
Training and Exercises

Training and Exercises

Objectives

At the end of this unit, the participants will be able to:

- Explain the steps involved in exercise development.
 - List the types of exercises and the purposes of each.
 - Identify the exercises required for the earthquake portion of their school's Emergency Operations Plan (EOP).
-

Scope

This unit covers the following topics:

- Unit Introduction
 - Why Exercise the Plan?
 - How To Exercise the Plan: Homeland Security Exercise and Evaluation Program (HSEEP)
 - After Exercises: Evaluation
 - Tabletop Exercise
 - Additional Resources
 - Unit Summary
-

Methodology

The instructor will begin the unit by the discussing the importance of training and exercising the school's earthquake response procedures with students and staff.

The instructor will review the types of exercises that comprise the Homeland Security Exercise and Evaluation Program (HSEEP). Participants will then complete a final, tabletop exercise that presents an earthquake scenario and asks them to apply what they learned about earthquake response.

The instructor will conclude the unit with a description of additional Web resources that participants can use to obtain information about training and exercising the earthquake portions of the EOP.

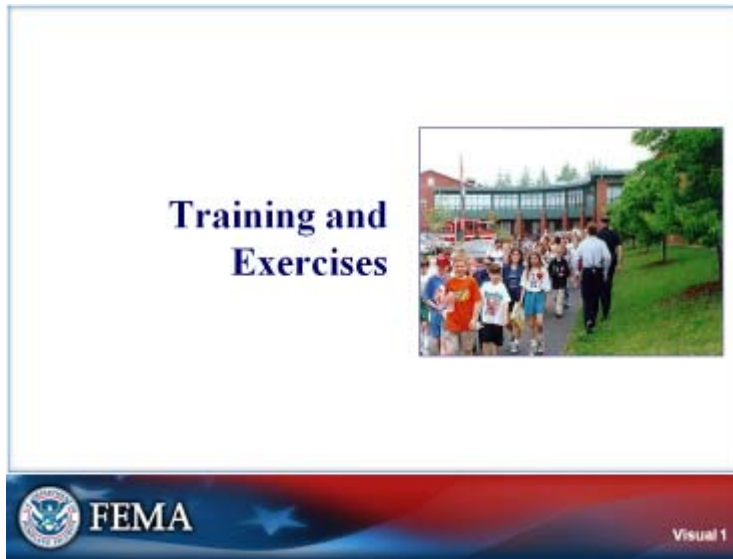
Training and Exercises

Time Plan

A suggested time plan for this unit is shown below. More or less time may be required, based on the experience level of the group.

Topic	Time
Unit Introduction	3 minutes
Why Exercise the Plan?	25 minutes
How To Exercise the Plan: HSEEP	90 minutes
After Exercises: Evaluation	15 minutes
Tabletop Exercise	60 minutes
Additional Resources	15 minutes
Unit Summary	2 minutes
Total Time	3 hours 30 minutes

**Display
Visual 1**

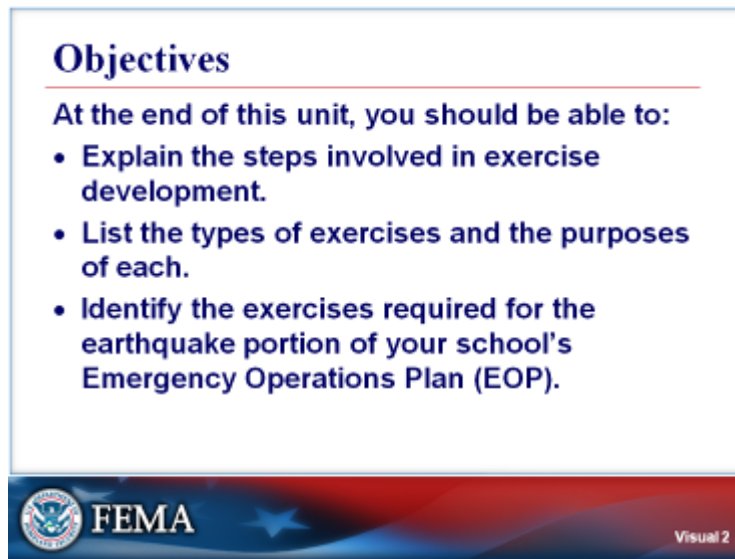


Instructor Notes: Present the following key points.

Training and exercises are both essential to a successful earthquake response. School staff, students, and parents need to know what to do after an earthquake.

This unit introduces concepts of training and exercises and describes types of exercises that can be used with your school staff and students.

Display
Visual 2



Objectives

At the end of this unit, you should be able to:

- Explain the steps involved in exercise development.
- List the types of exercises and the purposes of each.
- Identify the exercises required for the earthquake portion of your school's Emergency Operations Plan (EOP).

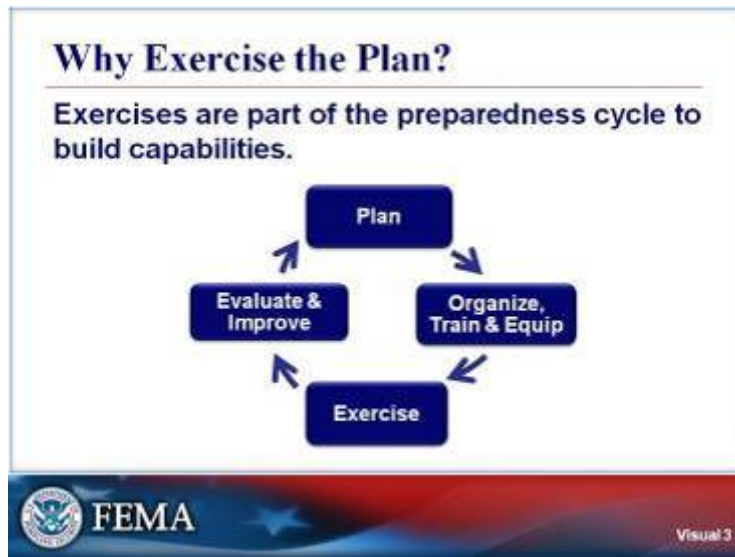
FEMA Visual 2

Instructor Notes: Present the following key points.

Once a school has developed an Emergency Operations Plan (EOP), teachers will participate in the education of staff, students, and parents and guardians about the emergency procedures. They will also be expected to participate in the planning and implementation of exercises to evaluate those procedures.

At the end of this unit, the participants will be able to:

- Explain the steps involved in exercise development.
- List the types of exercises and the purposes of each.
- Identify the exercises required for the earthquake portion of their school's Emergency Operations Plan (EOP).

Topic**Why Exercise the Plan?****Display
Visual 3**

Instructor Notes: Present the following key points.

Exercises are part of an ongoing preparedness cycle:

- Create an emergency response plan.
- Organize supplies, conduct training, and equip students and staff to implement the plan.
- Exercise the plan.
- Evaluate the results and identify areas for improvement in the plan. Then, repeat the cycle.

The preparedness cycle ensures that specific capabilities that are inherent to a variety of scenarios (e.g., evacuation and lockdown) are integrated into a workable plan to safeguard the school community. Capabilities provide the means to achieve a desired outcome by performing critical tasks, under specified conditions, to target levels of performance.

**Display
Visual 4**



Instructor Notes: Present the following key points.

Training on EOP procedures is critical to the successful implementation of those plans and procedures. Only through training can staff and students learn to follow the procedures correctly and to fulfill their roles and responsibilities. Reunification of families will occur more quickly and more efficiently if all family members are trained in what to expect, what to do, how to do it, and where to go.

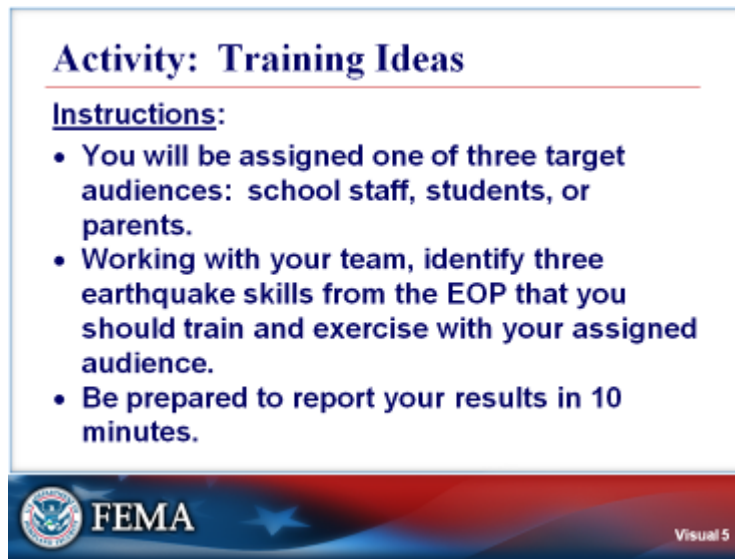
Training is critical because it expands staff, student, and parent knowledge of earthquake procedures in the EOP so that:

- Staff and students can follow procedures correctly.
- Staff and students can fulfill their roles and responsibilities.
- Families are reunified following an earthquake as quickly as possible.

Exercises test the school's earthquake procedures in the EOP and help to:

- Reveal training needs.
- Reveal planning weaknesses.
- Reveal resource needs.
- Improve coordination.
- Clarify roles and responsibilities.
- Improve individual performance.
- Identify a path forward.

Display
Visual 5



Activity: Training Ideas

Instructions:

- You will be assigned one of three target audiences: school staff, students, or parents.
- Working with your team, identify three earthquake skills from the EOP that you should train and exercise with your assigned audience.
- Be prepared to report your results in 10 minutes.

FEMA Visual 5

Instructor Notes: Conduct the following activity.

Preparation: Divide the class into three groups and assign one group to identify training needs for staff, one group for students, and one group for parents.

Purpose: This activity will enable the participants to identify capabilities (procedures) in the EOP that should be trained and exercised with students, staff, and parents.

Estimated Time: 15 minutes (10 minutes activity + 5 minutes debrief)

Instructions:

1. You will be assigned one of three target audiences: school staff, students, or parents.
2. Working with your team, identify three earthquake skills from the EOP that you should train and exercise with your assigned audience.
3. Be prepared to report your results in 10 minutes.

Debrief:

Ask:

What capabilities did you identify for your assigned group?

Acknowledge the responses. If not mentioned, provide the following examples:

- Students: Immediately performing “Drop-Cover-Hold” procedures during an earthquake, evacuating the building, and re-assembling the class at an outdoor location.

Debrief: (Continued)

- Staff: Identifying and mitigating hazards in the classroom, evacuating the building, performing first aid, and checking and shutting off utilities.
- Parents: Identifying and mitigating hazards in the home, staying informed after an earthquake (e.g., locating information via the school Web site or email notifications), and following post-earthquake reunification procedures.

Topic**How To Exercise the Plan: HSEEP****Display
Visual 6**

How To Exercise the EOP: HSEEP

The Homeland Security Exercise and Evaluation Program (HSEEP) provides:

- A common exercise policy and program guidance.
- Consistent terminology that can be used and understood.
- Tools to plan, conduct, and evaluate exercises to improve overall preparedness.

FEMA Visual 6

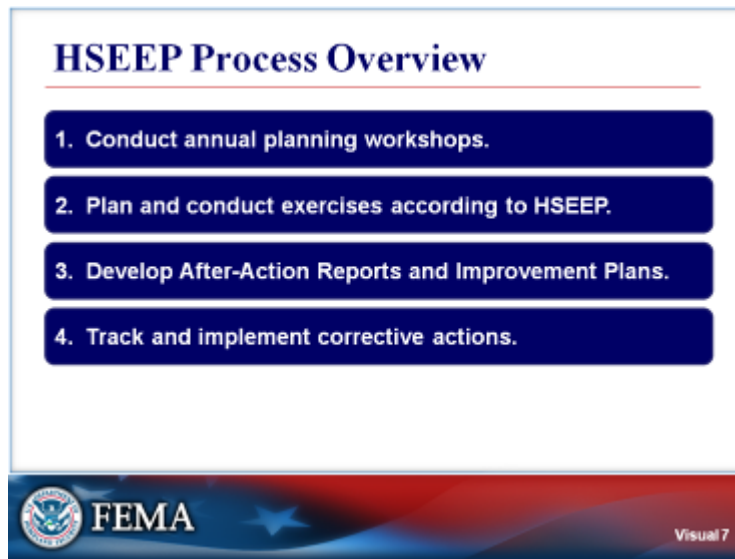
Instructor Notes: Present the following key points.

The Homeland Security Exercise and Evaluation Program (HSEEP) is a capabilities- and performance-based exercise program.

HSEEP provides:

- A common exercise policy and program guidance.
- Consistent terminology that can be used and understood.
- Tools to plan, conduct, and evaluate exercises to improve overall preparedness.

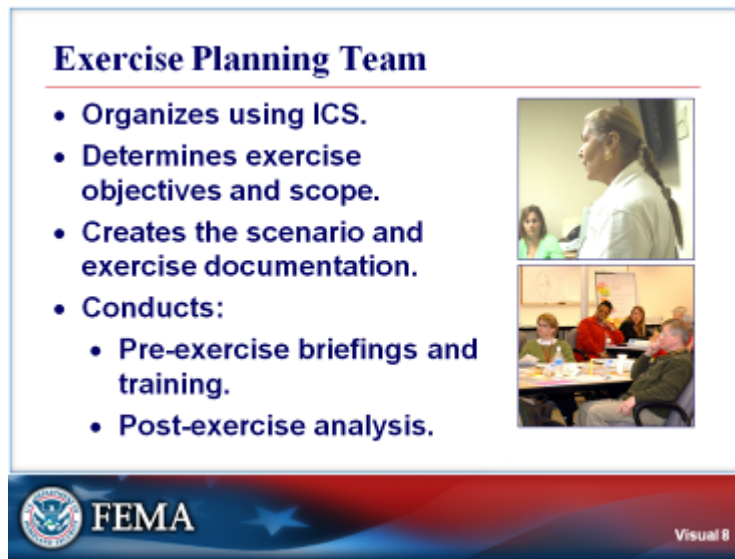
It is important to use HSEEP when developing earthquake exercises for your school.



Instructor Notes: Present the following key points.

The HSEEP program identifies the following performance requirements for exercise program management, design, development, conduct, evaluation, and improvement planning:

1. **Conduct an annual Training and Exercise Planning Workshop (TEPW), and maintain a Multi-Year Training and Exercise Plan.** The purpose of this workshop is to translate strategic goals and priorities into specific training and exercise activities and to develop a schedule for those activities.
2. **Plan and conduct exercises in accordance with the guidelines set forth in HSEEP policy.** Using a series of planning conferences, the design team ensures that the training and exercises are well documented so that all participants are aware of the objectives, purpose, roles and responsibilities, and exercise logistics. HSEEP policy guidance includes an overview of exercise planning and conduct, sample documents for all potential presentations, and manuals for all types of exercises.
3. **Develop and submit a properly formatted After-Action Report/Improvement Plan (AAR/IP),** based on observations of the relevant capabilities and tasks. Capture events as they occur during an exercise, analyze the events relative to exercise objectives, and suggest development actions to either further enhance or improve agencies' planning and response capabilities.
4. **Track and implement corrective actions identified in the AAR/IP** to monitor progress (e.g., identifying a need for additional training, equipment, exercises, coordination, or plans/procedures).

**Display
Visual 8**

Exercise Planning Team

- Organizes using ICS.
- Determines exercise objectives and scope.
- Creates the scenario and exercise documentation.
- Conducts:
 - Pre-exercise briefings and training.
 - Post-exercise analysis.

FEMA Visual 8

Instructor Notes: Present the following key points.

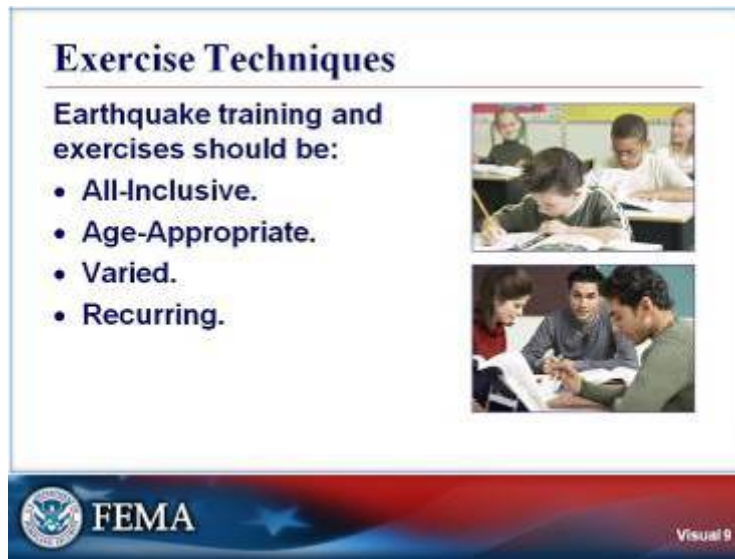
The exercise planning team develops an overall exercise plan for your school. The team lists exercises to develop and determines exercise sequence.

The exercise planning team should be kept to a manageable size, but include all stakeholders, such as:

- One or more school administrator(s).
- The local emergency manager.
- The individual with overall responsibility for the school multihazard EOP, usually a staff member.
- Persons knowledgeable in the area to be tested.

The team is organized using Incident Command System (ICS) structure and is responsible for:

- **Determining the exercise objectives and scope.** This includes identifying the section(s) of the EOP to be tested, the operations to carry out, and the skills, or Target Capabilities, that will be validated.
- **Creating the scenario** using the following guidelines:
 - Exercise only the functions identified in the objectives.
 - Don't add unnecessary complications.
 - Develop any associated exercise documentation.
 - Plan for evaluation "up front," including the evaluation measures
- **Conducting any pre-exercise briefings** and training.
- **Conducting post-exercise analysis** and creating plans for ongoing improvement.



Exercise Techniques

Earthquake training and exercises should be:

- All-Inclusive.
- Age-Appropriate.
- Varied.
- Recurring.

The slide features two photographs: the top one shows a group of students in a classroom setting, and the bottom one shows three students looking at a document together. The FEMA logo is visible in the bottom left corner, and 'Visual 9' is in the bottom right corner.

Instructor Notes: Present the following key points.

Like the materials the participants design for all aspects of the school curriculum, earthquake training and exercises should be all-inclusive, age-appropriate, varied, and recurring.

All-inclusive training is designed to include all intended target audiences. Examples include:

- Staff, such as administrators, teachers, substitute teachers, support staff (e.g., cafeteria workers, maintenance staff, custodians, bus drivers, and crossing guards), and volunteers.
- Students, including those with special needs or limited English proficiency.
- Parents and caregivers, including traditional and nontraditional family units (e.g., divorced/multiple households), and those with limited English proficiency.

Age-appropriate training presents concepts in a manner that can be easily understood and ensures that the target audience is prepared, not frightened.

Varied training helps create “new” interest in an “old” topic. Examples include:

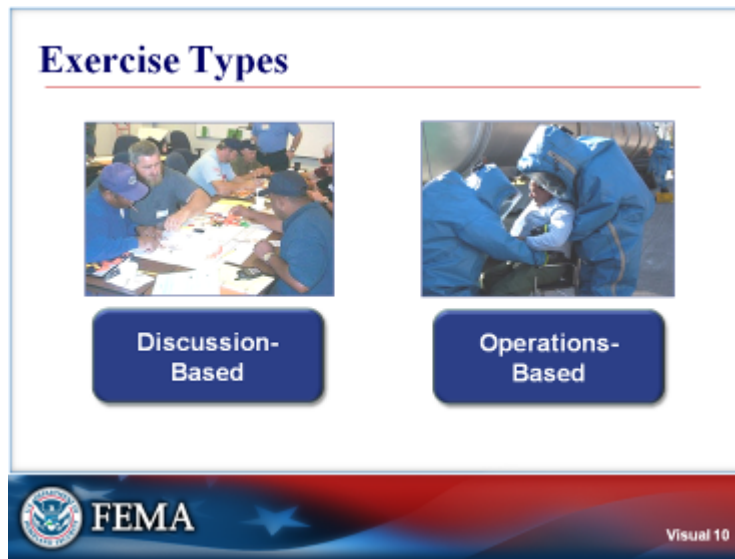
- A formal earthquake preparedness curriculum, with prepared courses for all grade levels. Resources for earthquake-specific curriculum development are available online and are listed in the resources section at the end of this unit.
- Reminder-level training, such as posters, signs, or a “tip of the day.”
- Earthquake activities that are linked to Standards of Learning (SOLs), such as hazard hunts for school and home, storybooks, checklists, experiments, writing and drawing activities, or a themed science fair.

Varied Training (Continued)

- Guest speakers and classroom visitors, such as:
 - Emergency management personnel.
 - Search and rescue teams.
- Specialized skills training, such as Community Emergency Response Team (CERT or Teen CERT) training.
- Both small-scale and large-scale training exercises.
- Both discussion-based and hands-on training.

Recurring training ensures that the plan doesn't "gather dust" on the shelf. Periodic exercises provide reminders and refresh learning.

Display
Visual 10



Instructor Notes: Present the following key points.

HSEEP describes several types of exercises that are organized into two main categories:

- Discussion-based exercises
- Operations-based exercises

Each category will be described in more detail on the next visuals.

**Display
Visual 11**

Instructor Notes: Present the following key points.

The first building blocks of an exercise program are discussion-based exercises. Discussion-based exercises make participants familiar with current plans and procedures and may be used to develop new plans and procedures.

Types of discussion-based exercises include the following:

- **Seminars** are informal discussions, presentations, or orientations to new or updated plans, policies, and procedures. Example: A seminar to inform staff of a new evacuation procedure.
- **Workshops** resemble a seminar, but build specific products, such as a draft plan or policy. Example: A training and exercise plan workshop to develop a Multi-Year Training and Exercise Plan.
- **Tabletop exercises** involve key personnel discussing hypothetical scenarios in an informal setting. This type of exercise involves indepth discussion and is used to assess the EOP and identify strengths and shortfalls in the plan, policies, and procedures.
- **Games** use a multiplayer concept to create a dynamic decisionmaking environment. Games can be software based and competitive in nature and may involve playing against the computer or “system.”


Additional information about tabletop exercises will be provided on the next few visuals.



Display
Visual 12

Tabletop Exercises

Key personnel discuss simulated scenarios to:

- Assess plans, policies, and procedures.
- Answer the question, “What if that happened here?”



 **FEMA**  Visual 12

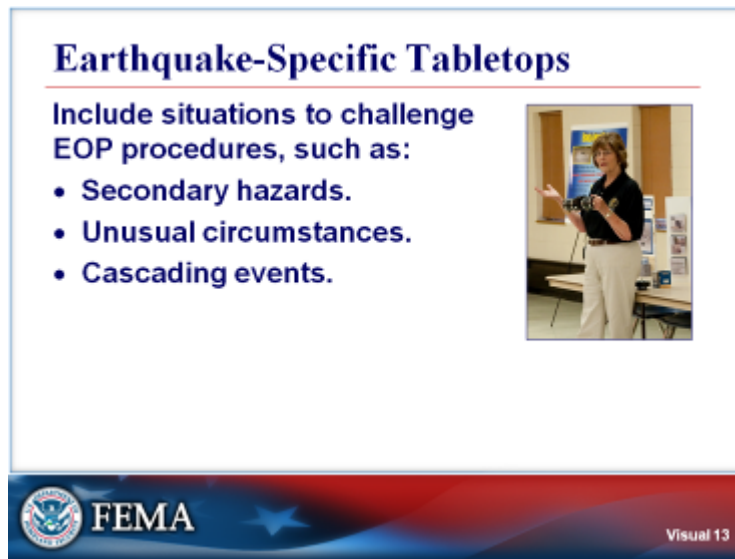
Instructor Notes: Present the following key points.

In tabletop exercises, key personnel discuss simulated scenarios. The scenarios are often based on actual incidents at the school or recent events in the news, particularly from neighboring communities or nearby States.

Tabletop exercises evaluate plans, policies, and procedures and help answer the question, “What if that incident happened here?”

A tabletop exercise requires one or more facilitators. The exercise paints a picture by presenting a scenario. The facilitator then:


- Asks open-ended questions related to the scenario, such as “What is your school policy in this situation?”
- Encourages free-flowing discussion and avoids guiding the discussion.



**Display
Visual 13**

Earthquake-Specific Tabletops

Include situations to challenge EOP procedures, such as:

- **Secondary hazards.**
- **Unusual circumstances.**
- **Cascading events.**



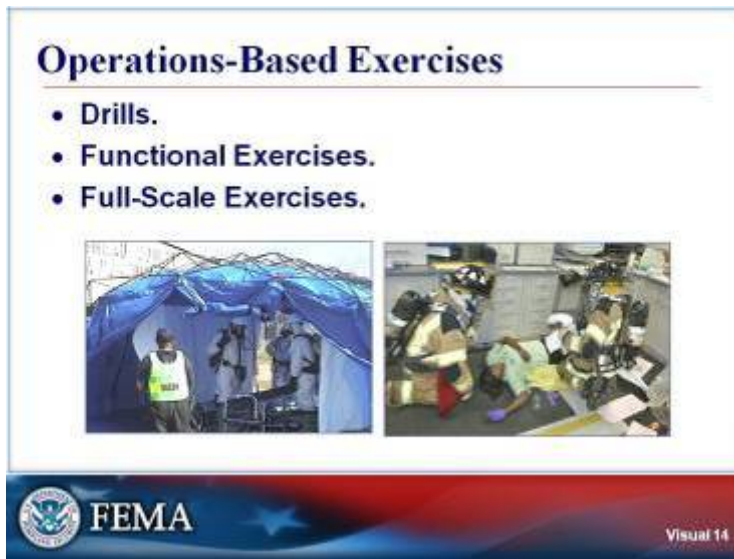
 **FEMA**  Visual 13

Instructor Notes: Present the following key points.

An earthquake tabletop exercise should include situations that challenge the procedures in your EOP and help identify shortfalls or areas for improvement.

The exercise should include:

- **Secondary hazards** (e.g., fallen furniture and equipment, broken glass and debris, hazardous material spills, fire, communications breakdowns, transportation system breakdowns, and power outages).
- **Unusual circumstances** (e.g., an earthquake during an assembly or when students are between classes).
- **Cascading events** that increase the complexity of the incident over time, such as casualties, area residents arriving to use the school as a shelter, or parents attempting to circumvent reunification procedures.



Instructor Notes: Present the following key points.

Operations-based exercises validate plans and procedures, clarify roles and responsibilities, and identify resource gaps in an operational environment.

Types of operations-based exercises include the following:


- **Drills** are designed to be limited in focus and scope, and usually test a single, specific operation or function within a single entity. Examples include a school evacuation drill or a medical team drill.
- **Functional exercises** test specific plan functions, generally one function at a time. They focus on coordination and command between agency coordination centers, but do not involve “boots on the ground” (first responders or emergency officials responding to an incident in real time). Examples of functional exercises include:
 - Shelter in place and student care (overnight retention).
 - Student accounting.
 - Parent/student reunification.
 - Medical treatment.
 - Emergency public information.
 - Logistics.
- **Full-scale exercises** are multiagency, multijurisdictional, multidiscipline exercises involving full support systems (e.g., district central offices, district and community EOCs, school command posts). These exercises are “boots on the ground” responses that actually move resources, and are very resource intensive. Such exercises also have considerable safety implications.



Additional information about drills will be provided on the next few visuals.

Display
Visual 15

Drills

- Practice and perfect a single emergency response.
- Concentrate the efforts of a single function (e.g., evacuation or mobilizing the district command team).
- Provide “hands on” field experience.



 **FEMA**  Visual 15

Instructor Notes: Present the following key points.

Drills provide a means to practice and perfect a single emergency response. They concentrate the efforts of a single function, such as evacuation or mobilizing the district command team, and provide “hands on” field experience.

Features of a drill include:

- Coordination and supervision.
- Instant feedback.
- Narrow focus.
- Realistic environment.

**Display
Visual 16**

Types of Earthquake Drills

- Mobilizing teams.
- Implementing a buddy system.
- Issuing student identification.
- Evacuating the school building.
- Containing hazardous materials spills.
- Extinguishing small fires.
- Using emergency communications.
- Shutting off utilities.

FEMA Visual 16

Instructor Notes: Present the following key points.

Most drills will focus on priority actions that are required immediately after an earthquake.

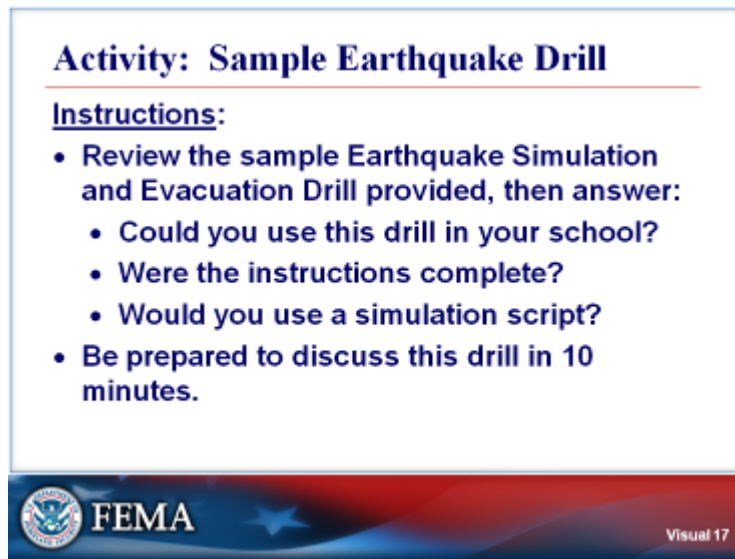
Examples of earthquake drills include:

- Mobilizing teams.
- Implementing a buddy system.
- Issuing student identification.
- Evacuating the school building.
- Containing hazardous materials spills.
- Extinguishing small fires.
- Using emergency communications.
- Shutting off utilities.*

*Note: Some utilities must be turned back on by the utility company. Coordination with the school Facility Department is extremely important.

The list is not all-inclusive. Other types of drills could be important, depending on circumstances at individual schools.

Display
Visual 17



Activity: Sample Earthquake Drill

Instructions:

- Review the sample Earthquake Simulation and Evacuation Drill provided, then answer:
 - Could you use this drill in your school?
 - Were the instructions complete?
 - Would you use a simulation script?
- Be prepared to discuss this drill in 10 minutes.

FEMA Visual 17

Instructor Notes: Conduct the following activity.

Purpose: This activity will enable the participants to review a detailed school earthquake evacuation drill.

Estimated Time: 15 minutes (10 minutes activity + 5 minutes debrief)

Instructions:

1. Read through the Earthquake Simulation and Evacuation Drill in the Student Manual, including: Content Concepts, Objectives, Procedure, Learning Links, Reminders, Vocabulary, Earthquake Simulation Script, and Drill and Evacuation Checklist.
2. Answer the questions listed on the visual.
3. Be prepared to discuss the drill in 10 minutes.

Debrief:

After 10 minutes, ask:

Could you use this drill in your school?

Were the instructions complete?

Would you use a simulation script?

Acknowledge the responses. Note that the participants will have an opportunity to adapt this drill, and implement their own suggestions, in the second part of this activity.

Earthquake Simulation and Evacuation Drill

Source: Earthquake Safety Activities for Children and Teachers (FEMA-527)

Content Concepts

1. Students can cope with hazards during evacuation.
2. Students are first responsible for their own safety, but also can help if others are injured.
3. After an earthquake, students can cope with the disturbed environment and their own emotional reactions.

Objectives

Students will:

- Identify hazards they might find during evacuation.
- Describe ways of helping others who are injured during earthquakes.
- Describe feelings they might have and dangers they might face after an earthquake.

Learning Links

- **Language Arts:** Writing and reading hazard descriptions, discussing hazards and coping strategies, discussing and writing (older children) about what happens after an earthquake.
- **Social Studies:** Practicing Drop, Cover, and Hold and evacuation procedures, discussing responsibility for one's own safety in an emergency, and what can be done for others.

Procedure

1. Review classroom earthquake drill procedures with students and have them practice the Drop, Cover, and Hold routine. Do the drill with or without using the simulation script.
2. Take the class to the cafeteria and school library and discuss quake-safe actions to take in each of these settings. Have the children demonstrate those actions.
3. Tell students that during an earthquake it's important to stay where they are and take immediate quake-safe action. After the ground stops shaking, it is time to evacuate the building. Explain some of the hazards that may exist even after the major quake has passed, including aftershocks, fires, live electrical wires, and fumes.
4. Walk the class through your regular fire drill route to an open area outdoors that you have chosen in advance. Ask students to make mental notes as they go along of things that might become hazards during an earthquake, and share their ideas when you reach your designated site. Write each appropriate suggestion on an index card. The list of possible hazards may include:
 - a. power failure (Is there emergency lighting available?)
 - b. halls or stairways cluttered with debris (Are there lockers or trophy cabinets along hallways that could fall and block your path?)
 - c. smoke in the hallway
 - d. an exit door that jams and will not open
 - e. an aftershock (Students should stop walking immediately and begin Drop, Cover, and Hold.)
 - f. bricks, glass, and debris outside the doorway
 - g. electrical wires fallen on the ground

Earthquake Simulation and Evacuation Drill (Continued)

Procedure (Continued)

5. Return to the classroom. Hand one of the students an index card with a description of a hazard. Discuss this hazard and its impact on evacuation. Continue handing out the cards, one at a time, until all the hazards have been discussed. Give students an opportunity to express ideas about how they can cope with the hazards and evacuate safely.

Reminders

For the Teacher

- Take cover.
- Talk calmly to students.
- Give instructions for evacuation or other emergency.

When No Shelter Is Available

Move to an inside wall. Kneel next to the wall, facing away from windows. Bend head close to knees, cover sides of head with elbows, and clasp hands behind neck. If a coat is available, hold it over your head for protection from flying glass, and ceiling debris.

Earthquake Safety Reminders for Students

If you're inside:

- Stay inside.
- Take cover immediately under a table, desk, or counter.
- Keep quiet and listen for instructions.
- Remain in safe position for at least 60 seconds, or until the shaking has stopped and your teacher tells you to leave your shelter.

If you're outside:

- Stay outside.
- Go to an open area away from hazards.
- Keep quiet and listen for instructions.

If you are in a school bus or a car when the quake starts shaking:

- The driver should stop as soon as possible away from buildings, power lines, bridges, and highway overpasses and underpasses.
- Passengers should stay in the vehicle and hold on (cars and buses have "shock" absorbers).

Vocabulary

evacuation – Evacuation is the act of emptying completely. When we evacuate a building, we want to leave it quickly, quietly, and safely.

foreshock – A foreshock is an earthquake which comes before the main quake and is less severe.

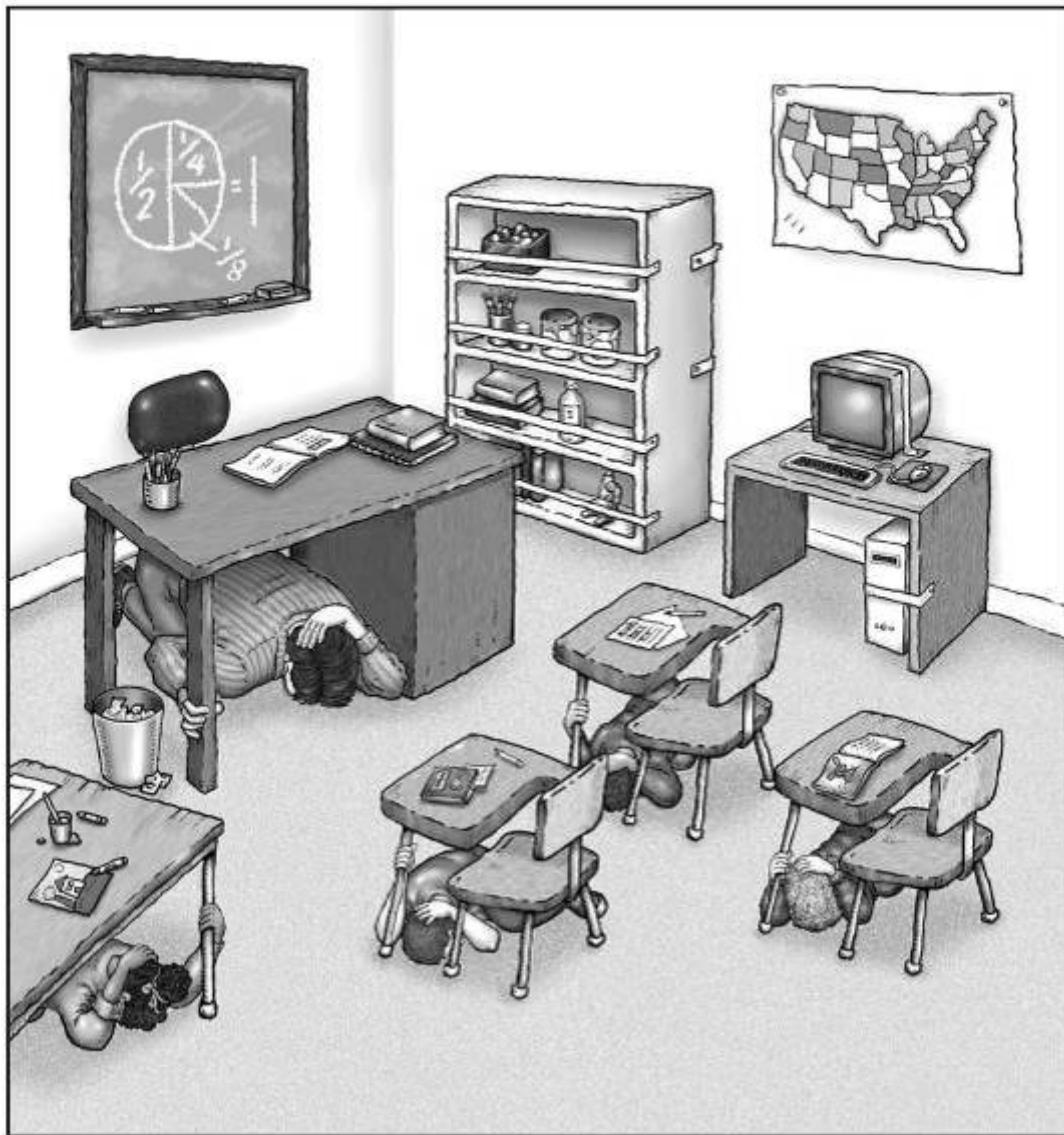
aftershock – An aftershock is an earthquake which follows a major quake and is less severe.

Earthquake Simulation and Evacuation Drill (Continued)

Drop, Cover, and Hold Routine

Drop, Cover, and Hold

Take cover under a sturdy desk or table, hold on to the desk or table leg so that the desk or table stays on top of you, and keep your head down until the shaking stops.



Earthquake Simulation and Evacuation Drill (Continued)

Earthquake Simulation Script

Imagine that you hear a low, rumbling, roaring sound. The noise builds, getting louder and louder, for a few seconds. Then, Wham! There's a terrific jolt. You feel like someone suddenly slammed on the brakes in the car, or like a truck just rammed into the side of the building.

The floor seems to be moving beneath you. It's hard to stand up, or even stay in your seat. If you do stand up, you might feel like you're riding a raft down a fast river. When you walk, it's like trying to walk on a trampoline or a waterbed. You hear someone say, "Earthquake! Drop, Cover, and Hold!"

I want all of you at your desks to take cover as quickly and quietly as you can, right now. Please listen very carefully.

The shaking and commotion may last about 60 seconds or a little longer. We'll have our timer count off the seconds for as long as this earthquake lasts. [The timer may begin counting softly now.]

The building is creaking and rattling. Books are falling from the bookcase. Hanging lamps and plants are swaying. Suddenly a pot falls to the floor and smashes, and the plant spills. A window pane just shattered, and glass is falling to the floor. The table is sliding, too.

Be sure to stay in the drop, cover, and hold position under your desk. If your desk is moving, grab the legs and move with it.

You hear noises outside. Dogs are barking. Cats are meowing. A baby is crying. People are shouting and screaming. The shaking is making church bells ring. You hear crashing sounds, from brick chimneys and other loose parts of the building falling to the ground. Trees outside are swaying and scraping against the walls.

Inside the room, pictures are moving on their nails. Oh! That one just fell off the wall and crashed to the floor. The desk drawers are sliding open. The lights begin to flicker on and off... they just went out! Now the door swings back and forth on its hinges. Bang! It slams shut. There's silence now. Just as suddenly as the noise and shaking began, the room grows quiet. [The timer can stop counting now.]

Please, everyone, get back in your seats. It is important to remain very quiet and wait for instructions. When it is safe to leave the building, I am going to lead you outside to an open space. Stay together, and be ready to take cover again at any moment, because the shaking may start again. Sometimes other quakes, called aftershocks, occur after the damaging earthquake has stopped.

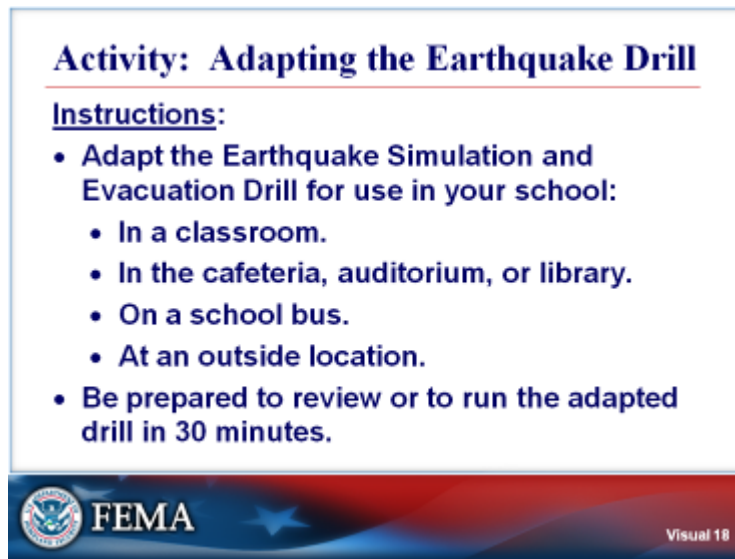
Source: HELP: Hands-on Earthquake Learning Package, California Edition (1983). Environmental Volunteers, Inc.

Earthquake Simulation and Evacuation Drill (Continued)

Drill and Evacuation Checklist

- Did everyone know what to do when told to Drop, Cover, and Hold?
- Did everyone follow the procedure correctly?
- In the classroom, the library, or the cafeteria, was there enough space for all the students under desks, tables, or counters?
- In the gym or in the hallways, were students able to take shelter away from windows, light fixtures, trophy cases, and other hazards?
- Do students know how to protect themselves if they are on the playground during an earthquake? If they are in a school bus or a car?
- Did everyone remain quietly in their safe positions for at least 60 seconds
- Did students with special needs participate in the drill and evacuation?
- Did we remember to take our emergency kit and class roster when we evacuated the classroom?
- Did everyone go to the safe outdoor area in an orderly way?
- If we had to change our evacuation route to get to the safe area, did we make wise decisions?

**Display
Visual 18**



Activity: Adapting the Earthquake Drill

Instructions:

- Adapt the Earthquake Simulation and Evacuation Drill for use in your school:
 - In a classroom.
 - In the cafeteria, auditorium, or library.
 - On a school bus.
 - At an outside location.
- Be prepared to review or to run the adapted drill in 30 minutes.

FEMA Visual 18

Instructor Notes: Conduct the following activity.

Preparation: This is an optional activity and can be conducted if time permits. The activity may be to only discuss the changes made to the drill or to actually run the drill, as revised. Divide the class into groups and assign each group a different location or situation that suits the needs of your school. Sample locations include:

- A classroom.
- The cafeteria or auditorium.
- On the bus.
- An outside location.

Purpose: This activity will enable the participants to adapt the earthquake simulation and evacuation drill reviewed in the previous activity to a different location or situation.

Estimated Time: 45 minutes (30 minutes activity + 15 minutes debrief)

Instructions:

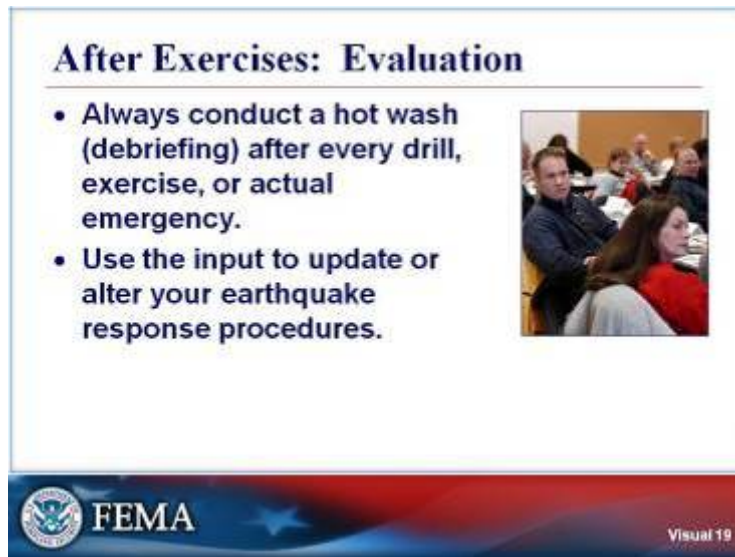
1. Work in your assigned groups.
2. Revise the Earthquake Simulation and Evacuation Drill from the previous activity, including the procedure, script, and checklist, to fit the new location or situation assigned by the instructor.
3. Be prepared to discuss or run your revised drill in 30 minutes.

Debrief:

After 30 minutes, ask each group to run their revised drill (if time permits). If time is short, ask each group to summarize their changes to the activity.


If necessary, provide the following example. If the location of the drill is changed to the library, the required changes would include:



- Identifying who will “run” the activity (e.g., the librarian, or a classroom teacher who is in the library with students).
- Revising the simulation script to be relevant to library setting instead of classroom setting.
- Adapting the objectives to include:
 - Identifying the need to quickly locate a desk/table under which to take cover when the earthquake begins.
 - Evacuating the building using a different route than the one they would have followed from their classroom.



After Exercises: Evaluation

- Always conduct a hot wash (debriefing) after every drill, exercise, or actual emergency.
- Use the input to update or alter your earthquake response procedures.



 **FEMA**  Visual 19

Instructor Notes: Present the following key points.

After an exercise, it is important to evaluate the performance during a debriefing session.

A debriefing, also known as a “hot wash,” gives all who participated in a drill, exercise, or actual emergency the opportunity to discuss results and suggest improvements.

Hot wash input can be used to update or alter your school’s earthquake response procedures.

Suggestions for collecting debrief input are provided, beginning on the next page.

Tips for Evaluating Exercise Performance

Overall Tips

- Follow the HSEEP Exercise Evaluation Guidelines that help evaluators compare the exercise objectives to the actual observations and results.
- Schedule an After-Action Review (AAR) as soon after the incident as possible.
- Keep it short and focused.
- Focus on WHAT, not WHO.
- Establish clear ground rules: encourage candor and openness (this is dialog—not lecture or debate); focus on items that can be fixed; keep all discussions confidential.
- Use a skilled facilitator to conduct the AAR.

AAR Process Steps

Use the following questions to facilitate the AAR process:

1. What did we set out to do?
 - Establish the facts.
 - Determine purpose of the mission and definition of success.
 - Identify the skills from the Target Capabilities List (TCL) on which the exercise was to focus (e.g., communications, mass care, onsite incident management).
 - Identify key tasks involved.
 - Specify conditions under which each task may need to be performed (weather, topography, time restrictions, etc.).
 - Define acceptable standards for success (explain what “Right” looks like).
2. What actually happened?
 - Continue to establish the facts.
 - Participants should come to agreement on what actually happened.
 - Pool multiple perspectives to build a shared picture of what happened.
3. Why did it happen?
 - Analyze cause and effect.
 - Focus on WHAT, not WHO.
 - Provide progressive refinement for drawing out explanations of what occurred. This will lead into developing possible solutions.
4. What are we going to do better next time?
 - Solutions will arise naturally once problems are identified and understood.
 - Focus on items you can fix, rather than external forces outside of your control.
 - Identify areas where groups are performing well and that should be sustained. This will help repeat success and create a balanced approach to the AAR.
 - Areas To Sustain/Maintain Strengths:
 - Areas To Improve Weaknesses:

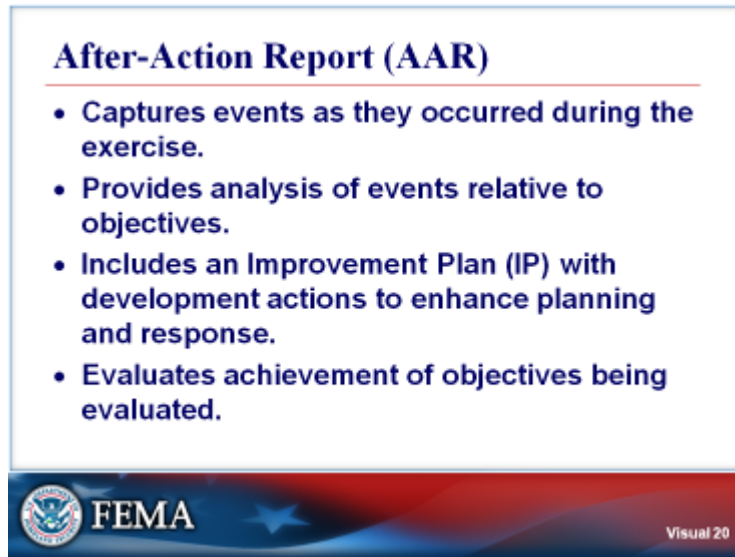
Tips for Evaluating Exercise Performance (Continued)

AAR Process Steps (Continued)

5. Are there lessons learned that should be shared immediately?
 - Identify the process for sharing lessons learned.
 - Option 1: Document the Issue, Discussion, Recommendation
 - Option 2: Document the Concept of the Operation, Results, Trends, Recommendation
 - Determine and describe the most notable successes from the incident.
 - Determine and describe the most difficult challenges faced and how they were overcome.

6. What followup is needed?
 - Be specific about actions, timelines, and responsibilities.
 - What changes, additions, or deletions are recommended to SOPs, plans, or training?
 - What issues were not resolved to your satisfaction and need further review?

**Display
Visual 20**



After-Action Report (AAR)

- Captures events as they occurred during the exercise.
- Provides analysis of events relative to objectives.
- Includes an Improvement Plan (IP) with development actions to enhance planning and response.
- Evaluates achievement of objectives being evaluated.

FEMA

Visual 20

Instructor Notes: Present the following key points.

Part of the post-exercise evaluation involves the development of an After-Action Report (AAR).

The AAR is a formal reporting process that:

- Captures events as they occurred during the exercise.
- Provides analysis of events relative to objectives.
- Includes an Improvement Plan (IP) with development actions to enhance planning and response.
- Evaluates achievement of objectives being evaluated.

The After-Action Report content guidelines are designed to support both discussion-based and operations-based exercises.

The AAR begins with the following elements:

- Title Page
- Administrative Handling Instructions
- Contents
- Executive Summary

Section 1: Exercise Overview includes identifying information such as the exercise name, date, and duration.

Section 2: Exercise Design Summary includes overarching exercise purpose and goals; capabilities, activities, and tasks identified for demonstration; exercise objectives; summary of designed initiation event(s) and/or key scenario events; and planned simulations.

AAR Elements (Continued)

Due to the nature of certain discussion-based exercises, including seminars and workshops, Section 3: Analysis of Capabilities, may be abbreviated and additional sections may be added including:

- Overview of speaker presentations.
- Summary of discussion points, results, and recommendations.

Section 4 is the Conclusion.

Any applicable appendixes should also be added to the AAR, such as:

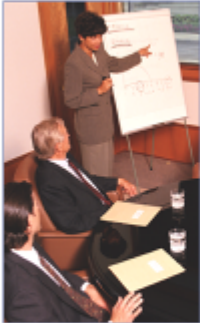
- Appendix A: Improvement Plan
- Appendix B: Lessons Learned (Optional)
- Appendix C: Participant Feedback Summary (Optional)
- Appendix D: Exercise Events Summary Table (Optional)
- Appendix E: Performance Ratings (Optional)
- Appendix F: Acronyms

The Improvement Plan is formatted in table format and includes a column for each of the elements listed on the visual. The initial draft IP is created as Appendix A in the AAR. This draft includes only the first two columns: Capability and Observation Title.

An After-Action Conference is then conducted to complete the remaining IP columns and the fully completed IP is published with the AAR. The final IP includes an identified responsible party for the implementation of the corrective action and timelines for completion of the corrective action.



Display
Visual 21

Determining Next Steps



Following major exercises, the exercise planning team should:

- Develop concrete, measurable steps for improvement.
- Delegate responsibilities and actions.
- Set up a timetable for completion.
- Track process.

 **FEMA**  Visual 21

Instructor Notes: Present the following key points.



After an exercise, the exercise planning team should complete the following actions in order to determine the next steps:

- Develop concrete, measurable steps for improvement.
- Delegate responsibilities and actions.
- Set up a timetable for completion.
- Track process.

Display
Visual 22

Track and Implement Corrective Actions

- Track corrective actions.
- Review feedback, AARs, and IPs.
- Assess progress.
- Analyze information to identify needs.
- Continue tracking and implementation as part of a corrective action program.



Visual 22

Instructor Notes: Present the following key points.

The final step in the HSEEP process is to track and implement corrective actions identified in the After-Action Report (AAR) and Improvement Plan (IP).

Guidelines for this step include:

- Track corrective actions to completion.
- Review exercise feedback, AARs, and IPs.
- Assess progress.
- Incorporate analysis and information into the process to identify the need for additional equipment, training, exercises, coordination, plans, or procedures.
- Continue tracking and implementation as part of a corrective action program.

Display
Visual 23



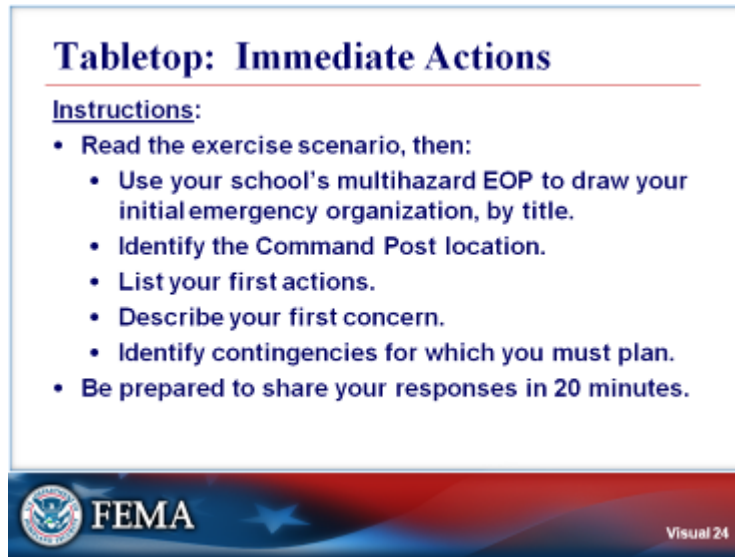
Instructor Notes: Present the following key points.

Exercises should be conducted on a regular basis, according to a Multi-Year Training and Exercise Plan.

When developing this plan:

- Use a cycle of increasingly complex exercises.
- Build upon lessons learned from previous exercises or actual incidents.

Display
Visual 24



Tabletop: Immediate Actions

Instructions:

- Read the exercise scenario, then:
 - Use your school's multihazard EOP to draw your initial emergency organization, by title.
 - Identify the Command Post location.
 - List your first actions.
 - Describe your first concern.
 - Identify contingencies for which you must plan.
- Be prepared to share your responses in 20 minutes.

FEMA Visual 24

Instructor Notes: Conduct the activity as follows.

Purpose: The purpose of this activity is to plan the immediate actions to take during an earthquake response. The activity is divided into three parts: Immediate Actions, Update #1, and Update #2.

Estimated Time (for Part 1): 30 minutes (20 minutes activity + 10 minutes debrief)

Instructions:

1. Review the scenario:

Hillside School is located in a suburb of a major city. In addition to the principal, the school has 46 faculty members, 2 full-time counselors, a nurse, 3 secretaries, 7 cafeteria workers, and 3 custodians. On any given day, 8 to 10 parent-volunteers are also in the building.

This morning at 9:45 a.m., your community was struck by a severe earthquake. The earthquake has caused extensive damage to a large part of the community. All utilities are out. The school is currently lit by emergency lighting only. The area around the school office appears to have sustained only minor damage. Damage to the remainder of the building is undetermined as yet, but one custodian has radioed that a storage area wall has collapsed. You know from experience to expect multiple aftershocks, some of which may be severe. You also know from attending meetings with local officials that, in the event of a severe quake, it could take up to 2 days before first responders reach the school. You must organize to help yourselves and protect the students.

2. Complete the tasks listed in the visual.
3. Be prepared to share your responses in 20 minutes.

Debrief:

After 20 minutes, ask:

What is your initial emergency organization, by title?

Where is your Command Post location?

What are your first actions?

What is your first concern?

For what contingencies must you plan?

Allow volunteers from different groups to answer each question. Acknowledge the responses. If not mentioned, add the suggested responses below.

1. You will use ICS to establish your management structure and manage this incident. Draw your initial emergency organization, by title, in the space below.

Focus on the rationale behind the groups' organization charts. At a minimum, the groups' organization charts should include an Incident Commander, a Safety Officer, and Section Chiefs. Point out that it is better to keep the span of control small.

2. Identify your Command Post location for this incident.

Because you are unsure of the amount of damage and the risk of additional damage resulting from aftershocks, the Command Post should not be located inside the building. The groups should provide a specific location based on safety factors, proximity to the building, etc.

3. List the first actions you will take.

Size up the situation! Is everyone out of the building and out of harm's way? How many people have been injured? How seriously? What resources are available to help? What is the condition of the building? What else could go wrong if an aftershock occurs? After an aftershock (depending on the magnitude), it is important to start the process over with another accountability and situational awareness report.

4. Describe your first concern in this situation.

The groups' first concern should be the safety of the students, faculty, staff, and others on campus. Ensure that all who are able to evacuate do and that student accounting procedures are proceeding.

5. Identify contingencies for which you must plan.


An aftershock is likely to be first on the groups' lists. Assuming that all who are ambulatory have been evacuated to a place that is at a safe distance from the building, other contingencies might include the possibility that:

- There are multiple serious injuries and/or fatalities.
- The school's water supply has been disrupted.
- Parents begin arriving to pick up their children.

Tabletop: Update #1

Instructions:

- Read the update to the scenario, then:
 - How does the new information change your plan?
 - Choose the location of the medical area.
 - Describe how you will communicate with first responders and others who need information.
 - Given staffing and known damage, identify contingencies to include in planning.
 - Describe what you would need if any students stay overnight.
- Be prepared to share your responses in 20 minutes.



Instructor Notes: Conduct the activity as follows.

Purpose: The purpose of this part of the activity is to plan to take action for contingencies that may occur as the earthquake response continues.

Estimated Time (for Part 2): 30 minutes (20 minutes activity + 10 minutes debrief)

Instructions:

1. Review the update to the scenario.

The area has experienced several aftershocks of moderate intensity. The aftershocks have caused additional collapse in the gymnasium area. Those who could evacuate the building have assembled in the designated area, and student accountability procedures are underway.

The gymnasium has collapsed, and a class that was in the gymnasium at the time has not evacuated. There has been no communication with either the students or their teacher as of this point. Several students were injured when they were struck by falling debris. One teacher was struck by flying glass and is seriously injured. A custodian has suffered what appears to be a heart attack. Several students who are asthmatic are reporting difficulty breathing, and the school nurse left the building without bringing student medications. These injuries and illnesses are overwhelming the staff members who are assigned to the Medical Group.

There are no reports of fires as of yet. The phone system is out because of the electricity interruption. You can see that a water main two blocks from the school has ruptured. Damage to the community that is visible from the campus looks severe.

Instructions: (Continued)

2. Complete the tasks listed in the visual.
3. Be prepared to share your responses in 20 minutes.

Debrief:

After 20 minutes, ask:

How does the new information change your plan?

Where is the location of the medical area?

How will you communicate with first responders and others who need information?

Given staffing and known damage, what contingencies must you include in planning?

What would you need if any students stay overnight?

Allow volunteers from different groups to answer each question. Acknowledge the responses. If not mentioned, add the suggested responses below.

1. Describe how this new information changes your planning.

The groups now know that there have been injuries and that some may be severe. Additional personnel must be assigned to assist the Medical Group, and a system for triaging the victims should be established. If necessary, the Medical Group should be divided into a Triage Group and a Treatment Group to maintain an adequate span of control.

Given the fact that the gymnasium has collapsed, establishing search and rescue would be too dangerous for the rescuers. No search and rescue effort should be attempted at this time.

Proper deployment of resources may be another factor. What are the incident needs? Are there needs that are, as yet, unmet?

Water conservation is another factor. The groups know that there is a broken water main. Medical uses should be the first priority for the available water. Drinking should be the second priority. Hygiene uses are a much lower priority at this time.

2. Determine where to locate the medical area.

The medical treatment area should be located away from the damage, uphill and upwind from any possible airborne hazards, and in an area that affords privacy to the victims.

Debrief: (Continued)

3. Describe how you will communicate with first responders and others who need information about your situation.

There will be numerous emergency calls throughout the affected area, and the schools may not be able to reach response agencies immediately. Communication with the media and with parents may be impossible at this time. Parents should know critical information about what to do in this situation, including what to do if the school is unable to notify them.

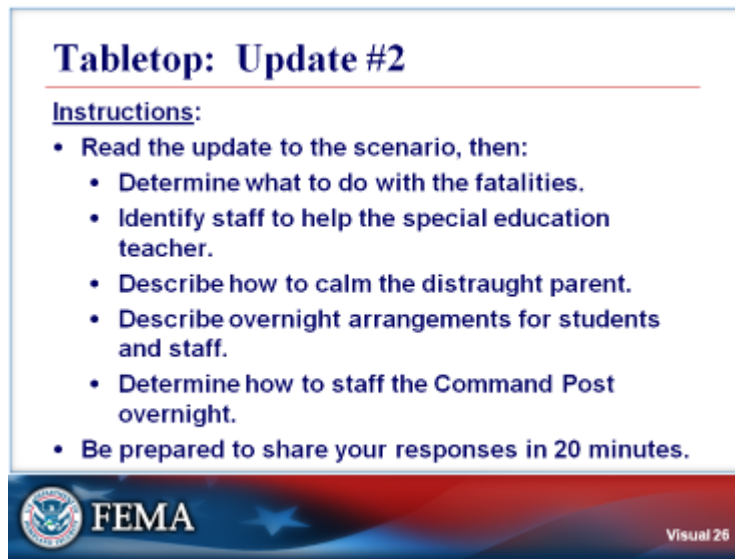
4. Given staffing and the known damage, identify contingencies to include in planning.

Some contingencies that should be mentioned include the possibilities that:

- **There are (or will be) one or more fatalities.**
- **There will not be enough water to meet even minimal needs.**
- **Some children will need to be accommodated overnight.**

5. Describe what you would need if any students stay overnight.

Food, blankets, and items to occupy the students.



Tabletop: Update #2

Instructions:

- Read the update to the scenario, then:
 - Determine what to do with the fatalities.
 - Identify staff to help the special education teacher.
 - Describe how to calm the distraught parent.
 - Describe overnight arrangements for students and staff.
 - Determine how to staff the Command Post overnight.
- Be prepared to share your responses in 20 minutes.

FEMA Visual 26

Instructor Notes: Conduct the activity as follows.

Purpose: The purpose of this part of the activity is to plan to take action for more contingencies that may occur as the earthquake response continues.

Estimated Time (for Part 3): 30 minutes (20 minutes activity + 10 minutes debrief)

Instructions:

1. Review the update to the scenario.

It is getting late in the day, and aftershocks are continuing. A few parents have arrived but because of the obvious damage in some areas of the community, it is becoming apparent that at least some students will have to spend the night.

An aftershock has caused further collapse of the building, including the area designated as the pickup point for parent/student reunification. A few parents have arrived and are unsure about what to do. One mother has a child trapped in the gymnasium collapse, and she is crying hysterically.

The custodian has died, as has one of the asthmatic students. The teacher who was injured is unconscious and has only a faint pulse. Also, there is still no word on the students and teacher who are in the collapsed gymnasium. Friends of the trapped students are crying.

The aftershocks have caused panic among the special education students who are not entirely aware of everything that is going on and why. Their teacher has sent an aide to the Command Post asking for assistance—quickly. You have contacted the 9-1-1 dispatcher, but all response personnel are currently deployed in other areas. The dispatcher is unsure when trained responders will arrive.

Instructions: (Continued)

2. Complete the tasks listed in the visual.
3. Be prepared to share your responses in 20 minutes.

Debrief:

After 20 minutes, ask:

What will you do with the fatalities?

What staff member(s) will help the special education teacher?

How will you calm the distraught parent?

What overnight arrangements will you make for students and staff?

How will you staff the Command Post overnight?

Allow volunteers from different groups to answer each question. Acknowledge the responses. If not mentioned, add the suggested responses below.

1. Determine what to do with the fatalities.

The remains of the deceased should be moved to an area where they will be out of sight from staff and students and covered completely with a blanket or tarp. A member of the staff should ensure that no one enters the area until professional help arrives.

2. Identify staff to help the special education teacher.

The Planning Section Chief should maintain a list of available staff. (If there is no Planning Section Chief assigned, this responsibility rests with the Incident Commander.)

3. Describe how to calm the distraught parent.

Separate the parent from others where she can be calmed.

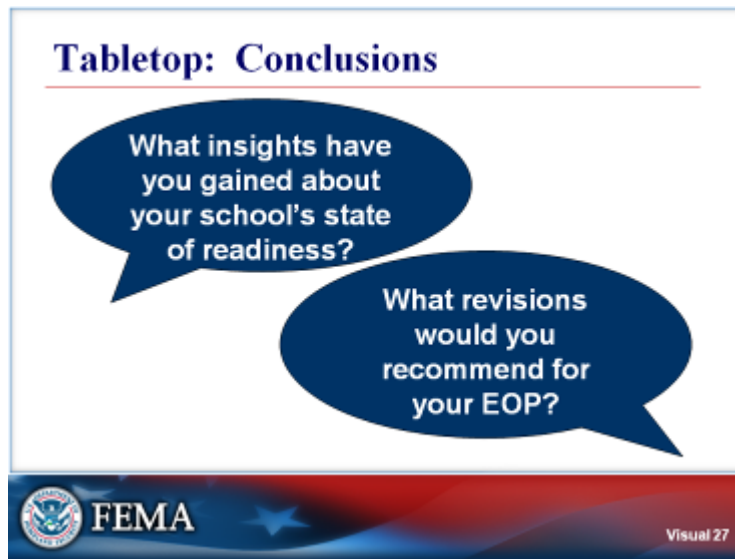
4. Describe overnight arrangements for students and staff.

Keep the students in the assembly area and within their class structures but try to spread them out so that they can lie down. If blankets are available, distribute blankets to the students. Teachers should sleep in shifts, with one buddy always being awake throughout the night.

5. Determine how to staff the Command Post overnight.

To allow the Incident Commander to rest, command should be transferred to the individual who is designated in the school plan as next in the line of succession. When transferring command, the outgoing Incident Commander must ensure that the incoming Incident Commander receives a complete report of the situation status.

Display
Visual 27



Instructor Notes: Present the following key points.

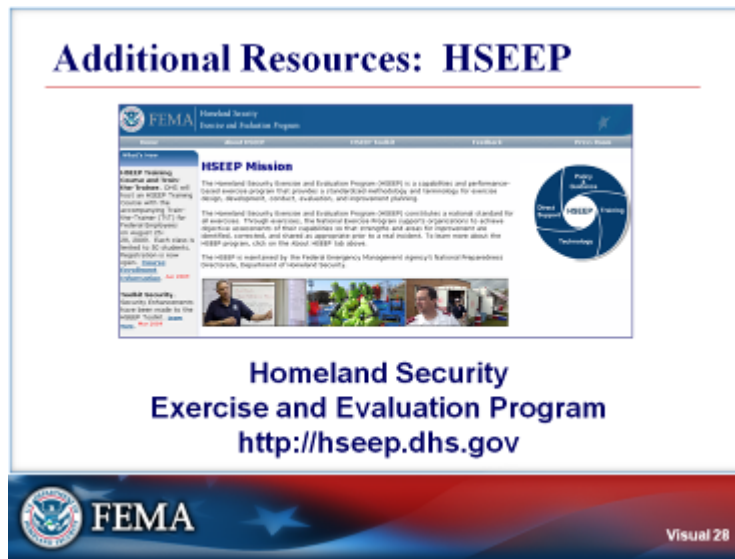
To conclude the tabletop exercise, ask:

What insights have you gained about your school's state of readiness?

What revisions would you recommend for your EOP?

Acknowledge the responses. If not mentioned, add any observations or suggestions from your own experience and understanding of the school's EOP.

**Display
Visual 28**



Instructor Notes: Present the following key points.

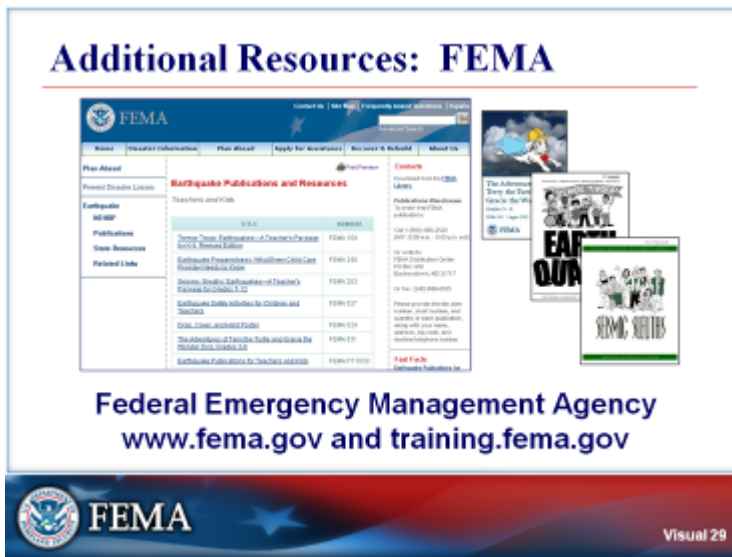
The Homeland Security Exercise and Evaluation Program (HSEEP) is a capabilities- and performance-based exercise program that provides a standardized methodology and terminology for exercise design, development, conduct, evaluation, and improvement planning.

The HSEEP Web site contains documents relating to the development of training and exercises to evaluate your school's EOP, including:

- **HSEEP Policy and Guidance:** An overview of HSEEP guidance, including HSEEP 101, Volume I: HSEEP Overview and Exercise Program Management, Volume II: Exercise Planning and Conduct, Volume III: Exercise Evaluation and Improvement Planning Exercise Evaluation Guides (EEG), Volume IV Library: Sample Exercise Materials, and HSEEP Prevention Exercises
- **HSEEP Compliance Job Aid**
- **Training and Exercise Planning Workshop User's Handbook**
- **HSEEP AAR-IP Template 2007**
- **Draft template for a Multi-Year Training and Exercise Plan**
- **HSEEP Toolkit:** An interactive, online collection of systems and tools for exercise scheduling, design, development, conduct, evaluation, and improvement planning.

Topic Additional Resources (Continued)

Display
Visual 29



Instructor Notes: Present the following key points.

The Federal Emergency Management Agency (FEMA) Web site offers many training resources, including:

- **FEMA EMI Independent Study Classes:**
 - An Introduction to Exercises (IS-120.A)
 - Exercise Evaluation and Improvement Planning (IS-130)
 - Exercise Design (IS-139)
- **FEMA EMI Resident/Field Classes:**
 - Master Exercise Practitioner (MEP)
 - Homeland Security Exercise Evaluation Program (HSEEP)
- **Integrated Emergency Management Course (IEMC).** Offered at FEMA’s Emergency Management Institute (EMI), this 4½-day exercise-based training activity involves an entire community in a response exercise, under realistic crisis situations, within a structured learning environment.
- **Training materials and publications,** such as Earthquake Safety Activities for Children and Teachers (FEMA 527), Tremor Troop (FEMA 159, for Grades K-6), Gracie the Wonder Dog (FEMA 531, for Grades 3-6), Seismic Sleuths (FEMA 253, for Grades 7-12), and many more.

Display
Visual 30

Additional Resources: State and Local

- **State Emergency Management Agency:**
 - State Training Officer
 - State Exercise Officer
- **Local (City/County) Emergency Management Agency:**
 - Emergency Manager
 - Operations/Training Officer

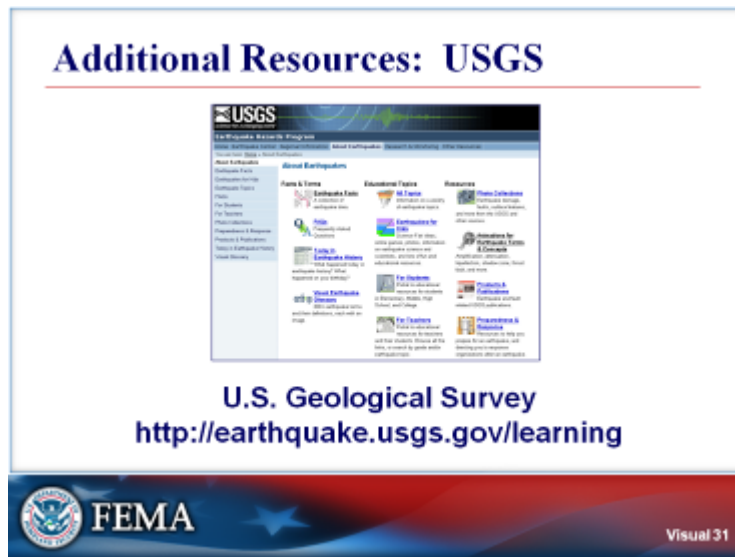
FEMA Visual 30

Instructor Notes: Present the following key points.

Contact your State Emergency Management Agency to request assistance from the State Training Officer or State Exercise Officer.

The city or county Emergency Management Agency is another valuable resource. Contact the Emergency Manager or Operations/Training Officer for assistance.

These resources can provide information about earthquake hazards in your area and community emergency response procedures that may affect your school.

**Display
Visual 31**

Instructor Notes: Present the following key points.

The U.S. Geological Survey (USGS) Web site provides numerous training resources.

Site resources include earthquake terminology (including animations that can be downloaded) and a PowerPoint presentation explaining earthquakes.

Other resources include:

- **For Teachers** is a portal that includes educational resources for teachers and their students. Browse all the links, or search by grade and/or earthquake topic. It includes links to lesson plans, interactive Web sites, learning activities, and more.
- **Earthquake for Kids** contains information specifically targeted toward younger children.
- **For Students** includes resources for students in elementary, middle, and high school, and in college.
- **Learning Links** is a database of educational materials related to earthquakes and plate tectonics that includes lesson plans, interactive Web sites, learning activities, and more.

Topic**Additional Resources (Continued)****Display
Visual 32**

Additional Resources: Resource Centers

- **Arkansas Center for Earthquake Education and Technology Transfer:**
<http://quake.ualr.edu/schools/>
- **Mid-America Earthquake Center:**
http://mae.ce.uiuc.edu/K-12/teacher_resources.html
- **Public Earthquake Resource Center:**
<http://www.ceri.memphis.edu/perc/>

The slide features three logos: the Arkansas Center for Earthquake Education and Technology Transfer logo, the Mid-America Earthquake Center logo, and the Public Earthquake Resource Center logo. At the bottom, there is a FEMA logo and the text 'Visual 32'.

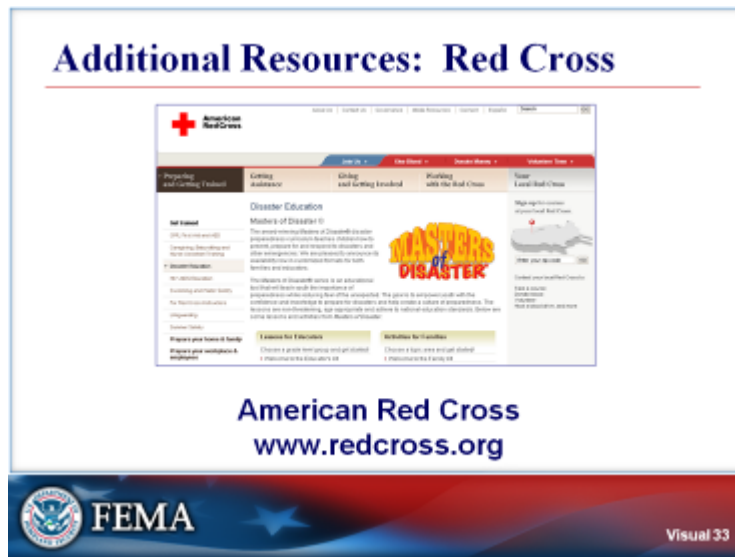
Instructor Notes: Present the following key points.

The **Arkansas Center for Earthquake Education and Technology Transfer** site provides a wide variety of earthquake education and preparedness resources. It includes lesson plans for all age groups, including preschool. The site also has a review page for their extensive, downloadable school teacher and administrator preparedness and mitigation guidebook.

The **Mid-America Earthquake Center** site provides links to earthquake informational sites, lesson plans, and activities. This site compiles several sources of information to assist teachers. Resources include detailed lesson plans for elementary, middle, and high school on what an earthquake is, how to prepare, and what to do during an earthquake. This site includes information about the New Madrid earthquake and the Mississippi valley.

The **Public Earthquake Resource Center (PERC)** is an education and outreach program developed by the Center for Earthquake Research and Information (CERI) at the University of Memphis. The site contains K-12 resources for children to explore and resources for teachers, including links to lesson plans and activities.

Display Visual 33



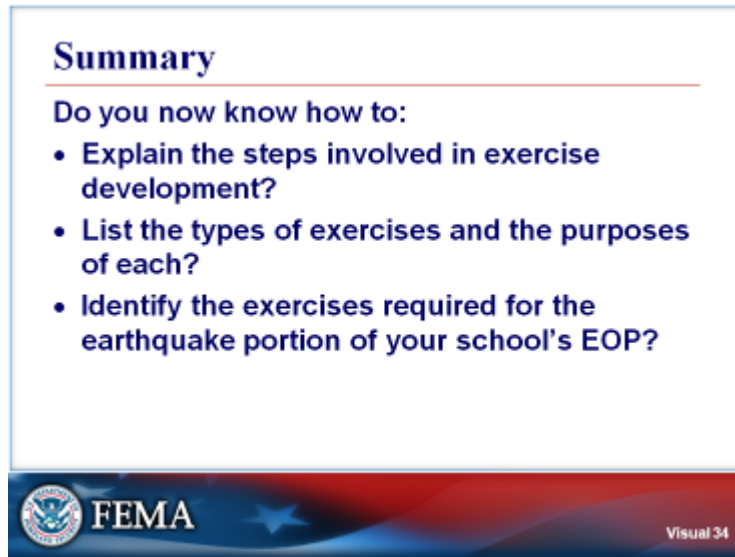
Instructor Notes: Present the following key points.

The American Red Cross Web site includes a "Tools for Teachers and Parents" page, with valuable disaster-related resources.

- **Masters of Disaster** is a curriculum for teachers to use to integrate hazard safety into regular academic lesson plans in math, science, social studies, and language arts. The curriculum is available in three complete kits for teachers of Grades K-2, Grades 3-5, and Grades 6-8. The site also includes materials for Grades 9-12 on the topics of "Facing Fear" and "In the Aftermath." The materials are available through your local Red Cross chapter.
- **Be Ready 1-2-3** is an 8-page workbook (with an accompanying Instructor Guide) that helps children ages 5-8 learn about earthquakes through activities and demonstrations led by an "expert," Disaster Dog. This publication is available online (in English, Spanish, or Vietnamese) or in print through your local Red Cross chapter (stock number A5017).

Topic	Unit Summary
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Display
Visual 34



Summary

Do you now know how to:

- Explain the steps involved in exercise development?
- List the types of exercises and the purposes of each?
- Identify the exercises required for the earthquake portion of your school's EOP?

FEMA Visual 34

Instructor Notes: Present the following key points.

This unit reviewed training and exercises to test an earthquake response plan.

Ask:

Are you now able to:

- Explain the steps involved in exercise development?
- List the types of exercises and the purposes of each?
- Identify the exercises required for the earthquake portion of your school's Emergency Operations Plan (EOP)?

Facilitate a discussion and answer any questions before concluding the training.