

Earthquakes are not an uncommon occurrence in South Carolina.

The state experiences numerous minor earthquakes (magnitudes of approx. 1.0 to 3.0) annually. Most of them are so minor, they cannot be felt. However, the possibility does exist for the state to experience stronger seismic events.

By having an earthquake safety program, your school can help to save lives and reduce property damage. An earthquake safety program is more than preparing a response plan. It is an ongoing activity that includes identifying the hazards in your school; mitigating the risks; conducting earthquake drills; and involving teachers, parents, and students in preparedness.

In the event of an earthquake, government resources will be taxed and may be unable to respond to all requests for assistance. The schools must be self-sufficient for a time, capable of relying on their own resources to protect and care for students and staff. This brochure will serve as a basis for developing action plans for your school's earthquake safety program.

EARTHQUAKE PREPAREDNESS FOR SCHOOLS

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THE PLAN

The Planning Process

To develop an effective and workable earthquake safety program for your school, a master plan is needed to provide a framework as well as to describe the responsibilities of staff members.

To begin developing a model plan for your school district, start by considering the following list of suggestions.

- ★ Establish an Emergency Preparedness Planning Committee. Talk to teachers, students, and parents to prepare all members of the school community to cope safely and effectively during and following an earthquake.
- ★ Divide planning activities into manageable components.
- ★ Develop a simple outline of your program such as:
 - a. Lines of authority in an emergency.
 - b. School closure following a disaster.
 - c. Release of students to parents or guardians.
 - d. Public information and media coordination.
 - e. Identify emergency resources in your immediate area (e.g., medical facilities, commercial food outlets, parent volunteers).
 - f. Develop emergency notification procedures such as a telephone chart.
 - g. Establish a communications system.
 - h. Prepare committee work plans. Display tasks and activities for each planning objective on a timeline and decide how and when each objective will be accomplished.
 - i. Plan and practice emergency drills.
 - j. Select an alternate shelter to use if your school building becomes inaccessible.
 - k. Predetermine escape routes and choose evacuation leaders.
 - l. Designate an outdoor evacuation assembly area away from buildings, overhead power lines, underground sewer and gas lines.

Once you have completed a preliminary plan, it is time to select issues for immediate action. The following areas should be addressed in all comprehensive earthquake safety programs:

Hazard Identification

- ★ Obtain or draw a map of the school and grounds. Clearly mark exits and determine a variety of safe escape routes.
- ★ Identify hazards in the building and classrooms. Bolt heavy furniture/objects, secure hazardous materials, know the location of main power and water shut-offs, and identify any potential obstacles to exit routes.

Potential Hazards:

- ▶ Freestanding lockers, bookshelves, file cabinets, storage units lining the hallway
- ▶ Hanging light fixtures and plants
- ▶ Large windows and glass containers on unsecured shelves
- ▶ Storerooms containing wall units and hazardous materials
- ▶ Heavy furniture such as bookshelves, desks, etc.
- ▶ Televisions, video equipment, aquariums, pictures, and pianos

Identify the location of smoke detectors, fire extinguishers, fire hoses, and toxic materials/hazardous areas.

Earthquake Drills

The essential components of earthquake drills are classroom discussions, demonstrations, and exercises designed to help students learn and practice where to seek shelter and how to protect their heads and bodies from falling objects. Remember it is important to stay calm during an earthquake. If you are inside, stay inside during the earthquake. If you are outdoors, stay there. Most injuries in an earthquake occur as people are entering or leaving buildings. Life-protection actions must be taken immediately at the first indication of ground shaking.

- ▶ Drop and cover under a heavy desk, table, or bench until shaking stops.
- ▶ Turn away from windows.
- ▶ Check to make sure everyone is safe.
- ▶ Inspect classroom for dangerous situations.
- ▶ Listen for instructions.
- ▶ Evacuate to safety area.

Teachers should talk calmly to students, and review the procedure for evacuating the classroom.

What to expect during an earthquake:

- ★ Freestanding objects and bookshelves are likely to topple. Wall-mounted objects may shake loose and fly across the room.

- ★ Suspended ceiling components may pop out, bringing light fixtures, mechanical diffusers, sprinkler heads, and other components down with them. Door frames may be bent by moving walls and may jam the doors shut. Moving walls may bend window frames, causing glass to shatter, and sending dangerous broken glass into the room.

Evacuation Checklist for Teachers

- ★ Wait to hear from an administrator, or the designated scout, about what to do.
- ★ There may be more danger outside your building or facility than there is inside.
- ★ Before any decision is made to vacate all or part of a school, someone must find out that there IS 1) a safe route out, and 2) a safe place to assemble the students outside.
- ★ If you are in a dangerous classroom--the ceiling has collapsed, wires are crackling, broken glass or chemicals are all over the floor, you smell gas or smoke--you will want to leave, BUT you must do some reconnaissance before you move to safety.
- ★ Appoint someone to cover the students while you find the best way to get out and the safest place to go. You may not need to go outside, but merely move from one inside room to another.
- ★ Account for all your students before you leave the classroom.
- ★ If your classroom is dangerous, you may want to take injured students with you, or move them a short way to a safer room. If you must leave an injured student, post a large, visible sign saying the student is there.
- ★ The lights will probably be out--ALWAYS have a flashlight that works.
- ★ Be alert, as you lead students down stairwells or corridors, to anything (dangling lights, ceiling struts, broken glass, slippery floors) that could hurt them or you.

Always plan for the UNEXPECTED:

- ▶ Power failures/gas leaks
- ▶ Jammed doors
- ▶ Alternate exit routes
- ▶ Debris in halls and stairways
- ▶ Aftershocks
- ▶ Smoke/fire
- ▶ Injured/immobilized students and teachers
- ▶ Frightened students

Immediate Response & Care Requirements

There is no guarantee that emergency medical or fire personnel will be able to respond to your school immediately.

- ★ Attend to the first-aid needs of injured students and school personnel.
- ★ Extinguish small fires before they get out of hand.
- ★ Check damage to utility systems.
- ★ Seal off and indicate areas where hazardous materials have spilled.
- ★ Calm and reassure frightened students.
- ★ Keep records of students sent to hospitals or released to parents or other authorized persons.

Communication

After the earthquake, essential services may be out for a few days. The telephone system, if operational, may be overwhelmed by volume. If your phone is working, use it for essential calls only. Listen to the Emergency Alert System for official information concerning what to do and the extent of damage in your area.

- ★ Determine on-site communication needs. Develop emergency back up power for radios, transmitters, and intercoms.
- ★ Determine off-site communication resources and develop reporting procedures.
- ★ Develop a procedure for conveying emergency information to parents.

Post-Earthquake Shelter Planning

Initially, emergency response personnel will probably be overwhelmed and may be unable to respond to all requests for help. You may be on your own until the situation has settled somewhat.

- ★ Be prepared for aftershocks. Although most of these are smaller than the main shock, some may be large enough to cause additional damage or topple weakened structures. Do not reenter the building until told to do so.
- ★ In an aftershock, everyone should drop and cover until the shaking stops. Upon arrival at a new safe place, communicate the location to the administrator by sending a runner or using a walkie-talkie.