

DOCUMENT RESUME

ED 041 648

RC 004 463

AUTHOR Smith, Julian W.
TITLE Outdoor Education in Michigan Schools.
INSTITUTION Michigan State Dept. of Education, Lansing.
PUB DATE 70
NOTE 55p.

EDRS PRICE MF-\$0.25 HC-\$2.85
DESCRIPTORS Cocurricular Activities, Community Resources, Conservation Education, *Curriculum Enrichment, Environmental Education, Federal Programs, History, Integrated Curriculum, Natural Resources, *Outdoor Education, Parks, Physical Education, *Program Descriptions, Program Planning, *Recreational Programs, *Resident Camp Programs, School Role, State Departments of Education, State Programs, Teacher Education

IDENTIFIERS *Michigan

ABSTRACT

Since outdoor education has already become an integral part of the curriculum of schools in Michigan, this booklet has been prepared both to assist schools planning to initiate outdoor education programs and to recommend improvements in existing programs. Included in the document are the history and development of outdoor education; the basic philosophy and concept of outdoor education; descriptions of Michigan's programs in terms of outdoor-related classroom experiences, use of the school site and other outdoor areas as laboratories, resident outdoor schools, outdoor skills and sports, innovative programs, and teacher education and leadership preparation. Guidelines are presented for planning an outdoor education program and keeping it as an extension of the school curriculum to meet the school's objectives. The study points out that the evaluation of outdoor education should be consistent with, and a part of, the general evaluation procedures for the school. In conclusion, a suggested reference list and samples of program evaluation forms are included. (EL)

U.S. DEPARTMENT OF HEALTH, EDUCATION
& WELFARE
OFFICE OF EDUCATION
THIS DOCUMENT HAS BEEN REPRODUCED
EXACTLY AS RECEIVED FROM THE PERSON OR
ORGANIZATION ORIGINATING IT. POINTS OF
VIEW OR OPINIONS STATED DO NOT NECES-
SARILY REPRESENT OFFICIAL OFFICE OF EDU-
CATION POSITION OR POLICY.

Michigan Department of Education

1970



*outdoor
education
in michigan
schools*

State Board of Education

	<i>Term Expires</i>
Dr. Peter Oppewall, <i>President</i> Grand Rapids	Jan. 1, 1971
Thomas J. Brennan, <i>Vice President</i> Dearborn	Jan. 1, 1971
Michael J. Deeb, <i>Secretary</i> Detroit	Jan. 1, 1977
James F. O'Neil, <i>Treasurer</i> Livonia	Jan. 1, 1975
Marilyn Jean Kelly Detroit	Jan. 1, 1977
Dr. Charles E. Morton Detroit	Jan. 1, 1973
Dr. Edwin L. Novak Flint	Jan. 1, 1973
Dr. Gorton Riethmiller Chelsea	Jan. 1, 1975
Dr. John W. Porter, <i>Acting Superintendent of Public Instruction. Chairman</i> Member, Ex-Officio	
William G. Milliken, <i>Governor</i> Member, Ex-Officio	

FOREWORD



Steadily increasing numbers of Michigan communities realize the importance of emphasizing outdoor education in the school curriculum. Some schools have purchased their own sites or utilized state-owned and/or private facilities for outdoor resident schools. Some have acquired farm lands for school gardens and pioneer farms. Still others have purposely built schools on locations rich in outdoor resources--water, forests, marshes, and fields--and developed extensive school site outdoor education programs. Some schools have improved existing school sites for outdoor learning experiences and made greater use of outdoor community resources for educational purposes. A number of Michigan schools have planned and developed comprehensive outdoor education programs involving all or many of the aforementioned patterns.

This booklet has been prepared both to assist those schools who are thinking about initiating outdoor education programs and those who are seeking to improve the programs they already have underway. The booklet discusses the basic concept and philosophy of outdoor education, the history and development of outdoor education, school site use, outdoor resident school programs, outdoor skills and sports, resources and planning procedures for outdoor education, evaluation of programs, and patterns of teacher education. Descriptions of innovative and exemplary outdoor education programs in Michigan schools funded through ESEA Title III are included.

It is believed that this booklet will be of value to those seeking assistance with school outdoor education programs.

The Department is indebted to Dr. Julian W. Smith, Professor, Department of Administration and Higher Education, College of Education, Michigan State University, and Director, the Outdoor Education Project, American Association for Health, Physical Education and Recreation, a National Affiliate of the National Education Association, for the preparation of this report.

Appreciation is expressed to the Bloomfield Hills, Constantine, Paw Paw, and Traverse City Public Schools for the photographs used in this publication.

John W. Porter

Acting Superintendent
of Public Instruction

TABLE OF CONTENTS

- I. History and Development
- II. Basic Philosophy and Concept of Outdoor Education
- III. A Description of Outdoor Education Programs in Michigan Schools
 - A. Outdoor-related Classroom Experiences
 - B. Use of the School Site and other Outdoor Areas as Laboratories
 - C. Resident Outdoor Schools
 - D. Outdoor Skills and Sports
 - E. New and Innovative Outdoor Education Programs
 - F. Teacher Education and Leadership Preparation for Outdoor Education
- IV. Planning for Outdoor Education
- V. Resources for Outdoor Education
- VI. Evaluation

Suggested References

Appendix (Sample Evaluation Forms)

OUTDOOR EDUCATION IN MICHIGAN SCHOOLS

I. HISTORY AND DEVELOPMENT

Outdoor education and Michigan are often linked together--and for good reason. The concept of outdoor education as an integral part of the curriculum developed through some pioneer ventures in the State in the early 1940's in what was then called school camping. And before that, an early program in the 1930's conducted by Tappan Junior High School in Ann Arbor, which consisted of trips to an outdoor area in the northern part of the Lower Peninsula lasting several days each year, is worthy of note. Another school program in outdoor education occurred about the same time, when the Cadillac Public Schools acquired property, built a camp, and conducted a program during the summer.

But the first year-around outdoor education program on record in the United States took place at the W. K. Kellogg Foundation Clear Lake Camp. Three Michigan schools--Lakeview, Battle Creek, Decatur, and Otsego--conducted a resident outdoor school in 1940-41, and developed a program based on the theory that some educational objectives can be achieved more effectively by extending the classroom to a camp setting. Students from grades 4 - 12 from the three schools were provided two-week resident outdoor school experiences throughout the year. From this beginning, the pattern of outdoor education, whereby classrooms of children and their teachers move to a camp setting for a resident experience on school time and as a part of the curriculum, spread in Michigan and into other states. This first program and the others that followed in both Clear Lake and St. Mary's Lake Kellogg-owned camps served as pilot efforts and had great influence in the growth of comparable programs in Michigan and throughout the United States.

By 1945, enough progress had been made with the resident outdoor school idea that the Michigan Department of Education, recognizing the value and notin'

the acceptance of these new adventures in education, established an experimental project in Health, Physical Education, Recreation and Outdoor Education in the Division of Instruction, with a consultant to give leadership to schools of the State in these areas. The Department's leadership in outdoor education, and the enactment of permissive legislation enabling school districts to use camps for educational programs, were other firsts in outdoor education in the nation.

In 1946, the Department of Education, in cooperation with the Department of Conservation and the W. K. Kellogg Foundation, established a project in outdoor education. The project was designed to help schools establish such programs and to help provide in-service education for teachers in this new emphasis in the curriculum. As a result the number of resident school programs grew rapidly throughout the State. One unique and effective program, established in Iron County at the Youth Camp, and operated by the County Board of Education during the summer months, is still in operation and has provided thousands of elementary school children with excellent experiences in outdoor education. Many outdoor education conferences and workshops were conducted by the Department of Education. A permanent position in health, physical education, recreation and outdoor education was established in the Department, with the title of Assistant Superintendent, in charge of these areas of concern. For a period of years from 1947 to 1953, a large part of the staff-time in this operation of the Department was devoted to outdoor education. Some of the highlights in outdoor education during this period were: an experimental, resident outdoor school for secondary school youth, involving several schools, held at the Yankee Springs Recreation Area, which resulted in the initiation of several similar programs in Michigan schools; a National Conference on Community School Camping, held at the Haven Hill Lodge, which gave impetus and support for the growing programs of outdoor education; the formation of a state committee on outdoor



A WORK-LEARN OUTDOOR EXPERIENCE.

education by the Department of Education; the earmarking of a small amount of state aid funds for reimbursing school districts conducting resident outdoor schools; winterizing several of the State-owned outdoor centers by the Department of Conservation so that they might be used by schools throughout the year; a pilot work-learn resident outdoor school for potential dropouts from three secondary schools--Ann Arbor, Bay City, and Dearborn--conducted for one semester at the State's Mill Lake Outdoor Center, which was highly successful; a National Conference on Teacher Education for Outdoor Education, held at the Battle Creek Clear Lake Camp in 1953; and three publications in outdoor education by the Department of Education--Community School Camping, Community School Camps,

and A Work-Learn Program for Older Youth.

The policy of the Michigan Department of Education to engage in pilot and experimental ventures such as outdoor education, the personal interest of the State Superintendent of Public Instruction in outdoor education in the earlier years, and the provision of consultant services to schools, had much to do with the growth of outdoor education in Michigan. The Department's adherence to the concept that outdoor education is an integral part of the curriculum, has largely been responsible for the wide acceptance of outdoor education by educational leaders. The cooperation and assistance of the Department of Conservation, particularly the leadership of the late P. J. Hoffmaster, Director of the Department, in making resource personnel and facilities available added much to the quality and quantity of outdoor education in the State.

During this same period of years outdoor education was spreading to other states. The well-known San Diego (California) City and County school camping program was inspired by and fashioned after the early programs at the Kellogg Clear Lake Camp. The assistance of the W. K. Kellogg Foundation through modest grants to state departments of education in New York, California, and Washington, helped stimulate the growth of outdoor education in other parts of the country. Many of the earlier resident programs were modeled after the programs in Michigan.

Since the mid-fifties, the concept of outdoor education has been greatly expanded. While the resident outdoor school is perhaps the most dramatic form of outdoor education, the term now encompasses all types of learning experiences which occur in outdoor settings, and includes the teaching of knowledge, skills and attitudes essential for quality outdoor recreation pursuits. Impetus for the broadened concept of outdoor education came from the Outdoor Education Project, American Association for Health, Physical Education and Recreation, which was initiated in 1955. This Project, in addition to giving leadership

to outdoor-related classroom learnings and resident outdoor schools, has emphasized the teaching of skills, attitudes, and appreciations which are necessary for satisfying outdoor interest and pursuits. The Project gives leadership to in-service education, assists in program development, and prepares and distributes instructional materials in outdoor education. Support has been given to the Michigan Department of Education, for example, in conferences and workshops and in providing some consultant services.

The Department of Education has continued to recognize outdoor education in several ways: providing services to schools through the Consultant for Health, Physical Education, Recreation and Outdoor Education; publishing materials; continuing a state planning committee on outdoor education; and sponsoring conferences and workshops. An annual state conference on outdoor education has been held consecutively since the early 1950's.

Another impetus was given outdoor education in Michigan by the Elementary and Secondary Education Act of 1965. Several projects were funded as planning grants and/or operating grants. Some of these programs are particularly significant and will be described later in this bulletin.

Additional outdoor education services to schools have been made available by the Department through the ESEA Title III consultants who have had the responsibility for the funded projects relating to outdoor education.

Much more could be written about the steps and procedures that brought Michigan to the front in outdoor education. The fact that educational leaders in the State encouraged new and innovative ideas in schools helped pave the way for progressive developments in outdoor education. State and local cooperation in curriculum development through a system of Department of Education-sponsored committees was significant implementing a sound approach to outdoor education. Successful programs in operation which served as pilot ventures, such as the earlier resident outdoor schools made possible by the



A PRACTICAL OUTDOOR ACTIVITY.

W. K. Kellogg Foundation, were influential in the initiation and development of other programs in Michigan and elsewhere. The cooperation of other agencies such as the Department of Conservation, and the leadership of colleges and universities, added to the team effort in this new emphasis in education which extends beyond classrooms and subject matter areas. Sustained leadership in the State over the years helped keep outdoor education fresh and virile.

II. BASIC PHILOSOPHY AND CONCEPT OF OUTDOOR EDUCATION IN MICHIGAN

The beginnings and the subsequent developments in outdoor education in Michigan were in general education. From the earlier identifiable programs to the many varied patterns under way currently, the objectives and desired outcomes are consistent with a dynamic and changing curriculum for these times.

Consequently, there have been new and different emphases which are reflected in the nature of the programs. While the greatest impetus to outdoor education, particularly in Michigan, came from what was then known as school camping, there is general agreement that the term is much broader in nature and scope. Educational experiences, such as field trips for example, which have been a practice in many schools for years, are illustrations of the extended classroom which is now receiving much greater emphasis. The resident experience in a camp setting not only enriches and extends the classroom, but adds new dimensions to education through the many "teachable moments" that seldom, if ever, occur in the classroom. Some outcomes relate to the building of better human relationships between students and between students and teachers. Other values unique to a resident outdoor program pertain to the learning opportunities for democratic living in a child's community and purposeful work experiences in and about a camp setting.

While some of these values accrue through organized camping, implications for the educative process are much greater in the resident outdoor school since the experience is a part of the curriculum with classrooms of children and their teachers involved. Outdoor education and organized camping are compatible, not competitive, and supplement each other. The term "school camping" has been largely discarded because the short resident experience is not the same in purpose nor in program as organized camping.

The great surge of interest in the outdoors by the American public is a phenomenon of the times. The rapid growth of all forms of outdoor recreation and the quality of the experiences of millions unprepared for their newly acquired interests in the outdoors have created an urgent need for education for the outdoors. This aspect of outdoor education embodies the knowledge, skills and appreciations necessary for enjoying and participating in outdoor interests and pursuits and for understanding how to protect and to use wisely

our natural resources. Thus, outdoor education has come to mean education in, for, and about the outdoors. The process might be described as freewheeling in and out of the classroom, using the outdoors as a laboratory, and providing many learning experiences that will help people enjoy and benefit from their outdoor pursuits yet preserve the integrity of the natural environment.

Outdoor education is aptly described in a publication by Smith and others as follows:

Outdoor education is a means of curriculum enrichment through experiences in and for the outdoors. It is not a separate discipline with prescribed objectives like science and mathematics; it is simply a learning climate which offers opportunities for direct laboratory experiences in identifying and resolving real-life problems, for acquiring skills with which to enjoy a lifetime of creative living, for attaining concepts and insights about human and natural resources, and for getting us back in touch with those aspects of living where our roots were once firmly established.*

In terms of programing in schools, outdoor education takes many forms which may be categorized as follows:

1. Outdoor-related classroom learnings that take place in the regular school curriculum, using outdoor materials, themes, processes, and field observations to enrich and vitalize the educational experiences.
2. The use of the school site and nearby school and community properties such as farms, gardens, parks, recreation areas, forests, lakes, streams, and other natural areas as laboratories. Field experiences in such settings are appropriate in many subject matter areas and activities such as science, social studies, communication arts, mathematics, music, art, and others.
3. Resident outdoor schools whereby classrooms of children and their teachers move to a camp setting for a period of time to extend the educational

*Julian W. Smith and others, Outdoor Education (Englewood Cliffs, N. J.: Prentice-Hall, 1963), p. 19.

offerings of the curriculum. This pattern of outdoor education provides a variety of learning activities centering around healthful living, social living, work experiences, and the acquisition of outdoor interests and skills, and the supplementation of many of the regular classroom activities associated with subject matter areas. This kind of outdoor education has the potential for greater impact on curriculum change for it represents some of the characteristics of good educational procedures such as larger blocks of time for completing projects, a child's community as a setting with a maximum of student-teacher planning for educational experiences, better opportunities for problem solving and the freedom from bells and other restrictive classroom customs. Maximum values accrue from the resident outdoor school when there is much advance planning using outdoor-related classroom learnings as a basis for the anticipated experience in the outdoor setting, and then a continuous use of the experiences in the outdoor school after the return to the classroom.



A GOOD START FOR THE DAY.

4. The teaching of outdoor-related skills for outdoor interests and pursuits is a timely aspect of outdoor education. Many of the skills and sports connected with outdoor recreation pursuits have lifelong values and are appropriate parts of a broad program of physical education and school recreation. These include casting and angling, shooting and gun safety, boating, other water activities and water safety, archery, and winter sports. Other special outdoor interests and hobbies are often associated with school subjects, clubs, intramural activities, and school recreation. Examples are lapidary activities,

outing clubs, canoe pole clubs, orienteering and compass games, science clubs, outdoor photography, astronomy, and others. In many instances, outdoor-related activities are conducted through the cooperation of community agencies, park and recreation departments, nature centers, and other local and state organizations. Examples are hunter safety courses, boating instruction, sailing, water safety, skin and scuba diving, skiing trips, junior naturalist clubs, cycling, hosteling, canoe tripping, and creative crafts from native materials.

5. Outdoor education through adult education. The increased interest of the public in all forms of outdoor sports and activities has prompted adult and continuing education and community recreation agencies to offer opportunities in outdoor education. Family camping clubs, for example, provide ways for those interested in camping and travel camping to acquire camping skills, information on camp sites, historical and scenic attractions, and practical information about planning trips, food preparation, and the design of camping equipment. Displays of equipment, family camping shows, trading posts, and courses in family camping are features of an increasingly popular development in adult outdoor education. Other examples include adult education courses in fly tying, lapidary activities, casting clubs, shooting instruction, archery, boating, and many others.

The development of community schools in Michigan has created an ideal setting for outdoor education for all age levels. It provides opportunities for instruction and participation in all types of outdoor activities in which the various age groups have interests. Furthermore, the community school is in the best position to coordinate the use of the many facilities and resources which may be needed.

III. A DESCRIPTION OF OUTDOOR EDUCATION PROGRAMS IN MICHIGAN SCHOOLS

A. Outdoor-related classroom experiences

There are many schools in the State that make use of outdoor materials and the natural environment to enrich, extend and supplement classroom learnings. Examples could be listed for many elementary classrooms, where outdoor educa-



THIS SCHOOL SITE IS AN OUTDOOR LABORATORY.

tion is intertwined in numerous aspects of the curriculum through special units and projects, materials for illustration, observation, and study in the outdoors, and outdoor emphases in such areas as language arts, music, art, and others. In the secondary schools, outdoor-related learnings are included in many of the subject matter areas, particularly in science, social studies, language arts, math, music, art, homemaking, agriculture, health education, and conservation. Space will permit only a few examples of how the outdoors can be related to

regular classroom procedures, but a few will illustrate the possibilities:

- nature's methods for seed dispersal
- weather stations made and used by students
- aquariums in classrooms, developed by students
- map and compass projects on the school site
- a glass beehive in the classroom
- incubators for hatching eggs
- art with outdoor themes and natural materials.

B. Use of the school site and other outdoor areas as laboratories

An increasing number of schools are using outdoor settings as laboratories, many of which are on the school site or areas adjacent to or near the school building. Some outdoor education programs of this type under way in Michigan are described under several categories.

1. The school site as an outdoor laboratory.

Many school buildings are located on sites ranging from 10 to 100 acres which when acquired often have natural features such as woods, swamps, bogs, ponds, and streams. All too often little thought has been given to preserving or planning the site for multiple use, part of which would be an outdoor laboratory. More recently, a number of Michigan schools have acquired new sites or developed old ones to provide opportunities for a variety of outdoor education activities. Some examples would include:

- a. Creative play areas for children with more natural equipment such as trees to climb, large tiles, logs, animals made from plastic materials, and many other features that are more attractive to children than complicated mechanical kinds of apparatus.
- b. Plots with trees and shrubs and a variety of native plants that attract birds and small animals, on which simple nature trails may be constructed. The development of such outdoor laboratories by children,

teachers, parents and resource leaders is a rich experience in outdoor education, and it also guarantees a convenient "outdoor classroom" for future use.

c. Gardens where flowers and vegetables may be planted, cared for and harvested by children, and conservation plots for experimentation and observation of soil types and fertility, drainage and erosion control. Landscaping of the school site and the planting and care of flower beds are meaningful experiences for both elementary and secondary school students.

d. Ponds for aquatic study, water activities and fishing, are being constructed on sites where conditions are favorable. In many situations in Michigan, school sites have natural ponds, or border on lakes which provide many opportunities for outdoor education throughout the entire year.



LEARNING BY DOING.

e. Other features can be added to the school site to provide a greater variety of outdoor experiences, particularly in situations where travel to other locations is difficult. Examples include large boulders from the area, sun dials, animal tracks in concrete, apiaries, bird houses, and feeders.

2. Park-schools

The park-school constitutes one of the most effective arrangements for outdoor education for both children and adults. Several school districts in Michigan, through joint planning with city parks and recreation departments, have purchased school sites with adjoining park areas. There may be wooded areas for outdoor laboratories, nature trails, creative outdoor play areas, lakes ponds for study and outdoor sports, picnic areas with grills for outdoor cooking, and a variety of other features depending on the locality. Michigan has adequate permissive legislation for the creation of park-schools and the growth of this excellent type of community facility is conditioned only by vision and good planning on the part of school and public officials.

3. School and community properties for outdoor laboratories

In many Michigan communities there are lands and facilities already under public ownership which offer unusual opportunities for outdoor education. In other instances, lands are yet available for purchase and under some conditions can be partially financed through federal programs such as the Land and Water Conservation Fund Act, the Open Space Land Act, and Housing and Urban Development programs. To secure such funding there must be a cooperative arrangement among local political subdivisions that will insure opportunities for public recreation as well as education. Some of the available resources in Michigan communities include:

a. School and community forests of which there are over 600 in Michigan which were deeded to local communities by the State in the 1930's for

reforestation. Many of these properties have long since been reforested and now are ready-made laboratories which can be used by schools for a variety of outdoor experiences. In a few instances shelters have been constructed which make day camping and even camp-outs possible. Some have nature trails and firelanes, but too many of them are not used to their full potential. In most instances these resources could be available through leadership and planning on the part of school and public officials.

b. School farms and gardens offer unusual opportunities for outdoor education and may constitute some of the most important developments for the future. A number of school districts in the state now own farms which were purchased originally for vocational agriculture or for future school sites. In more recent years, farms are being acquired specifically for outdoor education. The lack of opportunities for farm experiences, particularly in urban areas, makes the school farm and garden complex one of the most valuable settings for a great variety of outdoor education experiences. In some situations this complex could provide a resident outdoor school experience. In addition to learning activities which involve farm animals and agriculture, there can be pioneer museums, garden centers, interpretive nature centers, and outdoor sports opportunities with good planning in the use of existing structures or new ones to be designed.

c. Other lands and facilities in some Michigan communities which are used for outdoor education include nature centers, museums, zoos, arboretums, parks, and private lands. Some school districts make arrangements with private land owners for field experiences of different types and develop systematic programs in elementary and secondary schools for the use of such areas. In a number of cities where there are nature centers there

are cooperative arrangements whereby school groups use the centers for field experiences. In many Michigan cities there are arboretums and interpretive nature centers. Frequently the naturalists are available as resource leaders for school groups. In many of the local and state parks, the areas and nature trails are always available for school use and usually require only advance notice concerning time and purpose.

For outdoor experiences to areas of greater distance there are abundant resources in Michigan's state parks, outdoor recreation areas, game management areas, fish hatcheries, forests, and historical sites. In addition, private lands and facilities, farms, outdoor recreation centers, and winter sports areas offer unlimited opportunities for varied programs.

C. Resident outdoor schools

In outdoor education Michigan is best known for resident outdoor schools. There are upwards of 100 school districts that provide this type of outdoor education. The greatest growth in recent years has been in the number of classrooms within larger districts which are using camp settings for a period of several days (usually a school week) for learning experiences beyond the classroom. A publication of the Department of Education (Bulletin #420) printed in 1958, contains a quote that expresses the basic philosophy underlying the outdoor school:

That which can best be learned inside the classroom should be learned there. That which can best be learned in the out-of-doors through direct experience, dealing with native materials and life situations, should there be learned.*

While the period of time for each classroom is relatively short, the "round-the-clock" living and learning cannot be measured in terms of classroom

*Michigan Department of Public Instruction, School Experiences in Camp (Lansing, Michigan: Department of Public Instruction, 1958), p. 1, quoting The Bulletin, National Association of Secondary-School Principals, May 1957, Vol. 41, No. 229, L.B. Sharp.



MUSIC IN THE OUTDOORS.

periods and "days" at school, for the program represents the sum total of all learning experiences centered about living in the camp setting and experiences in the natural environment.

While every outdoor school program is different and reflects the plans and purposes of the classroom involved, there are some common characteristics in administrative procedures. Most of the programs are in the later elementary and junior high school grades, although the range in Michigan is grades 2-12. Since only a few school districts own camp facilities, most schools rent or lease a camp for the time needed to accommodate the number of classrooms involved. In Michigan, approximately half of the schools use outdoor education centers located in state parks and recreation areas. Others use

private or agency camps, except the fortunate few that use camps owned by their school districts or some other local governmental agency. A fee is paid for the use of the facility and the cost of utilities, while the school provides the staff. The classroom teacher is the central figure in the staff of the outdoor school since the classroom is the basis on which the program is designed in the elementary school. In secondary schools, the unit may be a homeroom or other special group but the teachers most closely involved have the major responsibilities. Since more than one (usually two) teachers are needed for a classroom-size group, additional staff may be chosen from special areas such as physical education, music, art, or others who are interested or particularly qualified for the program which is planned. One person usually has the responsibility as resident outdoor school director and may be a principal or a teacher who is particularly qualified and has been selected as the outdoor education coordinator. In systems that provide a continuous operation throughout the year, there are full time teachers and a director of the outdoor school who work with the teachers and classroom groups that move to the outdoor setting week after week. Most schools also have resource leadership, often from the local community, who have special interests and skills in outdoor education. A number of schools have cooperative arrangements with colleges and universities whereby student teachers or other students preparing for teaching or leadership in outdoor education participate in the outdoor school program. When the school uses State-owned facilities, resource leaders such as naturalists and conservation specialists are available for short periods of time from the Department of Natural Resources.

A fee covering the cost of food and maintenance for the child is paid by the home and may range from \$10 to \$20 depending upon the facilities, the food service and personnel provided, and other factors such as insurance. The school provides for the instruction and transportation. When families are

unable to assume the cost of food and maintenance, some social or community agency, or special fund makes it possible for every child to have the outdoor experience with his classmates.

The program for the period at the outdoor school is rich and varied. Maximum use is made of the peculiarities and features of the environment for learnings related directly to the school curriculum in many areas such as science, social studies, and others. Forests, swamps and bogs, lakes and streams, birds, plants and animals, are all resources which contribute to realism and to a better understanding of ecological relationships and conservation. There are many experiences in social living such as planning for the outdoor school program and the acceptance of individual and group responsibilities. New leaders emerge with the opportunities to engage in the varied activities. There are firsthand experiences connected with group living related to food preparation, care of facilities, camp trading post and bank, and student government. Purposeful work activities are provided which are necessary to the comfort and well being of the group and which improve the facilities and natural environment of the outdoor center. New outdoor skills and interests are acquired which may have lifelong value in the constructive use of time. Creative arts and crafts through the use of native materials, angling, archery, shooting, boating and canoeing, and winter sports are examples of activities which are unique in Michigan outdoor schools.



ARCHERY -- A LIFE-LONG
OUTDOOR SPORT.

There are outdoor school programs throughout the year--fall, winter and

spring, and some in the summer--which offer different kinds of adventures in learning for each group. Common to all seasons are the unique "teachable moments" for better understandings among those fortunate enough to experience this kind of outdoor education.

D. Outdoor skills and sports

An increasing number of Michigan schools now include some of the outdoor skills and sports in the curriculum, often as a part of physical education or school recreation. In a number of community schools this phase of outdoor education is a regular part of a complete community education program. The following are examples of varying kinds of programs involving the teaching of outdoor skills and sports.

1. Casting and angling in physical education in secondary schools, in the school recreation program, and through high school and junior high school clubs. Many outdoor schools also include casting in the program.
2. Archery. This is an increasingly popular sport in schools and in most instances is included in physical education classes, intramural activities, school recreation, and in resident outdoor schools. In addition to target archery, field archery and archery games give added interest and value to this popular sport. Local archery clubs and recreation departments also provide opportunities for instruction and for participation in archery.
3. Shooting and hunter safety. These outdoor-related activities are appropriate aspects of physical education, school recreation, or club programs. There are a number of school buildings in Michigan which have shooting ranges and in many other communities there are ranges available for school use. The air rifle is often used for instruction for children of elementary and junior high school age. Instruction in .22 rifle and shotgun is usually reserved for older students in high school. Hunter safety is often conducted in cooperation with local sports and recreation

EXAMPLES OF WEEK'S ACTIVITIES AT AN OUTDOOR SCHOOL

PROGRAM GROUPS		MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY
TEAMSTERS	AM	Arrival at Outdoor Center	Compass hike	Aquatic trip	Trip to gravel pit	Complete projects Evaluation Clean-up Homeward
	PM	Planning & orientation	Cookout Conservation projects	Nature games	Individual interests	
	EVE	Get acquainted party	Astronomy	Dramatics of pioneer living	Campfire	
CRUISERS	AM		Outdoor skills & creative arts Cookout	Trip to abandoned farm	Trip to mystery swamp	"
	PM	"	Trip to gravel pit	Conservation projects	Individual interests	
	EVE		Astronomy	Nature games	Campfire	
LUMBERJACKS	AM		Trip to gravel pit	Trip to forest	Survival trip (all day)	"
	PM	"	Outdoor skills & creative arts	Cookout Individual interests		
	EVE		Story telling	Astronomy	Campfire	
FORESTERS	AM		Aquatic trip	Camp improvement projects	Aquatic trip	"
	PM	"	Conservation projects	Trip to forest	Cookout	
	EVE		Paul Bunyan legends	Astronomy	Campfire	
TRAILBLAZERS	AM		Trip to forest & game census	Conservation projects Cookout	Trip to abandoned farm	"
	PM	"	Compass hike	Aquatic trip	Compass games	
	EVE		Nature games	Astronomy	Campfire	

groups. The Michigan Department of Natural Resources offers hunter safety courses which are basic to the purchase of the first hunting license.

4. Boating, canoeing and other water activities. Some schools offer boating and canoeing instruction as a part of the physical education curriculum. Canoeing skills and safety are frequently taught in swimming pools. Other skills include swimming, boating and other water activities as a part of a summer program. More frequently instruction in these skills is given through community agencies and organizations such as the Red Cross, Power Squadron, Coast Guard Auxiliary, county sheriff's offices, and recreation agencies.

5. Winter sports. An increasing number of schools are offering instruction in winter sports through physical education and school recreation programs. Instruction in snow skiing, for example, is included in both elem-



AN EXPERIENCE NOT FORGOTTEN.

tary and secondary physical education in several school districts. Arrangements are made at local ski centers for equipment rental and instruction at a low cost during the day when the slopes are less crowded. Other schools have ski clubs and include trips to ski centers as a part of the activity. Skating and tobogganing are often provided through the community school recreation program.

6. Other sports and skills. There are many other outdoor-related skills, crafts, and hobbies in school programs that are conducted as a part of the classroom learnings or through clubs or school recreation. Examples include: lapidary activities, making outdoor equipment in school shops, orienteering and compass games, outdoor cooking, hiking, cycling, fly tying, and camping skills.

E. New and Innovative Outdoor Education Programs

While unique, innovative programs have characterized outdoor education in Michigan, the federal Elementary and Secondary Education Act of 1965 gave impetus to several new and different projects which add greater dimension to the school curriculum. Following are brief descriptions of several of the planning and operational projects funded through Title III of the ESEA, which were all or in part related to outdoor education.

1. Outdoor Education Laboratory, Constantine Public Schools.

A 40-acre area adjacent to two school sites was developed as a multi-purpose laboratory. Nature trails were developed, a pond constructed, trees planted, and wildlife encouraged. The area is used for science, art, agriculture, and physical education as well as for field experiences for elementary schools. The plastic-lined pond, for example, serves for study of aquatic life and provides opportunities for outdoor skills such as instruction in casting, canoeing and ice skating in the winter. An example of multiple use is the obstacle course constructed on the perimeter

of the site for the physical education program.

One of the most important outcomes of the project is an extensive in-service program designed to help teachers use the outdoor laboratory more effectively.

2. Exploring Nature's Classroom, Coldwater Community Schools.

This project initiated and explored the optimum use of school sites



LEARNING ABOUT THE ENVIRONMENT THROUGH INQUIRY.

for grades K through 12 in the Coldwater Community Schools. There was a comprehensive development of school sites with the cooperation of the 4-H Fair Board, which contributed the use of 60 acres, and the City of Coldwater, which made 50 acres available to the school system. Many specialists from the local community and from the State, and leaders from other resource agencies assisted in the project. Through the cooperative effort, a total of 117 acres became available as an outdoor laboratory which served many subject matter areas of the school curriculum. Among the features of the

outdoor laboratory are nature trails, a wildlife pond with a nesting island, bird-watching areas, telescope viewing points, and many opportunities for studying air and water pollution, soil erosion, outdoor cooking, observing animal tracks and weather study.

The program includes extensive in-service education of teachers under the leadership of the project staff and consultants. Instructional materials for teachers have been developed and are used in the implementation of an extensive outdoor education program.

3. Improving Self Concept, Paw Paw Public Schools.

The Paw Paw Public Schools initiated this program to help improve the self concept of rural poor or disadvantaged children who were low achievers and potential dropouts, but were average or above average in academic ability. In the pilot effort, 70 boys and girls from grades 6 - 12 were chosen. A personalized and flexible curriculum was developed and special health and welfare services were provided for those in need of such care. One of the features of this program is an outdoor school experience in a camp at the beginning of school and at intervals during the year. The project staff and school officials feel that the outdoor experience is the most significant phase of the program in terms of helping to improve the self concept of the students involved.

4. A Program to Modify Concepts Held by Low Achieving Students, Traverse City Public Schools.

In the initial stage of the program, 70 high school boys from the Traverse City schools who were low achievers, trouble makers, and potential dropouts were identified by teachers and counselors to participate in a work-learn program. During the entire school year, a half day is spent in the school and a half day on a 210-acre farm made available to the school district by Northwestern Michigan College. On this farm the boys engage in

various outdoor projects through which there are practical learning opportunities in many areas of the curriculum, including outdoor and vocational skills. Some of the work-learn activities include building roads, restoration and use of an old saw mill for lumbering, well digging, shelter construction, stream improvement, tree planting, gardening and other endeavors which help restore both human and natural resources. The group participates in outdoor skills such as angling, archery, shooting, skiing and hiking.

As the project developed, the program has been expanded to include a comparable experience for junior high school boys on a day basis, a resident outdoor school program for elementary grades, and field trips for elementary, junior and senior high school classes.

The boys in the work-learn program experience success and enjoy activities that have interest and meaning to them. Changes in attitude and



CONSERVING HUMAN AND NATURAL RESOURCES.

behavior are reflected in improved classroom achievement. Many of the boys remain in school who otherwise would have been dropouts. Much of the success of the entire program can be attributed to the leadership of high quality staff who understand the students and know how to work with them. An unusually effective resource leader is a pioneer lumberman, who adds much to the success of the lumbering and construction activities as well as to the welfare of the boys.

Programs of this type offer unique opportunities for the prevention of "human erosion" as well as soil erosion and represent a pattern of outdoor education that can be designed for older youth--both boys and girls.

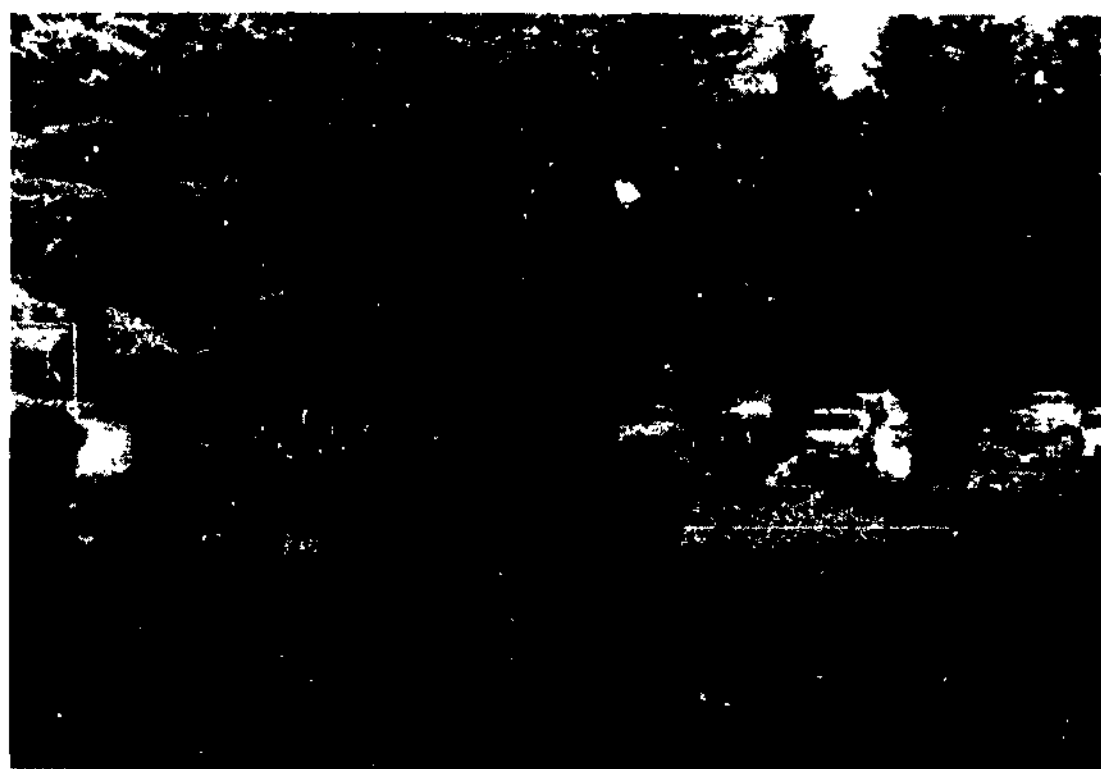
5. Integrating Outdoor Education with a Flexible Academic Vocational Curriculum, Grand Haven Public Schools.

This program, funded by a planning grant to the Grand Haven Public Schools, gave impetus to some unique outdoor education activities in the school and community. Effective in-service education of teachers and the strong leadership of the project director resulted in the involvement of many teachers in a varied outdoor education program which included the improvement and development of school sites as outdoor laboratories; work-learn experiences for vocational education students in school and community-owned parks and forests; the use of outdoor resources in the community for the enrichment of the elementary and secondary school curriculum; and day and resident outdoor school experiences for the elementary grades. Community involvement was a feature of this program which is resulting in the identification and use of resource leadership, facilities and lands in the city and county.

6. A Tri-County Project--an Outdoor Education and Rural Life Center.

A planning grant was made available to three Michigan counties--

Eaton, Ingham, and Clinton--to develop an outdoor education program. The project was administered by the Eaton County Intermediate School District and the Woldumar Nature Center served as a center of operation. A unique aspect of the project was to develop and administer the tri-county program, utilizing all the outdoor resources in the area and to develop a pilot center at Woldumar for the in-service education of teachers, and for program development. A Tri-County Advisory Committee gave guidance to the project. There have been significant results from the one-year planning grant which include more extensive in-service education of teachers for outdoor education in the three counties; the initiation of new outdoor education programs in individual school districts, and the extension of existing ones; and a greater use of the Woldumar Nature Center by schools and communities of the area.



MARKSMANSHIP -- A SPORT FOR ALL.

7. An Outdoor Educational Plaza, Sault Sainte Marie.

Through a planning grant, a 500-acre wooded area within the city limits of Sault Ste. Marie is being used as a community service center and as an educational laboratory. This learning laboratory is an ideal setting for

the sciences, humanities, recreation and conservation.

8. Other Innovative Programs in Michigan.

A number of other innovative programs are in the planning stage, some of which have been or will be submitted under various federal programs for possible funding.

F. Teacher education and leadership preparation for outdoor education

1. In-service education

Teacher and leadership preparation have kept pace with the growth of outdoor education in Michigan. From the beginning there has been extensive in-service education of several types: that conducted by local school systems which have initiated programs; statewide and regional workshops and conferences; planning committees sponsored by or in cooperation with the Michigan Department of Education; workshops and conferences provided through colleges and universities and professional education organizations; campus and off-campus courses conducted by universities; and workshops and clinics conducted by the Outdoor Education Project of AAHPER and other professional organizations; and conservation summer courses for teachers conducted through the Department of Natural Resources in cooperation with universities. Many of these in-service education activities have been held in outdoor settings and camp conference centers, and have been designed to help teachers with their own programs in outdoor education.

2. Graduate education

Several universities in the State offer graduate work in outdoor education for those who are in or expect to hold leadership positions in some phase of outdoor education. Since outdoor education is considered an area of emphasis and can be a part of graduate work in one of several major fields, some institutions offer work leading to the master's degree, specialist program, Ed.D, and Ph.D. Other institutions offer more

specialization in related fields such as conservation, environmental education, and outdoor recreation.

3. Undergraduate Education

There has been very little by way of specialization in outdoor education at the undergraduate level. This is due largely to the fact that outdoor education is not considered to be a content field, but is interdisciplinary in character and is pertinent to many major areas in teacher education. Consequently, pre-service education relating to outdoor education is largely through an emphasis in existing courses and through selecting areas of study to provide good background such as science, conservation education, human growth and development, curriculum, physical education, and others. There have been some developments in student teaching whereby prospective teachers in some of the student teaching centers have had a resident outdoor school experience with children. Much more needs to be done at the pre-service level in preparing teachers to work with children in out-of-classroom situations such as outdoor settings.

IV. PLANNING FOR OUTDOOR EDUCATION

In planning an outdoor education program, consideration should be given to the possibilities for outdoor experiences in the curriculum for grades K through 12. A good initial approach is the establishment of a study committee representative of students, teachers, and parents. Such a committee needs to consider present activities relating to outdoor education, and project changes in accordance with needs and the potentials for a more complete program. In many instances, there are already instructional activities that involve outdoor learnings and a good beginning can be made in the improvement and extension of existing programs. From the beginning of planning, schools should call on the Michigan Department of Education for any assistance that might be given as well

as using consultants from colleges, universities and other agencies and organizations that might have services to render.

Some procedures that might be followed by a study committee are suggested.

1. Secure information concerning outdoor education through publications, films, and visitations.
2. Make an inventory of community resources available in leadership, facilities and materials.
3. Study the present school program to determine where beginning projects in outdoor education might be initiated.
4. Recommend plans for action to the school administration, proposing pilot programs where there is already interest and readiness on the part of students and teachers. Some of the ingredients of a plan for administration might include:
 - a. Needed modifications of administrative patterns to facilitate programming, such as modular scheduling, transportation, policies concerning use of available lands and facilities, and a needed beginning budget.
 - b. A design for in-service education of teachers which would include visitations, workshops, and advanced study.
 - c. Plan for continuous evaluation by students, teachers, and parents.
 - d. Consultant services needed from the Michigan Department of Education and other agencies.

In the program to be undertaken involves the use of lands and facilities other than school and community properties, information can be secured from the agencies or departments involved. Examples: State-owned outdoor centers, parks, recreation areas and forests--Department of Natural Resources; private and agency camps--Michigan Camping Association; national forests--regional National Forest headquarters.

In general, planning for outdoor education should follow the same procedure as for other aspects of curriculum change. In schools where there are curriculum administrators and specialists, and a system for curriculum improvement, the machinery for outdoor education is ready-made. Usually the spark needed is the enthusiasm of teachers and leaders who are anxious to get a program under way and will assume initiative and responsibility for action.

V. RESOURCES FOR OUTDOOR EDUCATION

Land and Facilities

There are resources and facilities for outdoor education within reach of every community in Michigan. The State is fortunate to have open land areas scattered throughout all parts of Michigan. Ranging from locally administered parks to spacious state-owned forests and recreation lands, there are resources which may be used for education, and schools need only to contact the appropriate public officials to secure their use. In addition to the lands, Michigan has facilities such as shelters and camps which also are available for school use. Many Michigan schools use the outdoor centers which are managed by the Department of Natural Resources for day field experiences and resident outdoor schools.

The more-specific information which follows should be especially helpful for schools that are interested in securing State services, lands and facilities for outdoor education.

State-operated outdoor centers. State-operated outdoor centers are of three types. One is the multiple-unit type facility with sleeping cabins and separate, centrally located unit latrines; another is a dormitory type with connecting toilet and shower facilities. These two types are characteristic of the larger camps in which separate buildings serve as lodge, dining hall and kitchen. The third type of camp is a single-unit type facility in which

all activities are housed in one building. All types are equipped with modern sanitary facilities, and are heated for year-around use. These outdoor centers are located in the State parks or recreation areas, usually situated on or near a lake that is developed for water sports and activities.

Renting outdoor centers. State-owned outdoor centers are administered by the Parks Division of the Michigan Department of Natural Resources. Applications for use of such facilities may be made to the resident park managers at any time. For complete details write to: Parks Division, Department of Natural Resources, Lansing, Michigan 48926. The procedures and costs for using outdoor centers are as follows:

A. Fall, winter and spring use

Use of outdoor centers during the fall, winter, and spring (Labor Day to Sunday nearest June 15) is governed by permits issued by resident park supervisors. Applications must be made directly to the park or area headquarters.

1. Weekend use

A minimum rate of 60¢ per night has been established to include rent, fuel, and electricity based on the capacity of the individual centers. The outdoor centers are rented for a minimum of two nights (Friday and Saturday) with a guarantee rental based on approximately 2/3 capacity of the center or unit.

2. Weekday use

The same unit charge system is used to establish the costs for weekday use of the centers, except for the following. No charge will be made for adult leaders or counselors of children's groups with a ratio of 1 to 10 (one adult leader for ten children or fraction thereof) unless this leader-camper ratio is exceeded. The charge is based on 60¢ per person per night.

3. Day use

For day use, 25¢ per camper per day (adult or child) or \$10.00 minimum fee, whichever amount is greater.

B. Summer use (Sunday nearest June 15 to Labor Day)

The deposit for summer use shall be \$50.00 per week except for groups of 50 persons or less, in which case the deposit shall be equal to the minimum number of campers as indicated on the list of outdoor centers. The deposit will apply on rental fee at time of check out.

C. General regulations

Official permits are required for use of the State-owned outdoor centers. Permits cannot be transferred or sublet, and no profit-making enterprises are permitted. In the event of damage or destruction to any State property or equipment, arrangements for payment of same shall be made with the park supervisor in camp before departure from the center. A list of outdoor centers may be obtained from the Parks Division of the Michigan Department of Natural Resources. More details concerning the nature and use of outdoor centers is included in the list.

School-owned facilities. Some schools contemplating extensive programs may desire to acquire their own facilities. When possible, it is suggested that school camps be located adjacent to state-owned land so that it will be necessary to provide only enough acreage for the physical plant. Under permit, the State-owned land may then be used for the activities portion of the school program.

Other facilities. In addition to the State-managed outdoor centers, there are many private and agency camps in the State which are becoming available for school use. A number of agencies and private camp owners have signified an interest in renting their facilities, and a list of winterized camps has been compiled by the Department of Natural Resources and is available from

the Department upon request.

Services from the Michigan Department of Education

Since outdoor education is an integral part of a community education program, the Michigan Department of Education has many services available to schools which relate to outdoor education. The general and specific responsibilities vested in the State Board of Education are briefly described.

General objectives. "Leadership and general supervision over all public education, including adult education and instructional programs in state institutions, except as to institutions of higher education granting baccalaureate degrees, is vested in a state board of education. It shall serve as the general planning and coordinating body for all public education, including higher education, and shall advise the legislature as to the financial requirements in connection therewith." (Sec. 3, Article 8, of the Michigan Constitution of 1963)

Educational objectives. "The superintendent of public instruction shall have general supervision of general instruction in all public schools and in all state institutions that are educational in their character . . . "

"The superintendent of public instruction is hereby given supervision of all the private, denominational and parochial schools of this state . . . "
(Chapter 7, Sections 340.251 and 388.551 of the Michigan General School Laws)

Types of consultant services available.

- Identify problems and needs, and give leadership for program planning
- Clarify the responsibility of school personnel, school boards and others regarding the school program.
- Plan in-service education workshops, conferences, clinics, meetings, etc.
- Foster public support for school programs.
- Develop and distribute curriculum planning materials.
- Work with teacher education institutions for the improvement of curricula.

- Visit local schools periodically to observe trends, promising practices and problems and to provide on-the-spot consultant services where appropriate.
- Help plan demonstration programs, pilot studies and other experimental program efforts.

How to obtain resource help. Consultant service is available from the Department of Education by contacting the Department by telephone or letter. For information regarding school outdoor education programs call (517) 373-1484; or write: Michigan Department of Education, Bureau of Educational Services, Box 420, Lansing, Michigan 48902.

Department of Natural Resources

The Parks Division of the Michigan Department of Natural Resources is responsible for its outdoor centers, parks, and recreation areas. These facilities are made available for use by the schools. If State facilities are to be used by the schools for their outdoor education activities, reservations must be made in accordance with the procedure previously outlined. The Michigan Department of Natural Resources, through its several divisions, within the limits of available funds and personnel, provides assistance to the schools in helping them develop their school camping programs. Assistance from the Parks Division may be obtained by writing the Park Manager of the park concerned.

Resources available from Michigan Department of Natural Resources. South of the Bay City-Muskegon line, the Natural Resources Department will not furnish resource people to service youngsters at Outdoor Centers, whether State or privately owned. Naturalists have been assigned to provide interpretive services in a few of the southern Michigan recreation areas and these men may be able to spend up to one day with youngsters at their Outdoor Centers. Requests for their services should be made at the time of requesting reservations for use of an Outdoor Center.

General information about the use of the Outdoor Centers is available from the Parks Division, Michigan Department of Natural Resources, Lansing, Michigan 48926.

Assistance in leadership training from the Department of Natural Resources may be obtained by pre-arrangement at the regional level by writing to the Information and Education Division, Department of Natural Resources, Regional Office--Marquette, Roscommon, or Lansing, whichever area is appropriate.

Publications produced by the Department are available by request from the Publications Room, Michigan Department of Natural Resources, Mason Building, Lansing, Michigan 48926. A catalog of 16 mm. films available for free loan may also be secured from the Publications Room.

Other Services--Consultants and Resource Leaders

College and university personnel.

County Agricultural Agents.

Local health, physical education, and recreation personnel.

Soil Conservation District personnel.

Sportsmen's clubs personnel.

Michigan Department of Natural Resources personnel (for work with leaders).

U. S. Soil Conservation Service Technicians.

City foresters.

Michigan Department of Public Health.

Michigan Department of Social Services.

Michigan Gem and Mineral Society.

Audubon Club members.

U. S. Forest Service personnel.

Garden club members.

Shooting, archery, fishing experts.

Parents with special interests.

Scout, 4-H, FFA leaders.

Izaak Walton League members.

United Conservation Club members.

VI. EVALUATION

Since outdoor education is a development in curriculum and is interwoven with many of the school's objectives and learning experiences in the various subject matter areas, methods of evaluation should be consistent with and a part of the general evaluation procedures for the school. This is to say that the "outdoor aspects" of a school program cannot be measured independently from what occurs in the classroom before and after the outdoor experience. The process of evaluation is further complicated by the fact that the outcomes of outdoor education are in terms of attitudes, concepts and values as well as in the acquisition of facts. It thus becomes more than turning an "evaluation spotlight" on short field trips or a five-day resident school experience. There is need, however, for a continuing evaluation of educational programs, including outdoor education, in school systems using a variety of measuring devices. Some instruments for evaluating certain results of outdoor education activities have been devised and used by schools. Most of them are of an "opinionnaire" type given to students, teachers, and parents, and designed for a special experience, such as a resident outdoor school. These are often helpful in interpreting and justifying a program to the school administration, board of education, and citizens. It would be well for schools to design their own evaluation forms for the various aspects of outdoor education to be measured. Simple forms which might be adapted for use will be found in the Appendix.

Some research has been done in outdoor education through doctoral dissertations, some of which have significance for the evaluation of various aspects of outdoor education. A summary of dissertations written during the

period from the 1930's to date, has been prepared by the Outdoor Education Project of the American Association for Health, Physical Education, and Recreation.* There is always a need for continuous evaluation and research in the quest for more effective learning experiences, including outdoor education. Some of the programs that have been under way for a period of years would lend themselves to longitudinal studies. Some of the general aspects of an outdoor education program needing research and evaluation include the effectiveness of informal experiences in an outdoor environment with respect to changes in behavior, in human relations, better self concept, solving conservation and environmental quality problems, constructive use of time through outdoor interests and pursuits, and the vitalization of learning as related to performance in the classroom. There is also a need for the study of the changes in the teacher that accrue through participation in outdoor experiences, particularly in the resident outdoor school. These possible changes would include teaching methods and student-teacher relationships.

Outdoor education has implications for teacher preparation, particularly in student teaching experiences in informal outdoor settings and an emphasis on the use of the outdoors in teaching methods courses. There have been enough programs in Michigan in pre-service and in-service education of teachers to provide a basis for effective evaluation and further research.

The emphasis on evaluation in the ESEA Title I and Title III programs should help stimulate better evaluation and research procedures in such educational programs. The results of several of the Title III programs relating to outdoor education provide some criteria and results in some aspects of outdoor education. Information about these programs is available from the Michigan Department of Education.

*"Research in Outdoor Education" (1969). Copies may be obtained from: Outdoor Education Project, Julian W. Smith, Director, 403 Erickson Hall, Michigan State University, East Lansing, Michigan 48823.

SUGGESTED REFERENCES

Magazines

Journal of Health, Physical Education, Recreation. Washington, D. C.: American Association for Health, Physical Education, and Recreation.

Journal of Outdoor Education. DeKalb, Illinois: Northern Illinois University.

Books and Bulletins

American Association for Health, Physical Education, and Recreation (AAHPER), Casting and Angling. Washington, D. C.: AAHPER, 1958.

AAHPER, Leisure and the Schools. 1961 Yearbook. Washington, D. C.: AAHPER, 1961.

AAHPER, Marksmanship for Young Shooters. Washington, D. C.: AAHPER, 1960.

AAHPER, Outdoor Education for American Youth. Washington, D. C.: AAHPER, 1957.

AAHPER, Shooting and Hunting. Washington, D. C.: AAHPER, 1960.

American Association of School Administrators (AASA), Conservation Education in American Schools. 29th Yearbook. Washington, D. C.: AASA, 1951.

AASA, Conservation--in the People's Hands. Washington, D. C.: AASA, 1964.

Angier, Bradford, Living Off the Country. Harrisburg, Pa.: The Stackpole Company, 1956.

Ashbaugh, Byron, and Muriel Beuschlein, Things To Do in Science and Conservation. Danville, Ill.: Interstate Printers & Publishers, Inc., 1960.

Athletic Institute and AAHPER, Planning Areas and Facilities for Health, Physical Education and Recreation. 1965.

Better Homes and Gardens, Family Camping. Des Moines, Ia.: Meredith Publishing Company, 1961.

Brehm, Shirley A., A Teacher's Handbook for Study Outside the Classroom. Columbus, Ohio: Charles E. Merrill Publishing Company, 1969.

- Brooklyn Botanic Garden, Dye Plants and Dyeing. Brooklyn, N. Y.: Brooklyn Botanic Garden, 1964.
- Brown, Robert E., and G. W. Mouser, Techniques for Teaching Conservation Education. Minneapolis, Minn.: Burgess Publishing Company, 1964.
- Butler, George D., Recreation Areas. 2nd ed. New York: Ronald Press, 1958.
- Clawson, Marion, Land and Water for Recreation. Chicago: Rand McNally & Company, 1963. Resources for the Future Policy Background Series.
- Crawford, Marguerite Cane, and Marietta Cain Fuller, Cornshuck Crafts. New York: Exposition Press, 1967.
- Dasmann, Raymond F., Environmental Conservation. New York: John Wylie & Sons, 1959.
- Division for Girls and Women's Sports, Sports Library for Girls and Women. Official Guides for Aquatics; Archery-Riding; Winter Sports and Outing Activities. Washington, D. C.: AAHPER.
- Freeberg, William H., and Loren E. Taylor, Philosophy of Outdoor Education. Minneapolis, Minn.: Burgess Publishing Company, 1961.
- Freeberg and Taylor, Programs in Outdoor Education. Minneapolis, Minn.: Burgess Publishing Company, 1963.
- Garrison, Cecil, Outdoor Education: Principles and Practice. Springfield, Ill: Charles C. Thomas, 1966.
- Gibbons, Euell, Stalking the Wild Asparagus. New York: David McKay Company, 1962.
- Hammerman, Donald R., and William M. Hammerman (ed.), Outdoor Education: A Book of Readings. Minneapolis, Minn.: Burgess Publishing Company, 1968.
- Hammerman and Hammerman, Teaching in the Outdoors. Minneapolis, Minn.: Burgess Publishing Company, 1964.
- Haugen, Arnold O., and Harlan G. Metcalf, Field Archery and Bowhunting. New York: Ronald Press, 1963.

Hellum, Amanda Watkins, and Franklin H. Gottshall, You Can Whittle and Carve.

New York: Bonanza Books, 1942.

Hug, John W., and Phyllis J. Wilson, Curriculum Enrichment Outdoors. New York:

Harper & Row, 1965.

Jaeger, Ellsworth, Council Fires. New York: Macmillan, 1954.

Jaeger, Easy Crafts. Macmillan, 1956.

Jaeger, Nature Crafts. Macmillan, 1956.

Jaeger, Tracks and Trailcraft. Macmillan, 1948.

Jaeger, Wildwood Wisdom. Macmillan, 1957.

Jaeger, Woodsmoke. Macmillan, 1953.

Jelley, Earl C., Education For What Is Real. New York: Harper & Brothers,

1947.

Leopold, Aldo, A Sand County Almanac (with other essays on Conservation from

Round River). New York: Oxford University Press, 1966.

Mand, Charles L., Outdoor Education. New York: J. Lowell Pratt & Company,

1967.

Mason, Bernard S., Woodcraft. New York: A. S. Barnes & Company, 1939.

Meilach, Dona L., Contemporary Art with Wood. New York: Crown Publishers, 1968.

Miracle, Leonard, with Maurice H. Decker, Complete Book of Camping. New York:

Outdoor Life, Harper & Brothers, 1961.

Nash, Jay B., Philosophy of Recreation and Leisure. Dubuque, Ia.: Wm. C.

Brown Company, 1953

National Association of Biology Teachers, Handbook for Teaching Conservation

and Resource Use. Danville, Ill.: Interstate Printers and Publishers,

1958.

National Association of Biology Teachers, Richard L. Weaver, editor, Manual for

Outdoor Laboratories. Danville, Ill.: Interstate Printers and Publishers,

1959.

- Nesbitt, Paul H., and others, The Survival Book. Princeton, N. J.: D. VanNostrand Company, 1959.
- Niemeyer, Roy K., Beginning Archery. Belmont, Calif.: Wadsworth Publishing Company, 1959.
- Olson, Sigurd F., Open Horizons. New York: Alfred A. Knopf, 1969.
- Ormond, Clyde, Complete Book of Outdoor Lore. New York: Outdoor Life, Harper & Row, 1964.
- Outdoor Recreation Resources Review Commission (ORRRC), Outdoor Recreation for America. Washington, D. C.: U. S. Government Printing Office, 1962.
- ORRRC, Trends in American Living and Outdoor Recreation. Study Report 22. Washington, D. C.: U. S. Government Printing Office, 1962.
- Peterson, Gunnar A., and Harry D. Edgren, The Book of Outdoor Winter Activities. New York: Association Press, 1962.
- Schramm, Wilbur, Classroom Out-of-Doors. Kalamazoo, Mich.: Sequoia Press, 1969.
- Smith, Julian W., Outdoor Education. Washington, D. C.: AAHPER, 1956.
- Smith and others, Outdoor Education. Englewood Cliffs, N. J.: Prentice-Hall, 1963.
- Stapp, William B., Integrating Conservation and Outdoor Education into the Curriculum (K-12). Minneapolis, Minn.: Burgess Publishing Co., 1965.
- Sunset Magazine, Sunset Ideas for Family Camping. Menlo Park, Calif.: Lane Publishing Company, 1957.
- Thoreau, Henry D., Walden.
- Tilden, Freeman, Interpreting Our Heritage. Chapel Hill, N. C.: University of North Carolina Press, 1957.
- Tilden, The National Parks. New York: Alfred A. Knopf, 1961.
- Tilden, The State Parks. New York: Alfred A. Knopf, 1962.
- Udall, Stewart L., The Quiet Crisis. New York: Holt, Rinehart & Winston, 1963.
- van der Smissen, Betty, and Oswald H. Goering, A Leader's Guide to Nature-

Oriented Activities. 2nd ed. Ames, Ia.: The Iowa State University Press,
Vinal, William G., Nature Recreation. New York: McGraw-Hill, 1940.

Whelen, Townsend, and Bradford Angier, On Your Own in the Wilderness. Harris-
burg, Pa.: The Stackpole Co., 1958.

Williams, Wayne R., Recreation Places. New York: Reinhold Publishing Corp.,
1958.

Films

Beyond the Chalkboard. Northern Illinois University, DeKalb, Illinois 60115.

Nature's Classroom. 16mm., s - c. Division of Conservation, Department of
Natural Resources, Box 450, Madison, Wisconsin 53701.

Outdoor Education. 16 mm., s - c, 28 ½ min. AAHPER, 1201 Sixteenth Street,
N. W., Washington, D. C. 20036.

APPENDIX

Sample Evaluation Forms

(SCHOOL DISTRICT)

RESIDENT OUTDOOR SCHOOL PROGRAM
PARENT REACTIONS

School _____

Outdoor Center _____

Dates of
Outdoor School _____

Dear Parent:

Your boy or girl has just returned from a week at our resident outdoor school. The outdoor center was used to provide worthwhile educational experiences which could not be provided as well in any other situation.

We are most interested in your reactions to the outdoor school experience for your child (or children) and in your suggestions for improvement. Your response to the following questions, as well as your general comments, will be most helpful.

Principal

Curriculum Coordinator

1. Had your child been to an outdoor school before? Yes _____ No _____

2. Would you be willing to send your child again? Yes _____ No _____
Why?

3. What are some of the observable outcomes and learnings?

(a)

(b)

(c)

4. What part of the experience do you feel was most valuable?

5. Suggestions and general comments:

Signature of Parent

Date _____

(SCHOOL DISTRICT)

RESIDENT OUTDOOR SCHOOL PROGRAM
TEACHER REACTIONS

TO: Teachers Accompanying Students to the Outdoor School

We sincerely hope that the week at the outdoor school was a pleasant experience which contributed to the achievement of the educational objectives of our school system. We would appreciate your frank comments in answer to the following questions, in order to improve the outdoor school program in the future.

Curriculum Coordinator

What did you especially enjoy in the week's experiences?

What didn't you enjoy?

What are some of the values that you feel were gained by the students from their experience?

What suggestions do you have for improvement?

Name and school _____

Outdoor center _____

Dates of the
Outdoor School _____

(SCHOOL DISTRICT)

OPINION OF CLASSROOM TEACHERS ABOUT CHANGES IN PUPIL ATTITUDES
AFTER THE OUTDOOR SCHOOL EXPERIENCE

School _____
Outdoor Center _____ Dates of the
Attended _____ Outdoor School _____

1. Were any of the children more helpful in doing classroom and associated tasks after they returned from the outdoor school? Yes _____ No _____
Comments: _____
2. Has your group's attitude toward school work changed since the experience?
Yes _____ No _____ Comments: _____

3. Do your children show an increased interest in the various learning areas?
Science: Yes _____ No _____ Social Studies: Yes _____ No _____
Communication arts: Yes _____ No _____ Physical education: Yes _____ No _____
Art: Yes _____ No _____ Music: Yes _____ No _____
Math: Yes _____ No _____ Others: _____
Comments: _____
4. Do you feel that the group as a whole or any particular individual profited especially? Yes _____ No _____ How? _____

5. In considering the total effect of the week in the outdoor center, do you feel that the experience has been of any value in improving your teaching?
Yes _____ No _____ How? _____

6. As a result of spending a week with your class at the outdoor school, do you note any difference in your understanding or relationship with the class?
Yes _____ No _____ Comments: _____

7. In your opinion, what would be the greatest value derived from the program?

8. Have you noticed any change in acceptance of pupils who were usually "left out" previous to the experience? Yes _____ No _____ Comments: _____

9. Did any of the children show greater self-reliance after returning?
Yes _____ No _____ Comments: _____

10. As a result of their outdoor experience, do pupils seem more considerate of others? Yes _____ No _____ Comments: _____

11. Did any of the "behavior problems" change for the better after the experience? Had none _____ Yes _____ No _____ Comments: _____

12. What reactions have you had from parents? _____

13. What reactions have you had from children? _____

14. Did children show improvement in health practices after returning from the trip? Yes _____ No _____ In what ways? _____

15. What changes, if any, does an outdoor school experience cause you to make in your teaching methods? _____

16. What suggestions would you offer to improve the program?

Name (optional)

Date _____

(SCHOOL DISTRICT)

STUDENT EVALUATION OF THE RESIDENT OUTDOOR SCHOOL PROGRAM

School _____ Today's
Dates at the _____ Date _____
Outdoor Center _____ Outdoor Center
Attended _____

Student _____

CHOOSE THE STATEMENT IN EACH GROUP THAT COMES CLOSEST TO YOUR THOUGHTS.

Circle one number only

- 1 The week at the outdoor center was lots of fun. I certainly enjoyed it.
- 2 I really didn't care much for the week at the center.
- 3 I had a fairly good time.
- 4 It was "okay" but I don't know whether I would go again.

Circle one number only

- 1 I enjoyed the work experiences in connection with meals, keeping the place clean, and other necessary responsibilities.
- 2 At the outdoor school everyone shares in the duties and I didn't mind helping out.
- 3 It wasn't any fun at all to work at our outdoor school.

Circle one number only

- 1 Since our outdoor school experience, I feel that I am getting along better with the people in my class.
- 2 I really don't know whether the experience has made any difference in the friendliness of our class.
- 3 After we came back, I feel our class is even friendlier with each other.
- 4 I don't think that the outdoor experience made any difference in the friendliness of our class.

Circle one number only

- 1 My parents thought that the outdoor school experience was good for me.
- 2 I don't know what my parents think about the outdoor school.
- 3 I don't think my parents would care to have me go again.

Circle one number only

- 1 It would be more fun if the sixth grade teacher didn't have to go along on the trip.
- 2 I was glad our teacher went with us because I feel I know my teacher better, and I think my teacher knows me better.

Put an X on the line of any of the following sentences that you would say about your outdoor school experience, if you could. You may mark as many sentences as you like. If you do not agree with it, put an 0 on the line.

1. It helps a person understand his school work better.
2. Most of the boys and girls cooperated in doing their share of work.
3. I think that one of the best things we learned was to take care of ourselves. We practiced habits of health by eating well-balanced meals, by getting plenty of fresh air and rest, by bathing, by brushing our teeth regularly and by getting adjusted to the setting.
4. For a long time to come I will remember how relaxed and happy I felt as I studied nature all around me.
5. I feel more grown up since the outdoor school experience.
6. I shall never forget the wonderful evenings around the campfire.
7. I learned a "whole lot" about animal life, soil, plants, and rocks.
8. After being in the forest, I realize why it is so important to practice good forest manners and conservation.
9. We learned that staying on the trail, keeping together and avoiding poison oak are some of the important safety measures taken for hiking in the forest.
10. Guarding our forests against fires means more to me now that I have lived in the forest.
11. After exploring in the outdoors, I realize that almost every creature and every plant seem to have a place and purpose.

Read each question and then mark an "X" in one of the three columns at the right.

	YES	NO	NOT SURE
1. If you had another chance, would you like to go to the outdoor school?			
2. Do you feel you made some new friends there?			

(Read each question and then mark an "X" in one of the three columns at the right.)

	YES	NO	NOT SURE
3. Before you went to the outdoor school, did you have a hobby? What? _____			
4. Did you learn anything new that you might like to continue as a hobby? What _____			
5. If a boy or girl were afraid of snakes, other creatures, or of the woods and darkness, do you think the outdoor school might help to overcome some of these fears?			
6. Did you learn to like any food you had not eaten before, or any food you usually do not eat? What? _____			
7. Did you learn anything new or important about the outdoors? What? _____			
8. Would you like to see some changes made in the outdoor school program? What? _____			
9. Did you learn anything new or important about conservation of our natural resources? What? _____			
10. Since your outdoor experience, have you read any books about trees or other plants, rocks, stars, animals, water cycle, etc., for you <u>own</u> interest? What? _____			

Underline three of the things you enjoyed most at the outdoor school.

Trip to the forest
Trip to the gravel pit
Trip to the swamp
Trip to the stream
Trip to the abandoned farm
Campfires
Meals
Chores
Living with my classmates
Mail from home
Star study
Vesper service
Crafts

Square dancing
Nature games
Compass games
Astronomy
Friendliness of all
Archery
Casting and fishing
Shooting
Boating
Swimming
Skiing
Others _____

If I could go to the outdoor school again I should like to learn more about _____

END

11-11-70