



PRESERVATION EDUCATION CURRICULUM



NORTHEAST
DOCUMENT
CONSERVATION
CENTER

CLASS 12 LESSON PLAN

Disaster Planning

The Lesson

Part I: Introduction (20 minutes)

A. Short history of disasters/disaster planning

1. Florence flood, 1966
2. Los Angeles Central Library fire, 1986
3. Northridge, Calif., earthquake, 1994
4. Boston Public Library flood, 1998
5. 9/11 terrorist attacks, 2001
6. Hurricane Katrina, 2005

Begin by discussing how the term “disaster planning” has evolved into “emergency preparedness.” “Disaster” implies a large-scale catastrophe. In a cultural institution, large-scale disasters are fairly uncommon, whereas more ordinary emergencies, such as a leaky roof or broken pipe, occur more frequently. Use of the term “emergency preparedness” also aligns the cultural heritage community with emergency management terminology.

Describe the history of disaster planning briefly—summarize some well-known disasters and emphasize their effect on libraries’ approach to disaster planning. See the online resources listed in the teacher resources for details of specific disasters. Describe changing circumstances/new directions for disaster planning in recent years: 9/11 and Hurricane Katrina, state/regional disaster planning efforts, the need to increase cooperation with emergency responders, the importance of business recovery planning, and the inclusion of information technology in disaster planning efforts.

B. Types of disasters

1. Water damage—potential scenarios, ranging from burst pipe to water main break to hurricane/flood
2. Fire damage—potential scenarios, ranging from wildfire to fire in an adjacent building to sparks from renovation work to faulty electrical wiring to arson
3. Earthquake damage
4. Theft/vandalism
5. Other disasters (e.g., power outage, sewer backup, gas or oil leak, hazardous materials accident, terrorist attack)

Lead into a discussion of the types of disasters most likely to occur by asking students what types of disasters they have encountered in libraries or other cultural institutions. Discuss the type of damage caused by water and fire (stressing the danger of mold damage if a water

disaster is not dealt with promptly). If possible, show samples of water- and fire-damaged items, or use a slideshow to provide examples of potential disasters and the resulting damage. Note that the difficulty of recovery depends on the size of the disaster, the extent of the damage, and the resources and skills available to deal with it.

Part II: Prevention (30 minutes)

The discussion of prevention should focus on institutional-level risk assessment and reduction (sections A and B), since this will be the most useful to students. This discussion could be approached by leading students through the process using a slideshow/discussion format (e.g., showing slides and asking students to point out what is wrong and what might be done to correct it). Note that the specifics of fire protection/detection systems and security systems are covered in **Class 5: Building-wide Concerns**, so only the general importance of these systems needs to be revisited here.

A. Risk assessment—institutional level

1. External risks (review briefly, discussed in previous section)
2. Building/mechanical systems (e.g., leaky roof, inadequate electrical system)
3. Fire prevention/fire detection systems (e.g., fire hazards, lack of fire detection/suppression)
4. Security procedures and systems (e.g., lack of security systems, inadequate reading room procedures)
5. Personnel and procedures (e.g., inadequate backup of records, poor staff training)
6. Maintenance issues (e.g., insufficient inspections and/or repairs)

B. Risk reduction—institutional level

1. Actions to prevent water damage (e.g., boxing collections, relocating them away from water sources, installing water alarms)
2. Actions to prevent fire damage (e.g., inspection and maintenance of fire protection/suppression systems, building fire safety inspections, opening and closing procedures)
3. Actions to prevent theft/vandalism (e.g., security systems, procedures for use of rare/special materials)
4. Backup of computer data (e.g., procedures, contact information for service providers)

C. Prevention on the state/regional level (in brief)

1. Identifying cultural institutions in high-risk areas
2. State/regional options for encouraging prevention/mitigation (e.g., funding sources, low-cost strategies)

Cover section C briefly to raise awareness of the need to address prevention at the local/state/regional levels as well. Students should be made aware of the existence of state hazard mitigation plans, and the need to include cultural resources in these plans, as well as efforts currently underway to facilitate disaster prevention on this level.

In-Class Activity

- Have students work in groups, using a case study to generate ideas for assessing and mitigating risks within an institution.

Part III: Preparedness (30 minutes)

Again, the discussion of preparedness should focus on the institutional level, followed by a brief introduction to the challenges of preparing for a regional/area-wide disaster. Students should consider not just collections-related issues, but also what preparations are needed to keep the institution itself functioning, so that it can continue to provide services to users.

A. Institutional preparedness

1. Supplies and services (phone numbers, after-hours contact information, supplies on hand)
2. Communication methods (communication trees, alternative communication methods)
3. Emergency procedures (e.g., building evacuation, water damage and fire response procedures, emergency call lists)
4. Salvage priorities (for collections and for records essential to providing services)
5. Insurance (types of insurance, how to file a claim, procedures that must be followed)
6. COOP plan (ensuring continuity of operations—COOP)

B. Regional/state preparedness (in brief)

1. Pre-disaster communication with emergency responders
2. Identifying essential records to be salvaged

Discuss the challenges of preparing for an area-wide disaster. Emphasize the importance of pre-disaster communication with emergency responders, introduce the concept of the Incident Command System, and discuss the difficulties involved in identifying essential cultural records in a state or region.

In-Class Activities

- Use a case study to encourage students to consider what resources might be needed in a disaster, what decisions and arrangements can be made ahead of time, and how the information collected would be accessed in the event of a disaster.
- Take a set amount of money (say, \$100 or \$500) and have the class work in groups to develop an in-house disaster supply cache. Each group should stay within the budget and report their reasoning for choosing their supplies.

Part IV: Response (30 minutes)

In discussing response, emphasize the importance of considering the situation carefully and making the right decisions, while keeping in mind that time is a crucial factor (mold can develop within 48 hours on wet collections). Using a case study, students could be led through the initial steps involved in assessing the damage and deciding how materials will be salvaged. For collections, the primary directives are to stabilize them so no further damage occurs and to salvage the maximum number of valuable materials. For business continuity, the primary concern is to salvage records, equipment, and any other materials needed for the institution to provide services to users.

Students should also consider how response is to proceed if access to the building is delayed significantly. Note that mold response is addressed in **Class 5: Building-wide Concerns**, so only the most important points need to be revisited here (e.g., the importance of responding quickly to prevent mold from growing on water-damaged materials and of recognizing that mold can present a serious health hazard).

A. Institutional response

1. The response team (choosing members, assigning roles, possibilities for mutual aid)
2. Initial response and assessment
3. Drying options (e.g., air drying, vacuum freeze drying)
4. Salvage methods for specific media (briefly review special concerns for different types of materials, and direct students to further resources)
5. Special concerns in response (fire damage, potential health risks when dealing with mold, personal protective measures needed when working with moldy materials)

B. Response in the context of an area-wide disaster (in brief)

1. Communication (e.g., implementing the ICS and communicating with emergency responders)
2. Strategies for response/lessons learned from Hurricane Katrina

In this brief discussion, address the challenges when an entire region is hit by a disaster. Familiarize students with the basic structure of federal and state response to disasters, and how cultural resources fit into that structure, in theory and in reality. Examples from the response to Hurricane Katrina will be helpful.

In-Class Activities

- Spend 15 minutes viewing actual water-damaged materials before and after drying (some air-dried and some freeze-dried), and ask students to compare the results.
- Devise a disaster scenario in an imaginary library building. Assign students (or groups of students) to staff positions, and ask them to describe how they would respond to the situation.

Part V: Recovery (30 minutes)

It is important for students to understand that once collections have been salvaged and dried and/or cleaned, additional action will be needed before they can be returned to the shelf. Depending on the nature and extent of the disaster, returning to normal may be relatively quick and easy, or it may take a great deal of time and effort. Use examples, either actual items or in slide format, to illustrate rehabilitation strategies. Students should also discuss the issues to be considered in planning and funding recovery (e.g., who will do the work, where will it be done, will it be covered by insurance, and how should priorities be set).

A. Rehabilitation strategies

1. Identifying materials to be discarded
2. Repair/conservation treatment
3. Rebinding
4. Rehousing
5. Reshelving
6. Cataloging updates

B. Planning and funding recovery efforts**Part VI: Preparing a Disaster Plan (30 minutes)**

In this discussion, pull together the issues that have been covered thus far. Encourage students to evaluate their institution's risks and begin by planning for those scenarios most likely to occur.

Ideally, prevention, preparedness, response, and recovery should be included, but a plan can be built piece by piece. Review available resources to assist in preparing a plan, and emphasize the importance of staff training and routine testing/updating of the plan.

A. Preparing the plan

1. The planning team
2. Parts of a plan (“building block” concept)
3. Templates for writing a plan
 - a. dPlan (www.dplan.org)
 - b. www.calpreservation.org/disasters/index.html
 - c. Sample plans available at Conservation OnLine (<http://palimpsest.stanford.edu>)

B. Using the plan

1. Training staff to use the plan
2. Testing and updating the plan

C. Need for statewide/regional disaster plans for cultural resources that fit into existing national/state disaster plans (Heritage Emergency National Task Force and CoSA initiatives, and NEDCC model statewide planning project)

In-Class Activity

- Choose one or two disaster plans on the Web to use as case studies. Examples may be found in the **Resources for the Teacher** section. Have students work in groups to evaluate a plan or compare two plans and give suggestions for improvements.

Suggested Graded Assignments

- Conduct a risk-management survey of a library, archives, or other institution. Students should use the [Risk Assessment Checklist](#). Walk through (and around the outside of) the building with the checklist and identify any risks that apply. Also make notes about prevention/mitigation efforts—consider each risk identified and discuss actions needed to lessen those risks in the “Notes” column. Discuss the results of the survey activity in class. How does a survey affect the ability to respond to disasters?
- Evaluate a sample disaster plan. How easy would it be to use in an emergency? Should extraneous material if any go into a separate file and not in the plan itself? What recommendations would you make to improve the usability of the plan?
- Create specific emergency response procedures for one or more natural or human-made disasters. For information on specific types of disasters, see FEMA’s *Get Disaster Information* Web site, at <http://www.fema.gov/hazard/>.
- Using the Minnesota Historical Society’s “Emergency Salvage Procedures for Wet Items” (at <http://www.mnhs.org/preserve/conservation/emergency.html>) as a starting point, prepare detailed salvage instructions for one or more types of collections.
- View *Disaster Planning: Soaring to Excellence* (video recording). Chicago: American Library Association, 2000. Discuss and evaluate this training video with reference to readings and class discussion.

Suggested Term Projects

- Write a disaster plan or update a plan for a library, archives, or other institution that holds cultural resources.
- In a given region of the country, search for resources, supplies, and services for disaster recovery needs. Add those vetted resources to the Web site <http://matrix.msu.edu/~disaster/>.