

DOCUMENT RESUME

ED 081 147

EC 052 461

AUTHOR Lanaghan, David M.
 TITLE Handicapped Children's Nature Study Center: A Cooperative Project in Outdoor Education. End of Project Report.
 INSTITUTION Muscatine-Scott County School System, Davenport, Iowa.
 SPONS AGENCY Bureau of Elementary and Secondary Education (DHEW/OE), Washington, D.C.; Iowa State Dept. of Public Instruction, Des Moines.
 BUREAU NO 25-70-001-0
 PUB DATE Feb 73
 NOTE 47p.

EDRS PRICE MF-\$0.65 HC-\$3.29
 DESCRIPTORS Community Role; *Exceptional Child Education; *Handicapped Children; Landscaping; Nature Centers; *Outdoor Education; *Program Descriptions; *Program Effectiveness
 IDENTIFIERS Elementary Secondary Education Act Title III; ESEA Title III

ABSTRACT

Presented is the end of project report of the handicapped children's nature study center and outdoor education program (funded through Title III), a cooperative science/special education project serving approximately 1,000 children in the Muscatine-Scott County School System in Iowa. A 6 acre land strip bordered by a creek and a river is said to have been developed with such features as forts, a pond, a garden, a study center, a trail for wheelchairs, and a camping area. Major program objectives are given, which include providing handicapped students with experiences and knowledge they can use on their own or with friends and families, and increasing effective and efficient learning. Reported are student experiences, such as a half day Winter Olympics, a litter collecting contest, and preparation of bird feeders and nesting materials by multihandicapped preschool children. Examples of enrichment and curriculum extension activities, which involved the outdoor education consultant who worked with teachers in 10 schools in seven towns, are listed, such as collecting insects, constructing terrariums, and visiting interest areas (such as rock quarries or a fish hatchery). Also listed are the numbers of times various classes visited the center, the classes' projects and activities, and visits by outside groups, such as the Optimist Club. Program effectiveness is discussed in relation to continuing the project after federal funds cease, soliciting facility use by more groups, and instituting a camping program. Included are sample lessons for retarded students, a dissemination report, a fact sheet, a map, issues of "The Acorn" (environmental education news), and a reprint of a newspaper clipping. (MC)

ED 081147

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

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

SCOPE OF INTEREST NOTICE

The ERIC Facility has assigned
this document for processing
to:

In our judgement, this document
is also of interest to the clearing-
houses noted to the right. Index-
ing should reflect their special
points of view.

END OF PROJECT REPORT

Title III

Handicapped Children's Nature Study Center

February 26, 1973

FILMED FROM BEST AVAILABLE COPY

ED 081147

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

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

END OF PROJECT REPORT

OF

Handicapped Children's Nature Study Center

A Cooperative Project

in

Outdoor Education

Submitted by

Muscatine-Scott County School System

February 26, 1973

PART II NARRATIVE

END OF PROJECT REPORT

NARRATIVE

PART II

Section A. Final Evaluation

1. Effectiveness of Project

The Handicapped Children's Nature Study Center is designed to provide the benefits of outdoor education for the handicapped by focusing on the five overall objectives.

A. To Provide First Hand Experiences for Handicapped Children

1. The C.C.L.P. students participated in four "special" events this year.
 - (a) A half day Winter Olympics
 - (b) A litter collecting contest
 - (c) A fort building contest
 - (d) An Environmental Art Contest

Through these events the students learned - team organization, cooperation, socialization, competition, how to accept defeat, and self confidence.

2. Cub Scout Pack - spent three different days cleaning up the Nature Center grounds. Much pride was evident in seeing the results of their efforts.
3. The Fairmount Pre-School for Multi-Handicapped, students and staff, used the Nature Center frequently for nature walks, observing and feeding animals, making and hanging up bird feeders, making and hanging up nesting materials for birds.
4. The C.C.L.P. students used the nature Center daily during recess and at noon for such activities as - play, building of forts, nature projects (Nature plaques, bird feeders, bird houses), feeding and observing animals, use of reference books, nature hikes, cleaning up grounds, building animal pen, using binoculars.
5. Residents of two nursing homes were invited to the Nature Center on two different occasions for a Nature Outing and a Valentines Day Party. The C.C.L.P. students acted as hostesses and guides for the guests during their visits. The students took pride in being able to entertain and explain things to their guests.

6. Two classes of students from the Area Development Center, Davenport, came to the Nature Center to color and hide Easter eggs for the younger children at the Area Development Center.
7. Two classes of students from Taylor School, Davenport, used the Nature Center to make and hang out bird feeders during the winter.
8. A Sunday School Class of Special Education students from Rock Island, Illinois, visited the Nature Center to observe the natural environment and to see how everything in it is inter-related.
9. A class of emotionally disturbed children from the Iowa Annie Wittenmeyer Home; Davenport, Iowa, visited the Nature Center for a nature outing and observation activities.

B. To enrich and extend the basic curriculum to the Out-of-doors

1. The Outdoor Education Consultant worked with the teachers and students at their own schools, incorporating the outdoor education program into the curriculum.

(a) Demonstration teaching

(b) Planning with the teacher and class the forth-coming visit to the Nature Center

(c) Follow-up activities and discussions with the teacher and class after their trip to the Nature Center

(d) Schools worked with by the Consultant

School	Town	No. Classes	No. Children
Area Development Center	Davenport, Ia.	7	18
Atalissa Elementary School	Atalissa, Ia.	1	10
Baldwin School	Clinton, Ia.	8	6
Bellevue Elementary School	Bellevue, Ia.	1	2
Central Jr. High	Muscatine, Ia.	1	2
Kennedy School	Muscatine, Ia.	3	26
Lincoln School	Muscatine, Ia.	1	11
Lutheran Homes	Muscatine, Ia.	2	25
Mid-Park School	Welton, Ia.	6	22
Taylor School	Davenport, Ia.		20
Washington School	Bettendorf, Ia.	1	6
West Jr. High	Muscatine, Ia.	1	2

(e) Projects and activities participated in with the Consultant at schools

(1) Insects - killing jars, collecting, protective coloration, cubes

(2) Nature plaques

(3) Construction of skeletons and bone boards

- (4) Study of weather
- (5) Construction of weather instruments
- (6) Bird program
- (7) Bird feeders
- (8) Construction of bird houses
- (9) Construction of nesting materials for birds
- (10) Rock and Minerals - collect, observe
- (11) Fossils - collect, observe, recreate
- (12) Animal Study - meal worms, earthworms, crayfish
- (13) Construction of book markers and place mats using Natural Materials
- (14) Crystals
- (15) Nature photography
- (16) Tracking
- (17) Senses
- (18) Films
- (19) Dissection of fetal pigs
- (20) Seasons
- (21) Seeds - germinate, grow, observe various effects of (i.e. light, water, soil, etc.)
- (22) Construct woodland terrariums
- (23) Study of Air and its properties
- (24) Nature wildlife puzzles
- (25) Construction of Quiz-O-Gram boards
- (26) Resin projects
- (27) Indoor gardens
- (28) Construction of Nature Name Tags
- (29) Leaves - (collect, prints)
- (30) Study of Magnets
- (31) Litter collecting hikes
- (32) Construction of pollution posters
- (33) Nature hikes
- (34) Study of Prehistoric life
- (35) Web of Nature
- (36) Collecting and dissecting abandoned bird nests

2. The Outdoor Education Consultant helped the teachers plan and take field trips to various areas of interest. Some of the various field trips that classes participate in are:

- (a) Tree Farm
- (b) Maquoketa Caves State Park
- (c) Niabi Zoo
- (d) Rock Quarries
- (e) Muser Museum
- (f) Kent Feed Farms
- (g) Wild Cat Den State Park
- (h) Fish Hatchery
- (i) Airport and Weather Bureau
- (j) 1910 Model Farm
- (k) Frexel Geology Museum
- (l) Augustana Planetarium
- (m) Scott County Park
- (n) Eagle Point State Park
- (o) Davenport Public Museum

3. Dissemination of Unit I - "Observing Our Environment Through Our Senses", Unit II - "Mini Explorations Of Our Environment"; Six teaching guides - "Fall Walk", "Winter Wander", "Tree Planting", "Tracking", "Dike Hike", and "Spring Saunter".
4. Much equipment and various teaching aids were requested by teachers for loan. (i.e. - reference books, binoculars, charts, pictures, weather instruments, microscopes, hand lens, aquariums.)
5. Various animals (i.e. - gerbils, guinea pigs, rabbits) were loaned or given to various teachers to use in their classrooms. From their experience with these animals the children learned to appreciate and care for the different kinds of animals.
6. Ordering and incorporating into the curriculum special nature films.
7. Organizing and presenting to various classes throughout the Area Nine School System a slide program on our Winter birds.

C. To provide experiences that will increase knowledges, develop healthy attitudes, and self understanding regarding life as a nature phenomenon.

1. Construction and hanging up of bird houses by students from Taylor School and Area Development Center, Davenport, Iowa and Mid Park School, Welton, Iowa.
2. The following is a list of various classes that visited the Nature Center during the 1971-72 school year:

<u>School</u>	<u>Number of times visited</u>	<u>No. of different classes that visited</u>
(a) Area Development Center Davenport, Iowa	13	7 (Special Ed. - Trainable)
(b) Atalissa Elementary School Atalissa, Iowa	1	1 (Special Ed.-Educable)
(c) Center for Children With Learning Problems (C.C.L.P.) Davenport, Iowa	Daily	
(d) Development Center Clinton, Iowa	1	5 (Special Ed.-Educable)
(e) Fairmount Pre-School Davenport, Iowa	Frequently	
(f) Iowa Annie Wittenmeyer Home Davenport, Iowa	1	5 (Emotionally disturbed)

1. C. (continued)

(g) Kennedy School Muscatine, Iowa	1	3 (Special Ed.-Educable)
(h) Lincoln School Muscatine, Iowa	2	1 (Special Ed.-Hearing Impaired)
(i) Low Moor Elementary School Low Moor, Iowa	1	1 (Low ability - 2nd grade)
(j) Lutheran Homes Muscatine, Iowa	4	2 (Special Ed.-Trainable)
(k) Middle School Bettendorf, Iowa	2	2 (6th graders)
(l) Mid Park School Welton, Iowa	1	2 (Special Ed.-Educable)
(m) Monroe School Davenport, Iowa	2	2
(n) Taylor School Davenport, Iowa	12	12 (Special Ed.-Educable)
(o) Washington School Bettendorf, Iowa	1	1 (Special Ed.-Educable)
(p) Washington School Davenport, Iowa	1	1 (3rd graders)

5.

3. Projects and activities participated in by groups visiting the Nature Center

- (a) Observe and feed animals
- (b) Use reference books
- (c) Use binoculars
- (d) Make and hang up bird feeders
- (e) Collect Natural materials and use in construction of nature plaques
- (f) Tracking
- (g) Pond Study
- (h) Insect study - (collecting, signs of, cubes)
- (i) Cook outs
- (j) Bird study
- (k) Nature Alphabet Hunt
- (l) Nature Walks
- (m) Coloring Easter eggs
- (n) Leaf collection
- (o) Senses
- (p) Critter races
- (q) Critter hunts
- (r) Construct and hang up nesting materials for birds
- (s) Construct and put up bird houses
- (t) Nature photography

- (u) Construction of nature name tags
- (v) Construction of nature wildlife puzzles
- (w) Seeds
- (x) Seasonal comparisons
- (y) Nature color hikes

4. The C.C.L.P. teachers and students frequently used the Nature Center building and grounds for various classes; such as Art, Music, Language, Science, and P.E.
5. A special effort was made to acquaint the neighborhood children with the Nature Center in an attempt to promote better relations and curb vandalism. A special "Neighborhood Nature Day" was held in which the neighborhood children were invited to the Center. Much interest, which was evident, prevailed throughout the year as they made many frequent visits to the Nature Center.
6. The C.C.L.P. students attended frequent classes taught by the Outdoor Education Consultant in the Nature Center.
7. The Davenport Public Museum used the Nature Center in conjunction with their environmental classes in the Fall and Spring.
8. The Bettendorf Bird Watcher's Club visited the Nature Center for a bird watching expedition.
9. Site and/or building used by outside groups:
 - (a) Bettendorf Optimist Club
 - (b) Superintendent's meeting with Muscatine-Scott County secretary staff
 - (c) Muscatine-Scott County Professional Staff Organization meeting and barbeque
 - (d) Two nursing homes from Davenport, Iowa
 - (e) Brownie Troop
 - (f) Cub Scout Troop
 - (g) Girl Scout Troop
 - (h) Blue Bird Troop
 - (i) Davenport Public Museum (Environmental Education classes)
 - (j) Superintendents' meeting with new Muscatine-Scott County staff
 - (k) Davenport City Park Board
 - (l) Fairmount - C.C.L.P. Parent Teachers Meeting
 - (m) Bettendorf Bird Watcher's Club
 - (n) Muscatine-Scott County Special Ed Secretaries

D. To broaden the scope of outdoor education in the minds and practices of teachers, parents and citizens. (see dissemination report).

E. To develop a course of study related to the utilization of the Handicapped Children's Nature Study Center.

The consultant expanded and added to the course of study utilized in the outdoor education program. Much curriculum was accumulated and adapted to meet the needs of the various special education classes in the Area IX School System.

Section B. Effectiveness of the Project as a Demonstration

1. The effectiveness of the Nature Center and the Outdoor Education Program can be demonstrated by the fact that there was a substantial increase in the number of requests for the use of the Center and Program. Also, many new groups visited the Nature Center for the first time and have indicated an interest in coming back again. (See Evaluation Report - Section C - 2).
 - a. Plans have been made for continuing the project after the termination of the Federal funds. The project will then be funded by the Muscatine-Scott County School System. The only alteration this will cause in the project is that the outdoor education consultant will be traveling to and working with only those schools in the Muscatine-Scott County School System.
 - b. The expanded use of the Nature Center and the Outdoor Education program and the increased support given by those participating in the program prompted the Muscatine Scott County and Clinton County School Systems to continue the program. It was felt that the program was benefitting students and providing them with valuable experiences that they otherwise would not have.
 - c. None
 - d. Effectiveness in meeting previous project activities and objectives.
 1. "Expanded use of the Center by other groups." As was already pointed out, many new groups have used the Center this year and have indicated an interest in continuing doing so.
 2. "Development of measures in an attempt to eliminate vandalism by the neighborhood children". Through a special "Neighborhood Nature Day" as well as many daily and weekend visits by the neighborhood children a better relationship was achieved with the children and consequently there has been no incidents of vandalism this year.
 3. "Contacts will be made with nursing homes, Boy Scouts, city recreation departments and other sources about using the site on weekends, evenings and during vacations". The Nature Center was used on weekends and evenings this year by: a Boy Scout troop, a Cub Scout troop, a church class, a bird watcher's club, and a Davenport Museum Environmental Education class.
 4. "Invite the City Park Board Director and members to tour facilities and explain the desire for increased use of the Center". The Director and Board members were invited, accepted the invitation and are at present contemplating how best to incorporate the Nature Center into their program this summer.

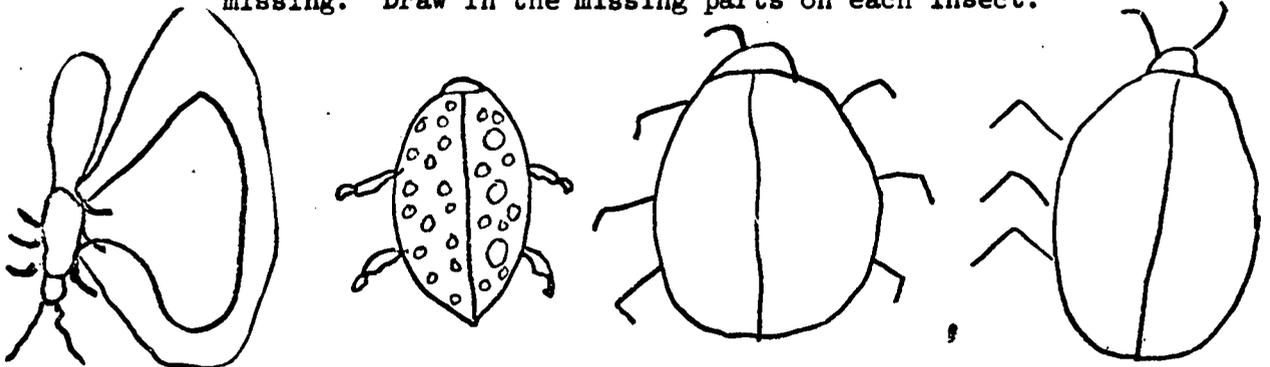
5. "Investigate the possibilities for a Federal Grant under the Environmental Education Act where a summer program would be developed for the handicapped". This proposal is currently being considered by the Office of Environmental Education and we are awaiting word on its acceptance.
 6. "Contact Mrs. Serran, Director of Americana Nursing Home, and invite residents to the Center". Mrs. Serran's residents could not attend, but two other nursing homes did, on two different occasions.
 7. "Send letter to director of Scouting for this district and thank them for assistance in developing the project and extend invitations to Scout Troops to use site for camp-outs or merit badge awards". Letter was sent and many troops have used the Nature Center this year for various activities, from cleaning up the grounds to hanging up bird houses.
- e. Future plans to improve effectiveness of the outdoor education program.
1. Much interest and support has been indicated for a six-week Summer Environmental Education Program for the handicapped. This would further enhance the use of the Nature Center and allow many children to derive unique benefits during a most opportune time of year.
 2. Another new project being planned for next year is an overnight camping program. This will be coordinated with the schools and various organizations, such as the scouts. It will involve students in single overnight campouts at the Nature Center, as well as some of the older students in 2 and 3 day campouts at different locations, such as Scott County Park and Camp Abe Lincoln.

f. Student Evaluations

By virtue of the fact that so many diverse abilities and capabilities are present within the various classes of students involved in the outdoor education program no overall evaluation form can be made that will fit every group. It is necessary, therefore, to prepare separate evaluations as well as objectives for each class and in some cases each individual. It should also be considered that certain intangible effects are also to be strived for through the program; such as - socialization, communication, cooperation, and renewed confidence in one's own ability. A sample is included of an evaluation for an educable class and a trainable class.

A. (Educable)

1. Each insect below has one or more parts of his body missing. Draw in the missing parts on each insect.



2. The drawings below show the life cycle of an animal. Circle the kind of animal that has this type of life cycle.

a. Insect

b. Mammal (horse, cow, human, etc.)

c. Reptile (snake, turtle, lizard)

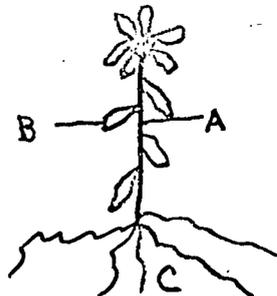
(egg)

(larvae)

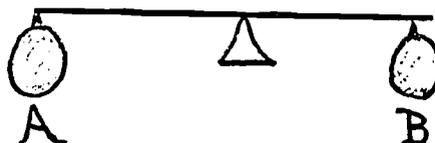
(Pupa)

(adult)

3. On the picture of the plant the roots are letter ____; the leaves are letter ____; and the stem is letter ____.



4. Here are two balloons filled with air, when balloon A is popped the stick will go (up, down) _____ on side (A,B) _____.



5. Which of these seeds do you think will sprout and grow?

A.



Has water, sunlight and soil

B.



No water, sun, or soil

6. Match column A with column B - 2 from column B for each one of column A.

A

B

1. Air _____, _____

a. Puddle

2. Soils _____, _____

b. Root

3. Water _____, _____

c. Rainbow

4. Plants _____, _____

d. Humus

5. Animals _____, _____

e. Seed

6. Man _____, _____

f. Worm

g. Stream

h. Litter

i. Clay

j. Pollution

k. Cloud

l. Insect

7. Circle the things that are living - a. tree; b. ant; c. rock; d. sidewalk; e. flower.

8. Hawks sometimes will kill a farmer's chicken, so all hawks should be shot. (True or False)

9. Wildlife eat wild plants in nature; therefore, it is all right for humans to do the same (True or False).

10. Snakes are very helpful to farmers by eating rats, mice, moles and other rodents that hurt crops. (True or False).

Oral

1. Name two ways that seeds can be spread from one place to another.

2. State the rule we learned regarding the sense of taste.

3. Tell one way plants help animals and one way animals help plants

B. Trainable - These questions will all be administered orally.

1. Name four sounds you heard while we were on our nature walk.
2. Find three things in nature that are smooth and three things that are rough.
3. Find three things in nature that are soft and three that are hard.
4. Taste each of these foods and tell how they taste, (salty, sweet, bitter, sour).
5. Find in nature two different things that are green.
6. Find three different colors in nature. Name the color.
7. If we find something in nature, like some pretty berries, should we go ahead and eat them?

DISSEMINATION

B. Dissemination Report

Section A. Dissemination Report

1. Methods of dissemination used.

- a. Distribution of a seasonal newsletter developed by the Outdoor Education Consultant to all special education teachers, supervisors, coordinators and Muscatine Scott County School System staff in Area IX.
- b. Presentations regarding the outdoor education program and Nature Center were given to:
 - (1) Area IX Superintendents
 - (2) Muscatine-Scott County School Board
 - (3) Bettendorf Optimist Club
 - (4) P.T.A. - Trainable classes, Muscatine, Iowa
 - (5) Bennet, Iowa - P.T.A.
 - (6) Schools:
 - (a) Area Development Center, Davenport
 - (b) Taylor School, Davenport
 - (c) Clinton County Schools, Clinton
 - (d) Clinton City Schools, Clinton
 - (e) Kennedy School, Muscatine
 - (f) Lutheran Homes, Muscatine
 - (g) Migrant Program, Muscatine
 - (h) Mid Park School, Welton
 - (i) West Liberty School System, West Liberty
- c. Dissemination of Outdoor Education materials (Units I and II, 5 teaching guides) to all teachers, coordinators, and administrators who requested them. Requests were received from 45 different cities in 20 different states, including the Virgin Island and Canada,
- d. Visits by special education teachers, teacher assistants, supervisors, coordinators, superintendents, and special education students from Area IX and area colleges and universities.
- e. News Media
 - (1) Television coverage was given to the Nursing Homes Nature Outing
 - (2) Two television stations covered the 1972 Winter Olympics held at the Nature Center.

- (3) The Times Democrat published an article on the Winter Olympics held at the Nature Center. (See Appendix).
- (4) A discussion of the Nature Center was given by Muscatine-Scott County Superintendent, Dr. Jerry B. Stout, on a local T.V. program.
- (5) An article on the Nature Center appeared in "The Soil Conservationist" magazine.
- (6) A feature article on the Nature Center appeared in the Optimist Magazine.
- (7) The local association for mental retardation published an article on the Nature Center in their monthly newsletter.

2. Reasons for successful and unsuccessful dissemination efforts.

Much of the success of the dissemination efforts was due to the uniqueness of the program. Very few areas have such a program for handicapped children developed and functioning. Consequently, much interest was exhibited in the program. Another factor contributing to successful dissemination efforts was due to the overwhelming support and interest exhibited by the local community. Parents, teachers, and other citizens have expressed much interest in the program and have contributed to its success.

APPENDIX

7

FACT SHEET

O U T D O O R E D U C A T I O N
H A N D I C A P P E D C H I L D R E N ' S N A T U R E S T U D Y C E N T E R

F A C T S H E E T

The Handicapped Children's Nature Study Center and Outdoor Education for Special Education Programs was originally conceived in 1968 by Joe Moore, Science Consultant, and Jim Kay, Assistant Director of Special Education, both of the Muscatine-Scott County School System. The idea was presented to Dr. Paul Staskey, Director of Research and Development, and an application for federal funds was made in early 1969. Eighty-seven thousand dollars of Title III Funds was granted over a three-year period with approximately one-half to be allotted the first year for development of a six-acre site adjacent to Fairmount School in southwest Davenport, lease of a building, and the development of educational materials.

The center serves approximately 1,000 handicapped students (mentally, physically, socially, emotionally, learning problems) throughout the Area IX School System (Scott, Clinton, Muscatine and parts of Cedar and Louisa Counties).

The purpose of environmental or outdoor education and the Handicapped Children's Nature Study Center is to provide actual learning experiences in, about, and for the out-of-doors for handicapped students throughout Area IX. A major objective of the program is to provide these students with experiences and knowledge that they can use outside their school classes on their own, with friends, and/or with their families.

The Nature Center attempts to provide handicapped children with educational experiences designed to make the learning process take place more naturally, more effectively, and more efficiently. Due to the characteristics of these students, we feel that the curriculum must provide as many first hand experiences as possible. The extension of the classroom to the out-of-doors offers the diverse experiences necessary for all handicapped children regardless of age to develop to their maximum potential.

The Nature Center has utilized the natural phenomenon of the out-of-doors. Within this natural terrain are many trees and various other species of flora. Additional species of shrubs and trees native to the area have been planted. Within this area of approximately 6 acres there is room for small gardens, a cement trail wide enough to permit the passage of wheelchairs, a parking area, study stations, and a small service building containing restrooms and other facilities specifically designed for handicapped children.

Resources: Pond	Building - shelter, restrooms
Loop Trail	Books, posters, records, charts
Decaying trees	Audio-visual aids
Prairie	Dike Trail
Climbing trees	Teaching stations
Grassy areas	Campfire - Picnic area
Forts	Files of activities & materials
Woods	Tool Shed
Garden	Evergreens

Services: The HCNSC provides a consultant who -

Administers the area
Develops teaching units
Orders materials
Does demonstration teaching

Gives inservice training
Disseminates information
Schedules use of site & building
Assists teachers in implementing
materials and units

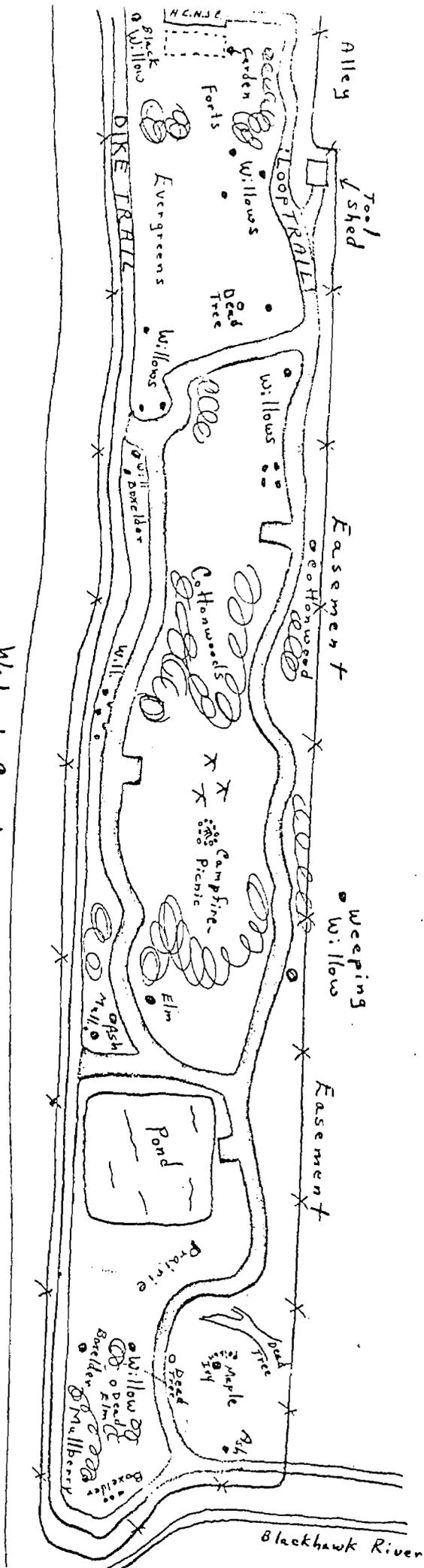
Examples of Outdoor Education:

Learning to use all the senses to observe
Writing about observations
Reading weather instruments,
 keeping weather charts
Studying air, soil, water, plants
 animals and man
Figuring the size of an area
Working together on conservation projects
Practicing good citizenship outdoors
Making murals of field trips
Calculating distances, heights, amounts
Looking things up in reference books
Reading about things that were observed

Tracking
Binoculars
Senses
Dissect bird nests
Hand lenses
Decaying logs
Galls
Cookouts
Field trips
Garden
Identifying birds
Guide others
Bird houses

HANDICAPPED CHILDREN'S NATURE STUDY CENTER MAP

HANDICAPPED CHILDREN'S NATURE STUDY CENTER



1/2 inch - 50 feet (approximately)

6 Acres Total (approx.)

X - X - Fence



Loop Trail (cement)
 Teaching Station
 Dike Trail

X - Picnic Table



COPIES OF ACORN

The Acorn

ENVIRONMENTAL EDUCATION NEWS

Area IX Education Services
HANDICAPPED CHILDREN'S NATURE STUDY CENTER
1523 South Fairmount Street
Davenport, Iowa 52802 319/326-4969

VOLUME I

Fall - 1971

Number 1

INTRODUCTION

I would like to take this opportunity to introduce myself to you. My name is Chuck Wester, and I am the new Outdoor Education Consultant at the Handicapped Children's Nature Study Center. I have been a classroom teacher for the last 6 years and have been involved in outdoor education much of this time.

I am looking forward to working with each of you and will try to get around to each of the schools to meet with you individually and discuss ways we can work together. I have some ideas I would like to share with you and want to try and find out how I can best be of service to you.

NEW ARRIVALS

We have many new additions at our Nature Center this year. We have many new reference books. (A complete bibliography is being prepared of all the reference books available at the Nature Center and a copy will be sent to you as soon as it is completed.) Also numbered among our new additions are several animals. We now have 4 tame rabbits, 4 gerbils, 2 snapping turtles (very young), 4 land hermit crabs, 3 chameleons, 2 water newts, 2 guinea pigs, and an aquarium of tropical fish. In addition, we have a new tape recorder, binoculars, microscopes, and many other materials to help facilitate your visit to the Nature Center.

GARDEN

The garden planted by the C.C.L.P. students last spring was a huge success. Unfortunately most of the crops came up during the summer months, but the pumpkins are just now reaching their peak. The students will have some good jack-o-lanterns for Halloween.

POND

Our pond was allowed to dry up last spring and then was given two coats of a liquid sealer in an attempt to maintain a constant water level. This has been only partially successful, however. We had the pond filled two different times the last 3 months but it continues to leak. We now have some cattails and other large grassy plants growing up and reducing the water area. A more permanent sealer will be put on as soon as winter approaches and the pond is dry again.

GRASSY JUNGLES

We have roped off a 15 foot square section of the prairie grass area and will let this section remain uncut. The surrounding prairie grass will be continually cut and frequent observations of the two will be made. This will enable the students to compare the two areas for such things as: a) plant succession, b) types of grasses, c) types of animals, d) air temperature, e) soil temperature.

CAMERA

Would you like to help us get a Polaroid Land Camera for the Nature Center? General Mills is offering a free Polaroid Colorpack II Land Camera for sending in side panels of 50 General Mills snack logs. (Pizza Spins, Bugles, Onyums, Potato Crisps). If you would please ask your students to save these and bring them in, and then send them to me at the Nature Center it will help us obtain a camera available to you for use at the Center. (Deadline is December 31, 1971).

JUST OFF THE PRESS

Unit II, "Mini-Explorations of Our Environment" and the two new teaching guides, 'Spring Saunter' and 'Winter Wander' are now ready and will be soon sent out to all on the mailing list.

MIDWEST ENVIRONMENTAL ART CONTEST

The Schweigert Meat Company of Minneapolis, Minnesota is sponsoring an environmental art contest for students in grades 1 through 6. Any and all forms of art-work are acceptable - pen, pencil, crayon, chalk, brush, etc. All entries must be on 9x12 inch paper. Entries may be sent individually or in bulk as a school class project.

Deadline for entries is NOVEMBER 5, 1971. Judges decisions will be announced NOVEMBER 24,

Grand prize scholarship award is \$400, \$200 for runner-up, and awards of \$100 each in grades 1 through 6.

There will be a special category for Special Education students and a \$100 award for the entry in this category.

MIDWEST ENVIRONMENTAL ART CONTEST (continued)

Each entry, in order to be eligible, must have this information printed on the back: full name of contestant; name of city, state and school; contestant's grade and age as of September 1, 1971; full name of teacher; and parent's full name.

I think this would be an excellent project for our students and I encourage all to participate. The judges urge that teachers do NOT "pre-judge" their students efforts and send in ALL art pieces, not just a selected few pre-judged "good".

ACTIVITIES

1. "How Strong Are Seeds?"

We have all witnessed examples of a sidewalk with a crack in it, and a plant growing through it. Chances are that the seed of the plant split the sidewalk. It's hard to believe, but here's an experiment to prove that seeds can really exert force.

Get a small flat bottle. An empty medicine bottle will do. Pack the bottle right up to the very top with dried seeds, such as bean seeds. Get a piece of cloth and tie it over the top of the bottle in place of the cap. Stand the bottle upside down in a glass partly filled with water.

Watch the bean bottle from time to time, and in a day or so the bottle will burst. The beans soak up all the water and become swollen. As they swell they push against the walls of the bottle, and when they push hard enough the bottle bursts.

2. Staking Claims

Organize the students into teams of 2-3 each. Use 6 feet of string. Tie the ends together, place on the ground, and hold in place with rocks. Appoint a secretary, and have a report on all things found in, on, and above your 'claim'. Make up descriptive names for unknowns. Total the numbers and compare with other teams.

3. Observing Nature's Sanitation Squad

In nature, just as in our own society, there are many different jobs that have to be done and different people that do these various types of jobs. One of these important jobs is that of disposing of materials that accumulate in nature. Think of what it would be like if even 1 tenth of the leaves, sticks, dead insects and other materials were allowed to remain untouched and not decayed! Not only would we soon have a huge, smelly garbage lot, but the soil and all living things that depend upon it for life would be robbed of many valuable minerals and other valuable nutrients. One of the important workers that is found in the soil and helps to break down waste materials is Bacteria. You can't see bacteria, but this experiment will show decay happening which indicates the presence of bacteria.

Observing Nature's Sanitation Squad (continued)

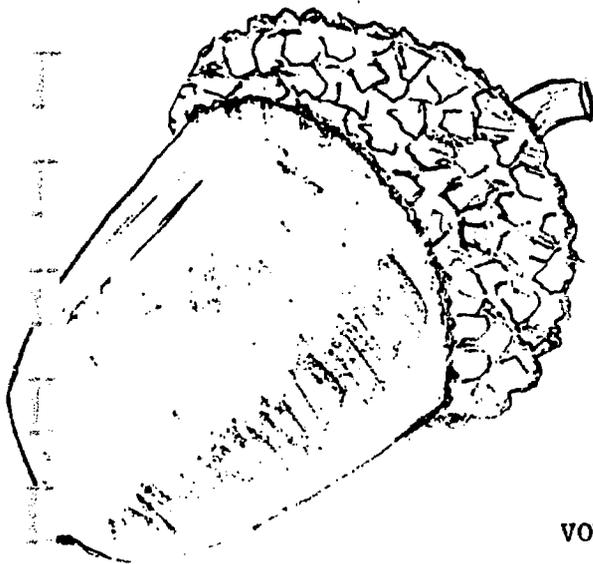
a) Get a small flowerpot and fill it with rich soil. The blacker the soil, the more bacteria are present and the better the experiment will work.

b) Take a piece of string or thread and bury about an inch of it in the soil. Be sure to measure how much you bury. Leave the other end hanging out so you'll know where you "planted" the string. The string or thread must be of either cotton or wool, because they're organic. Cotton was once a growing plant, and wool belonged to an animal.

c) Mark a calendar on the day you "begin". Wait a month to pull up an ordinary string or about two weeks for a thin piece of thread.

d) After you pull the string out of the soil, the end you "planted" may be gone! Bacteria have eaten the string. The string is biodegradable. What other substances and materials will also decay?

Chuck Wester



The Acorn

ENVIRONMENTAL EDUCATION NEWS

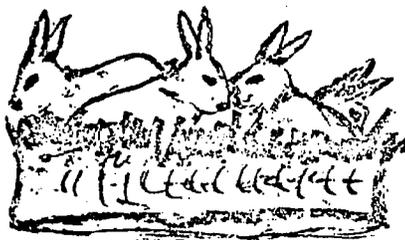
Area IX Education Services
HANDICAPPED CHILDREN'S NATURE STUDY CENTER
1523 S. Fairmount Street
Davenport, Iowa 52802 319/326-4969

VOLUME I

Winter - 1972

Number II

Things have really been 'hopping' at the Nature Center lately. During Christmas vacation one of our tame rabbits gave birth to 8 little bundles of fur. About a week after they were born the wind blew the lid off of



the rabbit's cage, allowing the adults to escape. I took the young ones home and we feed them for a week with a medicine dropper. Since then they have been eating solid food on their own. They are really growing fast. One of them has inherited his father, Houdini's, knack for getting out of the cage. They all are without names, so if your students can come up with some good suggestions for names, send them to me.

THE GREAT IMPOSTER

Another of the new arrivals at the Nature Center is a snake. The thought of this may not sound to exciting to some, but actually this one is one of the most interesting and unusual snakes found in the state. He is the Hognose snake. He has a little turned up snout, but this is not his most unusual feature. His nickname, the 'Puff Adder', gives a good clue about this kind of snake. Whenever he becomes frightened or angered he will hiss and swell up like a cobra. This is only a bluff, however, because even if he does get angry enough to strike, which is very seldom, he doesn't even open his mouth. So this is really the snake for those people who don't like snakes.

FORT CONTEST

The students at C.C.L.P. recently had a fort building contest in the wooded area at the Nature Center. Each group had to use the natural materials that were available without destroying anything living. The first thing they had to do was stake out their "claim" and then they were given a deed. They recorded the location, measured off the area, and drew a map of their claim. There was much hard work, originality, cooperation, and even a few 'range wars' exhibited during this project. The winning fort, "Fort Salami" was a two story creation.

DEER BONES

This time of year with its cold weather and snow there are many activities and projects that can be undertaken. One of particular interest to students deals with a much available commodity - bones. Children of all ages are interested in bones. If students are encouraged to bring in bones they find they can be used to stimulate much interest and learning. The students can speculate what the various bones might be, what kind of animal it came from or try assembling the bones to resemble an animal. I have several skeletons, some disassembled and some assembled, available. If any of you are interested in borrowing these or would like me to work with the class with them, just let me know.

TRACKS

Another favorite activity this time of year is tracking. After a fresh snow there are many tracks visibly apparent. Part of the fun is just observing the variety of tracks available. Look for as many different kinds as possible. Big, small, wide, narrow, human, other animals, machines - (car, bicycle, wagon). Tracks can be cast in the snow by using plastic spray bottles filled with water. Simply spray desired track, then after water freezes, pour the plaster of paris into the track. Melted paraffin can also be used to cast tracks in the snow. Pour the paraffin into the tracks slowly then after it hardens the cast can be removed from the track.

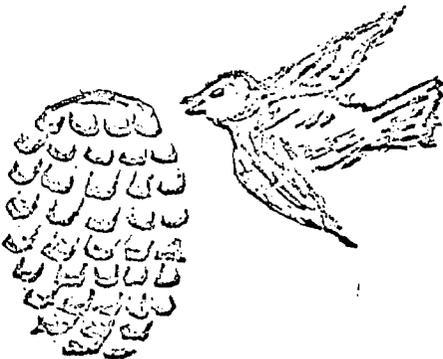
ROCK AND MINERAL COLLECTION

Thanks to the generosity of Mrs. Charles Townsend the Nature Center now has a very fine Rock and Mineral collection. Mrs. Townsend recently donated a wide variety of Rock and Minerals and fossils to the Nature Center. Of particular note is a large geode, the State rock of Iowa.

FOR THE BIRDS

This is an excellent time of year to acquaint children with our fine feathered friends. Since the cold weather presents a major feeding problem to the birds, one of the important things that the children can do is make simple bird feeders. In four separate piles put some rice, birdseed, oat meal, and bread crumbs. Then thoroughly mix all four ingredients together. After they are mixed take about 1 tablespoon of chunky peanut butter and mix it in with the other materials. Then take a little bit at a time and stuff the mixture between the openings of a pine cone. After the pine cone is filled, use some string or a piece of yarn to tie it to a branch and watch the birds that come for the feast. I have put out several of these at the Nature Center

and it is really amazing how fast they are emptied. I also have a slide program on the winter birds that I would be glad to show any of your classes.



THINK SPRING

In spite of the weather outside, Spring is really just around the corner. In an attempt to speed things up a little, I am initiating a new contest. Have your students be on the look out for the first Robin. As soon as one is seen send me the date and the location where it was seen. I will publish the results in the Spring edition of The Acorn.

ACTIVITIES1. WILDLIFE PUZZLES

Students can make their own wildlife jigsaw puzzles by pasting pictures on shirt cardboards and cutting them into jigsaw pieces. The more pieces the harder the puzzle. The younger children may arrange 4 or 5 sections while the older children will probably be able to try more pieces.

2. FUN WITH SNOW

The snow that is common this time of year lends itself to many different investigations.

(A) "Which Color is Warmest?"

Obtain some pieces of wood or construction paper, all of the same size and shape, but make sure that each is a different color, including one that is white and one that is black. Lay them in the sun on top of the snow.

The pieces warm up and melt the snow beneath them. This causes them to sink. Have the children make note of the one which moved the most and which moved the least. (The darker the color the more heat that is absorbed and the deeper it will sink into the snow.)

(B) "How Pure is Snow?"

There are several ways to find out how much dirt there is in water from melted snow. One way is to filter the water through a paper towel into a glass and see how much dirt collects on the towel. Another way is to let the water evaporate from a dish and observe the solid residue that remains. (You might want to compare new and old snow.)

WINTER POEMS

WINTER WISH

Now that my world is cold and white
And frost has stung the air
I wish I were a penguin,
For then I wouldn't care
How deep and sharp the snowdrifts,
Or how the north wind blows,
I'd just walk upright jauntily
On flat cold-shedding toes.
And when I had a mind to slide,
On my front I'd flip and go
Gliding like a bobsled
Over crusty, shimmering snow.

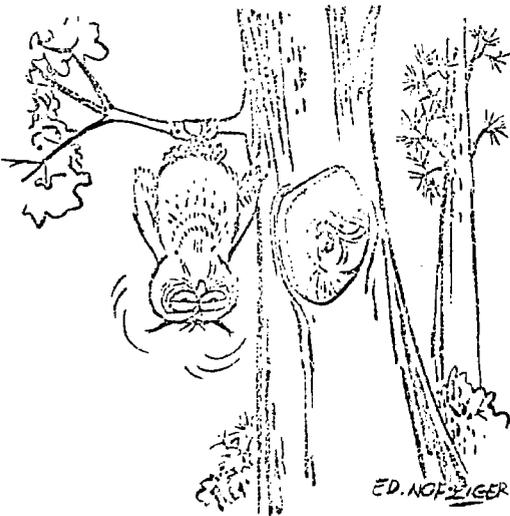
-Solveig Paulson Russell

NATURE'S WEATHER BUREAU

They say that a groundhog
Can tell by his shadow
How long it will be until spring;
That the brown and the black
On a woolly bear's* back
Tell what weather the winter will bring.
*caterpillar

That peepers croak "Springtime!"
And crickets chirp "Summer!"
And katydids warn us of fall.
It's perfectly clear
From the evidence here
We don't need weather bureaus at all!

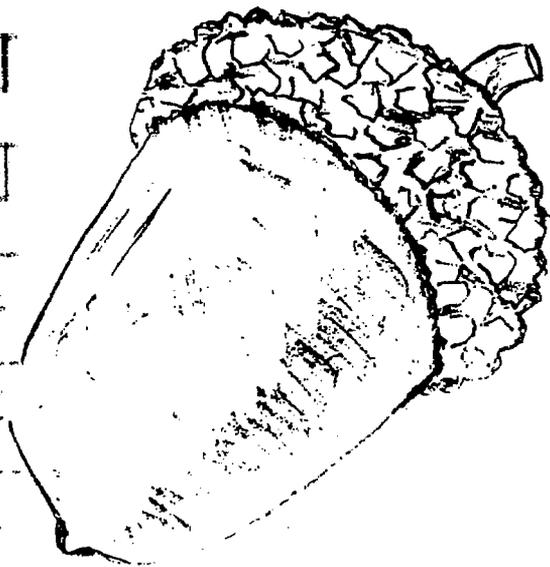
-Helen Ward Gall



"Two bats brought you home at dawn and put you to bed!"



"Just when the tourists take their traffic jams and carbon monoxide out of the park, we gotta hibernatel!"



The Acorn

ENVIRONMENTAL EDUCATION NEWS

Area IX Education Services
HANDICAPPED CHILDREN'S NATURE STUDY CENTER
1523 S. Fairmount Street
Davenport, Iowa 52802 319/326-4969

VOLUME I Spring - 1972 Number III

BIOLOGICAL WARFARE



Now that Spring is officially here it is time once again to start making plans for a garden. One crop that inevitably appears, however, is one not desired. That is our friendly garden pests. This year why not try a different kind of pesticide to control these invaders. The most efficient and at the same time most ecologically desirable is the six legged variety. Two of nature's greatest insect exterminators are the Lady Bird Beetle (Lady Bug) and the Praying Mantis. A few clusters of these turned loose in the garden will practically guarantee a pest free garden without any worry of a chemical residue on the plants. Incidentally, praying mantids make excellent pets. Some people have been known to turn them loose in their house to help eliminate various uninvited guests, such as centipedes, spiders, cockroaches, crickets, etc. There's no worry about them chewing or scratching the furniture, like a dog or cat and they certainly don't have to be house broken. In the winter they die so if you do loose track of them you won't have to worry.

WINTER OLYMPICS

While the U.S. athletes were in Japan competing in the Winter Olympics another group of athletes were having their own Winter Olympics. The students at Fairmount School competed in the official Winter Olympics at the Nature Center. The students were organized into teams and each team participated in all of the events. Some of the events participated in were: fire building contest, tug of war (held on the ice covered pond), javalin throw, an acorn relay, a sledding contest and a nature alphabet hunt. After the competition was over, all assembled indoors for hot chocolate and cookies and the presentation of the trophy to the winning team. The 1972 champions are "The Herculeans".



DREAMING OF A WHITE EASTER

An Easter Bunny on skis? That's what we thought it would take to distribute the Easter eggs this year. Connie Stork and Pam Streff's classes from the Area Development Center came down to the Nature Center on Wednesday, March 29, to color and hide Easter eggs for the younger children at the A.D.C. Mother Nature, however, got her seasons mixed up and dumped 8 inches of SNOW on the ground the night before. We made the best of the situation by coloring the eggs at the Nature Center and then hiding them at the A.D.C. So the children were still able to have their hunt.

POPULATION EXPLOSION

The tame rabbits have again given birth to another litter. This time there were seven. Not to be outdone by the bunnies, other animals soon got into the act too. The gerbils have had three different litters, two praying mantis egg sacks, found last Fall, hatched about 50 young mantids, and the latest arrivals are three young guinea pigs born just two weeks ago. All new arrivals are doing fine and growing rapidly.

NEW QUARTERS

Prompted partly by the sudden increase in the number of animals at the Nature Center we have recently built an outdoor pen for the rabbits and the guinea pigs. Since it is 60 feet square it affords the animals plenty of room to romp around and is escape proof, even for Houdini (the rabbit who kept escaping from the last pen.)

FIRST ROBIN

The winner of the "First Robin Seen" contest is Ron Douglas from Kennedy School, Muscatine, Iowa. Ron spotted his Robin at 8:20 a.m. on March 6th.

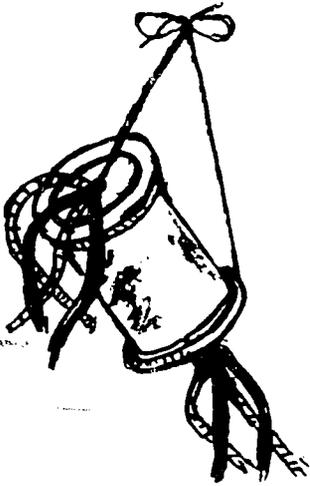
HOMES

An interesting activity for students, especially this time of year, is to investigate the many varieties of animal homes. A discussion of what a home is or what its importance is to an animal may be a way to initiate the activity. Students may want to investigate the wide variety of homes found in nature. A display of examples of various types of homes used by different animals could be a class project. Types of materials used for construction of the home, location, size, and length of time used are additional investigations the children can make. They might also like to bring in pictures of various animals and of different homes used by animals and then set up a matching game trying to pair up the animal with its home.



NESTING TIME

This is a very busy time of year for our feathered friends. Gathering of materials and the building of nests is a major activity now. We can give them a helping hand by providing them with some nesting materials. Here is a method that works well and is easy and fun for the children to make. Pass an eight-inch-long piece of string through the hole of a large empty spool. Tie the ends together to make a loop to slip over the branch of a bush or a tree. Cut several six inch lengths of various colors of yarn and pass them through the hole in the spool, leaving loose ends at the bottom and top. (A pipe cleaner helps in getting the yarn through.) Fill the spool with as many pieces as it will hold loosely. The students can count the number of the various colors used and then periodically check to see what colors the birds seem to prefer. Then in the Fall after the birds have abandoned their nests the students can collect them and see how the birds used the yarn they provided for them.



SCOUT CLEAN-UP

Rock Gallagher's Cub Scout Pack 3496 have recently spent time cleaning up the Nature Center grounds. Armed with rakes, shovels, and wheel barrel they removed much litter from the area and made things a great deal neater. It was truly a good deed and one that will benefit us all that use the center.

PALATE PLEASERS

Now that the warm weather is once again with us, there will be much opportunity for doing some outdoor cooking. Here are two simple refreshers that taste good and are fun to make.

Peach Delight (serves 1)

- 1/2 of a whole peach
- 1 marshmellow
- 1 T. brown sugar
- 1 square of foil (6x6 inches)

Put peach in middle of foil, add marshmellow and brown sugar. Wrap in foil and cook over coals for about 5 minutes. Marshmellow and brown sugar should be melted together.



Somemores

It is easy to guess how these got their name. They are so good that you are certain to want "Somemore".

- Needed: 1/3 of 1 1/2 ounce bar of milk chocolate
 2 graham crackers
 1 marshmellow

Make a sandwich of the chocolate and the two crackers. Toast the marshmellow to a golden brown. Put it into a sandwich between chocolate and crackers. Press gently together and eat.

PALATE PLEASERS (continued)

OTHER SOMEMORES -

Use some peanut butter or toasted peanuts instead of chocolate. These are sometimes called "Robinson Cruesoes".

Use slices of apples instead of crackers. These are apple Somemores.

Use chocolate covered crackers and no chocolate bars.

Use chocolate peppermints instead of chocolate bars.

ACTIVITIES1. Test for Sensitivity

Use a FEEL BOX to find out how much our sense of touch can tell us. Cut a hole in a shoe box and tape the open end of a sock over the hole. Cut off the toe of the sock. Place objects in the box and replace the lid. Have the children put their hands through the sock into the box. (no peeks allowed) and use their fingers to identify the contents of the box. Textures are interesting: cotton balls, sand paper, velvet, fur, etc. Shapes and varied objects such as pencils, paper clips, a rubber band, rocks, and clay are additional possibilities.

2. Plant a Pine Cone Garden

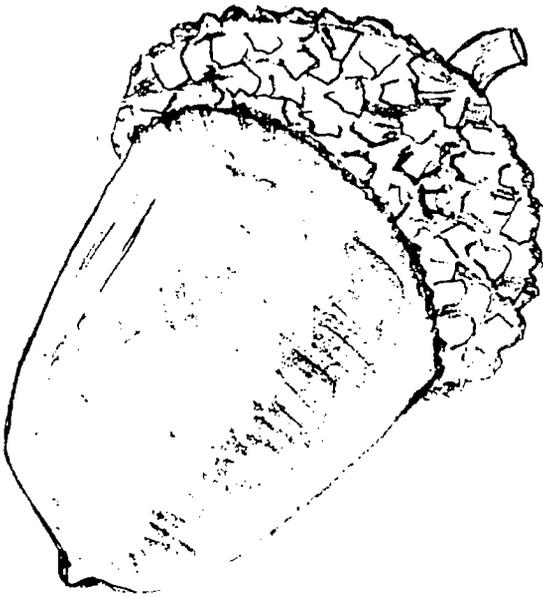
To make a living pine-cone garden, nail a well-shaped cone to a circular piece of wood and put it in a saucer of water. "Plant" grass and small flower seeds between the cone's scales. Then watch for the seeds to sprout for a tiny bit of forest inside.

3. Splash Boards

Why not take advantage of the monsoon season we are now having by making some on the spot investigations of the various effects of water on the soil? Drive a clean stake into the ground at different locations such as: barren soil, grassy area, under a tree. After a rain, check each stake to see how high the rain has splashed soil on the boards. Relate this to soil erosion and its prevention. (The splash boards should be protected on the top so that the rain doesn't wash the soil off.)



"UH-HUH... WHEN YA SEE THE FIRST ICE CREAM TRUCK, LET ME KNOW."



The Acorn

ENVIRONMENTAL EDUCATION NEWS

Area IX Education Services
HANDICAPPED CHILDREN'S NATURE STUDY CENTER
1523 S. Fairmount Street
Davenport, Iowa 52802 319/326-4969

VOLUME II Fall - 1972 Number I

Well, Mother Nature has just about completed another cycle. The leaves will soon be turning color and then forming their spongy carpet as they fall to the forest floor. It is really a beautiful time of year. If you have not had the opportunity to visit yet, I can't think of a better time to start. If you would like we can plan your visit around a particular theme or topic such as leaves, insects, senses, or we can provide the children with just a Nature outing allowing them to observe, explore, and ask questions.

HAVE GERBILS WILL LOAN

If any of you would like a live animal for classroom study, I would highly recommend the gerbil. It is a rodent, like hamsters, and mice, but unlike the former two they have no odor, are very clean, will not bite, and are active during the day. They will eat almost anything and will soon learn to eat right out of your hand. I have some extra gerbils at the Nature Center, so if any of you would like a pair I would be glad to provide you with it. Gerbils mate for life and do not do very well when separated, so consequently have to be kept in pairs. The gestation period is only 3 weeks so this is an excellent opportunity for the students to witness the development of the gerbils from birth to adults. Another thing that makes the gerbil unique and interesting is the fact that the male not only doesn't harm the new born infants, but helps to care for them.

NEW PICNIC FACILITIES

Dan Kauffman, a staff member of Fairmount School, has recently renovated our picnic facilities at the Nature Center. He built a rustic fireplace, installed camp fire benches, and is now in the process of refinishing the picnic tables. If you would like to try out the new facilities just let me know and I will help you plan an outing.



CAMP OUTS

Last Spring two groups took advantage of the camping facilities at the Nature Center. On June 2, Rock Gallagher's Cub Scout Pack had a camp out here. With the expert assistance of Dave Lanaghan, Chuck Hobert, and Rock Gallagher they had a great deal of fun and even managed a little sleep.

Then on June 9, Kathy Eden and Molly Miller supervised a group of hardy girls that spent the night under the stars. If any of you would be interested in planning an overnight camp out with your students, just let me know and I will be glad to help you plan and organize it. I think it is a very valuable experience and there is much to be benefited from it.

THE ODD COUPLE

We now have two resident animals that have been given free reign of the Nature Center grounds. Our duck is now the size of a small goose and can't get along with the other animals in the pen so we keep him outside the pen. He has his own pool and food supply, so he is quite happy and never seems to wander very far.

His playmate is Houdini, the rabbit that somehow managed to keep escaping from our "escape proof" pen. Houdini, like the duck, has become very tame and spends most of his time with the duck just eating and taking life easy.

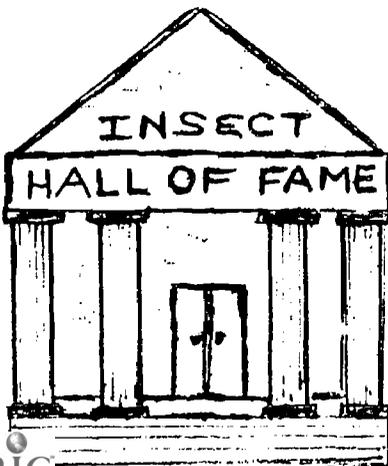
"...AND A PARTRIDGE IN A PEAR TREE"

We don't have any pear trees, but we will soon hopefully have some partridges. Mr. Jack Palmer from Hoover School, Bettendorf, has made arrangements through the Conservation Commission to have some partridge, quail, and pheasant eggs donated to the Nature Center. We will incubate and hopefully hatch the eggs here, then turn them loose in the nature area. With the many refuge areas we have for the wildlife they should have ideal nesting conditions and should find an abundant source of food.

HALL OF FAME

It seems that for almost every great human endeavor there is some form of recognition given. We have prizes, awards, and even various Halls of Fame.

There is, however, one Hall of Fame that until now has remained unrecognized. That is, the "Insect Hall of Fame". This is something special and so consequently not every insect can be inducted into it. If your students would like to nominate an insect to the Hall of Fame, have them first find an insect that has some unique or unusual quality about him (i.e. - biggest, prettiest, meanest, smallest, etc.). Then they should write on a 3x5 note card why they think their insect should be admitted to the "Hall of Fame". Send this along with the insect to me at the Nature Center. The winners will then be inducted into the Hall of Fame and put on display at the Nature Center. I will announce the results in the Winter edition of the ACORN.



NATURE'S OUTCASTS

One of Nature's most berated and misunderstood creatures is the Spider. Most people regard them as a menace either to be feared or destroyed. This is really unfortunate because spiders actually are one of man's important allies. They help immensely in our never ending war against various insect pests such as mosquitoes, flies, mites, and ants. All spiders are poisonous, that is how they kill their prey, but only two are of any serious danger to humans - the infamous Black Widow and the Brown Recluse.

Spiders are actually very interesting and unique creatures and this is one of the best times of the year to observe them first hand. Some observations that can be made are: (a) types of webs made; (b) locations of webs; (c) way spider spins web; (d) methods of catching prey.

Ever wonder how a spider is able to walk about a web without getting stuck in her web while an unsuspecting insect that happens to blunder into the web is stuck fast. Acutally the web is constructed with two types of silk, one adhesive for capturing prey and one nonadhesive for support. The spider also has a coating on the bottom of its legs that helps in traveling across the web.

An excellent spider for classroom observation is the common garden spider. This is the large black and yellow spider which can be found in any cluster of weeds. If they are going to be kept in the classroom for more than a day, provisions should be made for adequate living conditions.

Another activity involving spiders is the collection of spider webs. Find a suitable web. Have a student hold a shield of newspapers behind the web. Then, very carefully, spray it lightly on both sides with white enamel. After the web is completely sprayed, put a piece of black construction paper behind it. Very carefully, bring it into contact with the web so that the web will stick to the paper. Then cut those guy lines that anchor the web to the bushes or weeds. Let it dry thoroughly.



SAMPLING POLLUTION

One topic that seems to always be in the news is pollution. There seems to be an increased concern about our environment and what we are doing to it. Many times, however, children can't grasp the severity of a problem until they can see something concrete and tangible. Here are a couple of simple, but effective devices that involve the children in their environment and hopefully show them something about it.

- (a) Have the students cut out rectangular pieces of cardboard. Glue a white sheet of construction or art paper to the cardboard. Make a cardboard handle small enough to fit in their hands. Glue the handle to the bottom of the rectangular pieces of cardboard (the uncovered part). Cover the white paper which is glued to the other side of the cardboard with a thin layer of petroleum jelly. Now take the students outdoors and let them use their air sampling boards. Have them walk or run around to different locations with their boards and note what they collect.

Sampling Pollution (continued)

- (b) Microscope slides can be used for collecting air sediment consisting of dust, fly ash, carbon particles, and even pollen. The slides are first covered with petroleum jelly and then suspended in a variety of ways. For example, they could be suspended from a clothesline by means of a spring-type clothespin. If possible, the slides should be viewed under magnification such as a microscope or a hand lens.
- (c) To help visualize the pollutants emitted into the air by various combustion engines have the students hold a piece of white construction paper or cardboard six inches away from the end of a motor vehicle exhaust pipe while the engine is running. Have the children look at the color of the paper and smell it. Use cars, power lawnmowers, motorcycles, minibikes and other small engines that students are likely to see and smell during their normal daily routine.

ACTIVITIES

An activity that is particularly popular this time of year is leaf collecting. A method that helps enhance the collection and preserve the color of the leaf is the use of clear contact paper.

Procedure -

- A. Put a piece of clear contact paper sticky side up on the desk. (Size of paper should be slightly larger than leaf).
- B. Put leaf on paper.
- C. Put another piece of clear contact on top of leaf. The students may want to cut out around the leaf or leave it in this shape.
- D. A bookmark can be made by putting a piece of unraveled yarn at one end of the leaf between the two layers.

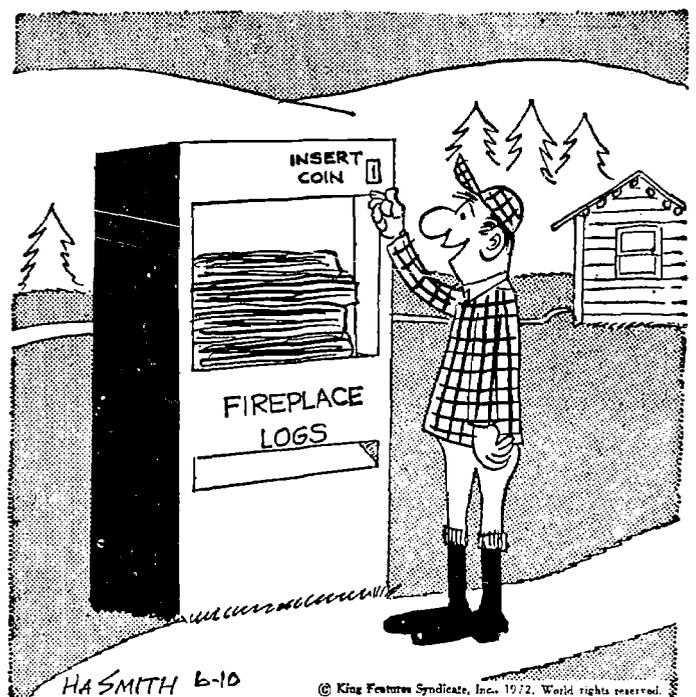
Fall of the Year

Out of the trees
with rustly sleeves
fall wonderful colorful
autumn leaves.

Out of the weeds
fall countless seeds,
the kind of food
that a snowbird needs.

Out of the boughs
fall nuts and fruits
without any bump-saving
parachutes.

Everything falls
from There to Here....
no wonder we call it
the fall of the year.



"Ah, there's nothing like getting back to nature."

NEWSPAPER ARTICLE

NATURE STUDY CENTER
HANDICAPPED CHILDREN



Youngsters race to the Nature Study Center behind their school for the start of their very own Winter Olympics. (Photos by Phil Hutchison)



Winter Olympics

A 'Special' Event

By Elsie Ryan

It's all over now. The scores are added. The winners declared. The trophy waits to be engraved with this year's winner of the first annual Winter Olympics held at the Center for Children with Learning Problems, Davenport. But, oh, what a day that was!

PREPARATION, of course, began early in the week. Every athlete must plan and get in fine physical shape! Coaches huddled with their teams, explained the rules and the events.

To the children's delight the weather was perfect. Sunshine sparkled on snow that lay three feet deep on the flat with drifts up to five feet. Trees and bushes glistened. The pond that the children had so laborously cleaned of drifts the day before had only a fine wind-blown layer of snow.

The scene was like a Midwest version of the Olympics at Sapporo, which inspired the whole thing for the youngsters.

Like race horses at a starting gate, they poured into the Nature Study Center behind the school. Fifty students, 12 teachers, and 24 parents quickly divided up into teams and leaders and cheerers-on.

EACH TEAM had a name... "The Herculeans," "The Snow Hawks," "The Screech Owls," "The Sunflowers," "The Dare Devils," "The Snow Eagles" and "Hell's Angels."

Events started with a tug-of-war, then a javelin throw, an acorn relay, sledding, snow fill-up (filling waste baskets with snow), a na-



A javelin throw with snowballs. We bet Sapporo wished they'd thought of THAT.



In the fire-building contest, a string was stretched above the fire and the first team's fire to burn the string won.



ture alphabet hunt, snowball accuracy throw, and the favorite, the bonfire building contest.

In the fire building contest, a small patch was cleared of snow and the teams were allowed five matches, twigs and bits of wood and sticks. A string was stretched above the fire and the first team's fire to burn the string won.

By 3:30 everyone trooped inside for steaming cocoa and cookies, while the scores were added. Then, Charles Wester, Davenport, outdoor education consultant at the school's nature center, announced that each team received 10 points for winning an event, and losers five points.

"THE WINNER is the 'Herculeans' with 92 points," Wester said amid cheers.

Already the teams are planning strategy for next year's Winter Olympics.



Jim Calvin participates in the acorn relay.



The tug-of-war was probably the most fun of all the Olympic games.



Alisa Mock places in the sledding contest, and smiles at his success.

PART III FINANCIAL

End of Project Report
Part III
Financial

Expenditure Report of Federal Funds
Elementary and Secondary Education Act, Title III, P.L. 89-10, as amended

Name and Address of Local Agency: Muscatine-Scott County School System
2604 West Locust Street
Davenport, Iowa 52804

Funds for Special Education Programs for Handicapped Children \$ 86,955.00

PROJECT NUMBER: 25-70-001-0 BUDGET PERIOD: Beginning September, 1969 Ending October 31, 1972
Final Expenditure Report

EXPENDITURE ACCOUNTS FUNCTIONAL CLASSIFICATION	ACCT. NO.	SALARIES		NON-PROFESSIONAL	CONTRACTED SERVICES	MATERIALS AND SUPPLIES		TRAVEL	EQUIPMENT	OTHER EXPENSES	TOTAL EXPENDITURES
		(3)	(4)			(5)	(6)				
1. Administration	100					\$1,110.12				\$ 702.46	\$ 1,812.58
2. Instruction	200	\$34,837.12	\$ 986.15	\$ 5346.83		4128.61	\$536.50		\$667.00	1975.62	47577.83
3. Attendance Services	300										
4. Health Services	400										
5. Pupil Transp. Serv.	500										
6. Operation of Plant	600										
7. Maint. of Plant	700										
8. Fixed Charges (Except 830)	800		1951.09	3487.97		65.95				166.48	5671.49
9. Leasing of Facilities	830			4500.00					7875.00		12375.00
10. Food Services	900										
11. Student Body Activ.	1000										
12. Community Services	1100										
13. Improve. to Sites	1210C			1869.84		15767.19					
14. Remodelling (\$2,000 or less)	1220C										
15. Capital Outlay (Equipment Only)	1230								2312.91		2312.91
16. Total Local Expend.			\$986.15	\$15,204.64	\$21,071.87	\$536.50	\$1944.52		\$87,336.84		
17. Negotiated Budget			\$36,788.21	12,834.00	15,789.00	1300.00	7,886.00		26,928.00		
18. Unexpended Balance of Funds Authorized for Expenditures; Total of Line 18 minus Total of Line 17											(431.84)

THIS FISCAL REPORT IS CORRECT AND THE EXPENDITURES INCLUDED HEREIN ARE DEEMED PROPERLY CHARGEABLE TO THE GRANT AWARD.

Signature of Person Authorized to Receive Grant: *James S. Stark*
Date Reported: _____