DOCUMENT RESUME

ED 051 935 RC 005 343

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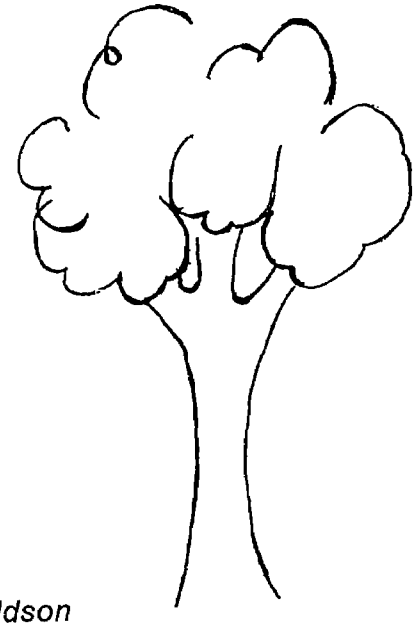
TITLE	Teaching in the Field.
PUB DATE	[71]
NOTE	32p.
AVAILABLE FROM	The Donaldsons, Box 203, Oregon, Ill. 61061 ($0.50; mail orders $0.75)
EDRS PRICE	EDRS Price MF-$0.65 HC-$3.29
DESCRIPTORS	*Curriculum Enrichment, *Field Trips, *Instructional Trips, Methodology, *Outdoor Education, Planning, *Teaching Guides, Teaching Procedures

ABSTRACT

Beginning with a field-trip justification, this guide illuminates the problems and procedural considerations of taking school classes outside of school grounds. Major divisions of treatment are Motivating Field Work, Preparing Yourself (the teacher), Determining Purposes, Preparing for the Mechanics of the Trip, Getting Permission, Planning for Transportation, Determining the Length of the Trip, Routing the Trip, Making Rules, Insuring Health and Safety, Deciding on Needed Equipment, Providing Water, Securing Food, Conducting the Trip, Teaching in the Field, Following Up the Field Learnings, and Evaluating the Learning Experiences. Included are 3 appendixes: Exploring a Forest (an account of a field trip with 7-year-olds), Check List for Field Trip Planning, and Sample Permission Slip. (MJB)

TEACHING IN THE FIELD

Lou and George Donaldson



[1971]

Illustrators: Cher and Al Donaldson

TEACHING IN THE FIELD

So you want to take a field trip? Congratulations! You are joining many fine teachers who use field trips to add new dimensions to the learning experiences of their pupils.

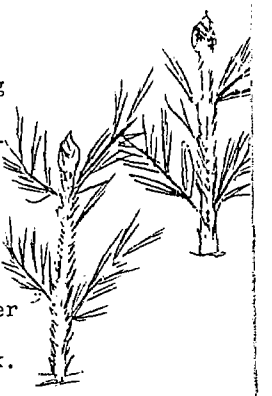
Field trips provide natural and good ways of learning. The exploring, adventuring, discovering instincts of youngsters are fully capitalized. The teaching-learning process is vitalized. Pupils thoroughly identify themselves with the learning process. Positive attitudes as well as basic concepts may be developed; both are necessary to bring the world into an orderly pattern that can be understood, accepted and possibly even modified. Field trips provide abundant opportunities for building economic and social understandings that will make the child aware of his heritage and his responsibility for his environment. And they cost little or nothing!

Reality is the unique strength of field work. On a field trip, learners participate in real and total situations. The materials of learning are experienced in context and the pupils' senses provide the learning methods. It is an enterprise in which the community's resources for learning are used to advantage.

The physics or chemistry teacher finds, at frequent intervals, that the methods of the classroom must be supplemented, enriched, and made real by experiments

conducted in the laboratory. Similarly, other teachers find that classroom instruction is energized by actual experiences. To these teachers, field trips are commended as one of the better ways to meld the real with the vicarious.

A field trip may be such a simple thing as studying seasonal changes just outside the classroom. It may, in another instance, involve a visit to a municipal planning board as it deliberates the problems of urban land use. Some schools have gone so far as to allow children to participate in the actual work of solving conservation problems, such as landscaping the school campus or planting trees in a burned over area.



But regardless of the extent of the field experiences desired, good field work -- like any other good teaching -- requires study and planning and work. This bulletin shares with you the experience of many teachers who sought to provide for their pupils realistic and vital direct learning experiences through the field trip technique.

Good teaching, in the classroom or outside, employs these classic phases:

1. Purposing and planning
2. Doing, and
3. Generalizing and evaluating.

Each phase should involve both teacher and pupils.

Field experiences are fine examples of the problem solving technique in teaching. You will note in the material which follows that all of the important steps involved in problem solving are taken:

1. State the problem;
2. Reword until succinct and orderly;
3. Decide what is now known;
4. Determine what needs to be found out;
5. Set up situations or experiences to discover needed solutions;
6. Draw conclusions and generalize:
7. Test the generalizations; and
8. Where possible, apply the generalizations.

The following pages are devoted to suggestions designed to help you make each phase of the learners' experience in the field systematic, orderly, efficient, enlightening and even exciting.

MOTIVATING FIELD WORK

Good teaching in any environment requires good motivation. Because field trips take pupils outside the relatively controlled environment of the classroom and into what can readily become overstimulating to them, intense motivation is essential. You will want to employ every appropriate teaching technique at your disposal to assure readiness for the proposed experiences in the field.

Readiness for field learning is doubly important: (1) Your pupils will need subject matter organization and background to make the trip

educationally efficient. (2) Because of the different and exciting nature of the field trip. intense motivation to learn is necessary in order that you may avoid a "picnic psychology." You must make a clear distinction between interest and excitement -- and only good preparatory teaching can do the job.

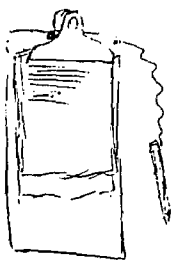
Here are some of the things you and you pupils might do:

1. Prepare an attractive bulletin board dealing with the proposed subject matter.
2. Read and discuss appropriate textbook materials.
3. Study material from supplementary or reference books.
4. Use audio-visual aids.
5. Read newspaper or magazine articles.
6. Prepare exhibits or specimens.
7. Confer with local experts in the chosen field.

PREPARING YOURSELF

While you are doing these things with your pupils, you will also need to prepare yourself. Just as it is your obligation to study or re-study text materials ahead of your students, it is your responsibility to have the "subject matter" of the field trip well in hand. You will almost certainly need to go through the trip alone or if expert assistance is needed, with a specialist. Study the field trip site, determine experiences available and determine just what needs to be done to extract the maximum educational benefit from it.

A word of reassurance is in order here. Do not assume that you must know all the answers before your class starts learning some of them. The field trip can never be taken by the teacher who must know all the answers. The very nature of the "real world" prohibits this kind of authoritativeness. And, besides, the old image of the "know-it-all" teacher has faded, possibly disappeared, in the face of the knowledge explosion of recent years.



If you wish to use resource people, student guides, or interested parents to assist with the trip, you may want to include them in this preliminary visit. Make full notes on your own experiences. They will prove invaluable as you make further plans with your group of children.

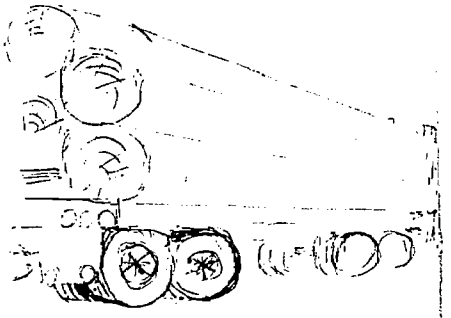
DETERMINING PURPOSES

Now you should be ready to begin specific planning with your class. Many teachers find it helpful to begin such planning with a cooperative listing of questions which might be answered in connection with the trip. Questions related to the subject matter of the trip will vary greatly according to its purposes and the learning potential of the site. For illustration, let's assume that your class[1] has been engaged in a unit entitled "Forestry" and that you and the children have decided to visit a paper mill. Such apparently random questions as these might

[1]This illustration assumes that the class is upper elementary. An account of a primary field trip is included as Appendix A.

come out of your discussion:

1. What happens to the logs when they first come to the mill?
2. How many steps are there in the process of making paper?
3. How long does it take to make paper from logs?
4. About how much paper can be made from one pulpwood log?
5. How much does it cost to make paper from one pulpwood log?
6. How many people are needed to run a paper mill?
7. What is the bad smell?
8. Does the chemical that makes the bad smell harm the people who work in the mill?
9. Could the smell be avoided?
10. Do different kinds of wood make different kinds of paper?



11. Can you make different kinds of paper from the same wood? If so, what makes the difference?
12. Are any by-products being made from pulpwood here?
13. Are there any waste products?
14. If so, are efforts being made to find a practical use for waste products?
15. How many people are employed in getting raw materials to the mill?
16. What is the mill's annual payroll?
17. What other resources, besides wood, are used in making paper?
18. Does this mill pollute nearby streams?

19. Are good conservation practices encouraged in the forests supplying the raw materials? How?

Once the problems are stated in question form, your next step is that of rearranging the questions into some kind of logical organization. Your pupils will gain a fine educational experience in this phase of planning. To continue the illustration, the above questions might reasonably be expected to fall under the following problem areas:

I. Raw materials (Questions 7, 8, 9, 17)

II. Manufacturing processes (Questions 1, 2, 3)

III. Products and By-products (Questions 4, 10, 11, 13)

IV. Economic importance to community (Questions 5, 6, 15, 16)

V. Conservation practices (Questions 13, 14, 18, 19)

You may probably come up with a quite different organization of problems, but remember. unorganized problems are as useless as unorganized answers.

In the process of arriving at an organization of problems, your class will very likely find that some of the answers are already known, some of them can be learned by using classroom resources, and possibly some of them require answers from still other sources. This may be the point at which you will want to call in expert assistance. A state forester or an employee of the paper mill could prove to be a valuable resource person. In any event, it is safe to assume that your

final statement of problems to be solved by the field trip will look quite different from the original listing. It is equally certain that your group will know much more about paper making and forestry! And they're learning a problem-solving approach which will serve well in other studies.

At this point, purposes for the excursion should be clear cut in your mind and in the minds of your pupils.

PREPARING FOR THE MECHANICS OF THE TRIP

Now to plan for the trip itself. Again the process of listing problems is helpful. These questions having to do with the mechanics of the trip almost always appear:

1. How long should our trip take?
2. What routes do we follow?
3. Shall we go one route and return by another?
4. Are safe drinking water and toilet facilities available?
5. Will we need food?
6. Is guide service available?
7. What standards of conduct would we agree on?
8. Will we need transportation? What kind will be best?
9. From whom will we need permission?
10. What should we wear?
11. What rules do we need to insure health and safety?
12. How should we respect public property or property belonging to other persons?
13. What materials and equipment should we carry?

Just as the importance of subje matter preparation for a field trip cannot be over-emphasized, neither can the necessity for clear cut planning for mechanics. Many an otherwise fine field experience has failed because of a small mechanical "foul-up."

GETTING PERMISSION

It is at this point in your planning that you should present a rough outline of your field trip plans to your principal, requesting his permission to go ahead, and possibly soliciting his help. He can inform you as to any school policy which applies, assist you with obtaining transportation, provide for clerical help in getting letters typed, and "grease the skids" in many ways. He may even become interested enough to ask if he may go along on the trip! Regardless of the degree and kind of his participation, you will need his enthusiastic support.

It may be that, due to the organization of your school, you will need the permission and want the blessing of other teachers. Usually a polite request along with full information as to the educational objective of the trip will turn the trick. You may feel the need of the principal's support here, too.

If the proposed trip spans the lunch period, the lunch room manager will need to be notified. Or it may be that she could be persuaded to prepare a picnic lunch for your group.

Most schools require specific permission of parents for each tr p

away from school. Here is an opportunity to communicate some of your educational objectives and methods to your patrons. You may want to schedule and conduct a group conference, at which you will fully explain the purpose of the trip, outline its mechanics and reassure those parents who may be anxious about any number of things. Possibly you would prefer a letter setting out the same things. Some teachers provide a fine language arts experience for their pupils by having each child write to his parents. Whichever method you may choose, it is important that parents be fully informed about the trip. Signed permission from the parents of each child should be in your possession several days before the scheduled date for the field trip. A sample permission blank in included in Appendix C.

Permission of the owner, manager, or director of the property to be visited is essential. This request should be made well in advance so that plans may be made at the other end, too. You may also feel the need of guide service. If so, you should indicate such in your request. It is helpful to the guide to have the answers to such questions as "When?" "How many?" "How long?" as well as the specific objectives of your trip. He will do a much better job if he has full information. It might be wise for you to send him your list of questions and problems. He, too, may need to do some research.

PLANNING FOR TRANSPORTATION

The most simple method of field trip transportation is probably also the most used --

walking. Walking trips have much to commend them. They are relatively easy to arrange and conduct. They cost little or nothing. And most youngsters like to walk.

If you and your class should plan a walking field trip, these suggestions will serve you well:

1. Even walking should be organized. Under most circumstances, plan to walk two-by-two, each person being responsible for his "buddy". A nature trail or a factory cat-walk may necessitate walking single file for a part of the trip. Teachers of the very young sometimes use a rope to keep children together; each child holds onto a knot or loop in the rope.

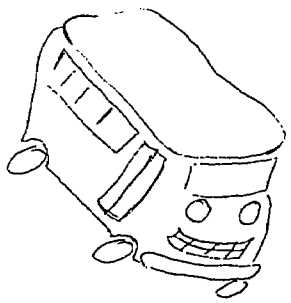
2. The teacher or other leader should be at the head of the line. It is preferable, but not absolutely necessary, that an adult or other responsible person be placed at the foot of the line.

3. Emphasize the importance of staying together. You may find it necessary, once the trip is under way, to make a laggard or a wanderer your "buddy", or to move pairs of "buddies" closer to you in the line.

4. The pace of a walking trip will of necessity be determined by the slowest children. But even the slowest child has a variety of paces at which he can travel. You should aim at a pace which is businesslike but unhurried, intent yet relaxed.

5. Fatigue can be one of your greatest problems. You will profit by making plans for brief rest stops along the way. Your surprise at how fast children tire will probably be exceeded only by your amazement at how quickly they snap back!

Many fine field trip resources are so located as to prohibit walking visits, but this should not rule them out. Our schools long ago demonstrated their ability to move pupils about for educational purposes. One of the obvious answers is that of using school buses. Arrangements are usually fairly simple and are customarily made through the principal's office. Make sure that full information as to time, destination, distance and total number of people is furnished with the initial request.



Travel by chartered bus, while more expensive, has much to recommend it if other forms of transportation are not available. Again, arrangements are usually made by the school principal.

Travel in privately owned automobiles, while necessary in some instances, creates a number of problems. Avoid it if you can. But if you cannot, you will be wise to anticipate the problems of such travel by:

1. Carefully selecting autos and drivers,
2. Holding a planning session with the drivers,
3. Riding in the lead car yourself and setting the pace, and
4. Making plans for re-assembly in the event that traffic or emergency separates the caravan.

Some schools have recently devised a clever scheme for providing field experiences for pupils when transportation problems become insurmountable. Teachers and children have worked out individual "quests" for children and, sometimes, their families. Children then visit the

field trip sites on afternoons, week-ends, and school holidays and bring their findings back to the classroom.

DETERMINING THE LENGTH OF THE TRIP

Several considerations will govern the length of the trip you wish to take. Other things being equal, the objectives of the trip should be the principal determinant. But "other things" are seldom equal. If you and your children have had little or no experience with field teaching and learning, there is no wiser approach than that of making haste slowly. Maybe your best beginning would be a brief walk around the school grounds or a somewhat longer hike to a nearby park. In most instances, a day-long trip is not advised for beginners.

Age, physical strength and relative maturity of the children are obviously important factors in deciding how long a trip should be. Availability of transportation is another. Caution is advised here because you will be sorely tempted to plan too long a trip. It is the better part of valor to make short mistakes instead of long ones!

ROUTING THE TRIP

The principal purpose of the trip will, in large measure, determine its routing. For instance, in the illustration above of the trip to a paper mill, it might be necessary to travel the most direct route because of distance. However, if the distance is not great, the trip would be greatly enriched if it could be routed through some of the forest land which supplies the raw materials for the mill. If time and distance are relatively unimportant, a detour through a site at which pulpwood is actually being harvested would make an even better experience

Consideration must always be given to safety in planning routes of travel. City travel should avoid, if possible, heavily traveled streets. Walking trips should be so planned as to avoid heavy auto traffic or dangerous crossings.

You should seek to avoid routing the trip in such a way as to "take the edge off" its essential purpose. The very stimulating nature of venturing outside the school, as well as your desire to take full advantage of the opportunity, might cause you to crowd too many concepts into the trip. This could easily result in a poor learning experience.

MAKING RULES

You and your pupils will want to work out a set of guiding principles for the conduct of the trip. Personal conduct standards while away from school and on property belonging to others, or to the public, are important educationally. At the minimum level such rules

would touch on the following aspects of behavior:

1. Respect for rights of others,
2. Respect for private or public property,
3. Plans for seating on bus, if used,
4. Assignment to private cars, if used,
5. Device for quick efficient roll-taking,
6. Plans to take care of trash and garbage, (Don't be Litterbugs),
7. Principles of conservation, if the trip is to involve collecting specimens,
8. Specific plans for grouping for instructions at the trip site, (See CONDUCTING THE TRIP, below),
9. Plans for keeping the group together, and
10. Plans for things to do on bus, if route has little or no educational potential; songs and quiet games are appropriate.

INSURING HEALTH AND SAFETY

You will want to consider every possible means to insure the health and safety of the pupils in your charge. Cautions to be observed are:

1. Carry a first-aid kit.
2. Survey the route for possible hazards when you make your preliminary trip. Make notes of any significant danger points.
3. In woods and fields, make sure that everyone knows and avoids poisonous plants and snakes. Bodies of water also require special precautions.

4. Insist that the group stay together. "Within the sight of the leader" is a recommended criterion.

5. Be sure that children understand why they should not stick hands or heads out bus or car windows.

DECIDING ON NEEDED EQUIPMENT

The kind of equipment needed will be determined by the nature of the trip itself. The following are suggestive:

1. Notebooks or clipboards might be needed. One school system suggests that a homemade clipboard be devised out of a piece of cardboard and a paper clip. Pencils will be needed, too.

2. Bags, boxes, or bottles will be needed if specimens are to be brought back to the classroom. Caution: Children are frequently overenthusiastic collectors. A good rule: "One specimen for the whole class."

3. Books and other reference materials may be needed, especially for identifying-collecting trips in the outdoors.

4. Preparation for taking care of collections should be made before you leave school. It is poor teaching to waste specimens because of lack of foresight.

5. Some students may want to make a photographic record of the trip. Cameras and film are in order.

6. Magnifying glasses or binoculars may be needed.

7. Individual canteens are a debatable need. In the event they are used, be sure to stress the fact that a canteen should be as personal as a toothbrush.

8. Individual small knapsacks are sometimes handy. And, besides, they add a note of glamor to the experience.

PROVIDING WATER

You will be amazed at the amount of water children require, especially while walking on warm days. Sources of safe drinking water should be noted on your preliminary trip. If safe water, from adequate drinking fountains, is available at the trip site, well and good. If only faucets are handy, your equipment should include individual cups of some sort.

You will find many interesting excursion sites with no safe water supply. In this case, it will be necessary to transport water in individual canteens or in bulk -- vacuum bottles or larger water cans. (Sterilized milk cans make good containers.) Glass containers and drinking glasses should be avoided if at all possible. A safe rule as to amount of water needed is to make a generous estimate -- then double it! Tip: Munching on a celery or carrot strip at a "rest break" helps to relieve children's thirst.

SECURING FOOD

Many fine field trips require no food. Other may suffice with a brief stop along the way for a fruit or cookie "break". Longer trips will require more elaborate food preparations.

An obvious and simple answer to the food problem is the individual "nose bag" lunch, prepared at home or in the school cafeteria. Sometimes a committee of mothers will be happy to prepare lunch for the whole group and maybe even go along to help serve.

Hot chocolate or soup can provide a nice touch on chilly days. Either may be carried in vacuum containers.

It may be that you will decide that each child should carry his own lunch and that drinks should be provided by the school cafeteria. Milk in cartons is generally preferred. Bottled drinks are less suitable.

CONDUCTING THE TRIP

Good leadership on the actual field experience is of critical importance. A few suggestions as to mechanics of directing and leading a group in the field will help make your trip a success:

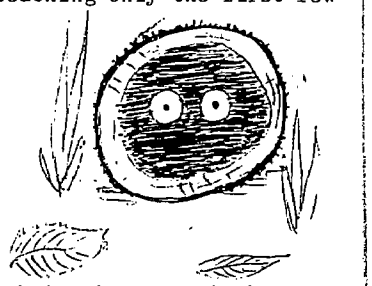
1. Lead the group, pleasantly but firmly. A sense of positive leadership is the only thing that can focus the attention of each individual on the phenomenon to be studied. Leading usually implies placing yourself at the head of the group.

2. Keep the group assembled unless there are special reasons for breaking it up. Don't let it just fall apart or spread out to the extent that communication becomes impossible.

3. Use a visual signal -- usually the right hand raised above the head -- to get attention. This is helpful because you may find more noise

than you can cope with without shouting, if you attempt to use the customary vocal call. And shouting at pupils is as bad outside the classroom as inside.

4. When you reach a point at which an observation is to be made, lead about one-half the group past the point, form the entire line into a semi-circle, go back to the point yourself and proceed with instruction and observation. This little "trick of the trade" helps each member of the class to see, hear, and be heard. It avoids what is probably the most common fault of field teaching, that of teaching only the first few people in the line. Remember that the line is for efficiency in moving about; it's a very poor arrangement for teaching.



5. In many cases, especially in nature or conservation study outdoors, you will want to allow your pupils to "explore". Obviously, the highly organized scheme suggested above will not allow exploration. Your group will need to be broken into committees, or possibly even individuals. In that event, you will need to set definite spatial limits and arrange a signal, probably audible, for reassembly.

Field trips provide fine ways of teaching. But, you should be reminded, field trips don't do your teaching for you. There is nothing magic or even automatic about them. You still must do the teaching! The trip provides fine materials, but only materials.

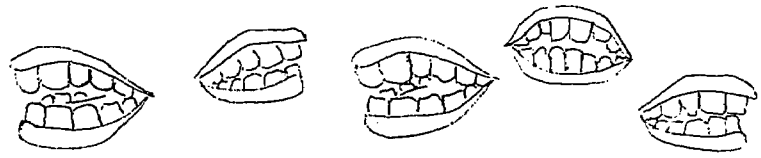
It is a good idea to begin any field experience with a review of

its purposes. A re-statement of the standards of behavior is also helpful at this point.

TEACHING IN THE FIELD

A few general principles of teaching and learning have special application to the field trip technique. At the risk of "carrying coals to Newcastle" they are cited here as reminders:

1. Don't talk too much. The field trip is a time and place for experiencing. Too much lecturing is questionable even in the classroom;



in field work it is unquestionably bad.

2. Use sensory experience. Children should see, feel, smell and taste -- as well as hear. All of these, judiciously employed, are possible and good. All have a contribution to make to total learning.

3. Emphasize a few basic concepts. One of your greatest temptations will be that of trying to teach too much. Too many concepts in a short time will serve only to confuse your pupils.

4. Stimulate your pupils' powers of observation. Good use of questions and good leadership of discussion will sharpen the learners' abilities to learn for themselves. What a child discovers for himself is always more meaningful to him than what is pointed out to him.

5. Draw out facts and generalizations from the learners. Use only

as a last resort the device of telling pupils in words what their senses are already telling them. Remember, "Telling isn't teaching."

6. Lead your children toward the "hows" and "whys" as well as the "what" of the situation being experienced. Names of things are important and the "what" should not be ignored. But names alone shed little light. Relationships between things and the processes which relate them are more important.

7. Although most of the generalizing and evaluating which you will want to do with your pupils is best done in the classroom after the field trip, you will likely find several points along the way at which you will want to draw together experiences to date or to pin down a particular bit of learning. You should not feel that all such activity must be left for the post-trip period. If you feel the need, do it!

FOLLOWING UP THE FIELD LEARNINGS

The vital and real experiences of the field trip set the stage for generalizing, as well as for the many new learnings from other sources. The following suggestions are only a few of the things that enterprising teachers and children may do to consolidate, tie together and make permanent the gains from trips outside the classroom:

1. Write reports, using notes made while trip was in progress.

2. Make notebooks or booklets to share with each other as well as with other classes.

3. Write thank-you letters to the various people who helped.

4. Share, through creative writing, the inspiration that comes to many children in field work.

5. Make oral reports and share through discussion.

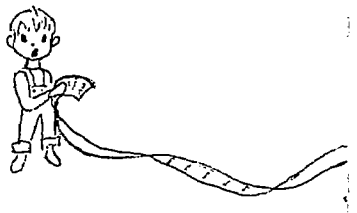
6. Read text and supplementary materials to fill in gaps and to research new interests developed by the trip.

7. Make graphic presentations, pictures, murals or three dimensional scenes.

8. Make exhibits of collected materials, especially if the trip had a nature emphasis.

9. Arrange bulletin board presentations of the trip subject matter.

10. Make vocabulary lists to pin down the many new words a field trip usually presents.



11. Use mathematical skills to work out many problems concerning the trip: distances, costs, etc.

Follow-up work can and should cut across many subject matter fields. You can see how the activities listed above might provide learning experiences in reading, writing, oral and written English, social living, art, arithmetic, social studies and science.

You may want to use all or some of these ideas. You may want to do the job in an entirely different way. But, remember, the job of generalizing learnings from field work is just as important -- maybe more important -- as in any other teaching technique. Ungeneralized

learnings are only the raw materials of education. They are vital and interesting but they must still go through the "processing" of generalization before they become truly educative.

EVALUATING THE LEARNING EXPERIENCES

"How did we do?"

"What did we learn?"

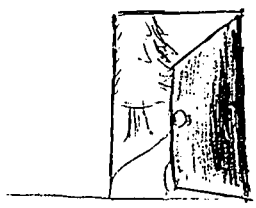
"Could we have learned these things in another way?"

"How can we improve next time?"

"How can we use what we have learned?"

These are questions you and your pupils will want to answer. Every aspect of the trip, from early purposing and planning right through the generalizing activities, should be judged. This task may be accomplished in the processes of group discussion and report, but individual reactions to cooperatively-prepared or teacher-prepared evaluation forms, or by any one of a number of purely individual devices.

Evaluation is important. It applies critical judgment and objectivity to one's own activity. It corrects errors and commends praiseworthy behavior. But, more important, it has that quality without which education is dreary and dull; it opens the door to other and better things.



APPENDIX A

EXPLORING A FOREST

A FIELD TRIP WITH 7-YEAR OLDS(2)

In the right-hand column I have reproduced the pages from a book which my second graders wrote, cooperatively, in connection with a half-day field trip to a nearby commercial forest.

In preparation for the trip we looked at -- and talked about -- many pictures, charts, and some film strips. I brought books about trees. forests, forest products, and other related topics. These were read and discussed.

The statements on the right were dictated by the children. I wrote them on the chalkboard as they dictated and later transfered them to a chart tablet. Sometimes statements were challenged and. when this happened, sometimes they were changed. Sometimes, it would take several children to complete a statement that was satisfactory to the group.

I set up one ground rule for statements of rules. They MUST be stated positively!

Believe me this wasn't easy. Before we finally arrived at "We will get on the bus slowly, carefully. and politely" we heard "Don't hit" "Don't push" "Don't kick" "Don't butt," etc.; etc. I kept coming back with "Can we say what we WILL do that will take care of all these things?"

Children hear "Don't" far too much, I think.

WHAT WE WANT TO LEARN

1. Why forests are important
2. The different kinds of trees
3. What other things live in the forest
4. What animal homes are in the forest
5. How soil is made
6. Why soil is important to trees
7. Why trees are important to soil
8. How the forest changes in the fall

OUR SAFETY RULES

1. We will get on the bus slowly, carefully, and politely.
2. We will stay seated on the bus.
3. We will stay with the group.
4. We will watch out for poison ivy and stickers.
5. We will stay on the trail.
6. We will watch where we walk.
7. We will wear slacks, heavy socks, and long sleeves to protect our arms and legs.

OUR CITIZENSHIP RULES

1. We will be nice and polite to each other.
2. We will listen when anyone is talking to the group.
3. We will take good care of everything in the forest.
4. We will leave the forest in as good shape as we find it.
5. We will be very careful with baby trees.
6. We will use our senses of seeing, hearing, feeling, smelling and tasting to learn about the forest.

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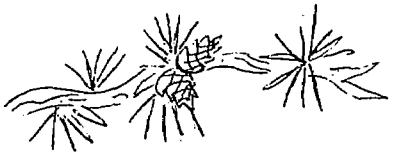
(2)This is a step-by-step account of an actual field trip. The teacher's comments and rationale appear in the left hand column; children's experience story in the right.

Self-evaluation is important, and it's important that it take place as soon as possible after the experience that is to be evaluated. We made our trip to the forest one morning. We wrote the story "How Did We Do?" in the afternoon of the same day -- after a discussion of the standards the children had set for themselves.

Here again, I had to work hard to get them to put more emphasis on the positive than the negative. Children (like all people) behave according to the way they see themselves. If an evaluation session can end with children thinking "We did pretty well - everything wasn't perfect but next time we can do better". the next time is almost certain to be better.

I had several major objectives for the field trip other than learning subject matter. Among them were:

1. Improving skills of observation
2. Improving vocabulary
3. Improving ability to describe accurately the object observed
4. Improving multi-sensory skills in learning.



7. We will taste things only when our teacher tells us it is all right to do so.
8. We will learn as much as we can.

HOW DID WE DO?

Our trip was fun! We were curious to see what was in the forest and we were excited about the trip. Even though we were excited, we think we did a pretty good job remembering our Citizenship and Safety Rules.

Next time we will try to be quieter on the trail so we can hear more and learn more. Today when we pretended we were Indians we heard some crows. We were so quiet they flew right over us.

WHAT DID WE LEARN?

As we got close to Sinnissippi Forest we saw both deciduous and evergreen trees. The deciduous trees were a beautiful outline against the sky. In front of the tall deciduous trees there was a row of evergreen trees. They made a pretty green border for the forest.

Deciduous trees lose their leaves in winter. Evergreen trees keep green leaves all the time. Evergreen trees do lose leaves. The forest floor was covered with dry pine needles. Evergreen trees grow new leaves before the older leaves fall off.

I was not concerned that the children learn to identify the different kinds of pine trees.

I was concerned that they improve their classifying skills -- their ability to see likenesses and differences.

It was my hope that the explorations which resulted in the stories in the children's book would help the children begin to understand the interrelatedness of living and non-living things -- help them begin to understand the interdependence of all things in the environment.

KINDS OF TREES

Sinnissippi Forest has deciduous trees, but most of our trail was in the evergreen parts of the forest. First we saw White Pine trees. Their bark was smooth. The bark was wet when we saw it, and it was dark green. The bark of the Red Pine trees was rougher than that of the White Pines. It was reddish brown in color, and was cracking and peeling off in big flakes. The bark of the Jack Pine was darker brown. It was cracking and peeling off in small pieces. It had very short needles and very small cones.

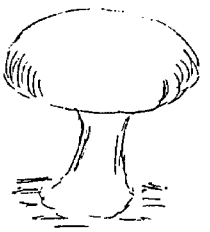
We saw a few Norway Spruce trees. We have seen this kind of tree in people's yards

HOW SOIL IS MADE

In the forest we saw lots of sandstone. Lichen was growing on some of the sandstone. Lichen is a simple plant that can grow on bare rock. It gives off an acid that helps break down the rock into soil. When living things die and become part of the soil, topsoil is made. When topsoil is made, other plants can grow. We saw places where just a little soil had been made. Small plants were growing there. Trees and other large plants were growing where more soil had been made.

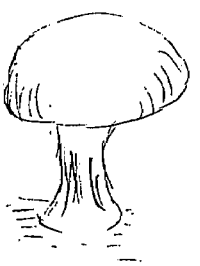
Water, wind, and ice also help break down rocks into soil.

Trees help soil by dropping leaves, twigs, flowers, and seeds. When these things rot they make good rich topsoil. When trees are cut down the stumps rot and make topsoil. We saw one stump that was rotting and had made enough soil that a baby pine tree was growing in it.



If field study had no other justification, it would be well worth all the time and effort spent on it because of its impact on language art skills. Most young children like to go outdoors -- like to learn about what they've seen and done -- and when their words are put down on paper (or the chalkboard) they like to read about what they've done and seen.

When they're working on an experience story cooperatively, they're willing to work on a sentence until it sounds just right -- to try to figure out the very best words to use -- to make their story accurate and interesting.



Soil helps trees by giving them minerals -- or fertilizer. Soil also stores water for the trees. Soil helps the trees stand up.

ANIMAL HOMES

We saw many signs of animals in the forest. There are many insect galls, mole runs, and animal dens. One of the dens is a fox den.

There are holes in dead trees where squirrels and some kinds of birds make their homes. Many insects are living in rotting trees and stumps.

We saw a brush pile that could be a home for some animals. We saw some deer tracks on the trail.

We think that Sinnissippi Forest provides homes for many animals.

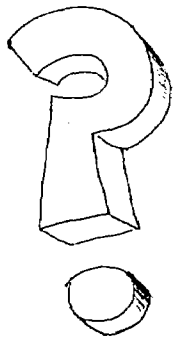
FUNGI IN THE FOREST

In the forest we saw many fungi. Some of them were mushrooms. We saw shelf fungus and turkey-tail fungus. The turkey tail fungus <u>really</u> looks like a turkey's tail.

The mushrooms were growing out of the ground but the other fungi were growing on dead trees and stumps. Fungi help break down the dead trees and stumps into small pieces to help make topsoil.

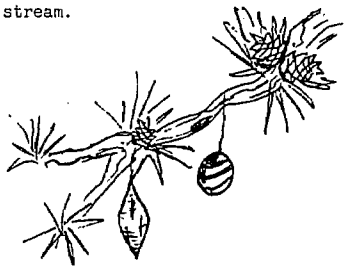
HOW FUNGI GROW

Fungi grow from spores instead of seeds. Spores are very, very, small in size. They grow in spore cases on the



Many people care nothing about what happens to the natural environment until they realize how it affects them.

Children need to understand that man is very much a part of the natural environment, even though he might live in a big city and never see a forest or a stream.



fungus plant. When the spore cases burst open the spores travel through the air until they find a place where they can grow. They can grow only on plants or animals. Some can grow on living plants and animals, but the ones we saw were growing on dead plant matter.

Fungus plants have to grow on plant or animal matter because they can not make their own food. They do not have chlorophyll or leaves. Leaves are food factories of green plants.

One kind of fungus plant that we might see in our homes is bread mold. We looked at bread mold with our Blisterscope and saw the spore cases. They looked like little balls on slender stems.

WHAT WE GET FROM TREES

We closed our eyes and tried to think what our classroom would be like without trees. We decided our classroom would be pretty bare. There would be no paper, books, charts, pencils, wooden floors, desks, tables, doors, piano, easel, chairs, shelves, innercom box, window frames, or picture frames.

Wood is used to make other things, too. Some of the important things that are made from wood are houses, furniture, telephone poles, boxes, and boats.

Some of our food comes from trees. Trees give us many kinds of fruits and nuts. We get maple syrup and maple sugar from certain kinds of maple trees.

Some tree farms grow evergreens for Christmas trees. Millions of evergreen trees are planted each year for Christmas trees.

Each time we write a new story we list words that the children have not read before.

It's fun for them to find out they can read some of these words.

NEW WORDS

1. Sinnissippi
2. important
3. different
4. changes
5. politely
6. poison
7. ivy
8. stickers
9. slacks
10. sleeves
11. protect
12. heavy
13. shape
14. curious
15. excited
16. through
17. remember
18. quieter
19. pretended
20. deciduous
21. against
22. border
23. carpet
24. rougher
25. pieces
26. Norway
27. spruce
28. sandstone
29. lichen
30. simple
31. acid
32. twigs
33. stumps
34. minerals
35. fertilizer
36. stores
37. galls
38. mole
39. provides
40. fungi
41. shelf
42. fungus
43. spores
44. instead
45. burst
46. travel
47. chlorophyll
48. factories
49. mold
50. Blisterscope
51. slender
52. decided
53. charts
54. easel
55. innercom
56. desks
57. frames
58. piano
59. furniture
60. certain
61. millions

APPENDIX B

CHECK LIST FOR FIELD TRIP PLANNING

Visit trip site					
List questions					
Organize questions					
Secure permission					
Principal					
Parents					
Owner or Manager					
Plan transportation					
Plan trip route					
Make trip rules					
Secure First-Aid kit					
Locate needed equipment					
Plan for drinking water					
Plan for food					

APPENDIX C

SAMPLE PERMISSION SLIP

My son/daughter_____
(name)

has my permission to go to_____
(destination of trip)

on an educational field trip on_____
(date)

Signed_____
(parent or guardian)

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