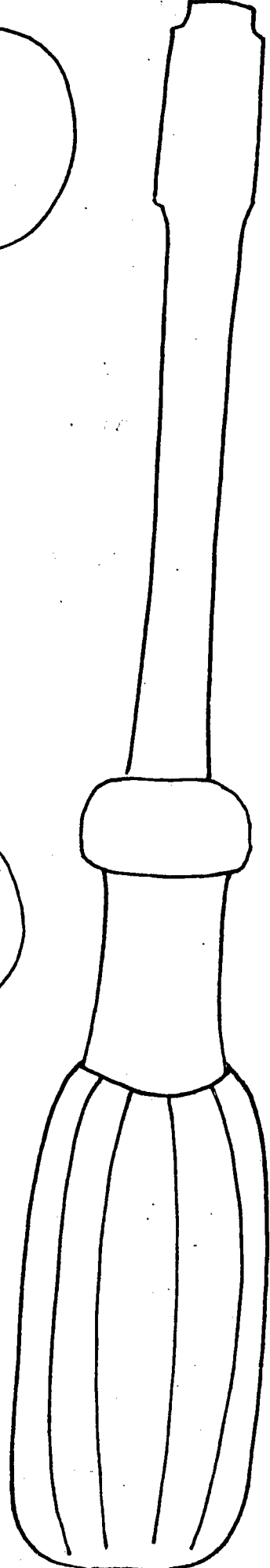
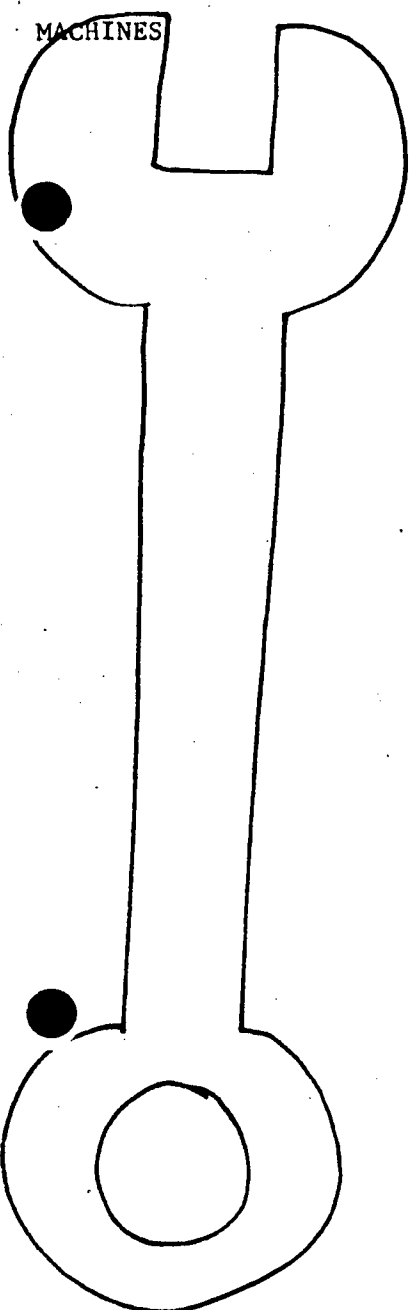
B. Procedures for this activity (with helpful hints)

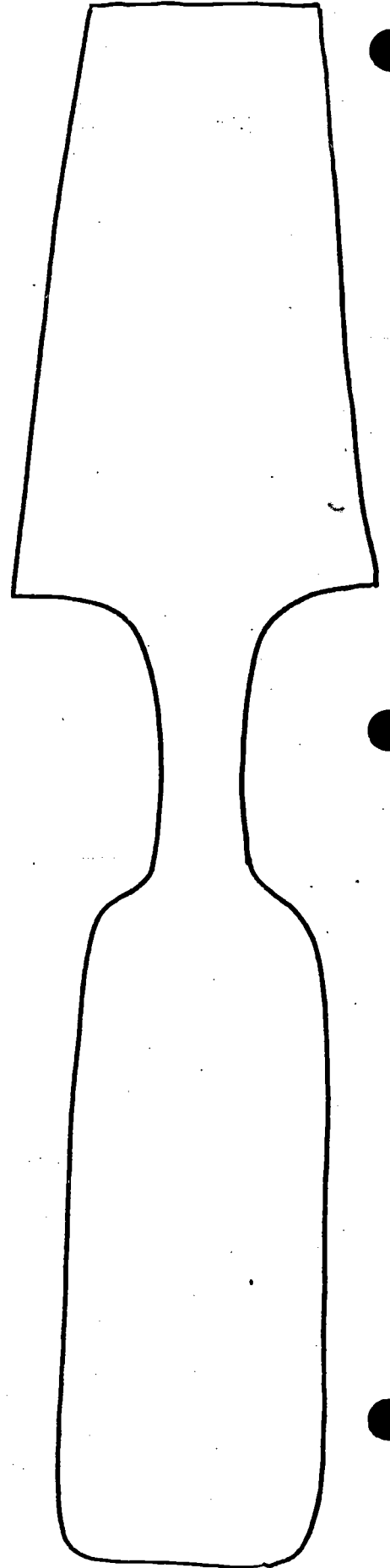
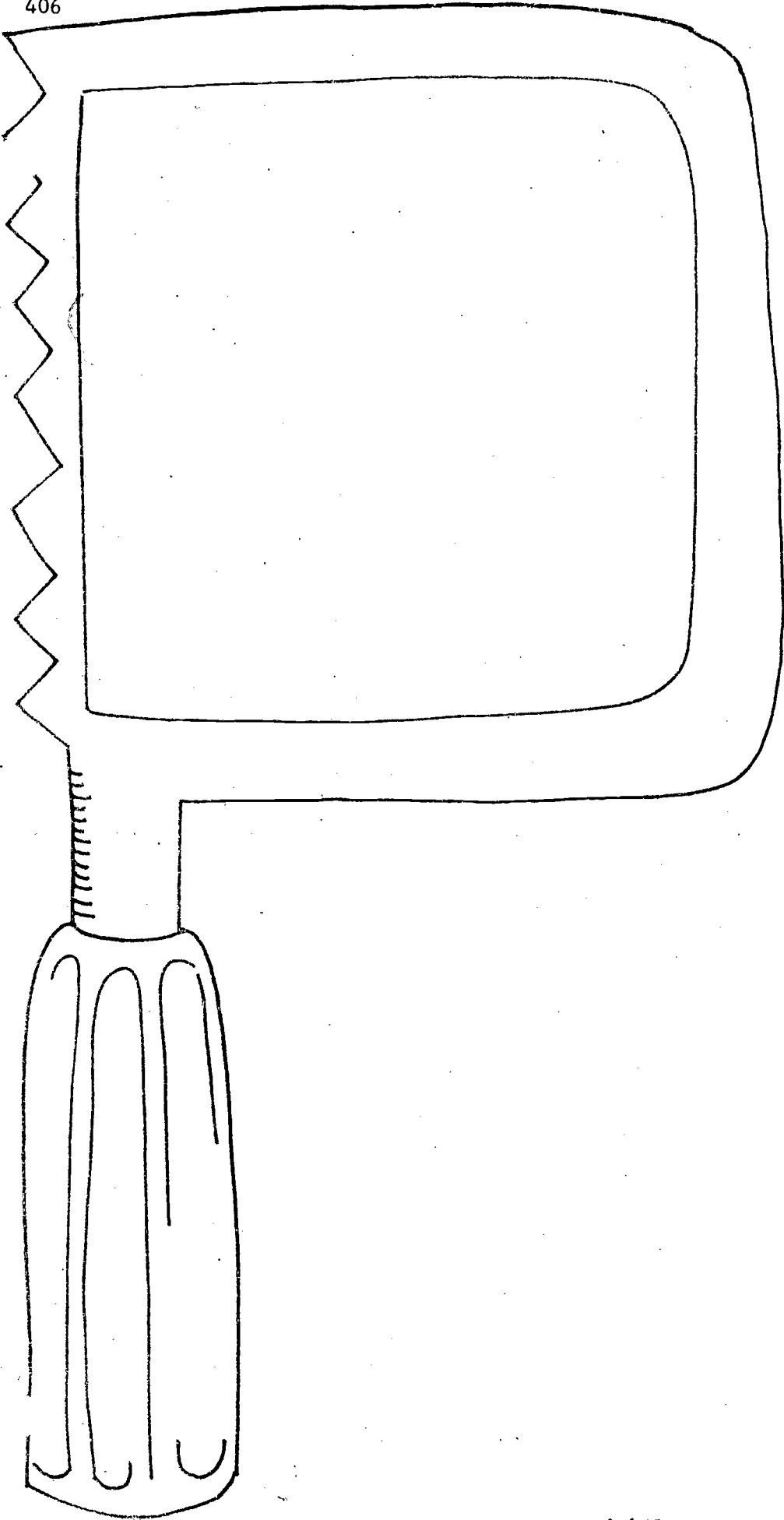
1. Attach lid to shoe box with paper fasteners and rubber bands.
2. Trace pattern of tool onto styrofoam and cut out on dremel saw.

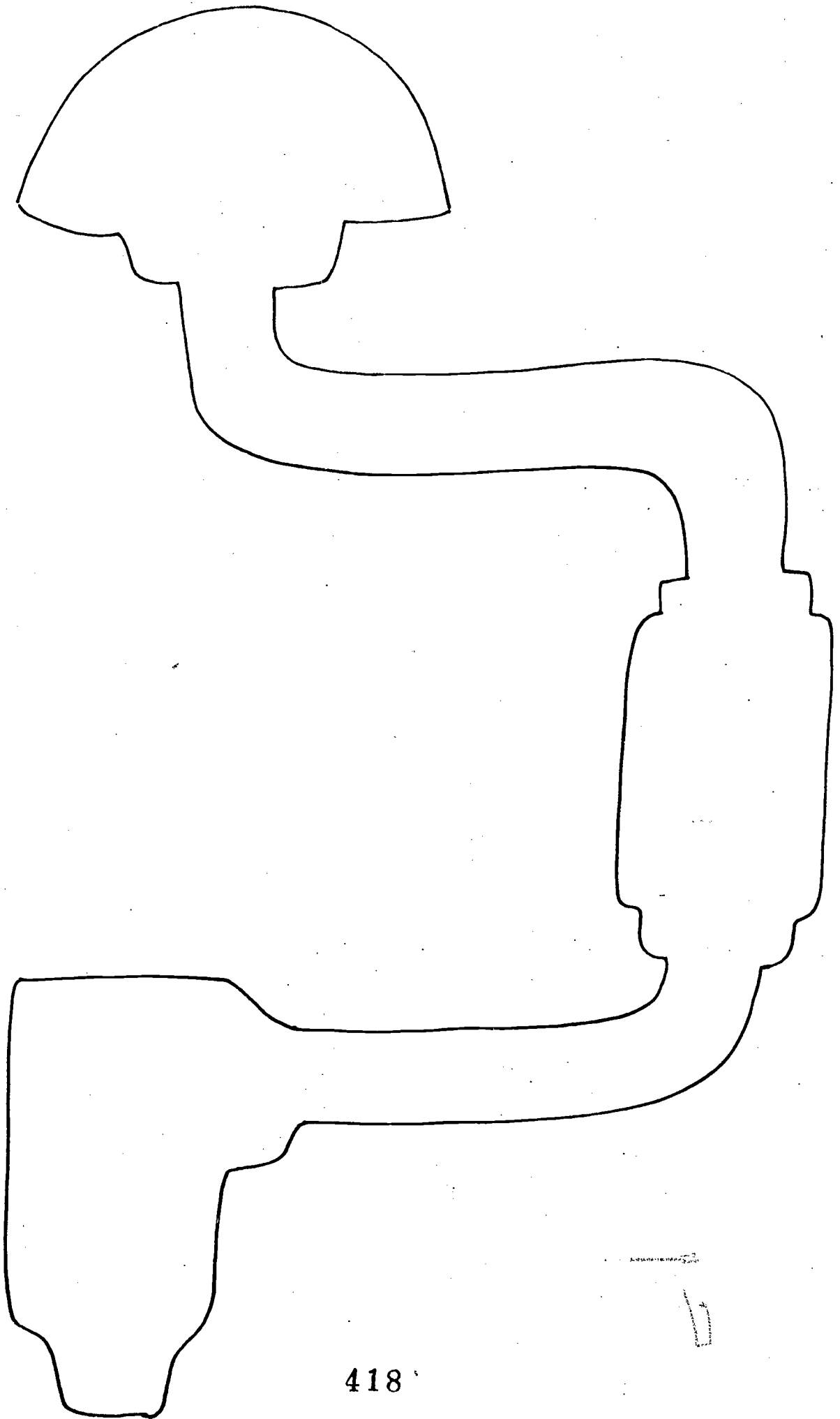
III. RESULTS OF THIS ACTIVITY (AFTER IMPLEMENTATION)



Pattern for
Styrofoam
Tools







HANDS ON ACTIVITY (STUDENT PERFORMED)I. NAME OF ACTIVITY

ELEVATORS - WHEEL AND AXLE

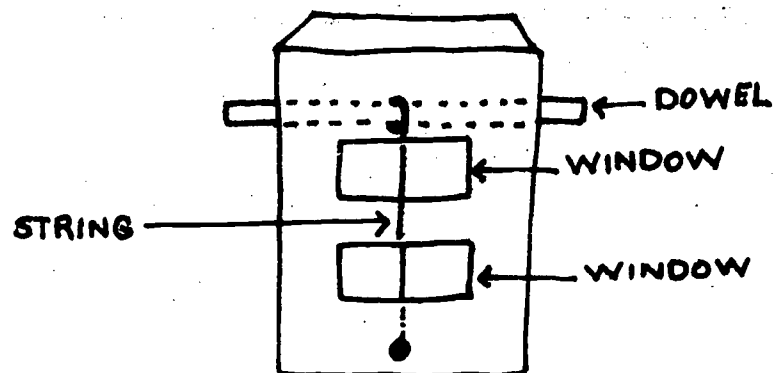
II. ACTIVITY FORMAT:

A. Tools and Materials

Half-gallon milk carton
 string
 pencil or small dowel
 small objects to elevate
 scissors

B. Procedures for this activity (with helpful hints)

1. Punch a hole on opposite sides of carton near top to insert pencil or small dowel.
2. Tie string around pencil, long enough to touch the bottom of the container, and attach object to the string.
3. Cut two doors on one side of the carton.

III. RESULTS OF THIS ACTIVITY (AFTER IMPLEMENTATION)

HANDS ON ACTIVITY (STUDENT PERFORMED)I. NAME OF ACTIVITY

GEOMETRIC DESIGNS - STRING ART

II. ACTIVITY FORMAT:

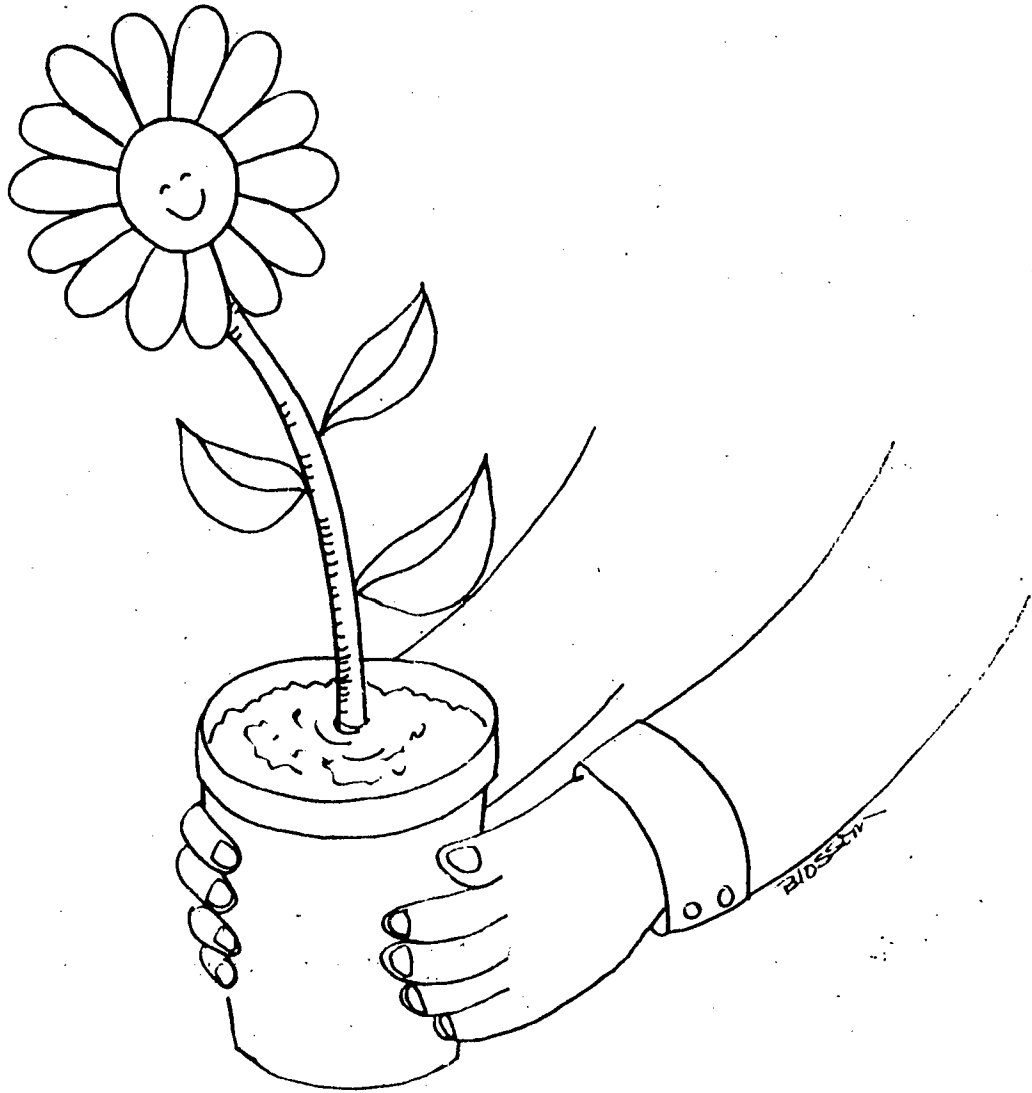
A. Tools and Materials

individual pieces of plywood
nails
colored string
paint
hammer

B. Procedures for this activity (with helpful hints)

1. Paint plywood.
2. Hammer nails into plywood in some planned design.
3. Wind string around nails to obtain some interesting design - experimenting with different colors of string.

III. RESULTS OF THIS ACTIVITY (AFTER IMPLEMENTATION)



PLANTS

421

SCHOOL DISTRICT OF THE CITY OF ROYAL OAK

INTEGRATED TEACHING UNIT
PLANSHEET

TITLE: PLANTS AND TREES

GRADE LEVEL: 3-4

GENERAL OVERVIEW: Children are curious about nature and their surroundings. Through the study of Plants and Trees children will observe their structures and functions. The children will become better aware of the dependence that people and animals have upon plants.

TEACHING/LEARNING RESOURCES:

1. Reference Materials:

Books: The Blue Seed
A Tree Called Moses

Films: Classifying Plants and Animals
Color of Life, The
Genetics: Mendel's Law
Let's Watch Plants Grow
Life In A Pond
Life on the Tundra
Living Things In a Drop of Water
Movements of Plants
Plant-Animal Communities: Interrelationships
Plant-Animal Communities: Physical Environment
Plant-Animal Communities: The Changing Balance of Nature
Plant Tropisms and Other Movements
Plants that Grow From Leaves, Stems and Roots
Plants that Have No Flowers or Seeds
Seed Dispersal
Simple Plants: Algae and Fungi
Simple Plants: Bacteria
Succession - From Sand Dune to Forest
Temperate Deciduous Forest, The
Worth How Many Words
Discovering the forest

Filmstrips:

Parts of a Flowering Plant
Parts of a Plant
Photosynthesis
Plant Cells
Plant Experiments
Plant Factories
Plants (R)

Filmstrips: (continued)

Plants and Their Seeds
 Plants and Water
 Plants Grow
 Plants Grow and Change
 Plants We Use
 Primeval Forests
 Roots, Stems, Leaves
 Seeds and Seed Travels
 Story of Fruits and Vegetables
 Story of How Apples Grow
 Telling Trees Apart
 Trees (r)
 Using Forests Wisely
 Vegetables
 Walk in the Woods
 What is a Plant
 Wilderness Nature Trail
 World of Living Things
 Adaptations of Plants
 Animal and Plant Relations
 Animals and Plants of the City
 Animals and Plants of the Fields
 Animals and Plants of the Forest
 Animals and Plants of the Pond
 Animals, Plants and Their Environment
 Characteristics of Plants
 Classification of Plants
 Classroom Projects with Plants
 Dependent Plants
 Desert Flowers (r)
 Desert Life Community
 Desert Textures (r)
 Finding Out How Plants Grow
 Flowers, Fruits and Seeds
 Forests
 Forests: A Stable Community
 From Flower to Seed
 Fruits
 Fungi
 Germination and Plant Growth
 Great American Desert
 Green Plants Are Important To Us
 Green Plants: Food Factories for the World
 How Seeds Are Scattered
 Introducing Oceanography - Collecting Plants and Animals by Ship
 Mushrooms
 Nature's Half Acre
 Non-green Plants

Filmloops:

Carpenters
 Forestry Aids
 Fire Fighters

Realia: Barley
 Birch Bark
 Cotton
 Cotton bale
 Lumber samples
 Petrified wood
 Rye
 Wheat

Slides: Flowers
 Plants
 Vegetables
 Weeds and Wayside Plants
 Wildflowers

2. Field Trips:

Nature walk
 Botanical Gardens - Belle Isle
 Greenhouse
 S.E.O.V.E.C.
 Lumber supply store
 Building construction site
 Floral shop

3. Human Resources:

S.E.O.V.E.C. students
 Carpenter
 Landscaper
 Architect
 Lumber retailer
 Florist
 Cook
 Baker
 Parent aids
 Paper Company representative

4. Activities:

Pine cone animals
 Artificial flowers
 Leaf booklets - leaf prints
 Yo-Yo's
 Handy Dandy Jar holders
 Plant propagation
 Dried flower arrangements
 Cornhusk dolls
 Planter boxes
 Fermentation of yeast
 Collecting - seeds, leaves, flowers
 Experimentation with compressed peat
 Seed pictures
 Leaf and needle collection
 Growing mold
 Examine details of leaves, stems and flowers
 Herb garden

UNIT TITLE: PLANTS AND TREES

CONCEPTS

BEHAVIORAL OBJECTIVES

Science

Categorize plants

Plant products and uses

Plant growth

Photosynthesis

As a result of this unit, each child will be able to:

Distinguish between green and non-green plants

Discover methods of categorizing plants

Identify leaves & needles of 5 species

List 10 products made from plants

Demonstrate how plant parts are refined and made into materials which are used in baking

Identify the variables needed for a plant to grow

Investigate and list 3 ways from which plants get their start

Identify the variables for a plant to make its own food

Social Studies

Environment

Conservation

Affect on man

Map skills

Newspaper and magazine skills

Predict outcome of growth of plants under certain environmental conditions

Recognize conservation problems

List 3 beneficial and harmful plants to man

Locate lumber producing states on a map

To find, bring in, and display articles from newspapers and magazines about plants

METHOD OF IMPLEMENTATION	RESOURCE PEOPLE & MATERIALS
<p>Small business activity</p>	<p>Florist Lumber Retailer Architect Field speakers - Lawrence Tech.</p>
<p>Creative writing - leaf booklets Planting activities Research Guest speakers</p>	
<p>Guest speakers and research Field trips and small business activity Plant and flower activities</p>	

UNIT TITLE:

CONCEPTS	BEHAVIORAL OBJECTIVES
<p><u>Math</u></p> <p>Time</p> <p>Measurement</p> <p>Numerical sequence</p> <p>Cost</p>	<p>As a result of this unit, each child will be able to:</p> <p>Compute man hours involved in activities</p> <p>Measure by the inch for correct spacing of plants</p> <p>Number pages in a book properly</p> <p>Compute cost of growing plants</p>
<p><u>Communication Skills</u></p> <p>Research and writing skills</p> <p>Creative writing</p>	<p>Gather data on plant types</p> <p>Write creative stories</p> <p>Write job descriptions</p> <p>Write thank-you notes to parents</p> <p>Write letters for seed catalogs</p>
<p><u>Career/Self-Awareness</u></p> <p>People and their job roles</p> <p>Tools</p> <p>Management</p> <p>Production</p> <p>Service</p> <p>Analysis of interest</p>	<p>List five tools necessary for occupations connected with plants</p> <p>Role play managing a small business - florist shop</p> <p>Produce artificial flowers</p> <p>Grow plants started from stems, bulbs, seeds, and roots</p> <p>List seven service occupations related to plants and trees</p> <p>Given a list of activities that you like to engage in, identify three general interests reflected in the list (e.g., outdoor activities, art, etc.)</p>

METHOD OF IMPLEMENTATION	RESOURCE PEOPLE & MATERIALS
<p>Children took turns watering our green house</p> <p>Experiments and activities involving plants</p> <p>Research</p>	
<p>Group discussion and research</p> <p>Drew pictures tracing clothes we had on - food we eat - back to plants and the soil (e.g., shoes made out of leather - leather comes from cows - cows need grass or grazing lands - which grow in soil)</p> <p>Make "Green Thumb" bulletin board with articles</p>	<p>Joe Klier (SEOVEC) sent two high school boys to help us root geraniums and Wandering Jews in Jiffy Sevens. Boys talked about the Vocational High School and explained the following:</p> <ol style="list-style-type: none"> 1) how it is correlated with Dondero 2) how they find jobs through Mr. Klier 3) how they hope to have their own business in two years <p>We were able to show the importance of math, language as well as science in a landscaping business</p> <p>Paper company representative Landscaper Florist Greenhouse - SEOVEC</p>

HANDS ON ACTIVITY (STUDENT PERFORMED)I. NAME OF ACTIVITY

LEAF BOOKLETS

II. ACTIVITY FORMAT:

A. Tools and Materials

Leaves	Scotch tape	Construction paper
Rulers	Pen	Paper punch
Scissors	Glue	Paper fasteners
Wax paper	Pencil	Tagboard/cardboard
Iron		Material

B. Procedures for this activity (with helpful hints)

PAGES

1. Collect leaves - went on leaf walk in neighborhood
2. Put leaves between waxed paper and iron until wax melts onto leaves (If wax hardens too fast, place iron on it again to warm it).
3. Mount leaves on construction paper with scotch tape.
4. Identify each leaf according to a. Name, b. family, c. uses.

BOOK COVER

1. Cut cardboard 9 x 12.
2. Cut material 11 x 14 (enough for good overlap).
3. Cover cardboard with material. Glue overlap of material to cardboard. (Trim excess in each corner to prevent bulk)
4. Place a sheet of construction paper on inside of cover to finish it off.
5. Punch holes.
6. Assemble pages.
7. Fasten with paper fasteners.

III. RESULTS OF THIS ACTIVITY (AFTER IMPLEMENTATION)

HANDS ON ACTIVITYI. NAME OF ACTIVITY

CONSTRUCTING YO-YO'S FROM WOOD

II. ACTIVITY FORMAT:

A. Tools and Materials

wood/dowel rods	brushes
drills	sandpaper
paint	rulers
shellac	glue
saws	string

B. Human Aides and Resources

Designer, carpenter
College students

C. Procedures for this activity (with helpful hints)

PLAN the jobs well in advance

1. Make and trace patterns onto wood
2. Cut out circles
3. Drill center holes
4. File and sand
5. Cut dowel rods for axle
6. Paint
7. Shellac
8. Assemble
9. String

It takes a long time to file and sand the yo-yo's. Electric sanders shorten the work. Make sure the dowel rods are thick enough or they will break easily. Making the yo-yo's (one for each child) takes a good month.

III. RESULTS OF THIS ACTIVITY (AFTER IMPLEMENTATION)

HANDS ON ACTIVITY (STUDENT PERFORMED)I. NAME OF ACTIVITY

HANDY DANDY JAR HOLDERS

II. ACTIVITY FORMAT:

A. Tools and Materials

Baby food jars
Wooden board 15" long
Nails
Varnish
Hammer

B. Human Aides and Resources

Parents
Students

C. Procedures for this activity (with helpful hints)

1. Varnish the piece of wood. Allow it to dry.
2. Wash the jars and their caps thoroughly and dry. Arrange the caps on a piece of wood. Make sure the top side of each cap is against the wood. Nail the caps to the wood. Now screw the jars onto the caps.
3. This is a fine holder that can be fastened under the shelf above his work bench. The screw on jars are great for storing nails and other small items.

III. RESULTS OF THIS ACTIVITY (AFTER IMPLEMENTATION)

HANDS ON ACTIVITY (STUDENT PERFORMED)I. NAME OF ACTIVITY

PLANTING HERB OR SPICE GARDEN

II. ACTIVITY FORMAT:

A. Tools and Materials

half-gallon milk cartons
seeds, slips, or bulbs
potting soil and fertilizer
plastic bowl and spoon
labels

B. Human Aides and Resources

One parent to assist during project - Management!
Mothers sending in cartons and seeds, bulbs
Local herb club

C. Procedures for this activity (with helpful hints)

Set up assembly line:

1. Cut cartons in half
2. Mix soil and water in bowl
3. Put soil in half cartons
4. Plant seeds, slips, or bulbs
5. Label each carton and store
6. Keep chart on observable growth
7. Harvest and store as time demands

III. RESULTS OF THIS ACTIVITY (AFTER IMPLEMENTATION)

HANDS ON ACTIVITY (STUDENT PERFORMED)I. NAME OF ACTIVITY

PLANT PROPAGATION

II. ACTIVITY FORMAT:

A. Tools and Materials

Grass seed	Dry onion	Cuttings from plants
Bird seed	Sweet potato	Bulbs
Beans	Dirt - containers	

B. Procedures for this activity (with helpful hints)

1. Plant duplicates.
2. Water one group and place in light.
3. Use the others to do experiments with heat, light and water.

III. RESULTS OF THIS ACTIVITY (AFTER IMPLEMENTATION)

HANDS ON ACTIVITY (STUDENT PERFORMED)I. NAME OF ACTIVITY

TREE PLANTER

II. ACTIVITY FORMAT:

A. Tools and Materials

wood	plastic
nails - finishing and headed	sandpaper
screws	hammer
varnish and brushes	saws
saber saw	brace and bit
vises	drill
wood chisels	screwdrivers

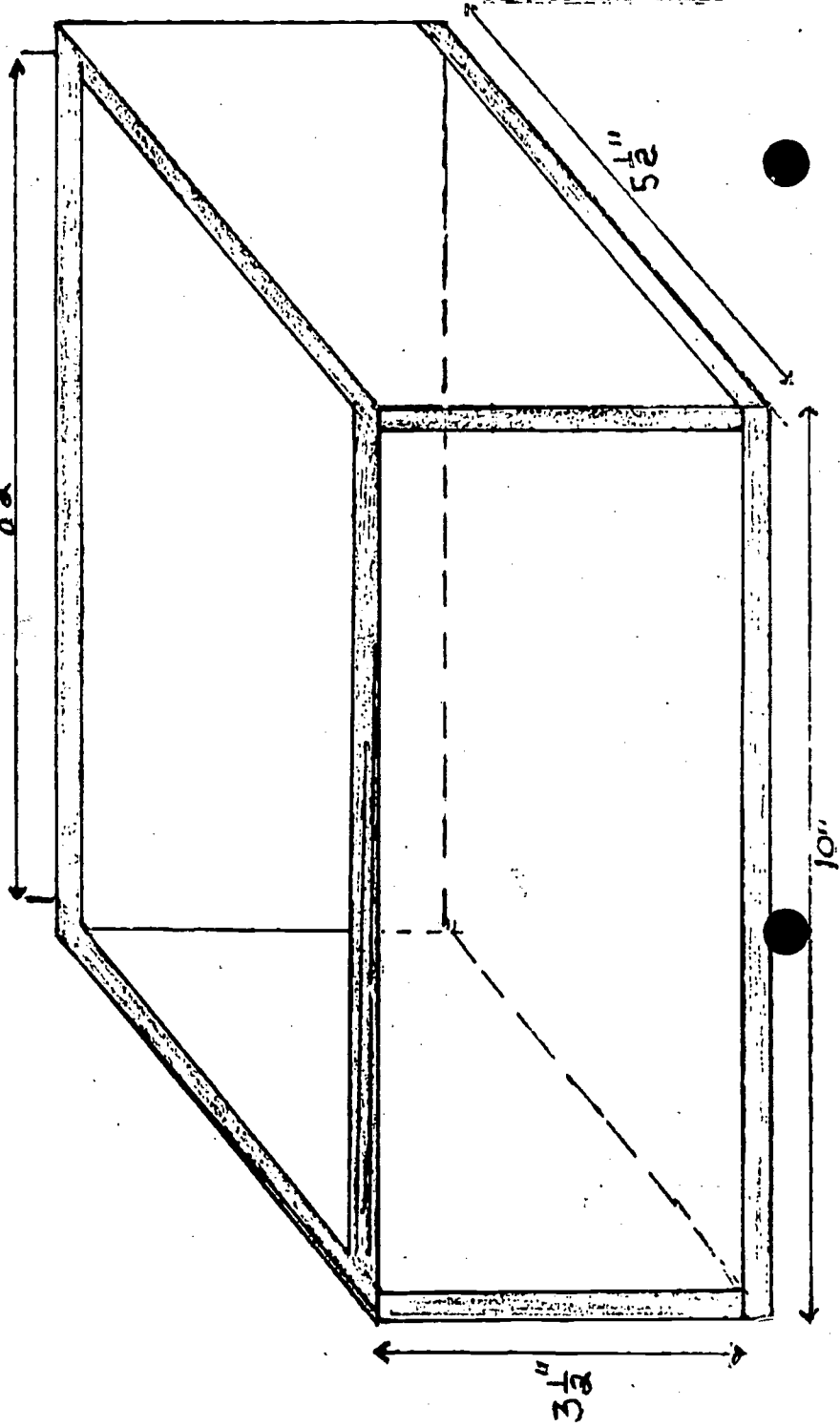
B. Procedures for this activity (with helpful hints)

1. Measure 3 sides and 2 ends (3/4")
sides 2 - 5-1/2" by 3-1/2"
1 - 5-1/2" by 10"
ends 2 - 3-1/2" by 8-1/2"
2. Saw
3. Sand
4. Join with nails and screws (see attached sheets)
5. Paint and varnish
6. Line with plastic
7. Fill with dirt
8. Plant tree seeds

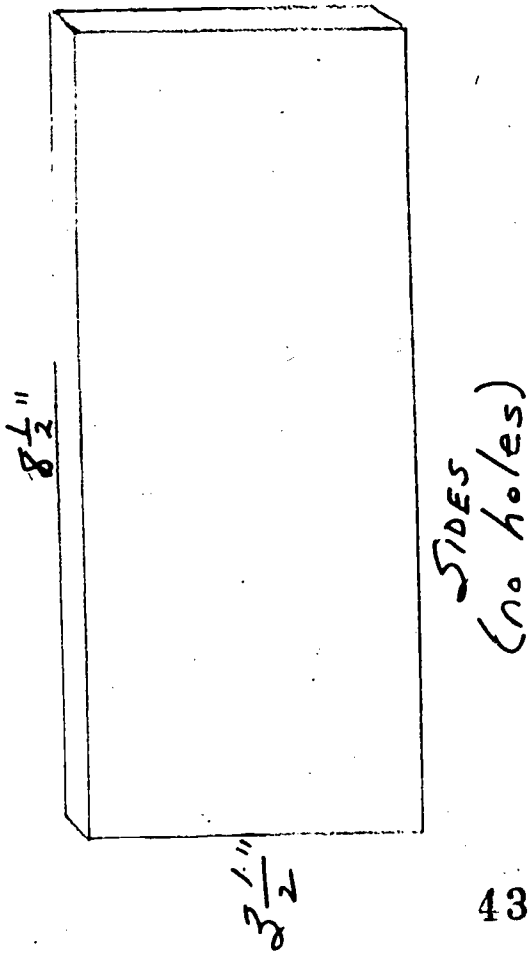
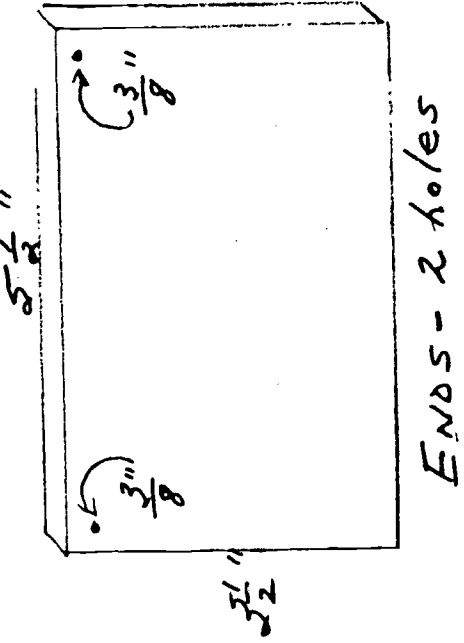
III. RESULTS OF THIS ACTIVITY (AFTER IMPLEMENTATION)

Side 1
Tree Planter - Project L.E.T.

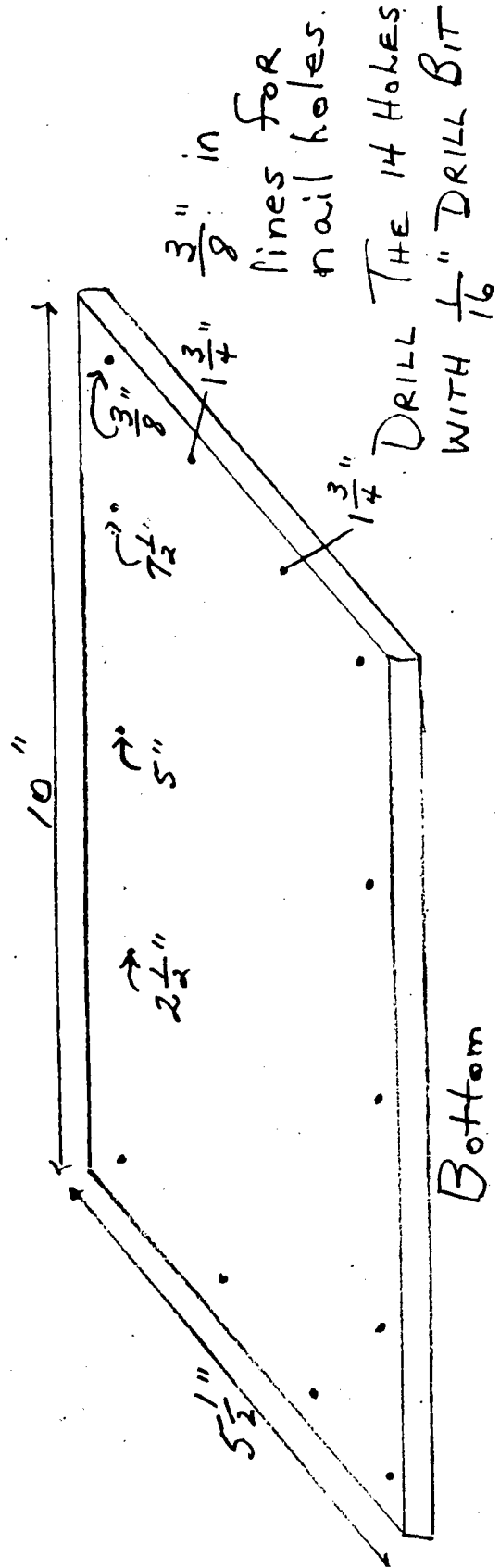
- Cut
- 2 5 1/2" by 3 1/2" by 3/4" } from 5 1/2" stock
 - 1 5 1/2" by 10" by 3/4" }
 - 2 3 1/2" x 8 1/2" x 3/4" from 3 1/2" stock



SIDE 2



436

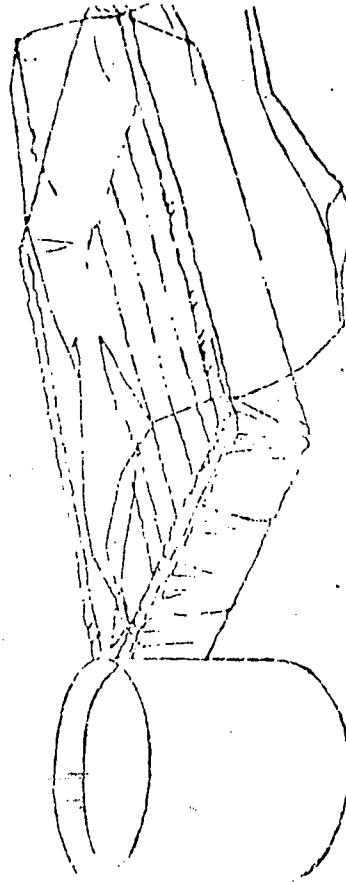


PLANTING INSTRUCTIONS

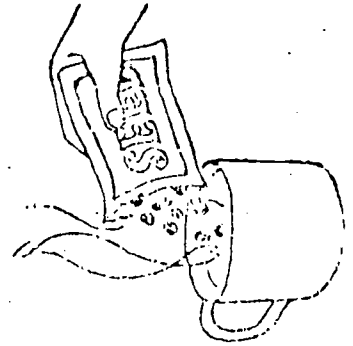
Pregerating blocks in this package are made from specially treated wood pulp, which comes from trees. The chemical properties of these blocks are similar to the good soil, and they have been built into the block through the efforts of biologists, chemists and engineers. Though nutrients are incorporated to supply a young plant for one month.

The seeds in the envelope are black locust which is a native Michigan tree, renowned for durable wood. It is also a legume and will therefore add nitrogen to the soil.

MATERIALS NEEDED:

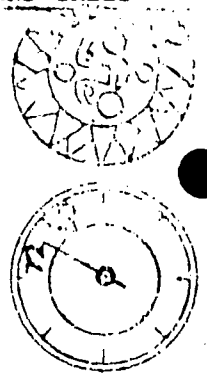
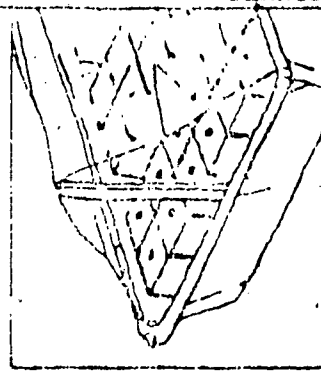
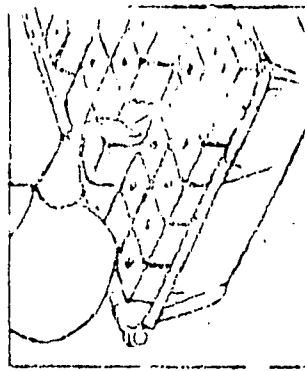
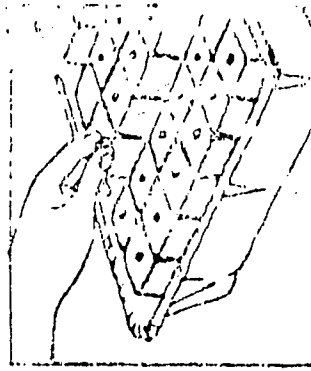


1. A cup in which to soak seeds
2. A pan or pans for the synthetic soil blocks. A disposable aluminum broiling pan with a corrugated bottom is excellent or an empty aquarium could be used.
3. A sheet of plastic film. A large "Baggie" will just fit over some of the aluminum blocks.



THE PROCEDURE:

1. Put seed in hot water. Get a cup of hot water (100 to 200 degrees F) and dump contents of seed packet. Do not empty water. Let water cool as seeds soak. Soak for four to six hours. Drain off water and plant.



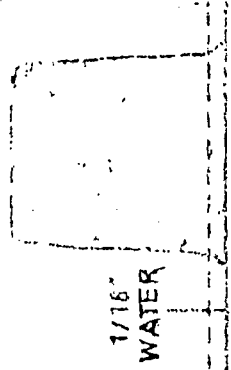
Place synthetic soil blocks in pan and immediately after removing seed from water, place two seeds in each hole. Make sure seeds fall to bottom of hole and do not cling on side. Do not plug up or cover seed.

Slowly add lukewarm water to the pan. The dry blocks will rapidly absorb water until they are saturated. Once the saturation point is reached, add only enough water to cover bottom of pan to about 1/16" of water. If corrugated broiler pans are used, fill up the troughs until the water is even with the ridges.

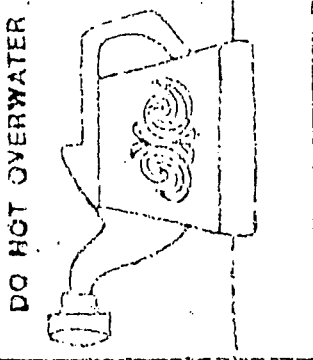
Cover with plastic, preferably in tent-like fashion. If these airtight, either leave ends open a foot or punch about ten holes in plastic about the size of a pencil. The purpose of the plastic is to retain moisture. Most schools and homes have extremely low humidity when heating systems are in operation. This causes rapid water evaporation from the synthetic soil blocks which, in turn, cools the blocks below the germination temperature. On the other hand, extremely high humidity is favorable to fungus (mold) growth, hence the need for some air circulation.

Put pan in a room which has a daytime temperature of between 72 and 80 degrees, and preferably in a south window where sufficient heat from the sun is available. Do not place on or immediately over a radiator.

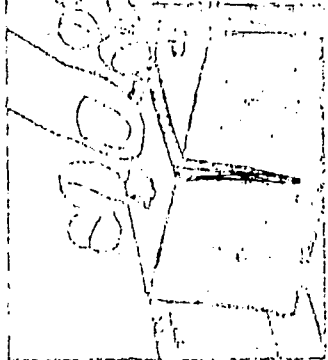
During the first two days, keep blocks saturated, but never more than 1/16" of free water on bottom of pan when finished watering. Too much water will cause seeds to rot.



7. After the second day, the bottom of the pan should be reasonably dry much of the time. Add water only often enough to keep blocks moist. The blocks are light brown when dry, but will appear uniformly and distinctly darker when saturated. If they appear slightly "mottled" (light and dark spots) they are in the correct range of dampness for plant growth. They should be fully saturated only for a few hours immediately after watering and never allowed to get completely dry. If a plastic cover is used, watering will be required only every four or five days. After the second day, there is probably more danger of overwatering than underwatering.



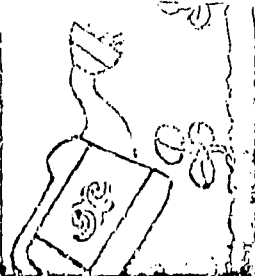
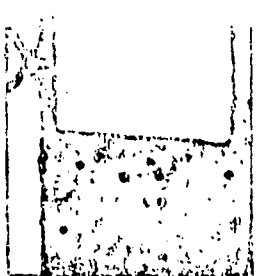
8. When seedlings emerge above the blocks, remove the plastic film. This should be in four to six days. Cut off one of the plants at block level if more than one plant emerges. If the relative humidity of the room is low, the block will feel cold to the touch due to evaporation. This evaporation and coolness can be reduced by replacing the plastic cover during the daylight hours and removing at night.



9. If your school has a Spring or Easter vacation some arrangements will need to be made to take care of the plants to see the plants are well watered.

10. If transplanting is desired, follow these simple steps.

- A. Add a little fine soil to fill the hole in the block.
- B. Saturate BR-8 blocks completely.
- C. Separate blocks gently by tearing away from the cork. Do not attempt to remove the BR-8 block from the root system of the plant.
- D. Place the rooted block into the soil. The tree seedlings will do better in sandy loam than in heavy clay soils.
- E. Fill in around the block with soil so that the block is covered.
- F. Firm in by watering or lightly packing the soil around the block so as not to cause mechanical damage to the root system.
- G. Water plants thoroughly.



With the seedlings are to be taken home for transplanting, individual plants can be easily carried in a clean 4 oz. milk carton with the top cut off.

11. If your school has a Spring or Easter vacation some arrangements will need to be made to take care of the plants to see the plants are well watered.

HANDS ON ACTIVITY (STUDENT PERFORMED)I. NAME OF ACTIVITY

PLANTER BOXES

II. ACTIVITY FORMAT:

A. Tools and Materials

Hammer

Nails

Plastic liner

Dirt

Seeds

Hand Saws (cross cut, back, saber)

Wood (1/2" plywood)

B. Procedures for this activity (with helpful hints)

1. Measure and draw lines on wood
(2 - 4" x 6", 2 - 4" x 4", and 1 - 6" x 4")
2. Cut wood
3. Nail sides to bottom
4. Nails sides to sides
5. Line boxes with plastic
6. Plant seeds

III. RESULTS OF THIS ACTIVITY (AFTER IMPLEMENTATION)

HANDS ON ACTIVITY (STUDENT PERFORMED)I. NAME OF ACTIVITY

ARTIFICIAL FLOWERS - ROSES

II. ACTIVITY FORMAT:

A. Tools and Materials

Wire cutters	Food coloring
Scissors	Florist clay
Pencil	Artificial green foliage
Loaf of bread	Halves of walnut shells
Elmer's glue	

B. Procedures for this activity (with helpful hints)

A. Roses

1. Each person has 1/2 slice of white bread
2. Remove crust
3. Break bread into small pieces
4. Add 1 tablespoon Elmer's glue and small amount of food coloring
5. Knead until bread and glue workable clay
6. Place clay about size of a pea between wax paper
7. Roll with a pencil until clay is very thin
8. Uncover and cut in half - lengthwise
9. Roll one of the halves into tight scroll (this is center of rose)
10. Take remaining half and form into many tiny balls
11. Flatten each ball by pressing it with your thumb
12. Add each flattened piece as a petal around scrolled center
13. When rose is formed place piece of green wire for a stem
14. Allow to dry - overnight
15. Spray varnish when dry

B. Holder

1. Fill empty half of walnut shell with green floral clay

C. Arrangement

1. Place roses in clay container
2. Fill in with a few pieces of green plastic plant

III. RESULTS OF THIS ACTIVITY (AFTER IMPLEMENTATION)

HANDS ON ACTIVITY (STUDENT PERFORMED)I. NAME OF ACTIVITY

ARTIFICIAL FLOWERS

II. ACTIVITY FORMAT:

A. Tools and Materials

Scissors	Kleenex
Wire cutters	Yarn
Shellac	Cloth
Egg cartons	Wire
Brushes	Green tape
Staplers	Pipe cleaners
Paint	

B. Procedures for this activity (with helpful hints)

A. Paper flowers -

1. Fold Kleenex or squares of tissue paper (toilet tissue great) into fan (Rt, left, rt. etc.). Use 4 layers.
2. Tie in center.
3. Pull up layers, by layer. Pull toward center.
4. Insert pipe cleaner for stem. Glue center together where open.

B. Cardboard flowers -

1. Cut out egg cups from egg cartons
2. Cut four petals from each cup
3. Tie yarn and staple in center
4. Insert wire or pipe cleaner for stem
5. Paint petals
6. Shellac

C. Cloth and wire flowers -

1. Variety scrap cloth cut into petal shapes
2. Take 6" piece thin wire, loop at top
3. Paste 2 petal cloth forms over wire to cover
4. Repeat these steps 3 more times to form 4 petals in all
5. Place all petals (4) on wires together
6. Insert curled pipe cleaner for center
7. Tape four wires together with green wire tape - forms 1 - 4 petal flower with stem
8. Bend petals into shape to form 3-D flower

III. RESULTS OF THIS ACTIVITY (AFTER IMPLEMENTATION)

HANDS ON ACTIVITY (STUDENT PERFORMED)I. NAME OF ACTIVITY

DRIED FLOWER ARRANGEMENTS

II. ACTIVITY FORMAT:

A. Tools and Materials

Gather weeds in field
Small vases
Spray paint
Styrofoam

B. Human Aides and Resources

Teacher

C. Procedures for this activity (with helpful hints)

If possible, have a florist come in to discuss flower arranging beforehand. If this isn't possible, demonstrate this yourself.

III. RESULTS OF THIS ACTIVITY (AFTER IMPLEMENTATION)

Children experienced difficulty in arranging flowers in an attractive manner.

Make small mushrooms out of cornstarch and baking soda (recipe is on Arm and Hammer Baking Soda box). Place on wooden bark and decorate with acorn, etc.

HANDS ON ACTIVITY (STUDENT PERFORMED)I. NAME OF ACTIVITY

CORNHUSK DOLLS

II. ACTIVITY FORMAT:

A. Tools and Materials

Cornhusks
Scissors
String
Paint

B. Human Resources

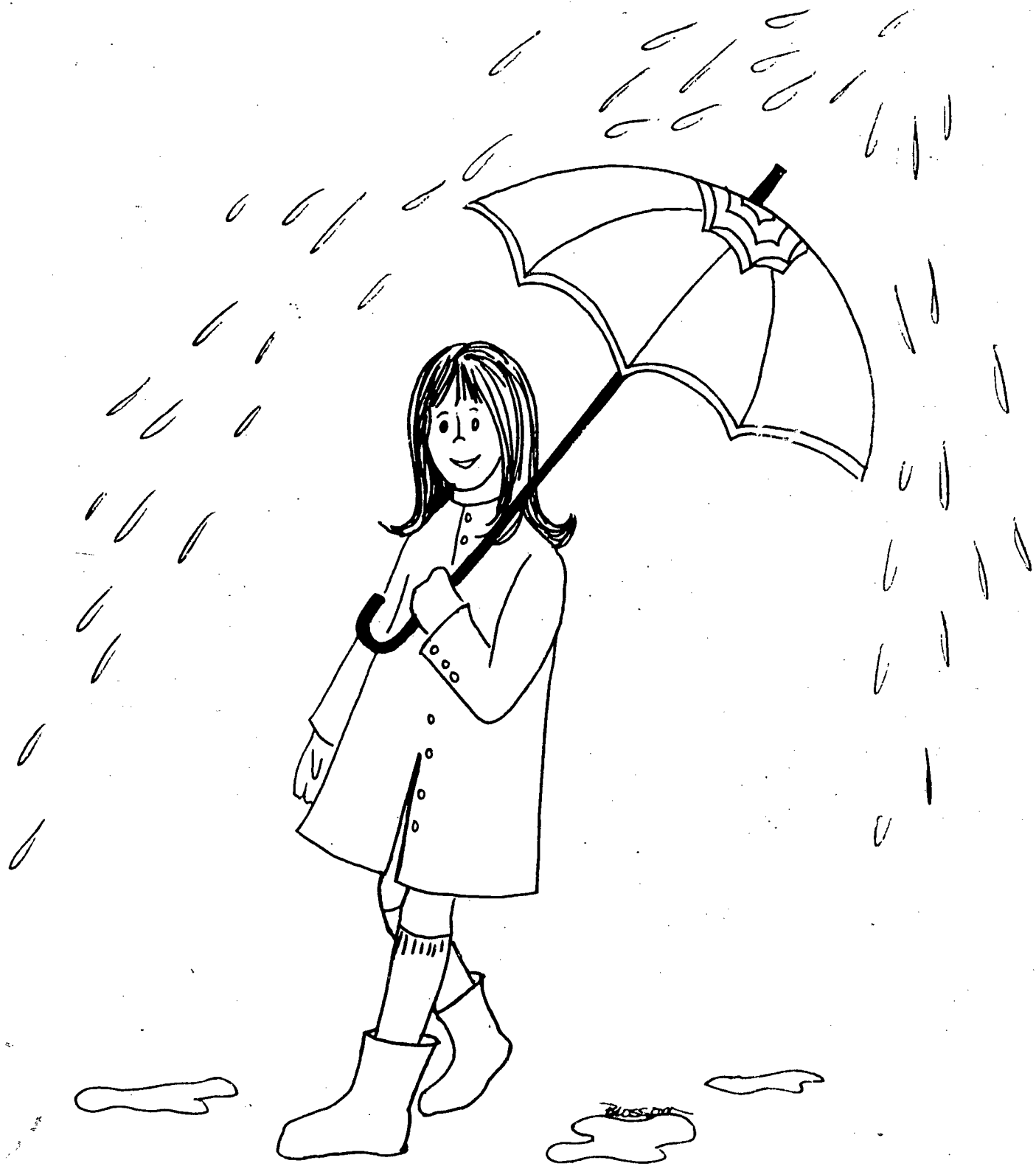
Teacher

C. Procedures for this activity (with helpful hints)

Discuss and show children various cornhusk dolls made
by the American Indian.

III. RESULTS OF THIS ACTIVITY (AFTER IMPLEMENTATION)

Experiencing the difficulties encountered in making the dolls.
Manipulation of cornhusks into a useful and attractive form.
Observing uses of plant materials.



WEATHER

SCHOOL DISTRICT OF THE CITY OF ROYAL OAK

INTEGRATED TEACHING UNIT
PLANSHEETTITLE: WEATHERGRADE LEVEL: 3-4GENERAL OVERVIEW: All living things must make adjustments to weather conditions if they are to survive. Children need to be acquainted with weather terms and forms. They need experience in predicting weather by using weather instruments.TEACHING/LEARNING RESOURCES:1. Reference Materials:

Books: ABC Science Series 3
 How Weather Affects Us
 The Wind - Bendick
 Exploring the Weather - Gallant
 What is Weather? - Syrocki
 Probe

Films: Rainshower
 The Sky
 How Weather Helps Us
 Let's Learn to Predict the Weather
 Origins of Weather
 Weather: Understanding Storms

Weather for Beginners
 What Makes Rain
 Lightning and Thunder

Filmstrips:

Air, Wind, Weather
 Weathering at Work
 Our Weather
 Weather Bureau
 What Makes Weather
 Clouds
 Sun, Wind, Rain
 Adventures of a Raindrop

2. Field Trips:

Airport
 Weather walk in neighborhood

3. Human Resources:

College students
Weather forecaster
Pilot

4. Activities:

Pinwheels
Rain gauge
Dog barometer
Wind sock
Wind vane
Daily recording of weather
Bird feeder
Make filmstrip

UNIT TITLE: WEATHER

CONCEPTS	BEHAVIORAL OBJECTIVES
<p><u>Science</u></p> <p>Weather</p> <p>Conditions</p> <p>Predictions</p> <p>Instruments</p>	<p>As a result of this unit, each child will be able to:</p> <p>Describe the day's weather</p> <p>List three different forms of weather</p> <p>Read weather instruments and make predictions based on the readings</p> <p>Construct a weather instrument</p>
<p><u>Math</u></p> <p>Measurement</p>	<p>Read and compute degrees on a thermometer</p>
<p><u>Social Sciences</u></p> <p>Weather affecting people and animals</p>	<p>List five ways weather affects people and their occupations and animals</p>

METHOD OF IMPLEMENTATION	RESOURCE PEOPLE & MATERIALS
<p>Observation - (reading reports, reading weather instruments, research, listening to weather reports)</p> <p>Weather instrument activities</p>	<p>College students</p> <p>Weather forecaster</p> <p>Pilot</p>
<p>Taking and recording daily temperatures</p> <p>Take temperature inside and out. Record daily for a month</p> <p>Made booklets with daily predictions. Compare with newspapers</p> <p>A child reports weather forecast each day</p> <p>Have a large chart in room with detachable card to show temperature for day and a picture showing what the day is like</p>	
<p>Observation, research, group discussion</p>	

UNIT TITLE: WEATHER (Continued)

CONCEPTS

BEHAVIORAL OBJECTIVES

Career/Self-Awareness

Managing

Producing

Servicing

As a result of this unit, each child will be able to:

Describe or draw pictures of a weather station

Give a weather report and explain how a weather report is formulated

Explain three ways a weatherman services man

Communication Skills

Creative writing

Choral reading

Write a report, letter, poem or story about weather

Participate in a choral reading

METHOD OF IMPLEMENTATION	RESOURCE PEOPLE & MATERIALS
<p>Guest speakers and group discussions</p> <p>Write letters to a weatherman</p> <p>Discuss how many and what kinds of jobs deal with predicting and dealing with weather</p> <p>Make bulletin board - "Who Wears This Hat?" - displaying pictures of different kinds of hats related to jobs</p>	
<p>Reports about different forms of weather, thank-you notes</p> <p>Do choral reading</p> <p>Make bulletin boards about weather and weather experiments</p> <p>Creative writing; e.g., poetry, about weather</p>	

HANDS ON ACTIVITY (STUDENT PERFORMED)I. NAME OF ACTIVITY

PINWHEEL

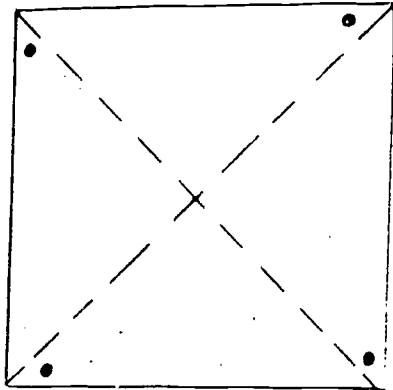
II. ACTIVITY FORMAT:

A. Tools and Materials

Paper 6" x 6"
Paste
Pins
Pencil with eraser on tip

B. Procedures for this activity

1. Divide the paper in quarters diagonally and put a dot in the corners as illustrated.
2. Cut along the dotted lines to about 1/2" from center dot.
3. Bend over the corners with dots and paste each point to the center of the paper.
4. Push a pin through the middle into the eraser of a pencil.

III. RESULTS OF THIS ACTIVITY (AFTER IMPLEMENTATION)

HANDS ON ACTIVITY (STUDENT PERFORMED)I. NAME OF ACTIVITY

RAIN GAUGE

II. ACTIVITY FORMAT:

A. Tools and Materials

Ruler
Jar
String

B. Procedures for this activity

1. With two pieces of string, tie the ruler to the outside of the jar.
2. Set outside where jar will catch rain.
3. Measure after every rain and record the amount of water in the jar.

III. RESULTS OF THIS ACTIVITY (AFTER IMPLEMENTATION)

HANDS ON ACTIVITY (STUDENT PERFORMED)I. NAME OF ACTIVITY

DOG BAROMETER

II. ACTIVITY FORMAT:

A. Tools and Materials

dremel saw

pencils

paint brushes

drill

white pine - 2 pieces - 1/2" x 7" x 3"

plywood - very thick - 1/4" x 8" x 12"

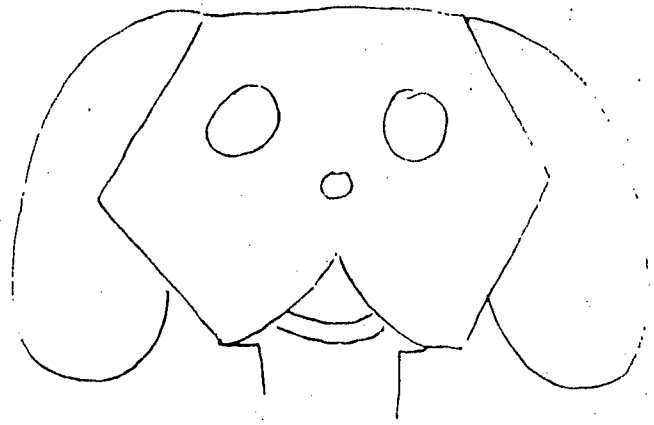
blotter paper - two 3" x 3" squares per dog

cobalt chloride - water mixture (4 parts to 1)

colored construction paper

B. Procedures for this activity (with helpful hints)

1. Have children cut plywood in shape of a dog's head
2. Drill out large circles for the eyes
3. Paint the blotter paper with the cobalt chloride
4. Paint the dog's features
5. Make ears from construction paper
6. Glue blotter paper under the eye holes and ears onto head

III. RESULTS OF THIS ACTIVITY (AFTER IMPLEMENTATION)

HANDS ON ACTIVITY (STUDENT PERFORMED)I. NAME OF ACTIVITY

CONSTRUCTION OF WIND SOCK* - pp. 63 and 64 LET Guide - Anemometer - Wind Vane

II. ACTIVITY FORMAT:

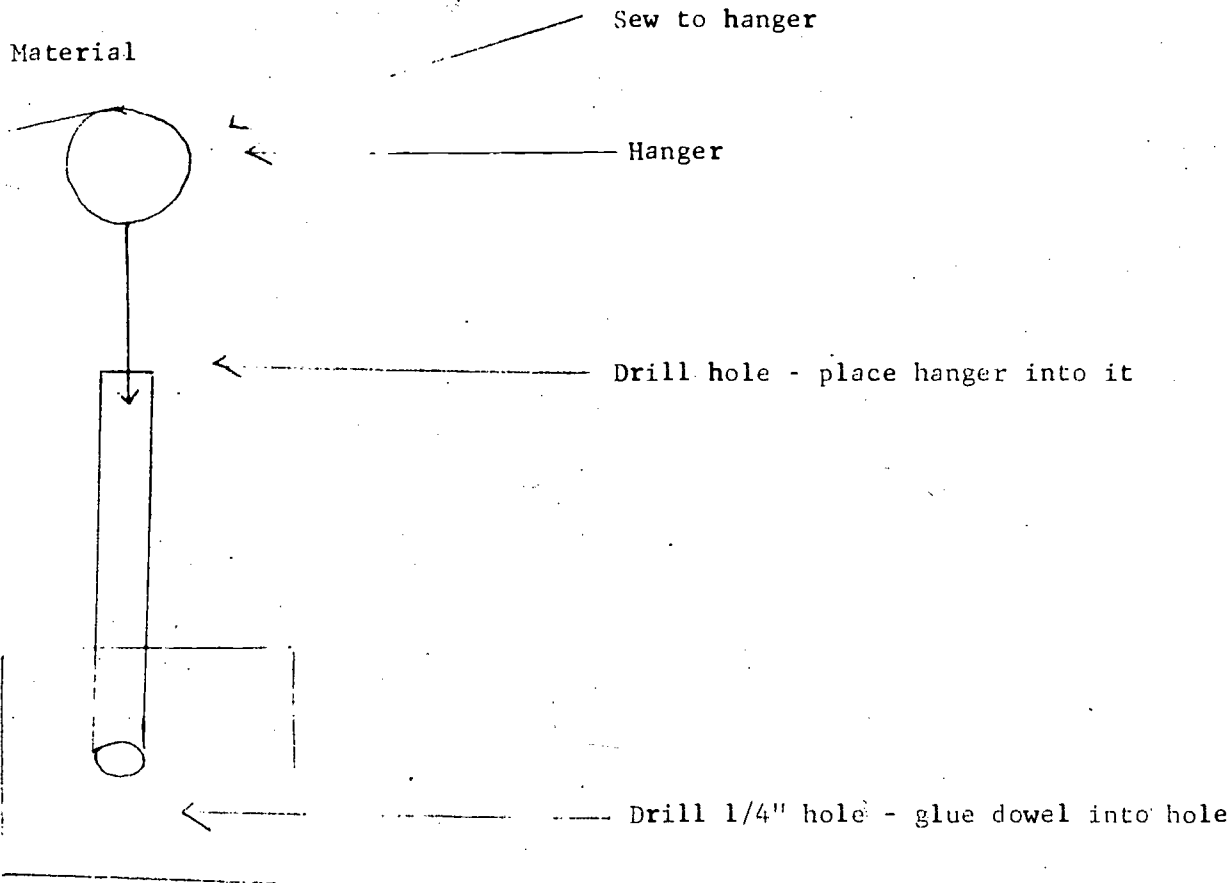
A. Tools and Materials

Plywood 1/4" x 12" x 12"
 Coat hanger
 Tool panel
 1 yard cotton material
 1" nails
 1/2" doweling

B. Human Aides and Resources

Parents
 Teacher Aide

C. Procedures for this activity (with helpful hints)

III. RESULTS OF THIS ACTIVITY (AFTER IMPLEMENTATION)

HANDS ON ACTIVITY (STUDENT PERFORMED)I. NAME OF ACTIVITY

WEATHER VANE

II. ACTIVITY FORMAT:

A. Tools and Materials

tag board
large wooden spools
plastic straws
scissors
pins or nails

B. Human Aides or Resources

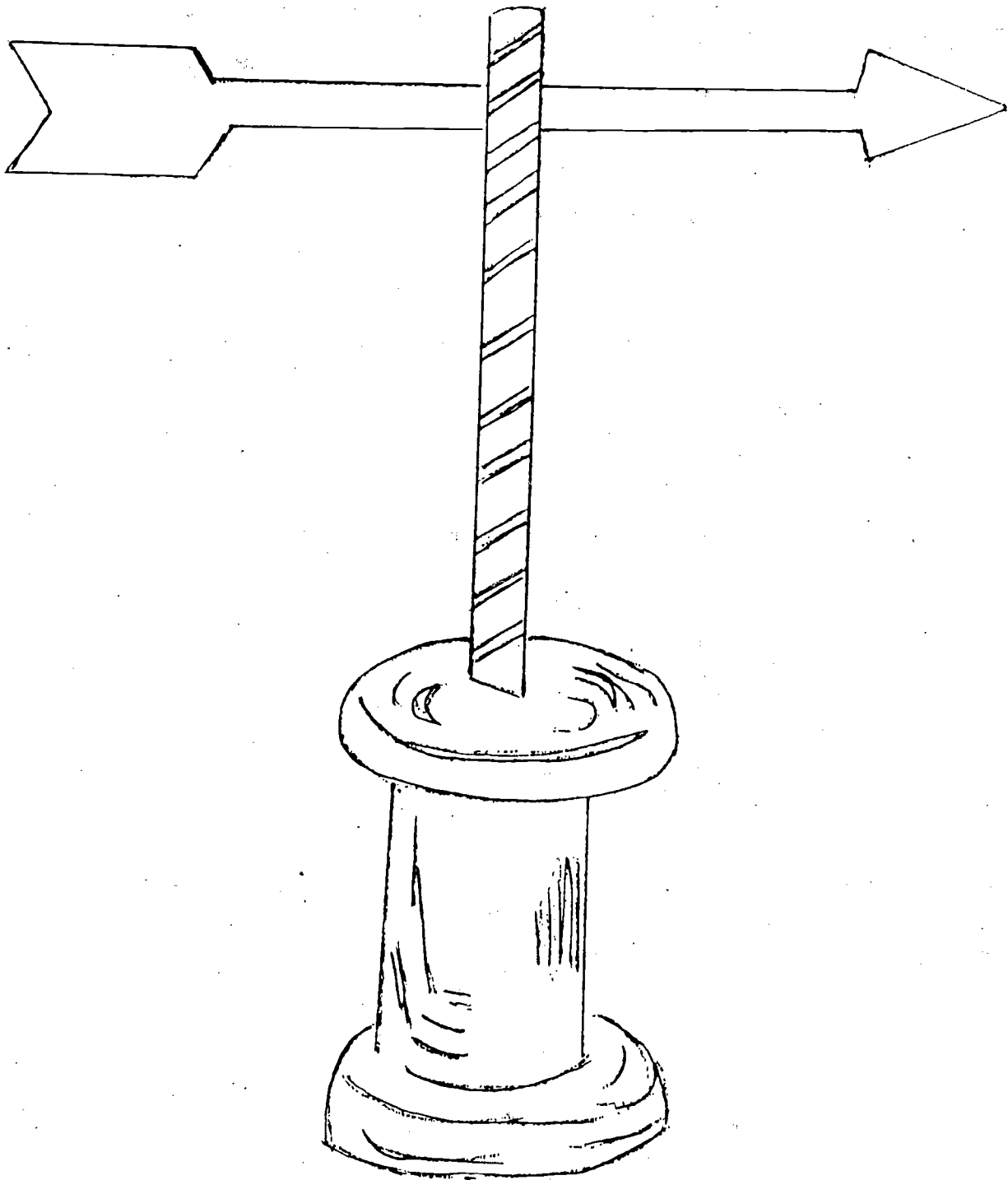
Weather Experiments by I. Podendorf

C. Procedures for this activity (with helpful hints)

1. Put a long pin up through a large spool (preferably wood)
2. Set plastic straw on the pin so it can turn freely
3. Slit plastic straw at top
4. Glue arrow from tag board on the straw

III. RESULTS OF THIS ACTIVITY (AFTER IMPLEMENTATION)

A. WEATHER VANE



HANDS ON ACTIVITY (STUDENT PERFORMED)I. NAME OF ACTIVITY

CHORAL READING

II. ACTIVITY FORMAT:

A. Tools and Materials

Copies of poem for each member of class
Tape recorder

B. Procedures for this activity (with helpful hints)

Assign parts, practice, record

THE WIND

I heard the wind blow.

The great trees swayed,

I saw the wind blow.

The sky grew black,

It whistled,

And it rained,

It whirred,

And it stormed,

It whirled.

And it poured.

The branches crackled.

The green leaves shook,

And twisted,

And trembled,

And curled.

The wind blew loud,

The wind blew long.

It rumbled,

It thundered,

It roared.

III. RESULTS OF THIS ACTIVITY (AFTER IMPLEMENTATION)

WEATHER

(Choral Reading)

All Weather is Full of the nicest sounds...

1 it sings (bell - triangles)

2 it rustles

1 & 2 and pings and pounds (drums and triangles)

1 and hums and twinkles (sand block and triangles)

2 and strums and twangs (soft drums)

1 and whishes (voice)

2 and sprinkles (triangles)

1 & 2 and splishes (wood block)

1 and Bangs (drum)

2 and mumbles

All and grumbles and rumbles and flashes and crashes:

1 I wonder....

2 if thunder frightens a bee,

1 a mouse in her house,

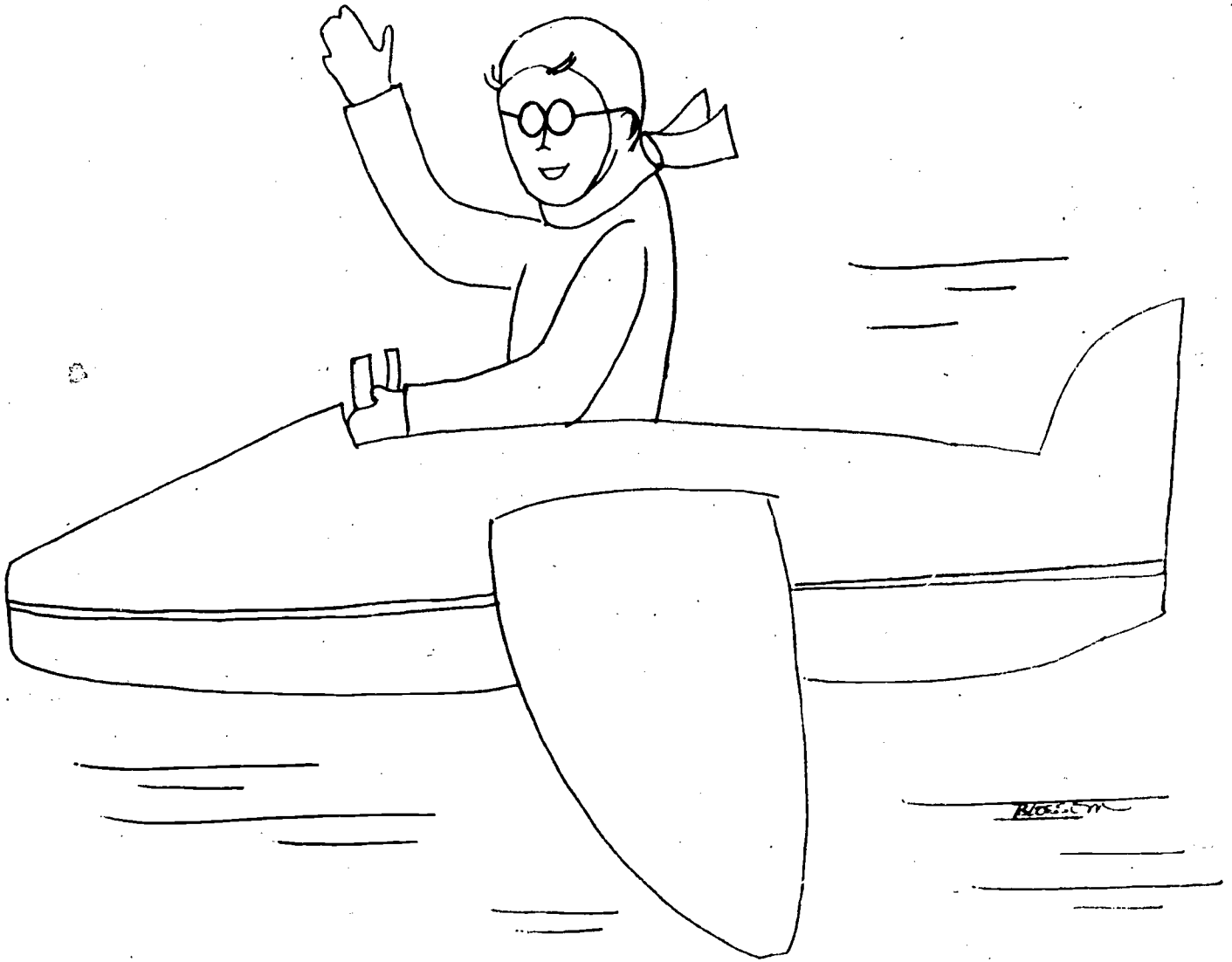
2 a bird in a tree,

1 a bear

2 or a hare

1 or a fish in the sea?

All NOT ME!!!!



AIR
TRANSPORTATION

459

SCHOOL DISTRICT OF THE CITY OF ROYAL OAK

INTEGRATED TEACHING UNIT
PLANSHEETTITLE: TRANSPORTATION - AIR TRANSPORTATION - (AVIATION)GRADE LEVEL: 3-4GENERAL OVERVIEW: The purpose of this unit is to help the children realize the affects of air transportation on our society and the importance of the airplane as an invention of the twentieth century.TEACHING/LEARNING RESOURCES:1. Reference Materials:

- Books:
- Airplanes by Louis Henderson
 - Airplane Book by William Pryor
 - Airport by Paul Witty
 - A Trip on a Plane by Carla Greene
 - At the Airport by Lillian Colonius
 - Helpful Helicopters by Dorothy Allison
 - How Airplanes Are Made by David Clock
 - How to Make and Fly Paper Airplanes by Captain Ralph A. Barnaby
 - Joe's Story of the Airport by Marie Smith
 - I Want to be a Pilot by Carla Greene
 - Model Airplanes for Beginners by H. H. Gilmore
 - On the Airways by Josephine Phillip
 - The Airplane at the Airport by Morris Stuart
 - The First Book of Airplanes by Jeanne Bendick
 - The First Flying Book by Campbell Talhan
 - The Story Book of Aircraft by Maud Petersham
 - The True Book of Airports and Airplanes by John Bryan Lewellen
 - The True Book of Weather Experiments by Illa Podendorf
 - What Does A Jet Pilot Do? by Robert Wells
 - Wonderful Plane Ride by Ruth Weir
 - Open Highways - Grade 4 - Publisher, Scotts, Foresman
Wright Brothers
 - Open Highways - pp. 140-147
 - a) Airplane trip by Jet
 - b) Airport in the Jet Age
 - c) Maps for a Changing World
 - d) Jet Pilot
 - e) Principles of Flight

Filmstrips:

What Make An Airplane Fly
 Science at the Airport
 How Do Jets Fly
 Airplanes
 How Do Helicopters Fly
 What Makes an Airplane Fly
 Air Systems (with cord)
 Air Transportation
 Weather Instruments

Filmloops:

Stewardess
 Cooks and Chefs
 Airplane Mechanics

Realia: Airline maps showing flying routes
 Airplanes - paper, plastic, and wooden
 Weather instruments
 Pictures of planes secured from different airlines
 Air schedules
 Weather and air charts

2. Field Trips:

Metropolitan Airport (tour)
 Oakland Airport
 Pontiac Airport

3. Human Resources:

College students
 Parents
 Tour Guide
 Security Official
 Commercial Pilot
 Stewardess
 747 Chef - Metro Airport

4. Activities:

Role playing
 1) simulated flight take off - landing
 2) simulated flight to Chicago
 Make gliders
 Weather instruments
 1) wind sock
 2) weather vane
 Construct paper airplanes
 Construct and design a model plane
 Construct gliders
 Make an Air Force or Airplane Museum
 Prepare food - Flight

UNIT TITLE: TRANSPORTATION - AIR TRANSPORTATION - (AVIATION)

CONCEPTS

BEHAVIORAL OBJECTIVES

Social Studies

Maps: locations
directions
charting flights

Aircraft transportation

As a result of this unit, each child will be able to:

Discriminate directions on map
Differentiate continents and oceans
List different uses for air transportation

List ecology problems associated with airports
Make a time line of the history and development of aviation
Cite evidence for the growth, changes and the improvements in aviation
Compare and contrast at least two different kinds of air transportation.

Science

Principles involved in flight -
use of air to life and moving things
Use of weather instruments in air transportation
Computed flying time and miles per hour
Wind direction - air pressure
Effects of weather conditions on flying
Aerodynamics
Weather instruments

Explain how air moves and lifts things
Identify use of two air instruments as an aid to air transportation
List effects of air transportation on environment
Construct an airplane which would be balanced when hanging from a string
Construct wind vane, wind sock, or anemometer

METHOD OF IMPLEMENTATION	RESOURCE PEOPLE & MATERIALS
<ol style="list-style-type: none"> 1. Brainstorming 2. Simulate a "take off" and "landing" 3. Simulate a flight to Chicago 4. Make an air force or airplane museum 5. Discuss famous flights 6. Discuss famous planes 7. Read stories and poems on flight 8. Construct paper airplanes 9. Experiment planes and weather instruments 10. Fly paper airplanes 11. Discuss results 12. Construct gliders - Balsa 13. Construct weather instruments used at airport 14. Discuss films and filmstrips 15. Choral reading of poems and plays 16. Prepare menu and food for flight - role playing 17. Practice reading air schedules 18. Make up schedule for trip 	<p>Airport employees</p> <p>Air Traffic Controller</p> <p>Cartographer (map maker)</p> <p>U. S. Coast Guard</p> <p>Students</p> <p>Cook - Chef</p>

UNIT TITLE: AIR TRANSPORTATION - AVIATION (Continued)

CONCEPTS	BEHAVIORAL OBJECTIVES
<p><u>Math</u></p> <p>Telling time Linear measurements Counting money Scheduling (flights) Cost of flight change Mileage tables Measuring and balancing Coordinate geometry</p>	<p>As a result of this unit, each child will be able to:</p> <p>Use a ruler Count out money for plane ticket Tell length of duration of imaginary plane trip Schedule a flight to own destination/compute amount of time in flight Compare and contrast two different types of planes Gather data pertaining to a specific model plane Use measurement for construction activities; all math processes for computing costs</p>
<p><u>Communication Skills</u></p> <p>Letter writing Choral reading Story writing Role playing Reading time tables Informational essay Library research to gain information Relating reading activities (reader workbook) Research skills</p>	<p>Write stories; e.g., "If I were a pilot, stewardess, etc." Write thank-you letters Read a time schedule and mileage chart Gather information on plane Write a report (old planes)</p>

METHOD OF IMPLEMENTATION

RESOURCE PEOPLE & MATERIALS

19. Collect, study, show, discuss insignia of airlines around the world
20. Recite a trip by air
21. Obtain information by letter from airlines
22. Take imaginary trip as a class
23. Write stories of air disaster or high jacking
24. Interview people holding jobs related to air transportation:
 - Weather man - meteorologist
 - Air traffic controller
 - Mechanic
 - Pilot
 - Navigator
 - Stewardess
 - Chef
 - Truck driver
 - Luggage man
 - Customs agent
 - Hotel workers (maid, desk clerk)
 - Restauranteur
 - Waitresses
 - Insurance salesman
 - Janitors
 - Ticket stamper or collector
 - Vendor machine man
 - Reservation clerks
 - Policeman
 - Barber
25. Role play in simulated flight all related job
26. Field trips to airport

UNIT TITLE:

CONCEPTS

BEHAVIORAL OBJECTIVES

Art

Proportion

Space relationship

As a result of this unit, each child will be able to:

Make a puppet

Make scenery for puppet show

Career/Self-Awareness

Managing of people and things

Servicing on plane

a) pilot

b) co-pilot

c) flight engineer

d) steward-stewardess

Servicing on ground

a) air traffic/controller

b) weatherman

c) reservation clerk

d) ticket agent

Production

Formulating identity

Self-Concept

List five jobs available in area of air transportation

List five occupations involved in the operation of an airport

Identify the interdependence of jobs involved in the service occupations; i.e., pilots, co-pilots, steward, stewardess, porter, ticket agent, advertising agent, food handlers, ground crew, chief, etc.)

Identify three characteristics of jobs (training)

Identify three service industries: goods producing industry

List at least three jobs necessary for maintenance of a plane

Explain how each of the following contributes to a person's concept of who he is: things you like about yourself, things you don't like about yourself, things you feel you can accomplish, that you are good at, and things you don't feel you can accomplish, that you are not good at

METHOD OF IMPLEMENTATION

RESOURCE PEOPLE & MATERIALS

Role playing

Field trips

"Me Books"

HANDS ON ACTIVITY (STUDENT PERFORMED)I. NAME OF ACTIVITY

CONSTRUCTING GLIDER

II. ACTIVITY FORMAT:

A. Tools and Materials

Scissors
Paper clips

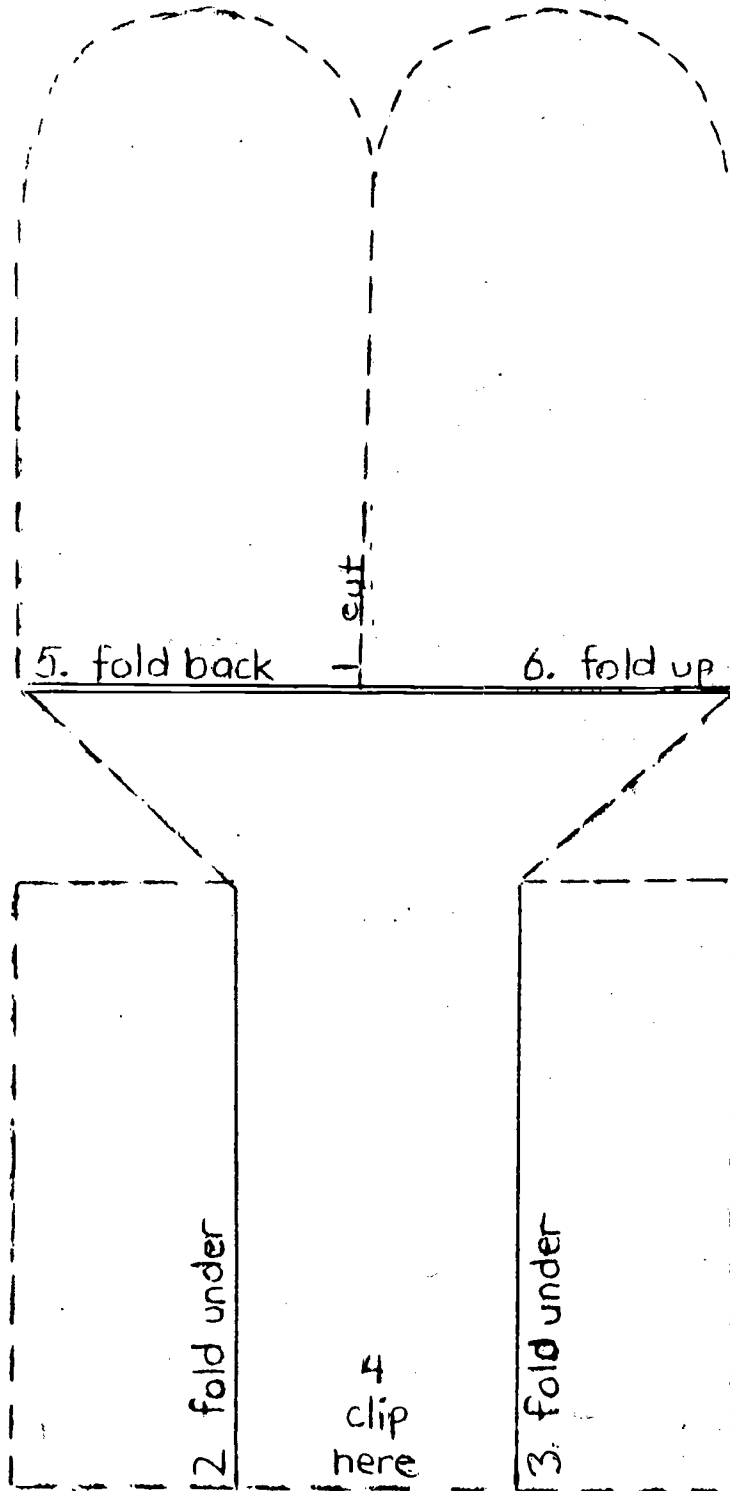
B. Resources

Rolling Along Duplicating Masters by
Scott Foresman

C. Procedures for this activity (with helpful hints)

1. Mimeograph helicopter for children (see next sheet)
2. Cut out helicopter and clip
3. Stand on desk and drop helicopter

III. RESULTS OF THIS ACTIVITY (AFTER IMPLEMENTATION)



HANDS ON ACTIVITY (STUDENT PERFORMED)I. NAME OF ACTIVITY

CONSTRUCTING PAPER AIRPLANES

II. ACTIVITY FORMAT:

A. Tools and Materials

Scissors
Stapler
Duplicating paper

B. Resources

How to Make and Fly Paper Airplanes by
Ralph S. Barnaby

C. Procedures for this activity (with helpful hints)

1. Fold and staple
2. Experiment by making blunt rather than pointed nose to illustrate air resistance
3. Discuss lift and thrust
4. Have contest to determine which homemade plane stays in flight longer

III. RESULTS OF THIS ACTIVITY (AFTER IMPLEMENTATION)

HANDS ON ACTIVITY (STUDENT PERFORMED)I. NAME OF ACTIVITY

CONSTRUCTING WEATHER VANE

II. ACTIVITY FORMAT:

A. Tools and Materials

Tagboard
Large wooden spools
Plastic straws
Scissors
Pins or Nails

B. Resources

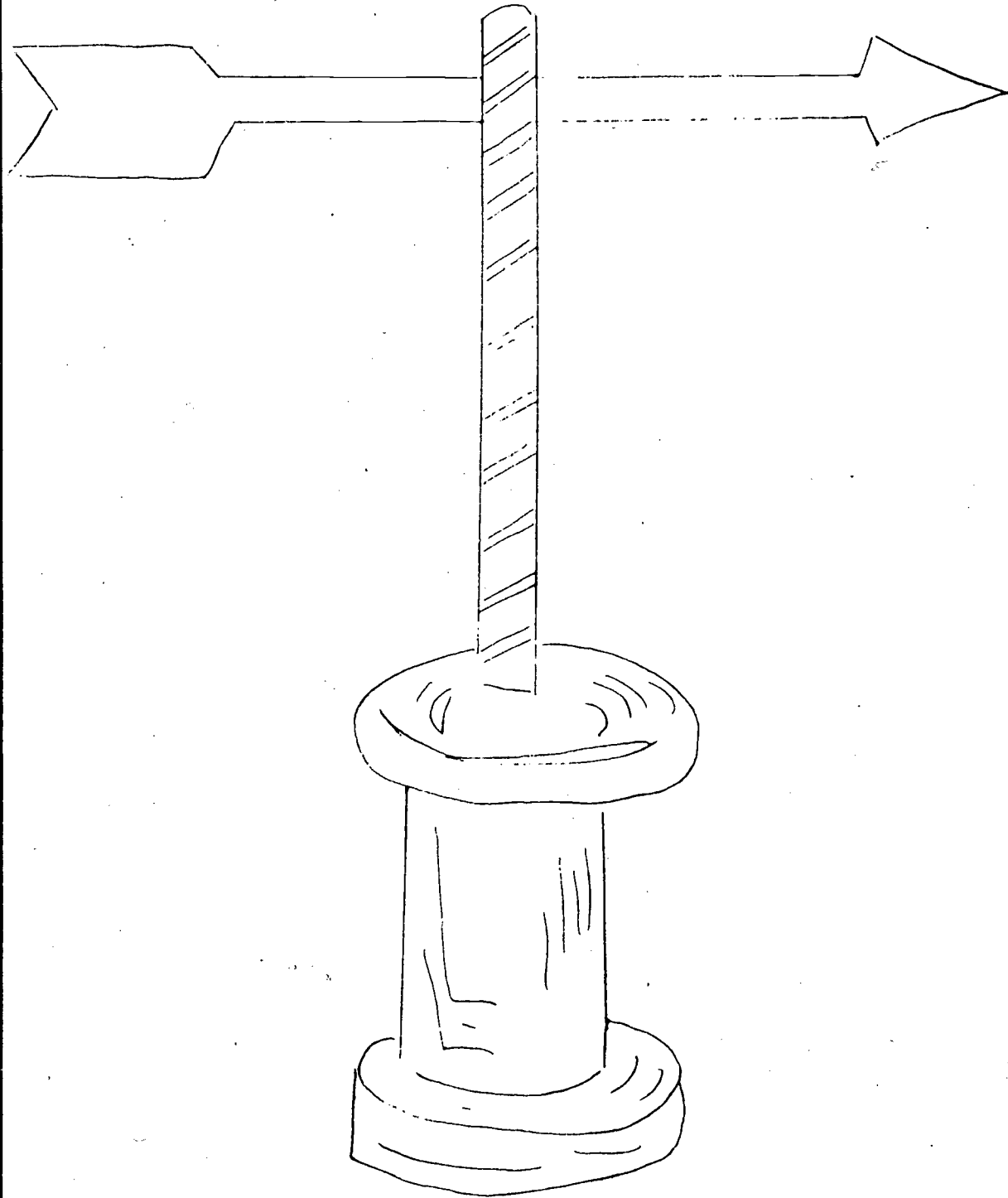
Weather Experiments by Illa Podendorf

C. Procedures for this activity

1. Put along pin up through a large spool preferably wood (If spool is too light or small, pound nail through small piece of plywood and set spool over nail).
2. Set plastic straw on the pin (or nail) so it can turn freely.
3. Slit plastic straw at top. Glue arrow made from tagboard on the straw.

III. RESULTS OF THIS ACTIVITY (AFTER IMPLEMENTATION)

WEATHER VANE



HANDS ON ACTIVITY (STUDENT PERFORMED)

I. NAME OF ACTIVITY

CONSTRUCTION OF WIND SOCK* (pp. 63 and 64 LET Guide Anemometer - Wind Vane)

II. ACTIVITY FORMAT:

A. Tools and Materials

- Plywood 1/2" x 12" x 12"
- Coat hanger
- Tool panel
- 1 yard cotton material
- 1" nails
- 1/2" doweling

B. Human Resources

- Parents
- Teacher aide

C. Procedures for this activity

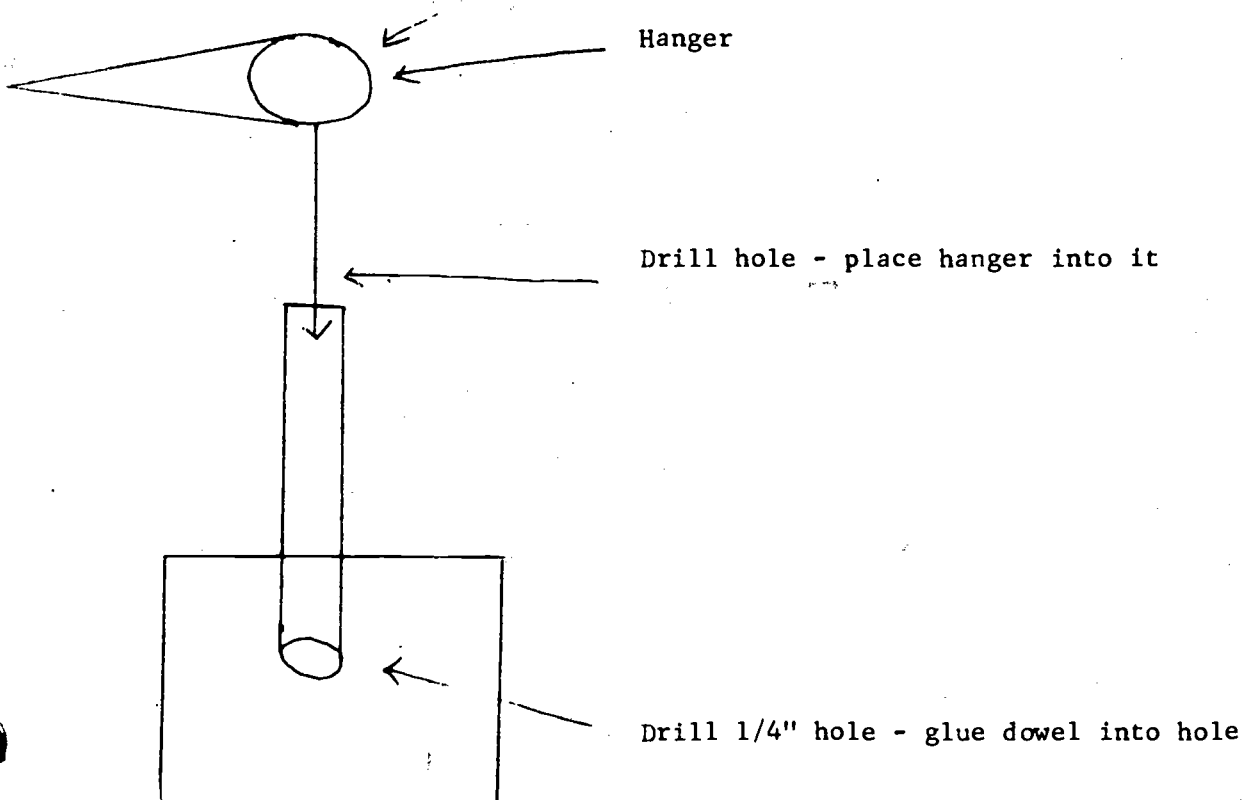
Sew to hanger

Material

Hanger

Drill hole - place hanger into it

Drill 1/4" hole - glue dowel into hole



ROLE PLAYING ACTIVITY

SIMULATED FLIGHT TO CHICAGO

1. Have all student choose a role of either crew, passenger, food handler, or other necessary job.
2. Divide into committees to plan and execute details, props, etc.
3. Have pilot and co-pilot draw and design a paper copy of dash and regular dials of plane.
4. Arrange chairs in airplane style - make some type of seat belts.
5. Write out and distribute tickets for passengers - use blank tickets if possible.
6. Have food handlers plan and prepare snack to be served on flight.
7. Provide appropriate sound effects through use of tape recorder.
8. Have stewardess serve snack on trays to passengers on flight.
9. Have pilots write a script to announce destination, weater conditions, mileage, etc., to passengers.
10. Have passengers make cardboard suitcases to carry on board
11. Films:
 - a. Jet Pilot
 - b. Airplane trip by Jet

HANDS ON ACTIVITY (STUDENT PERFORMED)I. NAME OF ACTIVITY

CONSTRUCT PAPER AIRPLANES TO LEARN BASICS OF FLIGHT, LIFT

II. ACTIVITY FORMAT:

A. Tools and Materials

Mimeograph paper
paper clips

B. Procedures for this activity (with helpful hints)

1. Show and fly teacher-made paper airplane.
2. Show importance of air resistance by letting two papers drop to the floor (one cone shaped, the other a plain, unfolded sheet of paper). Compare the rate of fall.
3. Discuss lift which is the upward force that air exerts on an object aloft.
4. Have students experiment with various folds and kinds of paper to determine which flies best, farthest, etc. (be sure to cut off tip of paper airplane for safety).
5. Have contest to determine which stays in flight longest or travels greatest distance.

III. RESULTS OF THIS ACTIVITY (AFTER IMPLEMENTATION)

HANDS ON ACTIVITY (STUDENT PERFORMED)I. NAME OF ACTIVITY

CONSTRUCT GLIDERS

II. ACTIVITY FORMAT

A. Tools and Materials

Knife or coping saw to shape balsa wood
Balsa wood
Rubber bands
Glue

B. Human Aides and Resources

Model Airplanes for Beginners by H. H. Gilmore

C. Procedures for this activity(with helpful hints)

1. Show a commercially bought, inexpensive kit for making a glider out of balsa.
2. Encourage creativity in style and shape of glider's wings, tail.
3. Have each individual construct a glider.
4. Take outside for contest of longest in air, greatest distance.

III. RESULTS OF THIS ACTIVITY (AFTER IMPLEMENTATION)

HANDS ON ACTIVITY (STUDENT PERFORMED)I. NAME OF ACTIVITY

INSIGNIAS OF AIRLINES

II. ACTIVITY FORMAT:

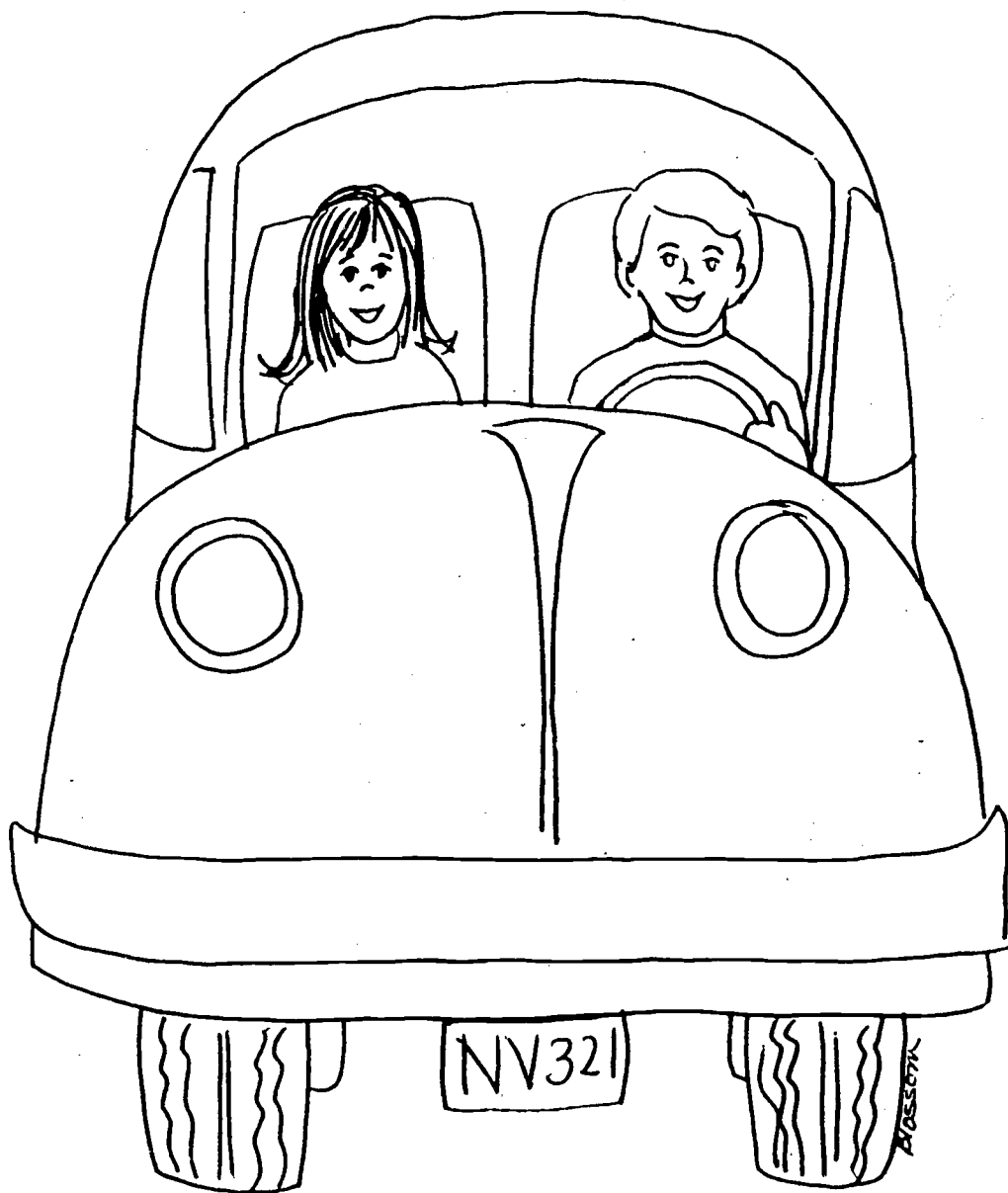
A. Tools and Materials

Tool rack
Wood in size of plaques

C. Procedures for this activity (with helpful hints)

1. Show, study, collect, and discuss insignia of all world's airlines.
 Discuss reason for insignia
 Discuss importance of line, design and colors
2. Discuss variety of airlines and how routes of airlines are determined.
3. On paper and pencil design insignia for your own imaginary airline corporation.
4. Cut, shape, and paint insignia on wooden pieces.
5. Display plaques of insignias.
6. If children would prefer not to work with wood, they could embroider these insignias on felt with yarn to form a sleeve patch.

III. RESULTS OF THIS ACTIVITY (AFTER IMPLEMENTATION)



AUTOMOBILES

478

SCHOOL DISTRICT OF THE CITY OF ROYAL OAK

INTEGRATED TEACHING UNIT
PLANSHEET

TITLE: AUTOMOBILE TRANSPORTATION

GRADE LEVEL: 3-4

GENERAL OVERVIEW: Children need to realize the affects of automobile transportation on our society.

TEACHING/LEARNING RESOURCES:

1. Field Trips:

Ford Motor Company, Rouge Plant
General Motors Tech Center

2. Activities:

Carved model cars from soap
Assembly car production

UNIT TITLE:

CONCEPTS

BEHAVIORAL OBJECTIVES

Social Studies

History

Effect of cars

As a result of this unit, each child will be able to:

List at least two people who were important in the development of cars

List five effects of cars on our society

Science Machines

List two different kinds of car engines

List two car fuels other than gasoline

Math Measurement

Measure distance on an odometer

METHOD OF IMPLEMENTATION	RESOURCE PEOPLE & MATERIALS
Group discussion and research	Designers Engineers General Motors Tech Center Ralph Nader
Research	Fuel company representative
Compute mileage in story problems and in automobile ride	

UNIT TITLE: AUTOMOBILE TRANSPORTATION (continued)

CONCEPTS

BEHAVIORAL OBJECTIVES

Communication Skills

Writing

Reporting

As a result of this unit, each child will be able to:

Write reports and thank you notes

Career/Self-Awareness

Production

Servicing

Describe automobile assembly production

List several ways automobile industry is a service to man and man's occupations

METHOD OF IMPLEMENTATION	RESOURCE PEOPLE & MATERIALS
<p>Research and write reports about historical cars</p>	
<p>Automobile mass production activity</p> <p>Field trip to assembly plant</p> <p>Group discussion</p>	<p>Assembly line personnel</p>

HANDS ON ACTIVITY (STUDENT PERFORMED)I. NAME OF ACTIVITY

CARVE SOAP MODELS

II. ACTIVITY FORMAT:

A. Tools and Materials

Ivory soap
Table knife

B. Procedures for this activity (with helpful hints)

Design a car on paper
Carve it out of soapIII. RESULTS OF THIS ACTIVITY (AFTER IMPLEMENTATION)

Difficult for third graders.

HANDS ON ACTIVITY (STUDENT PERFORMED)I. NAME OF ACTIVITY

AUTOMOBILE MASS PRODUCTION

II. ACTIVITY FORMAT:

A. Tools and Materials

Parts List Per Car (Multiply number of parts of length of wood to determine total material needed per class.)

4 Wheels

*2 Coathanger wire, 4 1/2"

4 1/2" staples

*1 Pine, 3/4" x 1 1/2" x 8"

*1 Pine, 3/4" x 1 1/2" x 8"

4 Brads, 1"

4 1/8" I.D. - 3/8" O.D. Steel Washers

*Denotes pieces

B. Procedures for this activity

1. Cut 3 1/2" wide floor board to 8" length
2. Mark axle lines 1" from end of floorboard
3. Cut 3/4" x 1 1/2" blocks to 3 1/2" lengths
4. Nail hood to base (2 nails)
5. Nail cab to base (from bottom)
6. Nail staples to the bottom of the floorboards
7. Sand front of truck
8. Sand sides of truck
9. Inspect
10. Attach wheels and axle to staples (use 2 washers)
11. Cut axles to 4 1/2" lengths
12. Attach one (1) wheel to axle
13. Inspect wheel alignment
14. Attach headlights
15. Final inspection

III. RESULTS OF THIS ACTIVITY (AFTER IMPLEMENTATION)

RAILROADS



SCHOOL DISTRICT OF THE CITY OF ROYAL OAK

INTEGRATED TEACHING UNIT
PLANSHEET

TITLE: RAIL TRANSPORTATION

GRADE LEVEL: 3-4

GENERAL OVERVIEW: The purpose of this unit is to help the children realize the affects of rail transportation on our society.

TEACHING/LEARNING RESOURCES:

1. Field Trips:

Train Ride
Visit freight yard

2. Human Resources:

Parents
Train Engineer

Grand Trunk Western Railroad Co.
700 Pershing
Pontiac
338-0082
Commuter Information 542-1120
11 Mile Rd. & Sherman Drive
Royal Oak

Chicago, Milwaukee, St. Paul and Pacific Railroad
301 W. 4th
Royal Oak
399-5656

3. Activities:

Make large freight train
Make a mural
Train hobby display

UNIT TITLE: RAIL TRANSPORTATION

CONCEPTS

BEHAVIORAL OBJECTIVES

Social Studies

History of trains

Importance of trains

As a result of this unit, each child will be able to:

Identify five activities related to rail transportation

List the reasons for the decrease in passenger use of trains

Compare use of trains with other forms of transportation in the United States

Science

Kinds of engines and fuels used in trains past and present

Recognize that trains are run by different kinds of engines

Match the type of fuel each kind of engine uses

Communication Skills

Written reports

Oral reports

Letter writing

Gather information for a written report about the history of U. S. trains

Gather information for an oral report

Write a thank-you note

METHOD OF IMPLEMENTATION

RESOURCE PEOPLE & MATERIALS

Have a hobby display of model trains

Make reports of old trains for a bulletin board mural

From films and filmstrips:

Kinds - diesel

steam

electric

Fuels - wood

coal

diesel oil

electric - falling water

- coal

- diesel

- atomic

Train engineer

Make train car. Have children work in small groups (2-3) which select a different kind of train car from this list

Engine

Box Car

Gondola Car

Tank Car

Stock (animal) Car

Hopper Car

Refrigerator Car

Flat Car

Caboose

Railroad company

Report on differences between passenger and freight trains

Make a mural of history of trains

Write reports

Parent interested in model trains

UNIT TITLE: RAIL TRANSPORTATION (Continued)

CONCEPTS	BEHAVIORAL OBJECTIVES
<p><u>Math</u></p> <p>Measurement</p> <p>Linear</p> <p>Money</p>	<p>As a result of this unit, each child will be able to:</p> <p>Construct an individual train car measuring 2 ft. x 4 ft. which will be mounted as part of a complete train mural</p> <p>Compare rail shipping costs with air and truck shipping costs</p>
<p><u>Art</u></p> <p>Proportion and space relationships</p>	<p>Make a mural about history of trains</p>
<p><u>Career/Self-Awareness</u></p> <p>Jobs related to rail transportation</p> <p>Managing a railroad</p> <p>Services that railroads provide</p> <p>Analysis of interests</p>	<p>List five services the railroad provides</p> <p>Describe how railroads are managed by studying the planning, organizing, and controlling functions of a railroad timetable</p> <p>List the activities you like to do and list the activities you voluntarily spend time on - analyze and discuss the degree to which the lists are in agreement with one another</p>

METHOD OF IMPLEMENTATION	RESOURCE PEOPLE & MATERIALS
<p>Compare sizes of train cars</p> <p>Research shipping costs - air, train, trucks</p>	<p>Field Trip: Railroad company Hobby shop</p>
<p>Cut pictures from magazines about trains - use for bulletin board</p>	<p>Train hobby magazines</p> <p>Railroad company</p>
<p>Brainstorm to get a list of train related jobs on chalkboard</p> <p>Brainstorm jobs which are alike and different on passenger and freight trains</p>	<p>Railroad employees</p>

HANDS ON ACTIVITY (STUDENT PERFORMED)I. NAME OF ACTIVITY

FREIGHT TRAIN MURAL

II. ACTIVITY FORMAT:

A. Tools and Materials

Rolled large paper
Poster paint
Scissors

B. Procedures for this activity (with helpful hints)

1. Talk about kinds of railroad cars on a freight train and their uses i.e., box car, gondola car, stock car, tank car, hopper car, refrigerator car, diesel engine, piggy back car.
2. Have class divide up into small groups (2-3).
3. Choose a car and do a large printed picture of it.
4. Put completed cars around the room walls.

III. RESULTS OF THIS ACTIVITY (AFTER IMPLEMENTATION)