

Appendix B

Sampling Safety

The Stream Side Science Curriculum provides the opportunity for students and teachers to collect data in the field, and work in and around water. To ensure the safety of your students, consider the following guidelines before going out to your sampling site.

How to manage a group in the field

- Have an adult supervisor accompany each group, with six students or less per adult.
- Keep a good line of communication between all groups at all times and have a plan in case students become separated. For example, keep groups within shouting distance and establish a central meeting place.
- Make sure each group has access to a first aid kit and knows how to use it.
- Be aware of medical considerations, such as students with allergies to bee stings.
- Know the causes and early warning signs of hypothermia and heat exhaustion.

How to choose a safe site

- Before the field trip, visit the site to make sure there is easy public access and available parking.
- Avoid areas with steep, slippery banks. Be aware of holes, vertical banks and other hazards that can be especially difficult to see when the banks are very heavily vegetated.
- Scout the area for hazards such as broken glass, rusted wire or poisonous plants.
- Flag these areas to avoid if necessary.

When is it unsafe to enter the stream?

- Moving water is deceptively dangerous. Don't let students enter water over their knees or water that is moving very fast (more than 1 foot per second).
- Cold water can cause hypothermia, even on warm days. Students who intend to enter the water should wear proper clothing (waders or good wading shoes) and should bring a change of clothing.
- Avoid any waters that are obviously polluted or are directly downstream from a pollution discharge pipe.
- Never sample during a lightening storm. Be aware of sudden storms higher in the watershed that could produce flash floods.
- Never let students enter the water if adult supervisors are not present.

Safety guidelines when conducting chemical tests

- Avoid contact between chemicals and eyes, nose, and mouth. NEVER open chemical packets with teeth -- use the scissors provided or tear the packets.
- All the tests are designed to be safe when used correctly, but it is a good idea to avoid touching any chemicals directly.
- After all field activities, wash hands thoroughly. Use lots of water and avoid no-water cleaners.
- The solutions remaining from the tests can be mixed together without any risk. Deposit all liquid waste in a plastic screw-top waste bottle such as a pop bottle. Deposit all solid waste (packets and glass ampoules) in a separate screw top bottle. Liquid waste can be safely flushed down a school drain. Make sure that glass waste is also disposed of safely.