

VIII. Outdoor Safety – Field Studies

Success Through Good Planning and Sound Procedures

Taking students on field studies can be a valuable, positive addition to the science program, especially for younger children and/or in an environmental curriculum. An effective field study is most valuable when educational objectives are clearly identified and the activities are constructed or designed to achieve those objectives. When the study is well planned and organized, the possibility of accidents occurring is greatly reduced. Thorough preparation can ensure safety for all participants.

A. Preparation

1. Permissions and Notifications

- a. Obtain the principal's approval and inform other staff of the date and destination of the trip.
- b. Obtain parents' permission for their children to participate in studies off the school grounds. Have students take a written description of the trip home to their parents. Include in the information the types of clothing to be worn, safety precautions to be taken, and a parental permission form.
- c. On the day of the field study, post on the classroom/laboratory door or other conspicuous location a sign indicating the destination of the class trip and departure and return times.

2. Participation

- a. Determine the appropriateness of the field study for all students based on any physical disabilities, allergies, or other conditions that could impair or limit their participation.
- b. Compile a list of all students participating in the trip and provide a copy to the school office.

3. Arrangements

- a. Make appropriate arrangements with the special education staff, school nurse, and/or parents for students with special needs.
- b. Arrange for transportation to the site using transportation approved by the local school system.
- c. When planning a trip to a facility such as a factory or laboratory, arrange for an experienced facility representative to conduct the tour. The visit should be well supervised.

FIELD STUDIES ARE VALUABLE EDUCATIONAL EXPERIENCES WHEN TEACHERS . . .

- **keep student safety in mind.**
- **establish and enforce rules for safe student conduct.**
- **plan field studies by visiting the site, establishing emergency procedures, and obtaining parental permission.**
- **ensure that specimen collections are legal and serve valid educational purposes.**

- d. Arrange for parents or other responsible adults to assist with supervision as appropriate.

4. **Rules**

- a. Follow the rules your school or school system has established relating to trips outside the school. Make sure students know whether or not regular school rules apply during the field study off campus. Inform students of any specific school rules that apply to field trips.
- b. Before each trip, establish rules for safe student conduct and explain the rules to all participating students and adult supervisors.

5. **Site Survey**

Visit the site prior to the trip and conduct a survey of the area. The survey should include identification of any of the following conditions or potential dangers that need to be addressed in planning the trip:

- a. Conditions that could cause students to fall, such as steep terrain, slippery or unstable rocks, or animal burrows or holes
- b. Unstable objects overhead that may fall
- c. Foot bridges or other crossings which may collapse under student weight
- d. Deep water or currents strong enough to sweep students off balance
- e. Animals capable of injuring students, including poisonous or venomous animals, ticks, or mites
- f. Potentially allergic substances or poisonous plants
- g. Vehicle traffic
- h. Seasonal hunting areas
- i. Electrical hazards
- j. Threatened and endangered species
- k. Areas that have been sprayed with herbicides or pesticides

6. **Precautions and Emergencies**

Before the field study, some precautionary measures should be taken to ensure a safe trip. These measures include the following:

- a. Based on the pre-trip survey, map the safest passage through the area.
- b. Instruct the students in **S**
 - safe methods of movement through the study area, with special caution given to the transport of equipment

- recognition and avoidance of poisonous plants and animals.  URL 11
 - the need for and use of appropriate shoes and other clothing.  URL 34
 - safe methods for working on or near bodies of water (including the appropriate use of the buddy system and life jackets).
Note: Basic water safety rules may be found in first-aid, Scouting, and Red Cross publications.  URL 16
 - the proper use of equipment, including the use of chemical splash safety goggles (or other eye protective devices).
 - proper use and handling of chemicals used for water and soil testing.
- c. Prepare for emergencies in the following ways:
- Determine a method for contacting the school office in the case of an emergency.  URL 69
 - Be prepared to follow the school or school system's emergency procedures in the event of an accident.
 - Maintain up-to-date medical information and emergency telephone numbers for each student.
 - Be aware of any medications students are currently taking and determine if the medications will need to be taken while on the trip.
 - Be sure that first-aid kits are readily available and check the kits to make sure they contain the essential items.
 - Identify procedures for the immediate, on-site treatment for insect or animal bites, accidental ingestion of poisonous plant matter, or other medical emergencies until professional medical treatment is obtained.
 - Be prepared to provide appropriate means for transporting an injured student to receive treatment.

B. At the Site

1. Monitor students to ensure that they are adhering to the precautions and rules developed in planning the trip.
2. Specific considerations for safety at the site include the following:
 - a. Goggles
 - (1) Require students to wear chemical splash safety goggles whenever they use laboratory reagents or liquids. Students should wear impact goggles when using sharp objects such as chipping hammers or picks. All persons in close proximity to such activities must also wear goggles.

► See Chapter IV.A, Eye Protection Concerns.

(2) If students share goggles, the goggles must be cleaned and disinfected after each use.

► See Chapter III.D.5, Sanitation of Safety Goggles.

b. Collecting Organisms

Field study should not include the collection of organisms unless a valid educational purpose is served by the collection and adequate research has been done to ensure both the safety and legality of the collection.

► See Chapter IX, Biology and Environmental Science.

c. Containers

Use plastic, paper, or cloth containers to prevent cuts and loss of specimens due to breakage. Avoid glass collection jars or containers where possible.