

Readiness and Emergency Management for Schools (REMS) Technical Assistance (TA) Center

MITIGATION & RESILIENCE RESOURCES

General Mitigation and Resilience Resources

[Independent Study \(IS\) Courses, Federal Emergency Management Agency \(FEMA\).](#)

FEMA offers numerous IS online courses that are free and provide certificates of completion. Included in their list of available trainings are several that describe mitigation strategies for various hazards, such as *Earthquake Basics: Science, Risk, and Mitigation*.

<https://training.fema.gov/is/searchis.aspx?search=mitigation>

[National Mitigation Framework, U.S. Department of Homeland Security.](#)

The National Mitigation Framework is one of the five National Planning Frameworks and describes how the nation manages risk and mitigation roles across the whole community.

<https://www.fema.gov/national-mitigation-framework>

[Step 2: Understand the Situation Web Page, REMS TA Center.](#)

On these Web pages, information is provided on how schools, districts, and institutions of higher education (IHEs) can conduct assessments to identify their risk from threats and hazards. Additional materials are provided in the Related Resources popup on the left of the screens.

K–12 schools page: <http://rems.ed.gov/K12PPStep02.aspx>

IHEs page: <http://rems.ed.gov/IHEPPStep02.aspx>

[Using the Five Preparedness Missions to Help Ready Your District and School for Emergencies Webinar, REMS TA Center.](#)

In this archived Webinar, presenters discuss how schools and districts can take a more comprehensive approach to emergency preparedness by addressing the five mission areas of prevention, protection, mitigation, response, and recovery. Using examples from frequently asked questions about topics including threat assessments, earthquake preparedness, and adult sexual misconduct, the presenters discuss strategies to build capacity in critical functions, and key courses of action were highlighted.

<http://rems.ed.gov/PreparednessMissionsForSchoolEmerg.aspx>

Building and Site Design and Construction

[Designing Safe Schools: Planning and Retrofitting for Safety in Education Facilities Webinar, REMS TA Center.](#)

The presenters in this archived Webinar share recommended safety considerations for the design and construction of new school buildings, as well as improvements to existing facilities. Also, information is presented on identifying the most common construction and retrofits for school safety, cost-effective options for improving safety and security in school buildings,

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recognizing various types of site assessments, and acting to resolve safety concerns in educational facilities.

<http://rem.s.ed.gov/DesignSafeSchoolPlanning.aspx>

[Incremental Seismic Rehabilitation of School Buildings \(K–12\): Providing Protection to People and Buildings Manual, FEMA.](#)

This resource provides school administrators with the information necessary to assess the seismic vulnerability of their buildings, and to implement a program of incremental seismic rehabilitation for those facilities.

<https://www.fema.gov/media-library/assets/documents/5154>

[Mitigation Ideas: A Resource for Reducing Risk to Natural Hazards, FEMA.](#)

Ideas for communities to help mitigate the impact of a variety of threats and hazards—such as earthquakes, hail, and floods—are provided in this document. Examples provided include planning and zoning, the acquisition and relocation of property, and public outreach efforts.

https://www.fema.gov/media-library-data/20130726-1904-25045-0186/fema_mitigation_ideas_final508.pdf

[Pre-Disaster Mitigation \(PDM\) Grant Program, FEMA.](#)

The PDM Program is designed to assist states, territories, federally recognized tribes, and local communities in implementing a sustained pre-disaster natural hazard mitigation program. The goal is to reduce overall risk to the population and structures from future hazard events, while also reducing reliance on Federal funding in future disasters. This program awards planning and grants to help with projects such as building safe rooms inside schools in tornado-prone areas, and provides opportunities for raising public awareness about reducing future losses before an emergency. Schools and districts can work with their local government to identify and prioritize projects that can help keep their school community safe.

<https://www.fema.gov/pre-disaster-mitigation-grant-program>

[Safer, Stronger, Smarter: A Guide to Improving School Natural Hazard Safety, FEMA.](#)

This guide can help schools develop a comprehensive strategy to address hazards. Information is presented on topics such as identifying hazards that could affect a school, how to make new and existing buildings safer for the whole school community, and how to respond and recover from emergencies.

<https://www.fema.gov/media-library/assets/documents/132592>

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Mitigation for Specific Threats and Hazards

[Design Guide for Improving School Safety in Earthquakes, Floods, and High Winds, FEMA.](#)

This publication is intended to provide design guidance for the protection of school buildings and their occupants against natural hazards, especially earthquakes, floods, and high winds. The guide focuses on the design of elementary and secondary schools (K–12), as well as repair, renovation, and additions to existing schools.

http://rem.s.ed.gov/docs/FEMA_ImprovingSchoolSafety_EarthquakesFloodsWinds.pdf

[Earthquake Preparedness for Schools Training by Request \(TBR\), REMS TA Center.](#)

This TBR provides an overview of the dangers earthquakes may pose to a school and its community. Key considerations for preparing for, protecting from, mitigating the effects of, responding to, and recovering from an earthquake are provided and participants are instructed on how the six step planning process for developing an emergency operations plan may help address dangers. The training also presents courses of action that planning teams may want to consider when developing hazard-specific and functional annexes relevant to earthquake preparedness. Throughout the training, small-group discussions are facilitated that provide participants the opportunity to discuss earthquake-related activities at their schools or communities.

http://rem.s.ed.gov/TA_TrainingsByRequest.aspx

[Primer to Design Safe School Projects in Case of Terrorist Attacks and School Shootings, DHS.](#)

This resource describes how schools can address potential physical attacks, including *active shooter* events, through building design. While schools are rarely victims of these types of events, they can be affected by incidents occurring at nearby facilities.

https://www.dhs.gov/xlibrary/assets/st/bips07_428_schools.pdf

[Safe Rooms for Tornadoes and Hurricanes: Guidance for Community and Residential Safe Rooms, Third Edition, FEMA.](#)

This publication provides recommendations for the design and construction of community and residential safe rooms to protect against tornadoes and hurricanes. Guidance and commentary are also provided that reflect lessons learned about the design of safe rooms that have been directly affected by tornadoes.

<https://www.fema.gov/media-library/assets/documents/3140>

[Using Crime Prevention Through Environmental Design \(CPTED\) in Problem-Solving, U.S. Department of Justice.](#)

CPTED is an approach to crime prevention that aims to reduce opportunities for crime by using elements of the environment to control access, provide opportunities to see and be seen, and

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define ownership. This document describes CPTED and how to improve environmental conditions to help prevent or deter crime.

<https://ric-zai-inc.com/Publications/cops-p132-pub.pdf>

Youth Violence: Using Environmental Design to Prevent School Violence Web Page, U.S. Centers for Disease Control and Prevention.

This Web page provides information on how CPTED can be applied to school violence prevention. Specifically, the page outlines the key principles of CPTED and how those principles can benefit schools.

<http://www.cdc.gov/violenceprevention/youthviolence/cpted.html>