Wash Oak School

Mill Race Village

1. Purpose of Experience
   A. Students to learn history of Northville
      1. Through lessons and activities done before their visit to Mill Race
      2. Through "living history" immersion through experience in a one room school
   B. Students to learn firsthand what life in the Victorian school was like

II. Scope of Curriculum
   A. This curriculum is intended for students in either grade 3,4, or 5. Teachers in each school should decide which grade would most profit from the experience. It is not <u>at this time</u> intended to be a repetitive experience.
   B. This curriculum is intended for use by teachers in a one day experience at Mill Race Village, preceeded by in-class preparation for the experience.
   C. Included in this guide are ideas for use as introduction in the classroom and ideas for use in a day at Mill Race.

III. Ideas
   A. Teachers are encouraged to make comments that clarify lessons and make projects or make them easier to execute.
   B. It is hoped teachers will share any experience that is not included by adding ideas from their own files.

First Grade

Reading: Chart and blackboard reading and McGuffey's beginning Reader.

Language: Speak and write simple sentences, statements or questions. Learn the days of the week, months of the year, use of "is" and "are", "was" and "were", and have oral reproduction of short sentences.

Arithmetic: Consideration of numbers by the help of objects, associating the number idea first with the name and then with the common symbol. Reading and writing numbers to 50: operations and combinations from 1 to 10. Roman numerals to XX. Fractions objectively studied, halves to fourths.

Writing: Slates and pencils. Script taught from the first. All writing vertical.

Kindergarten work.
Spelling orally
Music, Vocal

Second Grade

Reading: McGuffey's
Language: Continuation of First Grade work.

Arithmetic: Reading and writing numbers to 1,000; combinations to 50.
Roman numerals to C; Learn units of time, and to tell time from the clock.

Writing: Continued as in First Grade.

Spelling: Oral and written selected from the reading books.

Geography: Simple talks on local geography.

Third Grade

Arithmetic: Combinations to 75; reading numbers to 10,000 with addition and subtraction to that amount.

Language: Common and proper names, use of "to", "too", and "two"; singular and plural 'this","that", "these", "those", memory exercises; supplemented with work from language book.

Reading: McGuffey's reader.

Writing: Copy Book.

Geography: Local geography of school grounds, village, township and county. Township map with sections numbered; County map with townships names. All instructions oral.

Spelling: Words from readers written and spelled orally.

Music: Easy songs supplemented with reading from the blackboard.

Fourth Grade

Arithmetic: Rudiments. Mental and written work continued.

Reading: McGuffey reader.

Language: Arranged by the teacher.

Geography: Globe lessons, oral work continued. Draw maps of continents.

Writing: Make other lessons, writing lessons.

Spelling: Noah Webster's speller.

Music: As in 3rd Grade and easy exercises copies.

Fifth Grade

Arithmetic: Rudments completed. Mental work as in fourth grade, planned by teacher.

Reading: McGuffey's Reader

Language: Supplemented with other work by teacher.

Geography: Copy book.

Spelling: Continue with Webster's Speller

Sixth Grade

Arithmetic:

Reading: Fourth Readers completed and reviewed.

Language: Complete Reed's Introductory Language Lessons. Supplementary work added.

Geography: Review Introductory Book first two terms, and for the third term, Harper's Complete to page 21.

Writing: Copy Book No. 4.

Proposed Plan for Teaching Reading
by Varnum B. Cochran,
Michigan Superintendent of Public Instruction

First and Second Classes

First two books of series. Sight readings. Memorizing.

Each class separately. Three exercises daily for first class. Careful attention should be given to the first lessons. Master each lesson before advancing to another. Review several lessons each day and occasionally require pupils to read new lessons of the same grade at sight. Have pupils memorize choice sections from reader and other books. Teach the use of the diactrical marks as they appear in the lessons.

Third and Fourth Classes

Third and fourth books of the series. Select readings and recitations.

One daily exercise for each class, separately. Pay special attention to catching and expressing the thought of the writer. Secure distinct articulation. Cultivate pleasant tones. Have pupils select from other books and bring to school choice selections to be read in class and memorized.

Fifth Class

Fifth book of the series. Select readings. Recitations.

This exercise should alternate with that in U.S. history, and for a change, the text book in history will furnish many excellent reading lessons. Have good selections from the reader committed to memory and recited singly and in concert. Newspapers-current history.

Daily Program Proposed by Varnum B. Cochran, Michigan Superintendent of Public Instruction

1881

Begin	First Section Class I	Class II	— —	Second Section Class III	Class IV	—	Third Section Class V
9:00				***Opening***			
9:05	Reading	Reading	—	Arithmetic	Arithmetic	—	Arithmetic
9:15	Printing	Reading	—	Arithmetic	Arithmetic	—	Arithmetic
9:30	Printing	Slate Writing	—	Arithmetic	Arithmetic	—	Arithmetic
9:50	Numbers	Numbers	—	Arithmetic	Arithmetic	—	Arithmetic
10:10	Numbers	Numbers	—	Geography	Geography	—	Arithmetic
10:30				***Recess***			
10:45	Numbers	Numbers	—	Geography	Geography	—	Geography
11:00	Writing	Drawing	—	Geography	Geography	—	Geography
11:20	Reading	Drawing	—	Geography	Geography	—	Geography
11:40	Reading	Reading	—	Arithmetic	Arithmetic	—	History
11:50	Oral Lessons		—	Arithmetic	Arithmetic	—	Reading
12:00				***Lunch***			
1:00	Reading	Reading	—	Reading	Reading	—	History or Reading
1:20	Reading	Reading	—	Reading	Reading	—	Grammar
1:40	Reading	Reading	—	Reading	Reading	—	Grammar
1:50	Printing	Reading	—	Reading	Language	—	Grammar
2:00	Reading	Reading	—	Reading	Language	—	Grammar
2:15	Writing	Writing	—	Writing	Writing	—	Writing
2:30				***Recess***			
2:45	Spelling	Spelling	—	Language	Language	—	Grammar
3:05	Spelling	Spelling	—	Language	Language	—	Spelling
3:20	Spelling	Spelling	—	Spelling	Spelling	—	Spelling
3:30	Copying	Spelling	—	Spelling	Spelling	—	Spelling
3:40	Copying	Copying	—	Copying	Spelling	—	Spelling
3:50				***Oral Lessons***			
4:00				Dismissal			

NORTHVILLE HISTORICAL SOCIETY

MILL RACE VILLAGE

WASH OAK SCHOOL

Inventory Check List

_____ Teacher's bell and stand

_____ Teacher's pointers

_____ Ink well and quill pen

_____ Noah Webster Elementary Spelling Books

_____ McGuffey Readers

- _____ First Reader
- _____ Second Reader
- _____ Third Reader
- _____ Fourth Reader
- _____ Fifth Reader
- _____ Sixth Reader

_____ Slates

_____ Slate pencils

_____ Pinafores

_____ Vests

_____ Docent costume

_____

Visiting Teacher

Selected Bibliography for Student Reading

These titles are available either at the media centers of Northville Public Schools or at local public libraries.

Fiction -- Books about the latter 1800's.

Bischoff, Julia B. Paddy's Preposterous Promises. Young Scott Bobks, 1968.
Life on a turn-of-the-century Michigan farm.

Coatsworth, Elizabeth. The Sod House. Macmillan, 1954.
Little Ilse proves herself a heroine on the American frontier during the Civil War.

DeAngeli, Marguerite. Copper-Toed Boots. Doubleday, 1938.
A pair of boots is a boy's prized possession in central Michigan in the 1800's.

Frazier, Neta L. Little Rhody. Longmans, 1953.
Depicts early Michigan farm life through the experiences of a small girl.

Frazier, Neta L. The Magic Ring. Longmans, 1959.
The adventures of ten-year-old Rebecca Osborn in Michigan at the turn of the century.

Frazier, Neta L. Somebody Special. David McKay, 1954.
The continuing story of Rhody as an eleven-year-old seeking self-fulfillment.

Holling, C. Holling. Paddle-to-the Sea. Houghton Mifflin, 1941.
A toy canoe takes a four-year journey through the rivers and lakes of the Great Lakes waterways. Shows life and activities along and on the lakes.

Lawrence, Mildred. Crissy at the Wheel. Harcourt Brace, 1952.
The new "horseless carriages" in Granite City, Michigan.

Mason, Miriam E. Caroline and Her Kettle Named Maud. Macmillan, 1951.
Frontier life in Michigan with a heroine who proves courageous -- with the help of her kettle.

Mason, Miriam E. Susannah, the Pioneer Cow. Macmillan, 1941.
The story of the animals who travelled with the Wayne family from Virginia to the Midwest.

Meader, Stephen W. Boy with a Pack. Harcourt, 1939.
A boy's trip on foot from New Hampshire to Ohio in 1837 provides the theme for this story.

Meader, Stephen W. Jonathan Goes West. Harcourt, 1946.
Jonathan travels from Maine to Illinois in late 19th century.
Authentic historical background.

Orton, Helen F. Secret of the Rosewood Box. Lippincott, 1937.
In 1880 a family moves to Michigan and loses the rosewood box on the way.

Priestley, Lee. A Teacher for Tibby. Morrow, 1960.
Set in Michigan in 1800's, the book tells of the struggle to establish a school, and the part eight-year-old Tibby plays in its development.

1888 Pyle, Howard. Otto of the Silver Hand.

1894 Kipling, Rudyard. The Jungle Book.

Non-Fiction

Abbott, Ethelyn T. Michigan History Stories for Boys and Girls. Hillsdale, 1970.
Provides general historical background for the later elementary student.

Barns, Paul C. To Be a Pioneer. Abingdon, 1962.
Gives recipes, songs, school lessons, instructions for quilting, etc. Helps children understand how the early settlers went about establishing homes, schools, farms, etc.

Chaput, Donald. Michigan Indians: A Way of Life Changes. Hillsdale, 1970.
Describes the gradual changes evolving from the entry of white men in their world.

Coffman, Romon. Famous Pioneers for Young People. Dodd Mead, 1945.

D'Amato, Janet. Colonial Crafts for You to Make. Messner, 1975.

Devlin, Harry. To Grandfather's House We Go; A Roadside Tour of American Homes. Parents Magazine pr., 1967.
Includes a Victorian rosetta-stone-style home with a labeled illustration of decorative trim.

Fradin, Dennis B. Michigan in Words and Pictures. Children's Press. 1980.
An introduction to Michigan development from prehistoric to modern times with emphasis on industry, famous people, etc.

Georgiady, Nicholas P. Michigan Historical Sights. Franklin Publishers, 1967.
Pictures and historical background on monuments and places as of publication date.

Gilfond, Henry. Genealogy, How to Find Your Roots. Watts, 1978.
Develops skills in exploring clues at hand to collect, verify and analyze family trees.

The Golden Book of Colonial Crafts. Golden, 1975.

Gringhuis, Dirk. The Big Dig: A Frontier Fort Comes to Life. Dial Press, 1962
Story of the archaeological discoveries at Old Fort Michilimackinac.

Gringhuis, Dirk. The Great Parade: Michigan History, Hillsdale, 1970.
Michigan's past from the Ice Age to the early 1900's. Chapter on schools and schoolmasters.

Harmer, Mable. True Book of Pioneers. Childrens Press, 1957.
Easy-to-read information.

Hilton, Suzanne. The Way It Was, 1876. Westminster, 1976.
American life presented pictorially.

Lewis, Ferris E. Then and Now in Michigan. Hillsdale, 1950.
Overview of Michigan history for elementary students.

Lewis, Ferris E. Our Own State, Michigan. Hillsdale, 1971.
Recommended as history and geography unit for junior high.

May, George S. Pictorial History of Michigan; The Later Years.
Eerdmans. 1969.
Pictures and reprints of significant events and daily life.
Chapter on schools.

McCall, Edith. Forts in the Wilderness. Childrens Press. 1968.
Accurate fictionalized history of the first 100 years of the old Northwest Territory.

Newcomb, Delphine. Exploring Michigan. Follett, 1954.
Well illustrated portrayal of Michigan yesterday and today.

Periodicals

"Genealogy." Cobblestone, November, 1980
Whole issue devoted to topic.

"Old Time Schools in America." Cobblestone, November, 1981.
Whole issue devoted to schools, texts, stories of time, crafts, puzzles,etc.

"Sewing Up a Story." Cobblestone, July, 1983, pp. 27-29.
Patchwork quilting.

Prepared October, 1983

Selected Bibliography for Staff Reading

Books

Bald, Frederick Clever. Michigan in Four Centuries. Harper, 1961.

Benn, Clarence E. Your Day in the School of the 1880's. Greenfield Village & Henry Ford Museum Education Dept., 1980.

Carpenter, Charles. History of American Schoolbooks. University of Pennsylvania Press, 1963

Dain, Floyd. Education in the Wilderness. Michigan Historical Commission, 1968. pp. 197, 265-290.

Davie, Emily. Profile of America. Crowell, 1954. pp. 306-312.

Detroit Public Library. Detroit in Its World Setting: A 250 Year Chronology. Detroit Public Library Press, 1953.

Dunbar, Willis Frederick. Michigan: A History of the Wolverine State. Eerdmans, 1970.

Farmer, Silas. History of Detroit and Wayne County and Early Michigan. Silas Farmer & Co., 1890

Gillard, Kathleen Isabel. Our Michigan Heritage. Pageant Press, 1955. Includes: "Peopling the Land", "Travellers Accounts", & "Pioneer Songs".

Hagman, Arthur A., comp. Oakland County Book of History. Oakland County, 1970.

History of Salem Township, Washtenaw County, Michigan. Salem Area Historical Society, 1976. pp. 69 & 71 on Wash Oak School.

Hixon, Laura Smyth. Early Northville. Northville Historical Society, 1982. Pictorial account of early days of city and surrounding area.

Hoffman, Jack W. Northville -- the First 100 Years. By author, 1976.

Hudson, Sam. The Story of Plymouth, Michigan: A Midwest Microcosm. Plymouth Historical Society, 1976. pp. 195-200 on schools.

Johnson, Clifton. Old Time Schools and School-Books. Dover, 1963.

Lewis, Ferris E. Michigan, Yesterday and Today. Hillsdale, 1980.

Lewis, Ferris E. My State and Its Story. Hillsdale, 1972

May, George Smith & Brinks, Herbert J. A Michigan Reader: 11,000 B. C. to A.D.1865. Eerdmans, 1974.

Paris, Dominic P. Footpaths to Freeways, The Story of Livonia. By author, 1975. pp. 63-96 on schools to present times.

Perspectives '76. Regional Center for Educational Training, Hanover, New Hampshire, 1975.

Prebys, Henry J. The Changing School, 1790-1900. Greenfield Village and the Henry Ford Museum, 1975.
This is a 16 page illustrated booklet.

Rubenstein, Bruce A. & Ziewacz, Lawrence E. Michigan: A History of the Great Lakes State. Forum, 1981.
pp. 143-156 on education.

Shoemaker, Ervin C. Noah Webster, Pioneer of Learning. Columbia University Press, 1936.

Sloane, Eric. The Little Red Schoolhouse: A Sketchbook of Early American Education. Doubleday, 1972.

Suid, Murray. Happy Birthday to the U.S.: Activities for the Bicentennial. Addison Press, 1975.

Warner, Robert Mark & Vander Hill, C. Warren. A Michigan Reader: 1865 to the Present. Eerdmans, 1974.
Of interest: "A Day on the Farm" by U.P. Hedrick and "Victorian Banquet"

Wilson, Everett B. Vanishing Americana. A. S. Barnes, 1966.

Periodicals

"American Revolution Bicentennial; Special Report". American Education, June, 1974, pp. 6-15 and following issues.

Cobblestone: The History Magazine for Young People.
Published since 1980; each issue features historic event, person, or place.

"Last Look at the Little Red Schoolhouse: Calaboose, Kentucky". Parents Magazine, February, 1969, pp. 54-56

"Of Truants, Insolent Boys and Greedy Girls. The World According to McGuffey". The Herald, Dearborn, MI: The Edison Institute, Summer, 1980, pp. 2-9

"One-Room Schoolhouse and How It Grew". American Education, May, 1967.
pp. 8-12

"Survival of the One-Room". Time, April 9, 1965, p. 45.

Life of the Late 19th Century

According to the 1880 U.S. Census, there were 1,586 people living in Troy Township. Pontiac was the largest city in Oakland County with a population of 4,509. Troy Township and Oakland County were primarily rural areas. The U.S. Census Bureau recorded that there were 4,891 farms in Oakland County in 1880.

Oakland County farmers grew a variety of crops, including barley, oats and hay. The largest crops, however, were Indian corn and wheat. They also raised sheep, pigs and some cattle. From the milk the cows gave, butter, cheese and cream were produced. Much of what a farmer produced was used by his own family. Any extra crops or farm products were sold to pay the taxes or to purchase new farm tools or for seeds for the next planting season. Anything the farmer and his family couldn't grow or get from their farm animals, they purchased from the local general store. Among the supplies they purchased might have been coffee, tea, sugar, molasses, salted fish and bologna.

The fall harvest was an important time of year. The farm families would harvest the crops and prepare for the winter ahead. Some fruits and vegetables were dried to preserve them. In the late 19th century, the canning of fruits and vegetables began to replace drying as a method of preserving food. Potatoes, carrots and other "root" crops were stored underground in a root cellar. Also, some of the farm animals were slaughtered to make smoked or salted meat and sausages.

Daily chores, year-round, included milking the cows. If the farm was not primarily a dairy farm, the women or children did the milking. Milking was done by hand. Some milk was left sitting in a crock or pan to allow the cream to rise to the top. the cream was skimmed off the top and churned into butter, and the "skimmed" milk was served to the hogs.

Another farm chore was chopping wood for the wood stoves in the farmhouse for cooking and for heating the home in the winter. Kerosene lamps and lanterns, the sources of light before electricity, had to be kept filled. Other chores included feeding the horses and various farm animals. In most instances, the wives of the farmers planted and tended the gardens in which the vegetables were grown for their own use. Farm wives were also responsible for food preparation, a considerable task, if the family was especially large. The entire family worked long hours each day to perform the many chores on the farm.

Sunday was the Sabbath, the farm family's day of rest. the church played an important role in the rural community. Weekly church meetings served a religious function and were also a social event. Farm families met with and socialized with their friends and neighbors.

A farming revolution occurred in the post-Civil War period with the increased use of steel. Steel equipment replaced wooden farm tools. For example, split rail fences were replaced by barbed wire fences and steel watering troughs replaced wooden troughs. In addition to new farming advances, there was a new trend towards urbanization in the late 19th century.

Cities of the late 19th century were growing at an unprecedented rate. Detroit's population, for example, grew from 45,000 in 1860 to 285,704 in 1900. Some of this growth was due to the movement of people from rural communities. Among the reasons for leaving the farm was the belief that an individual could earn more money in an urban community than by farming.

In Detroit, major industries included the manufacturing of steel and iron, stoves and railroad cars. Detroit had 919 manufacturers in 1880. The city was also a major port city with numerous vessels delivering and receiving cargo.

Chronology 1865—1900

1865

-Confederate General Robert E. Lee surrendered to Union General Ulysses S. Grant.
-President Abraham Lincoln assassinated.
-Andrew Johnson became President.
-Thirteenth Amendment abolished slavery.
-Reconstruction began.
-"Northville Union School" completed and occupied. Total cost $12,000. Located where Recreation Building now stands on West Main.

1866

-James Vernor sells his first ginger ale.

1867

-Massachusetts limited child labor to 10 hours a day.
-U.S. purchased Alaska from Russia for $7,200,000.
-Northville incorporated as a Village. William P. Yerkes elected first President of the Village of Northville.

1869

-First transcontinental railroad completed.
-First issue of "Northville Record" was published.
-Travel time to Detroit from Northville was two days.

1871

-First compulsory school attendance law in Michigan. All children between eight and fourteen required to attend school at least twelve weeks each year.
-Chicago fire.
-First train arrived in Northville.
-Wash-Oak School was built.

1874

Northville Fish Hatchery was established.

1876

-Centennial of the United States.
-Centennial Exhibition - Philadelphia
-Colorado statehood
-General George Custer's troops massacred at Little Big Horn by Sioux Indians led by Sitting Bull.
-*Tom Sawyer* by Mark Twain published.
-Telephone invented by Alexander Graham Bell.

1877

-First telephones installed in Detroit.
-Phonograph invented by Thomas Edison.
-Reconstruction of South ended as federal troops withdraw from South.

1879
-Belle Isle purchased by City of Detroit for a park.
-New State Capitol building in Lansing was dedicated.
-First incandesent electric light invented by Thomas Edison.-
-Old "Opera House"on corner of Center & Dunlap was dedicated.

1881
-First professional baseball played in Detroit.
-Joseph L. Hudson opened clothing store.
-American Red Cross organized.
-President James Garfield assassinated.
-Chester A. Arthur became President.

1882
-A meal in Detroit cost 30¢.
-Jesse James killed.

1883
-*Life on the Mississippi* by Mark Twain published.
-First telephone was installed in Northville.

1884
-*Huckleberry Finn* by Mark Twain published.
-First long distance phone call made between New York and Boston.

1886
-Statue of Liberty dedicated.

1889
-Detroit teachers earned $30 per month; $70 per month after nine and a half years employment.
-Oklahoma land rush opened former Indian territory to settlement.
-Electric light came to Northville.

1890
-End of the American frontier
-Idaho and Wyoming Statehood.
-First library opened in Northville.
-Population of Northville was 1,573.

1894
-Fredyl's first opened - known as "Freydle the Tailor".

1896
-Last horsecar operated in Detroit. All electric streetcars used.
-Henry Ford successfully operated his first motor vehicle in Detroit.

1898
-Battleship *Maine* blown up in Havana harbor.
-Spanish-American War - U.S. declared war on Spain, demanded Cuban independence.
-Hawaii annexed to U.S., U.S. gained Puerto Rico, Guan, Phillippines at end of Spanish-American War.

The Rural School

The one-room or rural school of the late 19th century was a center of the farming community. In addition to its educational purposes, the schoolhouse was used for a variety of activities. Community members used the schoolhouse for meetings, social functions and religious services.

The interior of the one-room school was sparsely furnished with the teacher's and students' desks, a stove, blackboards and coathooks. The desks, shared by two or more students, faced the blackboard. Boys sat on one side of the room and girls sat on the other side. The front seats were the recitation benches where the students would recite their lessons for the teacher. The desktops provided a place for the students to express themselves artistically.

> *(The desktops) had inspired pupils to do a good deal of work on their once fair surface with their jack knives and pencils. It was on the boys side that the desks were most energetically cut up, the girls' genius running more towards mild pencilings.*
>
> *-The Country School*
> by Clifton Johnson
> 1907

Seats close to the wood-burning stove were highly prized.

The stove was the only source of heat in the one-room school. Frequently, the teacher would be required to chop the wood for the stove. In other cases, one boy was responsible for getting the wood and keeping the stove hot enough to warm the room. Also, wood was used as a form of tuition, with each student bringing a log for the stove. Because of its importance, the stove was central in the school's design.

School designs changed slightly over the years. Early schools were log structures. Later, wood frame, brick and stone schools were constructed. The materials used in the construction of a schoolhouse depended on the financial resources of the local residents.

The school was built by local farmers with little regard for the basic school necessities. Frequently, there was no globe, dictionary or maps. One rural teacher was concerned with the parents' indifference towards their children's education.

> *Why men who willingly spent large sums on crop investment, often paying a fabulous amount for a choice brood animal, are so short-sighted as not to see that their children, for whom they are doing so much, need better intellectual advantages, is one of the wonders of our age.*
>
> *-The Rural School from Within*
> by Marion G. Kirkpatrick
> 1917

The parent's lack of concern was often one of the greatest problems for a rural teacher.

Despite a mandatory school attendance law, parents often kept their children at home. The attendance law was adopted in 1871 and required all children between ages eight and fourteen to attend school at least three month of the year. In 1873, the time requirement was changed to four months. Many children attended school occasionally or not at all. In the winter, there was deep snow and frequently the schoolhouse was several miles away. Children were needed on the farm during the spring planting and autumn harvesting seasons. In the summer, the crops had to be cared for, a job which lasted from sunrise to sunset each day. There was little time for a child to attend school, except in the winter months.

Schools of Wayne County at an Early Date

By J. S. Tibbits

Editor's Note: Modern day Dearborn, admittedly, has one of the finest school systems available in Michigan. This is based on tradition, the latest facilities, and well qualified educators. Wayne County, of which the Dearborn School system is a part, was not always as progressive as it is today. All we need do is look back to the contents of a speech delivered by J. S. Tibbits before the Wayne County Pioneer Society on April 21, 1874, as recorded in the *Michigan Historical Collections*, Volume 1, pp. 429-431. From time to time in future "Dearborn Historians" accounts of education in Dearborn will be published.

The facilities for obtaining even a common school education in this county in an early day, were meager indeed. The means, and want of children in a neighborhood, in the then sparsely settled portions of the country, were the great obstacles. Most of the early settlers, however, realizing the fact that the schoolhouse and the church go hand in hand with civilization, refinement, and improvement, were not slow in erecting the former, which, though rude and primitive in its construction, answered very well the purpose for which it was intended. The schoolhouse of the pioneers was built of logs, of course, and was generally located at the intersection of cross-roads, where there were any, or on the brow of some hill which afforded fine facilities for coasting in the winter season. The house was usually covered with "shakes." The door was made of rough boards, hung with wooden hinges, and fastened with a latch of the same material. The windows were made of twelve-lighted "seven-by-nine" glass, the sash placed horizontally instead of perpendicularly. The floor was made of rough boards, where they could be obtained, but frequently logs split in two, and hewn smooth were made to answer this purpose. For seats, slabs with legs to them were universally used, which answered the double purpose of seats and sleds to ride downhill on. The desks were constructed by placing boards upon pins driven into the walls of the house. No stoves were used in those days, but instead, an ample fireplace was constructed by sawing out a few logs at one end of the house, and filling up the hole thus made with stone and mud, which formed the back of the fireplace. Sometimes the luxury of a brick hearth was indulged in, but usually this consisted of fried clay and sand. The chimney, of course was built of sticks, plastered on the inside with mud. Wood being plenty, there was usually a rousing fire roaring in these primitive fireplaces which will bear mentioning. A certain teacher had carefully impressed upon the minds of his pupils the importance of thinking three times before they spoke once. Coming into the house one cold morning he pulled off his boots and placed them before the fire to thaw. Soon they began to scorch and fry before the intense heat of the fire. A thoughtful scholar standing by drawled out, "Schoolmaster, I think--I think--I think your boots are burning!" By this time the boots had burned to a crisp, and the teacher gave the boy an unmerciful flogging for not telling him sooner that his boots were burning, though the boy stoutly maintained that he strictly obeyed orders. At another time a man by the name of Sprague was employed to teach a school where two other teachers had been turned out of school the same winter by a set of unruly boys. This Sprague was very strict in his rules, and being a powerful man was abundantly able to enforce them. Among his rules was one forbidding any of the scholars to ask to go to the fire after they had taken their seats. For several days everything went on like clock work, the boys seeing no chance to kick up a row. Finally they combined and agreed to go to the house in a body, and after taking their seats one was to ask to go to the fire. If he was refused permission, as he expected to be, he was to march boldly up, and then the row was to commence. Sprague, hearing of this conspiracy, went very early to the schoolhouse, built up a roaring fire, and commenced school. Soon the boys came in, and, after warming themselves, took their seats. Directly one of the most resolute of the company jumped up and said, "Please, may I go to the fire?" The teacher, who was standing near the fire with a book in his hand hearing a class read, answered "Yes, come right along up." No sooner had the young man got well up to the fire than the teacher grabbed him and threw him square on to the burning logs, at the same time exclaiming, "Boys, if any more of you want to come to the fire to warm, come right along!" He had no further trouble in his school that winter.

The branches taught in the schools in those early days were reading, spelling, writing, geography, arithmetic, and grammar. The books mostly used for teaching these branches were Webster's spelling-book, Murray's English reader, Morse's geography, Daboll's and Ostrander's arithemetics, and Greenleaf's and Murray's grammars. The mode of teaching these branches would hardly bear a favorable comparison with the present improved methods of teaching. The alphabet was taught by commencing at the letter A and calling them off down to the letter Z, and then back again to A. Usually one term was consumed in learning the letters; another one in learning the "abs" and "ba-ker." If one was so smart as to be able to read the "readings" in the spelling

book during the third term, he was immediately advanced to the old English reader to flounder along through those abstruse selections. There were no mental arithmetics in use in those days, and so the student was put immediately to ciphering. If he mastered multiplication the first year he did well. Possible he might get as far as vulgar fractions or the rule of three the second year, but usually he would have occasion to repeat quite often the old familiar saw:

"Multiplication is a vexation,
Subtraction is as bad;
The rule of three it puzzles me,
And fractions make me mad."

Neither gold nor steel pens were in use in those days, and the writing was done entirely with the quill. It was a busy time indeed with the teacher during writing hours, mending pens.

The price paid for the services of a teacher in the winter was from twelve to fourteen dollars a month of twenty-four days, and board. In the summer, females commanded from twelve to fourteen shillings a week and board. Notwithstanding the books now in use and the present mode of teaching are far in advance of what they were in those days, yet I think some of the instruction imparted at school then might with much profit be modeled after now. A reverence and respect for elders and superiors was impressed upon the minds of the young. Then scholars were taught to say very politely, "Yes, sir," and "No, sir," instead of "Yes" and "No," in very broad accents, as at present. Then, if a stranger was passing, the boys were required to take off their caps and bow politely, and the girls to curtsey gracefully; now, if one escapes being snow-balled or hooted at as an "Old Hoss," he may consider himself fortunate indeed. Then, if a stranger came into the school-room, the scholars were all required to rise and make their obeisance to him; now, he will be likely stared and gazed at as an intruder.

With all the modern improvements and appliances for obtaining an education, it is a question whether any real advancement has been made in imparting a knowledge of the elemantary branches. Reading, spelling, and writing, the foundation of all good education, is most sadly neglected in most of our schools at the present day. As an old teacher once observed, "the lower rounds of the ladder are now left out, and one gets to the top by a single bound."

The Rural Teacher

The rural teacher was an important member of the farming community. In 1880, the majority of teachers were women. The women teachers were paid considerably less than men teachers. In addition to her regular teaching duties, the teacher's responsibilities might have included cleaning the school, participating in community and church activities and teaching Sunday school.

Teachers were required to have certificates to teach in Michigan schools. The certificates were granted by township superintendents and later by county examiners. Often the examination by the township superintendents and county examiners reflected the education of the superintendents and examiners themselves. Many school officials believed that education meant "the three R's and a hickory stick."

The district school board hired the teacher. The district officials were usually farmers or local politicians. Often, they would hire untrained and inexperienced teachers who would accept low wages.

The salaries for men teachers and for women teachers varied considerably. In 1881, the average monthly wages for teachers in Oakland County schools were $34.11 for men and $19.72 for women. Men and women with advanced training from either the Michigan State Normal School (Eastern Michigan University) or the University of Michigan sought the higher wages and the greater security offered by urban schools.

Marion Kirkpatrick, a former rural teacher, described teaching in a one-room school as "survival of the fittest." While there were rural teachers who were genuinely interested in their work and in their students, other teachers were not as concerned. Poor teachers were less likely to remain in their jobs. According to Kirkpatrick, favorable public opinion was important to a rural teacher if she wanted to succeed. By reporting home, students could turn public opinion against the teacher.

The community also influenced the teacher's life away from the classroom. Almost half of the school districts in Oakland County in 1881 required teachers to "board around". The teacher would live with different families in the community. Like any other family member, she was expected to help with the housework. For her lodgings and meals, she paid several dollars each week.

The school board also influenced the teacher's personal life. As an example, the Detroit School Board passed a resolution in 1860 prohibiting a teacher to be married. The Board resolved, "that it be in future a part of the policy of this Board that marriage on the part of any female teacher be equivalent to her resignation." It was thought that a married woman could not have time to devote to her students.

The School of Manner or Rules for Children's Behavior at School, Home and at Church

1. When any speak to thee, stand up. Say not I have heard it before. Never endeavor to help him out if he tell it not right. Snigger not; never question the *Truth.*
2. Eat not too fast nor with Greedy Behavior.
3. Make not a noise with thy Tongue, Mouth, Lips or Breath in Thy Eating and Drinking. Smell not of they meat, nor put it to Thy Nose. Turn it not the other side upward on thy plate.
4. To take off his hat at entering, and bow to the teacher.
5. To rise up and bow at entrance of any stranger.
6. Never sit down at the table till asked and after the blessing.
7. Ask for nothing; tarry till it be offered thee. Speak not.
8. Bite not thy bread, but break it.
9. Take salt with a clean knife.
10. Dip not they meat in salt.
11. Look not earnestly at any others that are eating.
12. When moderately satisfied leave table. Sing not, hum not, wriggle not.
13. Spit not, cough not, nor blow they nose at the table; but if there be necessity, do it aside and without much noise.
14. Lean not thy Elbow on the Table, or on the back of thy Chair.
16. Stuff not they mouth so as to fill they Cheeks, be content with smaller Mouthfuls.
16. Blow not Thy Meat, but with Patience wait till it be cool.
17. Sup not Broth at the Table, but eat it with a Spoon.

Words

pace	length of adult step or 1 yard
acre	84 sq. paces
chinking/daubing	fill cracks between logs with mud, mass sticks
puncheons	smooth faced split logs
clapboard	same as puncheons but smaller and used on the roof
house raising	building a house
sod house	grass and dirt cut into pieces and laid on top of each other
log house	split logs that are notched at ends and put on top of each other
andirons	before fire to keep logs from hearth
backlogs	green wood to protect walls back of fireplace
bellows	fan for fire
crane	a swinging rod for kettles
dutch oven	covered iron kettle
hearth	floor directly in front of fireplace
mantle	shelf on top of fireplace
spit	rod to roast meat
tongs	tool to pick up hot coals
water witch	thought to find H_2O (water)
pine knots	knots full of pitch
homespun	cloth woven on a loom
linen	cloth made from flax
linsey-woolsy	cloth made from lengthwise threads of linen and crosswise wool
mordants	help set dyes (salt, vinegar, lye, alum)
piecing a quilt	sew pieces together
leaching	letting H_2O drip through hardwood ashes into a barrel making lye
sorghum	long sweetening cane from stalks of sorghum plants

Developing a Concept of Time for Children

For most children time begins for them when they were born. Find out how many of their ages would have to be added together to get back to 1873.

The School Books of 1776
Ciphering Problems

1. John made 3 marks on one leaf of his copybook and 6 on another. How many marks did John make? (3 + 6 = 9 marks)

2. The mistress punished him for soiling his book. She gave him 3 blows on one ear and 3 blows on the other ear. How many blows did John receive? (3 + 3 = 6 blows)

3. There were 7 farmers who drank rum and whiskey and became miserable. The other farmers drank water and were healthy and happy. If there were 10 farmers altogether, how many drank water? (10 − 7 = 3)

4. John the Baptist was beheaded in 32 A.D. and the Book of Revelations was written in 87 A.D. How long after John the Baptist was beheaded was the Book written? (55 years later · 87 − 32 = 55 years)

5. If a farmer's wife wanted to dye her wool red and needed one quart of pokeberris boiled in one quart of water for every 20 yards of thread, how many pokeberries must she gather to dye 100 yards of thread? (100 ÷ 20 = 5 quarts)

I. Class activity suggestions in preparation for attending Wash-Oak School.

A. Tour entire village - Tours available with Docent May through October.

B. View (Laura Hixson's)slide tape show on Northville History. Available at Northville Public Library.

C. Read books *of* the period aloud in class - see Bibliography.

D. Read books *about* the period aloud in class - see Bibliography.

E. View movies *Tom Sawyer* and *Huckleberry Finn.*

F. Do crafts in preparation for visit. (Refer to craft section and back of this section.)

1. *Copy Book*
2. *Lunch Bag*
3. *Make a Quill Pen*
4. *Make Ink*
5. *Costume Items*

G. Visits from resource people.

II. Student Activity Suggestions.

A. Talk to older person about life before television as background for oral or written lesson.

B. Bring in antique, family treasure, old picture, etc., to share with class.

C. Each student bring in one *home remedy* their family knows about or uses.

D. Toy making bee - create a toy from odds and ends. Have a simple prize for the simplest, funniest, etc.

E. Selected hand crafts. Refer to hand crafts section.

F. Selected food preparation. Refer to food preparation section.

1. Drying Foods
2. Applesauce
3. Corn Bread
4. Butter
5. Ice Cream

Index

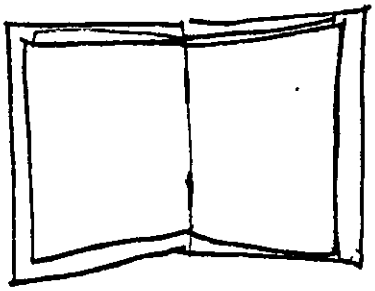
COPY BOOK

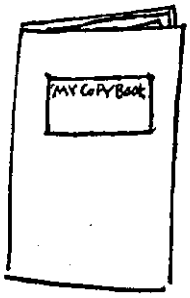
YOU WILL NEED:

- A LARGE BROWN PAPER GROCERY BAG.
- SCISSORS, PENCIL, RULER + STAPLER (OR STRING)
- 2 OR 3 PIECES $8\frac{1}{2}$" x 11" NEWSPRINT
- PASTE OR GLUE

CUT A PIECE OF PAPER BAG 9" X 12"
FOLD IN HALF LIKE A BOOK.
FOLD NEWSPRINT THE SAME WAY.
PLACE NEWSPRINT INSIDE BROWN COVER.
STAPLE (OR PUNCH 2 HOLES AND LACE WITH STRING).

GLUE A LABEL ON FRONT

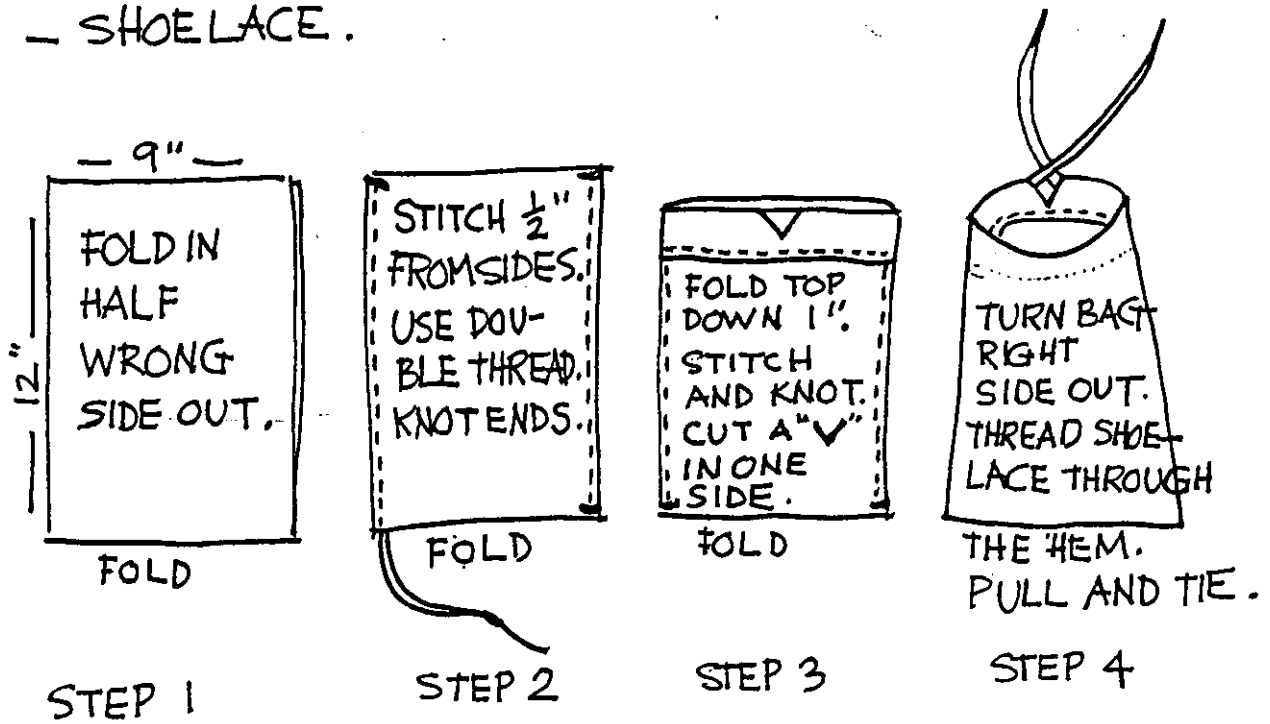




LUNCH BAG

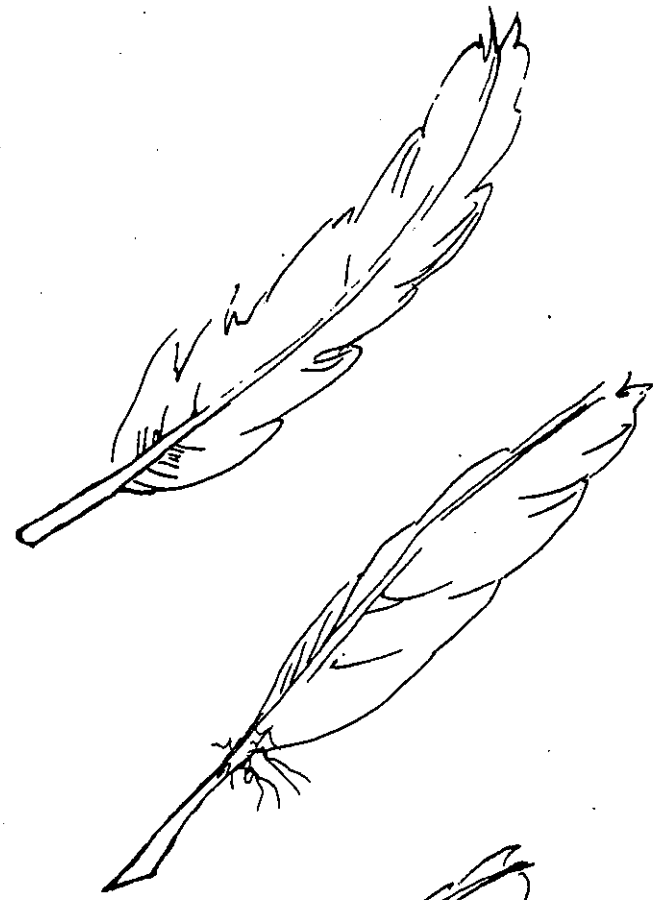
YOU WILL NEED:

- COTTON DENIM, CALICO OR GINGHAM, 9" x 24". USE DOUBLE IF MATERIAL IS THIN. PINK EDGES.
- NEEDLE + STRONG COTTON THREAD.
- SHOELACE.



CHILD'S NAME OR MONOGRAM CAN BE EMBROIDERED, OR DRAWN ON BAG WITH INK OR CRAYON.

To Make A Quill Pen



STRAIGHT

CURVE

SLIT

To Make Ink

Brown: Mash walnut or butternut husks. Add water and boil down. Strain and add vinegar and salt to boiling mixture to set color.

Black: Add lamp black to the above.

Blue: Mix with water
2 parts powdered indigo
1 part madder
1 part bran
Let stand and strain well.

Collect some long, strong feathers. Goose feathers are best but turkey feathers will do nicely.

1) With sharp knife, **make** an oblique **straight** cut through end of quill to make a point.
2) **Curve** tip with second cut.
3) **Slit** tip carefully.

Berry Ink Recipe

Ingredients:

½ cup ripe berries (blueberries, blackberries, raspberries, elderberries)
½ teaspoon salt
½ teaspoon vinegar

Utensils:

Measuring cup and spoons
Strainer
Bowl
Wooden Spoon
Small jar with tight fitting lid (baby food jars)

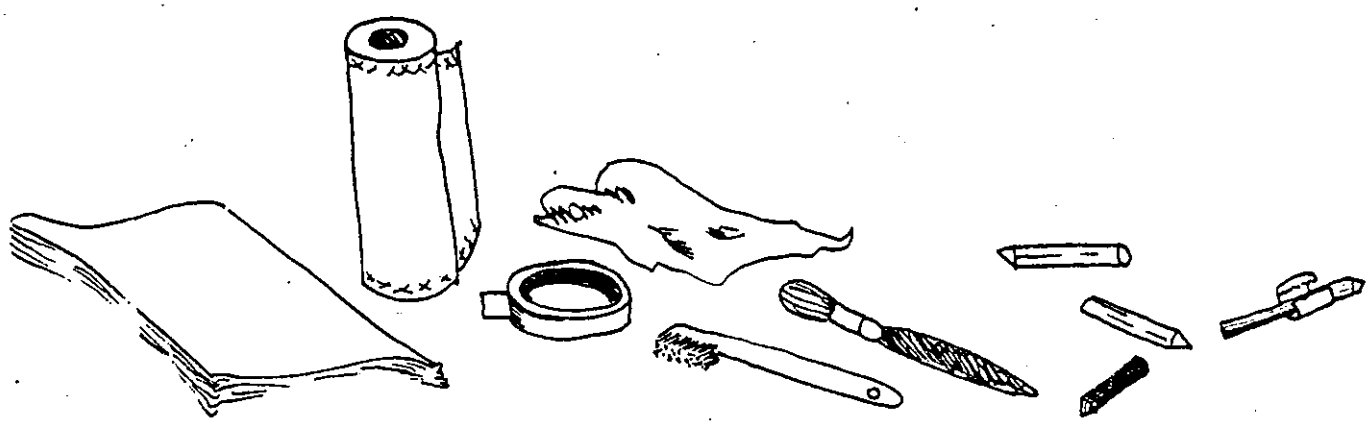
Directions:

Fill strainer with berries. Hold strainer over bowl and crush berries using the back of the wooden spoon. Let berry juice go into bowl. Discard pulp when all the juice is strained from berries into bowl. Add salt and vinegar. Stir well. If too thick, add a tablespoon of water. Store in jar with lid tightly closed. *Do Not Eat.*

Multiply recipe by half the number of students requiring ink.

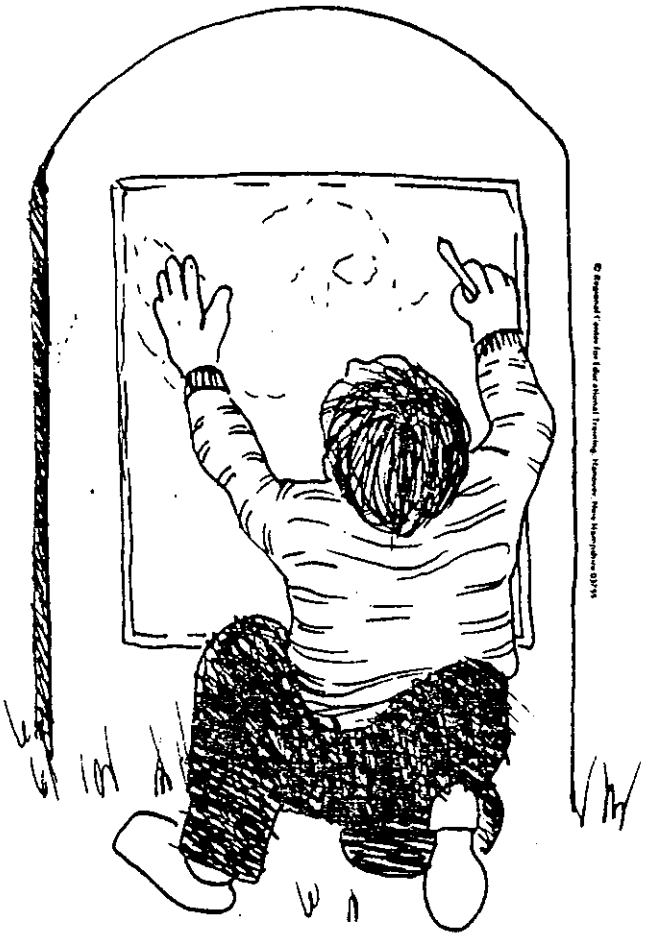
Making Gravestone Rubbings

Rubbing techniques can be practiced, with some adaptations, at all grade levels. For instance, students can make rubbings of coins. In science class they can create "negatives" with fish skeletons. Gravestone rubbings can be tackled by almost all children, singly or in groups.



Materials:

Cloth or brushes for cleaning: a small toothbrush for small grooves, a larger brush for the whole stone
Paper: newsprint paper; rough texture typing paper; rice paper for expert results. Paper towels for cleaning hands!
Masking tape
Rubbing media: primary wax crayon, peeled
graphite sticks or soft lead pencils
charcoal
tailor's chalk
(Camera to check accuracy of rubbing, and to record students at work)

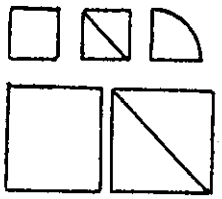


Procedure: (dry technique)

Find a gravestone that is well carved and has interesting words or design.
Remove dirt with brushes, being careful not to deface the stone.
Try a piece of scrap paper, at first, to learn if the stone will produce a good negative.
Tape the paper to the stone firmly-top, bottom, sides.
Using the flat side of the wax crayon, at first rub lightly, then rub briskly on the entire surface. Continue at an even pressure.
When re-rubbing, work from the center to the edges.
Remember that you are making a negative, just as in photography.
Before taking a class to a cemetery, be sure to check with the caretaker or local authority.

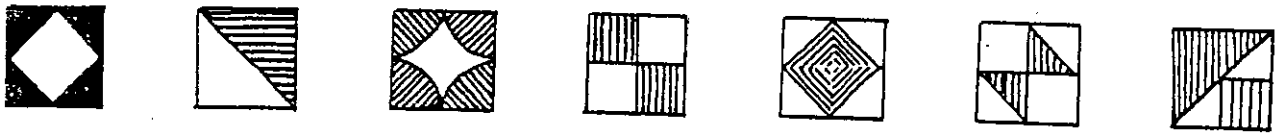
Patchwork and Quiltmaking

Materials Needed: Card stock, light tag board, construction paper or felt in 5 colors. Cut for each student (or group of students) or have students cut.
(accuracy in cutting makes the activity more satisfying)

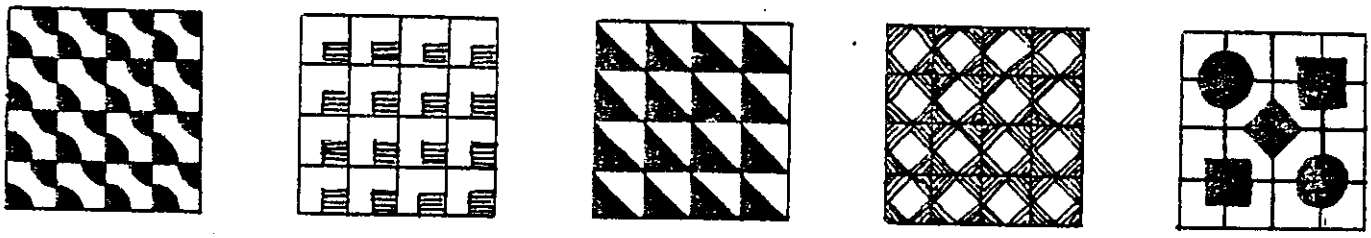


16 4" squares (preferably white)
32 2" squares
64 2" quarter circles
16 4" triangles (cut 4" square diagonally)
64 2" triangles (cut 2" square diagonally)

Have students use one of the 16 4" squares at a time and see how many different patterns they can make by putting the other shapes on the white squares.



When they have a combination they like, they should make same pattern on all 16 white squares and put them together to make an overall pattern:



Now try making patterns on 9 white squares:

Have students look in *Quilts: Story Books of the Past* or in quilting books (available at most town libraries) to see if any of the patterns they have put together have names. Or let them make up names for their patterns and write paragraphs about the reasons for the names chosen.

After the patch has been planned, students may want to:

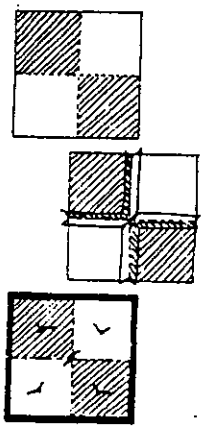
1. Paste it on a backing of tag board to make a poster to hang in the classroom or a room at home.
2. Draw the pattern on a large sheet of paper or poster board and color it.
3. Cut shapes from sticky tape or Contact paper and arrange them in patterns on cloth or tag board backgrounds. Contact comes in many different colors and prints and is an attractive material for non-sewers to use.
4. Make the shapes in cloth and sew a pillow top.
5. Make a 4-patch pot holder.

   Cut eight 4" squares from scraps of cotton material or piece together triangles or smaller squares to make eight 4" squares. Sew four of the patches together for the top and the other four together for the bottom, with ¼" seams.

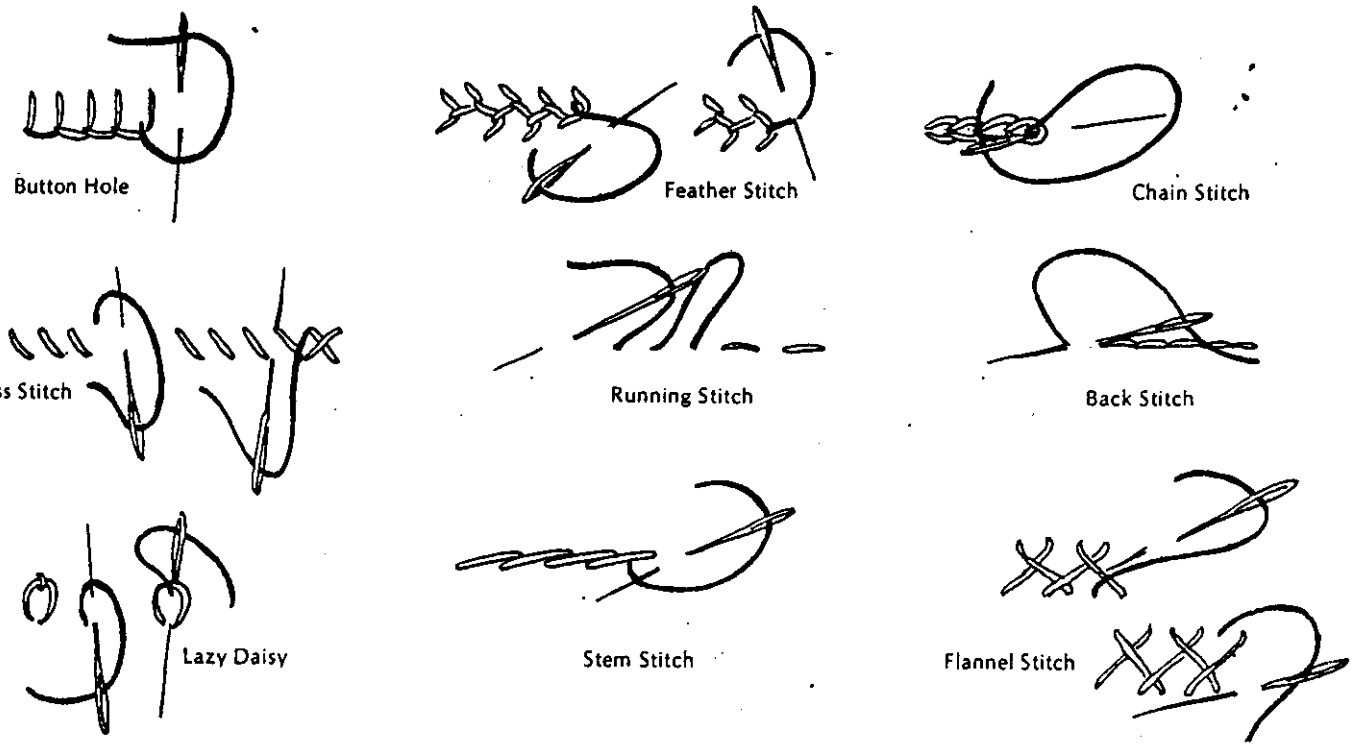
   Cut two thicknesses of outing flannel or other filler to fit the top and bottom.

   Put all three parts (top, filler and bottom) together and tie with yarn in the middle of each square and the middle of the holder.

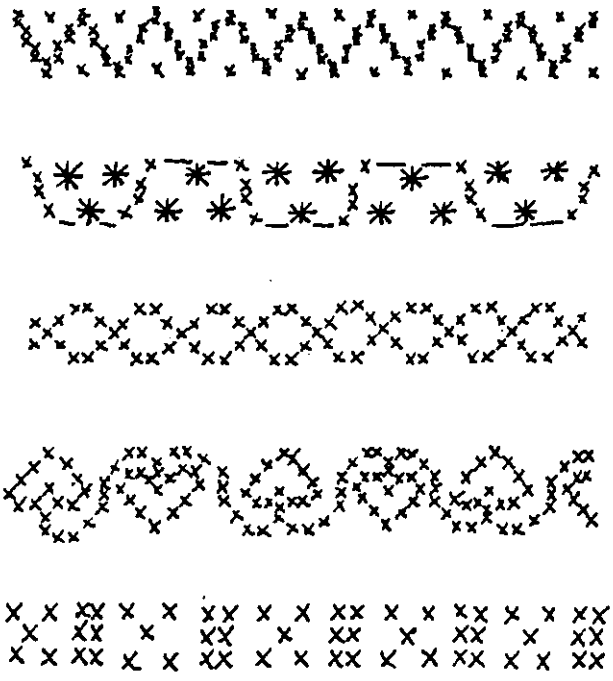
   Bind with bias binding or a piece of material cut on the bias, or finish with overcase or blanket stitch. (See *Nimble Needles*, page B45.)



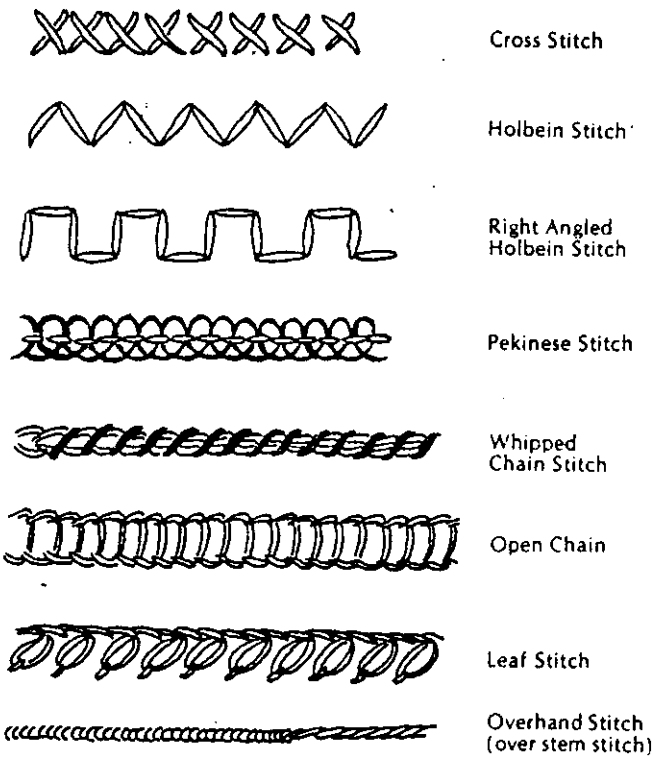
Basic Stitches

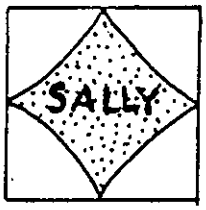


Sampler Edges



Sampler Stitches





Have students decide on a design appropriate to their interests and skills.

Some ideas to get the class started:

1. Squares of unbleached muslin may be colored with wax crayons and then ironed between sheets of brown paper with a WARM iron to make colors permanent, and then pieced together.
2. Squares of unbleached muslin may be embroidered with yarn or embroidery cotton after a design has been drawn in pencil.

3. Each member of the class may bring in scraps of material which can be cut into patchwork pieces similar to those used in PLAN-A-PATCH or pieced together in different shapes for a crazy quilt. (In making a crazy quilt it will be easier if each student makes a crazy patch to be pieced together but it is possible to make the whole quilt one big "crazy patch."
4. A "one-patch quilt" may be made by using one large piece of material (perhaps a bed sheet) and drawing a design on it which may be colored, appliqued, embroidered, or pieced together and then appliqued on the large piece.

An overall theme can add interest:

1. "Activities of our Town" (each student chooses one)
2. "Friendship Quilt" (names of student on each block in some decorative manner).
3. "State Map" in which counties are colored, appliqued or pieced together.
4. ETC. the list is endless.

GENERAL DIRECTIONS FOR ASSEMBLING A QUILT:

Have students decide on the size of the quilt, the size of the individual patches, and the total number of patches they will need. Plan what the class will do with the quilt when it is finished.

Materials:

Quilt Top
Filling (flannel blanket or quilt bats)
Material for Backing (plain colored bed sheet or sufficient material purchased by the yard to cover back and bind)
Yarn for Tyeing
Scissors, Needles and Thread

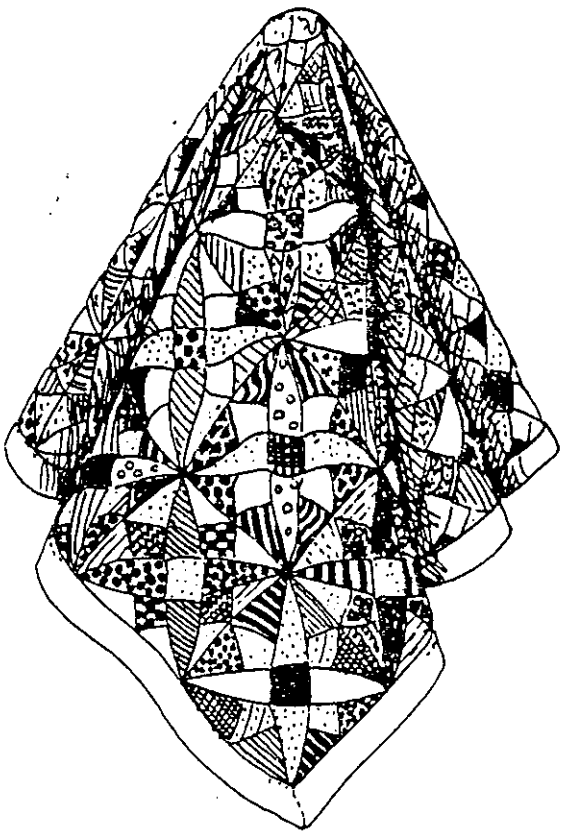
1. Make the quilt top according to the plan worked out by the class. (Refer to books on quilt making for more detailed directions.)

2. Place backing on a flat surface (push desks together to make a large enough surface), lay filling on top of backing and finally add the quilt top.

3. Tie all three layers together at intervals with yarn. As a substitute for the quilting frame used by experts, arrange a square of desks in one area of the classroom. Place the quilt on top of the desks, weighting it down on the edges to keep it in place. Divide students into two groups, one to work above and one under the quilt. Topside group will put needle threaded with yarn through the quilt, bottom group will return needle, and top group will tie yarn in a square knot, cut, and repeat the process.

4. Finish the quilt by binding with a strip of backing material, or plan backing material large enough so it may be folded over edge of top and sewed down.

5. Make a permanent label for the quilt giving date, place, class and names of makers.



Corn-Husk Dolls

Indian children in New England played with corn-husk dolls many years ago. When the early settlers arrived in America, they were taught how to make these dolls. Today, this art is enjoying a resurgence in all parts of the country.

Materials Needed for One Doll:

10-12 husks of corn
Corn Silk
4 lengths of string, 7 inches long
4 to 6 lengths of string, 4 inches long
Scissors
Glue
Crayons

Procedure:

1. *In the late summer or early fall, gather the husks from the corn. If husks are taken from the corn later in the year, they should be soaked in water before using to overcome the dryness.*

2. *Cut one husk ⅝ inch wide. Make a roll ⅝ inch in diameter. This forms the filling for the head.*

3. *Select 2 or 3 husks approximately 10 inches long. Center them over a 7 inch length of string. Tie the string securely. Fold the husks over and around the string so that all ends of the husks are nearly even.*

4. *Place the head roll immediately below the string underneath the husks. Arrange the husks smoothly over the head filling and tie another 7 inch piece of string beneath the roll to form the neck.*

5. *Roll a husk 10 inches long and ¼ inch thick for the arms. Tie in four places with the shorter strings to make wrists and elbows.*

6. *Cut slits up to the neck on either side of the folded husk. Insert arms in the slits up to the neck. (Arms should be of equal length.)*

7. *Cut 2 husks 1½ inches wide and 4 inches long. Fold each lengthwise and place over the shoulders, crossing the husks in front and back. Hold these in place with a 7 inch string at the waist.*

8. *A woman doll has a skirt made by wrapping four or five husks around her waist. The skirt is held in place by a 7 inch string. The man is constructed in the same way with the "skirt" cut up the middle to make trousers. String may be wrapped around the ends of the slits to make feet.*

9. *Dried corn silk serves as hair and is glued in place. Hats can be made in many designs out of husks. Faces are drawn in with crayons. (Corn cobs may be used for making dolls. These may be dressed with corn husks or with fabric or paper clothes.)*

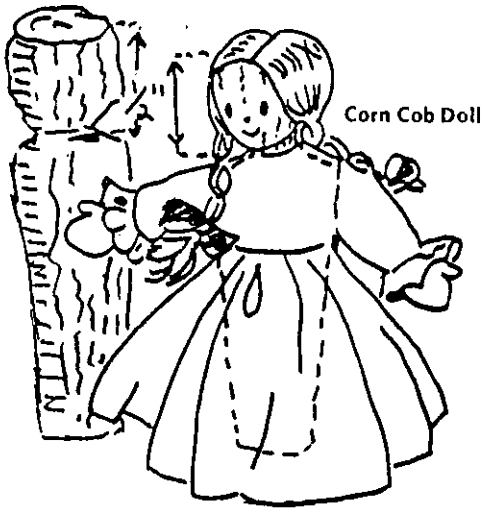
Developed by the Dairy Council of Michigan in Cooperation with the Michigan Department of Agriculture (367) 3-74

Pioneer Dolls

Basic Equipment and Materials:
Heads: hard, unspotted apple, nuts
Bodies: stick; wire; green stick; wood chips; corn cob
Hair: yarn; corn silk; wool; cotton; hair; fur

knife drill cloth thread needle
glue string seeds beads scissors
paint paintbrush cloves lemon juice

Equipment and materials needed are dependent upon the type of head or body being made.



Corn Cob Doll

Apple Heads: Peel apple. Carve eyes, nose and mouth. Dip into lemon juice or white vinegar. Poke stick into neck. Prop to dry. It must touch nothing. Dry about 3 weeks. Or dry in 250° oven 3-4 hours. Natural drying is preferred. Hair and eyes are glued on after drying..

Nut Heads: Bake nuts and seeds in 200° oven for ½ hour or more to kill insects. Either plan to glue onto cob body or drill hole for stick or wire body. Paint or glue seeds, beads, or cloth on face. Glue on hair.

Acorn Doll

Stick Bodies: Whittle stick to fit hole in head. Glue. Tie green stick (more pliable) or wire around body for arms. Wrap stick or wire with cloth strips to form body and arms. Hands may be made like mittens. Movable bodies are made by drilling holes at the joints. Green sticks can be pierced by large needle. Tie joints together with string. Waxed string is preferred.

Corn Cob Body and Head: Carve out neck ½ inch below end of cob. Fashion head as desired.

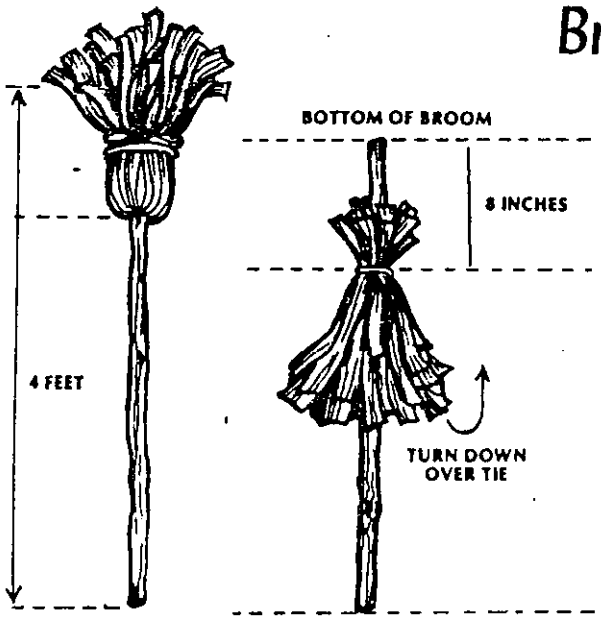
Corn Cob Body for Nut Heads: Cut large end to make flat surface to glue the head on.

Corn Cob and Nut Head Doll

Clothing: Dress as desired. A simple pattern: Cut cloth in half circle. Sew straight edge with running stitch. Pull thread until cloth bunches around the neck. Drape as desired.

Pull thread to bunch cloth.

Brooms



Cornshuck

Equipment:

Stick for handle — about 4 ft. long
Dried corn husks (or corn shucks) — soaked
String

Procedure:

1. Gather a large bunch of husks together.
2. Tie tightly around handle about 8 inches from end. Have long ends of husks hanging down toward long end of handle.
3. Fold long ends of husks carefully over tied part.
4. Tie tightly near short end of stick.
5. Trim broom.

Birch Splinter

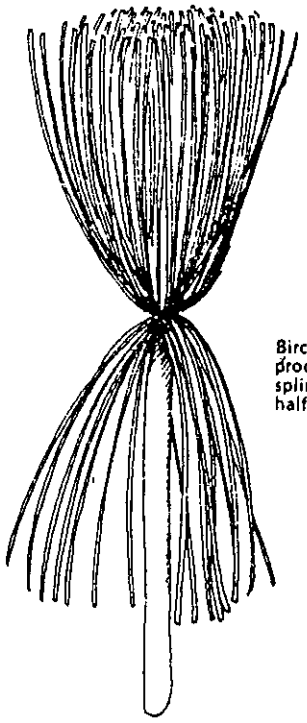
Equipment:

Birch log — 6 foot long by 5 inches diameter to make full size broom. Whisk broom may be made by using smaller log of birch or hickory.

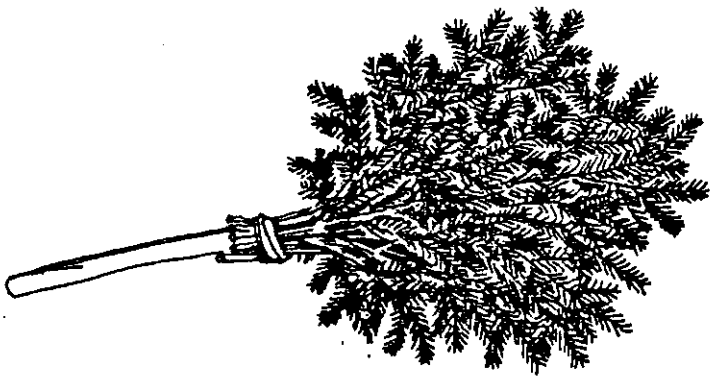
Jack knife.

Procedure:

1. Peel bark off log.
2. Start at one end and cut fine slivers of wood back for 14 inches. Do not cut slivers off! Upper ends should be attached.
3. Start about 30 inches from loose ends of slivered wood. Cut slivers in opposite direction — stop 1 inch from lower slivers.
4. Keep slivering until remaining core is the correct size for handle.
5. Bend upper slivers down over lower slivers and tie into place.
6. Trim excess wood from upper part of handle.
7. Trim base of broom.



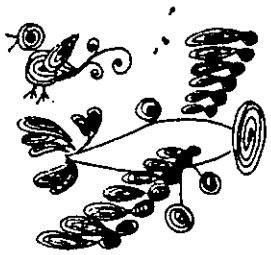
Birch splinter broom in process - broom end fully splintered; handle end half done.



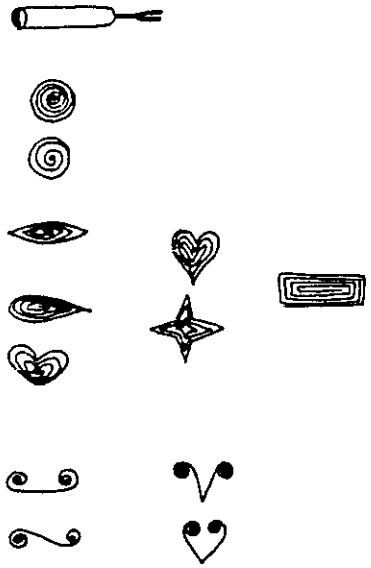
Hemlock

1. Cut tips of hemlock branches.
2. Tie them together.
3. Force a stick with a sharpened edge into the bunch.

Have You Tried Quilling?



Quilling is an "art so old it is new." Paper is fragile so few examples have survived. The 17th century nuns of Italy rolled narrow strips of paper around quills from birds and this is where the name quilling originated. Quilling spread to France and England, then to pre-revolutionary colonial America. Today paper comes pre-cut 1/8th inch wide by about 24 inches long and in many colors. It can be split to 1/16th inch wide for a daintier design. Quilling is not just flowers, but trees, boats, animals, Easter eggs, brooches, Christmas ornaments, jewelry, and dainty flowers around wedding invitations and birth announcements.



Materials needed: quilling paper (cut your own on paper cutter), white glue (Elmers), wax paper, tooth picks, quilling tool (3" long dowel with an embroidery needle inserted in the end. Cut the tip of the eye off the needle; this leaves a slit to insert the paper for rolling.)

Basic rolls:
tight roll- roll tight and glue the end
loose roll- roll, remove from tool, let loose, glue end

Shapes made from a glued loose roll, then pinched to shape.

diamond	heart shape
tear drop	star
rabbit ears	rectangle

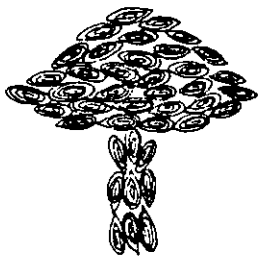
Scrolls - curled but not glued

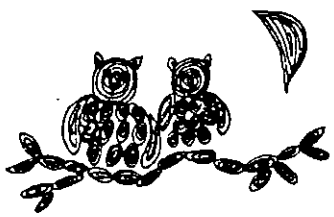
scroll	v-shape
s -shape	open heart

Procedure: Place wax paper over pattern (protects pattern), cut paper to desired length, make necessary shapes, arrange on pattern by putting small dabs of glue on rolls with a toothpick so rolls are glued to each other. When dry lift off wax paper with spatula.

Flower
flower center - tight roll 1 - 8" yellow
petals - loose roll 8 - 2½" pink
stem 1" green
leaves 2 - 2" green teardrops

Snowflake
1 - 3" strip - loose roll (center)
12 - 6" strips - teardrops
18 - 3" strips - loose rolls





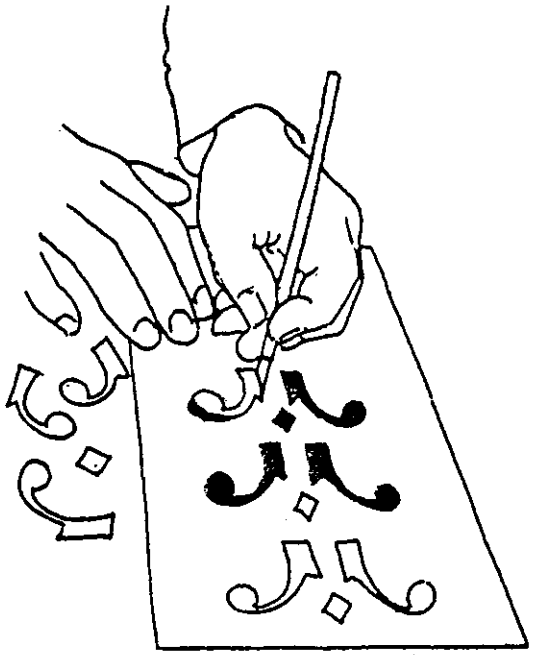
Contributed by Chloe Taylor, Bedford, N. H.

Wall Stenciling

Wall stenciling became popular, as a peculiarly New England art form, after the Revolutionary War. It flourished for several decades, into the 19th century and was then supplanted and quite literally covered up, when mass-produced wallpapers became available. Moses Eaton, of Hancock, New Hampshire, was one of the most famous and distinguished practioners of wall stenciling, an art form which is now revived and with which older students might enjoy experimenting.

TO MAKE A STENCIL:

Have at hand: a sharp stencil knife (X-acto, #16 blade)
a pane of glass for a cutting table
a sheet of architect's linen (from art supply store)
a sheet of tag board (for practice)



Proceed as follows:

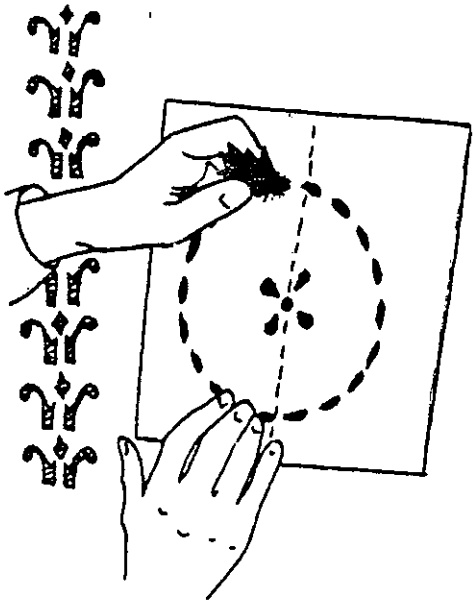
1. Measure space to be decorated. Choose 2 or 3 simple patterns (geometric shapes, leaves, etc.) to combine. Be sure that design, with repeats, will fit evenly into the space. Plan to use only 2 colors at first.

2. Draw or trace designs on cardboard or linen and mark for placement of repeats. Make a separate stencil for parts of design which will appear in each color.

3. Cut design with knife. Leave a large margin around stencil for ease of handling and to protect the surface underneath.

TO APPLY A STENCIL

Equipment needed:
Paper, wall board or a nice clean wall
Japan paints in desired colors
Alcohol for paint medium
Ruler (plumb line or chalk line, if doing a vertical job)
Squares of drapery velour to use as "paint brushes"
Containers for paint and alcohol

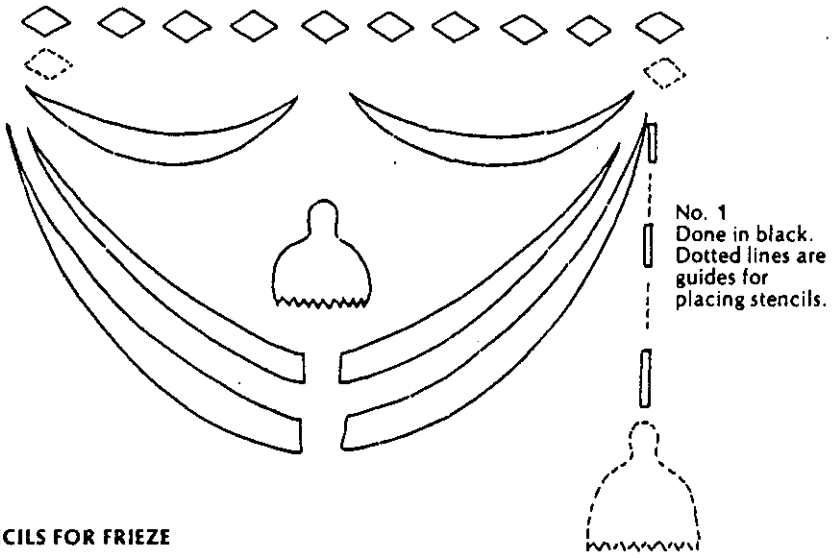


PRECAUTIONS!

Keep stencil clean by wiping after each use.
Do not apply too much paint or it will run behind stencil. Too little paint will make a "lumpy" design.
Always allow paint to dry before a second color is added to the design.

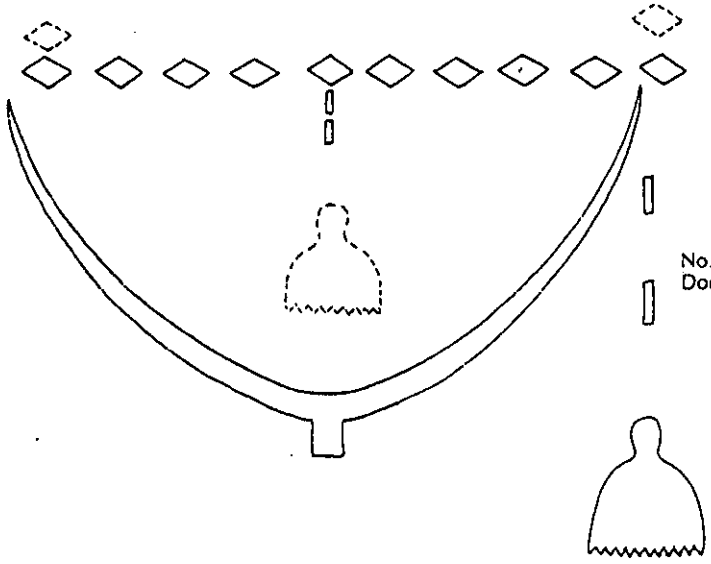
STENCILING TECHNIQUE:

1. Place stencil on surface to be decorated and fasten in place with tape.
2. Wrap velour around index finger. Dip lightly in alcohol, then in paint. Rub color lightly through stencil.
3. Remove stencil. If color has run behind a stencil allow it to dry thoroughly before repainting the background with a brush. Clean back of stencil, if necessary.
4. Move stencil to new location, being careful to match to previous application. Here ruler, plumb line, etc. will be helpful in keeping design straight and true. Repeat steps #1-4 until design in first color is completed.
5. After paint has dried thoroughly, use same procedure for second color.
6. Clean stencils thoroughly and store flat for future use.



No. 1
Done in black.
Dotted lines are guides for placing stencils.

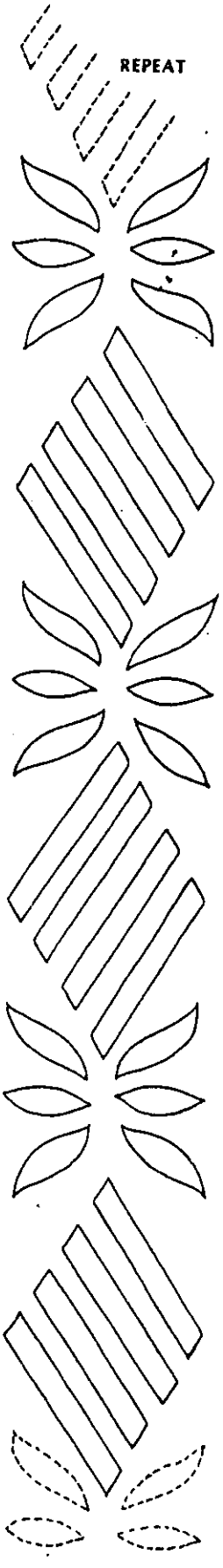
STENCILS FOR FRIEZE



No. 2
Done in red.

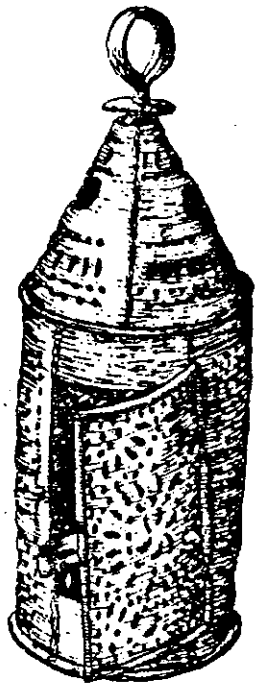
ALL PATTERNS HALF-SIZE

Instructions and stencil design contributed by: Ruth Wolf, Deering, N. H.



Stencil for uprights and around doors and windows. Done in black.

Colonial Lanthorn



This is a decorative lantern; candlelight shines through the punched holes and makes lovely designs and effects. The old lanthorns had hinged doors which opened onto a candle, and they had domed tops with handles on them.

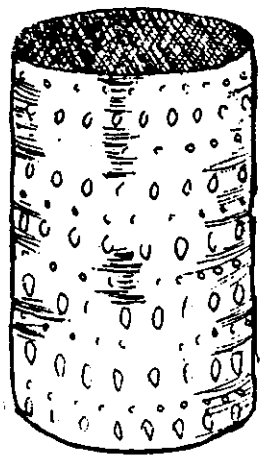
Materials: Tin
Ice pick or hammer and nail
Candle

Procedure: Select whatever size tin can you care to use. Remove top and label.

Fill the tin can almost to the top with water, and then freeze it. It is easier to punch holes in the can with ice to harden it than it is to punch holes in a soft can.

Make a design of holes, using either the ice-pick or the hammer and nail.

To attach the candle to the bottom of the can, hammer a small nail through the bottom (point up) and push it into the candle; **or** melt candle-wax on bottom of can and attach the candle this way (as in a jack o'lantern).



Warning: When the candle is lit, the can will become quite hot. Be sure to place it on an asbestos pad or potholder, and do not move it until it cools off.

For directions on how to make the more complex lanthorn shown at the top of this page, see *How to Make Whirligigs and Whimmy Diddles* by Florence H. Pettit and published by Thomas Y. Crowell Company.

Candle Making

Molded Candles

Equipment:

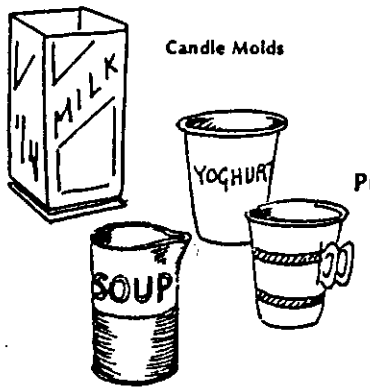
- Hot plate or stove
- Old pans or large coffee cans
- Large sauce pan or double boiler
- Soup cans with tops bent to make spouts
- Hot mitts or pot holders
- Stirring stick
- Candle molds, waxed milk cartons, yoghurt containers, etc.
- Rulers or sticks for each mold

Materials:

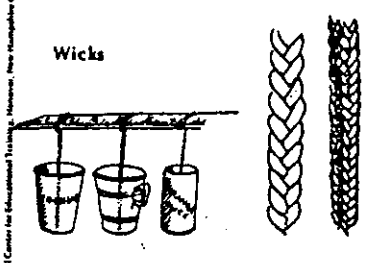
- Wax (paraffin and/or old candles) 3 lb. make 12 candles
- Wax crayon pieces for color
- Wicking (available at arts & crafts shops)
- Flat braided wicking for candles over 2" in diameter
- Square braided wicking for candles under 2" in diameter
- Stearic Acid (available at arts & crafts shops) optional - 3 tablespoons to 1 lb. wax.

Precautions:

Protect work area with paper to catch drips.
Melt wax over very low heat — never over an open flame.
Supervise pouring of wax very closely and prevent burns.
Keep wax away from drains.



Candle Molds


Wicks

Procedure:

Divide class into small groups and assign some students in each group (1) to melt wax and (2) others to prepare molds and wicks.

1. Break wax into small pieces. Fill an old pan or large coffee can ⅓ full with wax. Put about one inch of water in bottom of double boiler or large sauce pan. Place pan or can with wax in it in the water and turn heat on low. Do not allow wax to bubble or smoke. When wax is melted, add colored crayons and stir well.
2. Cut wicking into lengths 6 inches longer than candle molds. Dip wicks into wax and allow them to cool and harden. Wrap one end of a wick firmly around a ruler or stick, straighten wick and place stick on top of mold. Center wick as evenly as possible.

Pour wax slowly from melting pan, or can, into soup can "pitchers." Fill each mold, keeping wicks as much in center of mold as possible. Allow to set for about 5 minutes. Check to see if molds are full. Add more wax if necessary.

NEXT DAY: Check candles. If candles have set unevenly or have large depression in the center, melt a little more wax and fill in. Allow to set overnight. When candles are firm, peel away containers or remove molds. Candles are ready to use.

Sand Candles

ADDITIONAL EQUIPMENT NEEDED: A bucket of clean, wet sand for molding candles.

Procedure:

1. Melt wax as in MOLDED CANDLES.
2. Make a shape in the sand and dampen it with a little water. (Sea shells make nice designs.)
3. Dip wick into melted wax and allow to harden.
4. Pour wax into sand shape. When candle begins to harden, stick in the wick and tie it to a ruler to keep it in place.

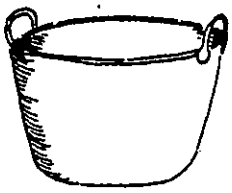
How To Do It
CRAFTS SECTION

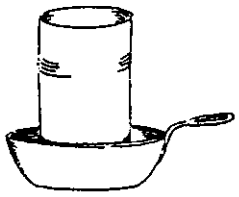
Dipped Candles

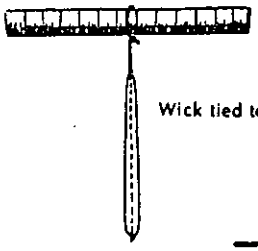
Equipment:
2 Hot plates, or stove
Large, old pot
Large, 46 oz. juice can
Large saucepan or double boiler
Rulers or sticks
Knife
Thermometer (optional)
Rack for holding candles (2 chairs back to back)
Cardboard candle gauge with holes ⅛" to 1" in diameter.

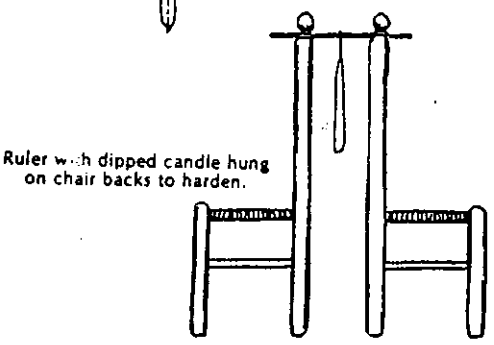
Materials:
Paraffin wax and/or old candles (1 lb. for each 6 candles plus enough to fill the pot.)
Wax crayon pieces for color, if desired.
Wicking (24 ply) from arts and crafts shop.
Stearic acid from arts and crafts shop (1 part acid to 4 parts wax).

Precautions:
Protect work area from drips with plenty of newspaper.
Melt wax over very low heat — never over an open flame.
Supervise pouring of wax very closely and prevent burns.
Be careful not to pour wax down drains.

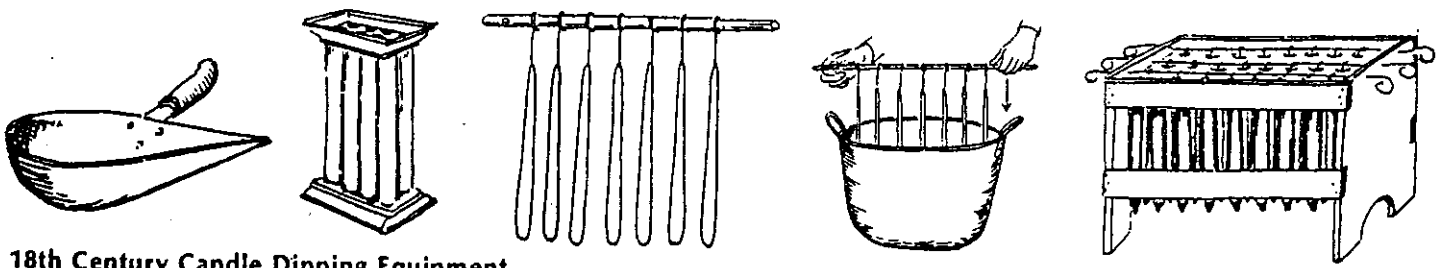

Pot for melting wax.


Large juice can for melted wax.


Wick tied to ruler.


Ruler with dipped candle hung on chair backs to harden.

Procedure:
1. Cut up wax and place in large old pot to melt. The optimum temperature for dipping is 150 degrees, just about that of the wax as it finishes melting. Determine temperature with thermometer or turn heat low, but do not allow wax to cool enough for skim to form, or candles will be lumpy. Add stearic acid.
2. Arrange candle rack and spread paper on floor in dipping area.
3. Place 46 oz. juice can in hot water, in large saucepan or double boiler, over hot plate. Fill from large pot of wax. Refill as necessary.
4. Have students cut lengths of wicking and tie them around sticks or rulers. A wick when tied should be at least 1" shorter than the height of the juice can, to allow for accumulation of wax.
5. **First Dip** - It is **important** for students to hold their sticks at least **1" above** the rim of the can and to lower them on successive dips to give the top of the candles a tapered look.
   Have students hold wicks in wax to count of 10, to soak up wax and allow air bubbles to escape.
6. Students may place candle holders on rack or walk around room between each dip (if floor is protected). If appropriate music is played, the walk might become a "march." Wax on wicks should be thoroughly cooled between dippings. Open windows if necessary.
7. **Second and Third Dips** - very quick dunks.
8. **Fourth Dip** - After this dip, the wicks should be cooled and then straightened by pulling them with thumb and forefinger. Wax will probably crack in many places.
9. **Fifth and Succeeding Dips** - Dip, cool and straighten wicks until this is no longer possible (12 to 15 dips). Continue to dip until the candles are the desired thickness (about ⅛" at base). If candles become too long to dip all the way into the wax, cut some off the bottoms with a knife.
10. Allow candles to cool and remove them from the sticks.
11. Clean up.



18th Century Candle Dipping Equipment

Standard Soap Recipe
(Hard White Soap)

1 can lye
2½ pints (5 cups) cold water
6 pounds clear fat (suet) - this is 6¾ pints or 13½ cups liquid fat.

Slowly heat fat over several hours to liquify. Remove any solid pieces. When ready to make soap heat to 120 degrees F.

Add lye to cold water in enameled pan. Stir very slowly. Allow to cool to lukewarm (90 - 95 degrees F.)

Pour fat into lye or other way around in slow steady stream. Stir slowly for about 20 to 30 minutes until thick as honey.

Pour into wooden box lined with a damp cloth. Cut in squares and stack brick-like to dry.

— — — — — — — — — —

Supply List:

Heavy bottomed pan for melting fat.
Hot plate.
Cooking thermometer
Wooden stiring stick
Enameled pan for lye solution
Wooden box with hole drilled in bottom
Drip bucket and newspapers
Boards and old rug

Soapmaking

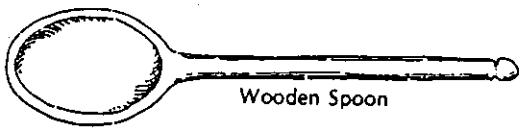
Materials and Equipment for One Cake of Soap

- ½ cup lukewarm fat
- ¼ cup cold water
- 1 tablespoon lye
- cologne, lemon juice or other scent
- 2 clean plastic containers
- wooden spoon
- plastic or metal container of interesting shape, to mold soap
- cup measure
- plastic wrap

CAUTION! Lye burns the skin and is especially dangerous to the eyes. Teachers should supervise soapmakers very closely, or add the lye themselves.

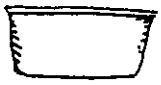
PROCEDURE:

1. Measure lukewarm fat into one plastic container and cold water into another.
2. Add lye to water, stirring gently with wooden spoon to dissolve.
3. Add lye solution to fat, stirring slowly to consistency of thick sauce.
4. Pour liquid soap into mold. Cover with plastic wrap and allow to set for 24 hours.
5. Remove soap from container and harden in open air, in a dry spot, for at least 2 weeks.


Wooden Spoon


Margarine Dish

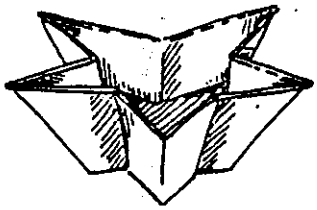

Candied Cherry Container

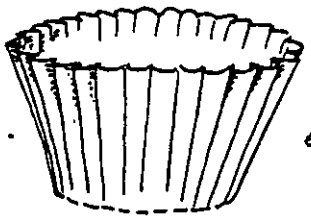

Dixie Cup

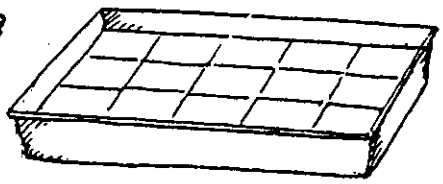

Hand Shaped

For larger amounts of soap, use recipe on lye container.
- Mold by hand
- Pour into interesting individual molds
- Pour into shallow pan and cut into cakes


½ Rubber Ball Mold


Individual Jello Molds


Metal Foil Cup-Cake Mold


Shallow Baking Pan

Information about making soap "from scratch," including "dripping" the lye, can be found in a number of publications, including Wiggington, Eliot, *The Foxfire Book*, New York: Doubleday & Co., Inc., 1972.

When using this method today, as in the 18th century, "the great difficulty in making soap comes in the Want of Judgement of the strength of the lye. If your lye will bear up an Egg or Potato, so you can see a piece of the surface as big as a Ninepence, it is just strong enough."