This handbook is designed to introduce the participating teacher to the Environmental Sensitivity Project, an ESEA Title III project in Escambia and Santa Rosa counties, Florida, and to give information that will assist teachers planning field trips. It explains what is expected of the teacher at each phase of the field trip process: orientation, classroom preparation, visits by resource personnel to the classroom, preliminary field trip, field trip preparations, the field trip, and return to school. Also included are suggestions for follow-up activities that can be conducted on school grounds, a glossary of environmental terms, and a checklist of reminders to aid teachers in remembering the many things which combine to make a meaningful outdoor experience. This work was prepared under an ESEA Title III contract. (BL)
HANDBOOK FOR FIELD TRIP PARTICIPANTS
IN THE
ENVIRONMENTAL SENSITIVITY PROJECT
AN ENVIRONMENTAL EDUCATION PROGRAM FOR
TEACHERS IN ESCAMBIA AND
SANTA ROSA COUNTY SCHOOLS

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AN ESEA III PROJECT
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HISTORY AND PURPOSE

The Environmental Sensitivity Project (ESP) is the outcome of an ESEA Title III planning grant awarded to the Escambia County Board of Public Instruction in 1968. Its name at that time was the Escarosa Nature Center and Museum. Federal monies became available under Title III of the Elementary and Secondary Education Act of 1965 to fund the project for three years, with the understanding that at the end of that period funding would become a local responsibility. The project will enter its third year in August, 1972.

Three principal program areas are included in the Environmental Sensitivity Project:

1. A resource center where teachers may check out materials
2. A museum which provides a general overview of ecology and environmental problems in western Florida
3. A field trip service to provide children and teachers with a firsthand nature experience

The primary focus of the ESP is in-service training and teacher development. Teachers are provided the resources, training, and assistance needed to provide learning experiences in ecology for their
pupils. Field trips or outdoor lessons are an important part of these experiences.

The following pages outline the complete procedures for planning and executing a nature field trip. Also, since field trips frequently stimulate interest in additional nature study, some suggestions are included to provide the teacher and her class with follow-up activities that have been found successful and rewarding for other classes.

Pupils and teachers have reported the Environmental Sensitivity Project ecology field trips as being the high point in their school year. The meaning and value of the ecology field trip is best expressed by the children themselves:

"I like the way the salamander felt."
Kirk Nelson, 5th grade

"I see now what the whole thing is about."
Jeff Driver, 5th grade

"I'm going to get my parents to take my sisters and I again."
Elizabeth Jackson, 5th grade

"Some people think spider webs are ugly, but, they are beautiful."
Cammy Marshall, 2nd grade

"When a grandaddy longlegs crawls on your arm it tickles."
Denise Scott, 2nd grade
FIELD TRIP PROCEDURE

Orientation

The first step in planning a field trip for a class begins at the Environmental Studies Center. There, with a group of other teachers, the full scope of the ESP program is explained, materials that are useful for field trip preparation and follow-up can be browsed or checked out, and the date and place for the field trip can be chosen.

As mentioned previously, the major thrust of the ESP program is directed toward the teacher. The preliminary meeting serves to answer any questions the teacher may have about the field trip. It gives the ESP staff an opportunity to point out small details that can be explained better in person than in written form.

Classroom Visit

Experience has shown that children need some preparation before taking a field trip. Without any preparation, the children arrive at the field site with little knowledge of what they are there for.

There are a variety of ways that this preparation can be accomplished. Ideally, teachers prepare themselves with the assistance of ESP staff and resources.
Then, with continued ESP assistance, the pupils are engaged in planning and preparing their outdoor lesson on ecology. An alternate method is to schedule the ecologist from the Environmental Studies Center to visit the class for a discussion on basic ecology. Perhaps the best method is a combination of the two.

Following the latter procedure, the ecologist would visit the class about one week before the actual field trip. Using specially prepared visual aids, he would present to the children and teacher a simplified classification of all living things and show how all living things are interrelated. The presentation usually leads into a lively classroom discussion that stimulates the pupils' interest in ecology and equips them to participate in an outdoor lesson, rather than just an outing. The teacher can then spend the next week reviewing and adding to the material. By the time the field trip day arrives, the children are well prepared and eager to study nature firsthand.

Preliminary Field Trip

Prior to the field trip, a time is scheduled with the teacher to go with the ecologist to view the chosen site firsthand and to learn how the field trip will be organized. The ecologist will give the teacher a prepared site guide which includes, among
other things, a map of the area, an explanation of the major points to emphasize, and a simple key to the living things to be found there. This is an important means of giving the teacher confidence to lead part of her class on the day of the field trip.

This preliminary trip is conducted after school and lasts no longer than an hour. It is suggested that the teacher come to school with a change of clothing that is suitable for hiking through the woods. Sandals, hose, or dresses are not always comfortable in an outdoor situation.

Field Trip Preparation

There are several details that should be dealt with before the morning of the field trip arrives. One is permission slips. Most schools require parental permission for field trips. The teacher should secure this well ahead of time and have the signed slips on file in the school office.

Another point to remember is to have the class divided into three groups and have each group assigned to one of the three adult leaders before boarding the bus. This cannot be done effectively after starting for the field site because all kinds of problems arise over who goes with whom.
If a lunch is packed for the trip, several large boxes should be provided for storing the lunches. If the pupils have their lunch with them, they are likely to pull things out of their bag or box to eat on the bus or trail. Not only can this result in a distraction, but somehow or other the candy wrappers often find their way to the ground where they become litter.

During the spring, red bugs reach the highest peak of their yearly cycle, and can cause pupils (and teachers) some discomfort for three or four days following the field trip. Teachers should advise the parents to prepare their children for red bugs before sending them to school on the day of the trip. Teachers may want to have something on hand to prepare those who forget. Any one of the commercial repellents may be used, or one may buy some flowers of sulfur at a drugstore and mix one part to nine parts baby or talcum powder. This, dusted around the shoe tops and ankles is an effective red bug repellent.

Field Trip

On the morning of the field trip, the bus, which is usually ordered by ESP, will be at the school around 9:00 A.M. The bus then proceeds to the chosen field site where the teacher and pupils meet the ESP staff members who accompany them on their walk.
Teachers are urged to maintain a state of relative calm on the bus, because children who are overly excited when they arrive at the site have a hard time settling down to the business at hand. Calm can best be maintained by providing activities that would keep the children occupied while en route.

After the bus arrives at the site, a minimum of time is spent getting the field trip underway. The three groups move independently along the trail, stopping wherever they wish to examine whatever they wish. It is very important that each group maintains its separate identity and not crowd up with the group ahead. If the groups of pupils crowd together, interactions increase, causing distractions that impair pupil learning.

Sometimes teachers feel inadequate to lead one third of their class. It must be stressed that this reaction is not really necessary, because a thorough knowledge of natural history is not essential due to the approach that ESP uses on the field trips. Rather than delivering a lecture as the group moves along the trail, the "discovery approach" is recommended. All this means is that each member of the group makes a personal inspection of whatever he chooses and it is the teacher job to encourage this process. All participants, including the teacher, will have been
exposed to a simple classification of living things so that anything the children find can be placed into one of three different groups. The actual name of any given specimen is of secondary importance because the main emphasis of the field trip should be on how they interact rather than on what they are.

Collecting living plants or animals is generally discouraged. Children often want to take back to the classroom a captive snake, lizard, or salamander; but an important part of environmental sensitivity is the realization that freedom is a thing for all living things and not humans alone. If the teacher intends to supervise the construction of a vivarium, arrangements should be made ahead of time with the ecologist so that the specimens can be collected in a proper manner. It is important to remember that under normal circumstances, no human can care for a wild thing as well as it can care for itself.

As a rule, there is plenty of time for everything. The only limitation is that most buses need to be returned around 12:30 P.M. This means that the group should leave the field site no later than 11:45 A.M.
Follow-up Activities

A fundamental aim of ESP is to make the field trip the first step in environmental enlightenment rather than the last. It seems a waste to interest children in something and then fail to provide an avenue for more learning. A great variety of follow-up activities have been used by teachers and pupils following their field trip. A few suggestions are offered below for consideration and possible use:

1. Identification of consumers, producers, and decomposers found in or around the schoolyard. The ESP Resource Center has sufficient material to aid in this area, including field guides, binoculars, slides, or records of bird and insect sounds. A teacher might want to establish a certain time each week for the class to go out and use these things, or a system in which individuals may go out on their own after having completed their classroom responsibilities.

2. Habitat Improvement

In most schoolyards there are areas in which teachers and pupils can work to encourage the presence of wildlife. Usually birds are the easiest to attract. Native shrubs, trees, or
other plants that provide food and shelter for birds may be planted. The Environmental Studies Center workshop may be used to pre-fabricate bird houses or feeders to be assembled in the classroom. Another habitat improvement idea is to work with a "wasted" area (an eroded area, for instance) on the schoolyard. If habitat for birds can be improved, there is no reason why schoolyard habitats for pupils can't be improved.

3. Building Vivaria

Some teachers may want to undertake the responsibility of maintaining a terrarium or an aquarium; this makes an ideal way of providing a stimulus for nature study in the classroom. There is more to running a vivarium, however, than putting water or soil in a tank and throwing some specimens in.

The ESP staff can help by providing technical assistance and literature along with the tools and supplies necessary to build classroom tanks to suit their respective specifications.

A well balanced vivarium is a fascinating thing to observe, but a poorly kept one represents miseducation in the study of nature.
4. Gardening

This is an extremely rewarding undertaking that can provide very worthwhile information for pupils. Knowing how to grow food is always valuable. Once again, the Center can help with technical assistance and tools. A school garden should be approached by the organic method because this offers the children a chance to see how decomposed plant and animal remains provide nutrients for plant growth. If you build a compost pile in the fall and start plants in the school room in late winter, you can have a harvest before school is out for summer.

5. Find a Tree Friend

Small groups may be allowed to go out and observe a particular tree at different times of the year. Measure it to see if growth can be determined. Watch it to see what visits it. How does it reproduce? What eats it? Read about it. Find out what good it does. Have students prepare individual reports on various aspects of the tree. The ESP Resource Center has a wealth of information on trees and how to study them.
A LIST OF REMINDERS

Careful planning and preparation can assure that a teacher's very first ecological field trip with her pupils is a successful one. Certain questions should be answered by the teacher as she plans the trip for her class:

1. Visited Studies Center for orientation or trip planning?
2. Established class field trip date?
3. Read John Storer's *Web of Life*?
4. Listened with your pupils to ESP classroom lecture?
5. Allowed your pupils to help plan your trip?
6. Preliminary field trip completed?
7. Lesson plan prepared for trip?
8. Plan to teach one-third of your class yourself?
9. Know where bus will park?
10. Plan for lunch at site?
11. Parents permission forms returned?
12. Class divided into three groups?
13. Follow up activities planned?

All teachers are urged to read *The Web of Life*. It is an excellent brief introduction to an ecological perspective on nature. Reading *The Web* provides teachers with enough background in ecology to competently
guide her pupils in their outdoor learning experience. It is recommended reading before the trip and is a useful resource after the trip as teachers and pupils study and develop their environmental sensitivity and conscientiousness.
GLOSSARY

Biosphere - that portion of the Earth and its atmosphere which is capable of supporting life

Climax - the final stage in a series of changes that results in populations of plants and animals (a community) that are capable of perpetuating themselves

Community - all the living members of an ecosystem

Diversity - the presence of many kinds of animals or plants

Ecosystem - describes a particular locale and includes the living as well as the nonliving parts of it

Habitat - all the environmental conditions which make up the place where an organism lives

Niche - the role of an organism in the environment

Organism - the smallest unit of life that is capable of functioning by itself

Population - a group of organisms, all of the same species, that have a common spatial arrangement

Succession - the process whereby a given area undergoes change, i.e., the changes resulting from a burned area returning to the climax condition

Symbiosis - interactions, of any kind, between two living things, i.e., mosquitoes sucking blood from a horse
ADDENDUM

Realizing that teachers are presently burdened with more paperwork than they need, the Environmental Studies Center does not want to add any more. We have reduced such involvement to a minimum. However, since we are held accountable for our work in a manner similar to classroom teachers, we must gather information that will aid us in showing whether or not we have accomplished our project objectives.

For the purpose of our yearly evaluation, we ask that all first-time participants take part in a pre-post test activity. The pre-test will occur in October and the post-test in May. In both cases, the teacher and the class will be given a 15 or 20 minute test. In no case will the test have any bearing on the teacher's accountability rating that is done by their respective principals each year.

This "extra" involvement that we ask of each participant is reduced to unimportance when weighed against the enjoyment that most participants in the past have experienced after an ecology field trip.