| **Grade 3 Unit 4 Natural Disasters** | |
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| **Unit Overview** | |
| Earth’s physical environment can have profound effects on its inhabitants. Location and physical features impact a population’s vulnerability to natural hazards. Humans sometimes make accommodations to help protect themselves from threats while often they put themselves in danger when natural hazards are not considered. Geographic information about physical systems can be used to create a related safety plan in the event of a natural disaster. Students will use inquiry to determine the relationship between people and natural hazards.  Teachers may choose to teach this indicator in conjunction with science standards [3.E.4B.3 and 3.E.4B.4](https://ed.sc.gov/instruction/standards-learning/science/standards/).  *The unit sequence follows a progression to scaffold student thinking. Guiding questions are provided to help students answer the Overarching Inquiry Question. The suggested inquiry activities may take multiple class sessions, or could span an entire year. Do not feel that each lesson sequence should be completed in one class period.* | |
| **Overarching Inquiry Question** | |
| **How can people stay safe from natural disasters?**  *All units are created to support the* ***Overarching Inquiry Question****. Inquiry-Based Learning supports the* ***Profile of the South Carolina Graduate*** *where students use skills to explore their inquiries related to the content as indicated in the standards instead of the teacher merely providing the information.* | |
| **Theme** | |
| **Applied Geography**: Students will study how geographic literacy skills are used to solve problems we face today.  **Environment and Resources**: Students will study human activities that modify the environment and explore the benefits and costs associated with climate, landforms, and vegetation. Students will also explore how the distribution of natural resources varies spatially and temporally, resulting in different political and economic relationships | |
| **Skills Emphasis at a Glance** | |
| Identify the choices humans make that causes them to be more vulnerable to natural disasters.  *Examine maps of the county and determine locations not recommended for human shelter based on topography and potential hazards.* | |
| The geographic locations and patterns of natural disasters around the world can be tracked by using maps and other sources of geographic information.  *Use a map of the United States and plot the locations of where tornadoes, earthquakes, and hurricanes occurred. Compare with a population density map to identify locations where people and hazards are both located and make suggestions to minimize the loss of life should a natural disaster occur.* | |
| Graphing and mapping the occurrences of natural disasters can allow plans to be developed to help keep residents safe.  *Construct a disaster preparedness manual for your community or school that includes a list of actions people should take in an emergency situation due to a local environmental hazard event.* | |
| **Standard(s)** | |
| **Indicator 3.3.1.ER:** Identify the range of natural hazards facing people and explain how some populations are more vulnerable than others.  *Purpose: This indicator prompts students to consider the various threats to humans including earthquakes, floods, hurricanes, tornadoes, volcanoes, and wildfires and how human actions increase exposure or loss.* | |
| **Indicator 3.3.2.ER:** Use maps and other sources of geographic information to gather evidence and draw conclusions about patterns of natural disasters around the world.  *Purpose: This indicator prompts students to inquire about the geographic locations and patterns of natural disasters around the world. Connections may include how earthquakes occur along fault lines and hurricanes form over warm water near the Equator.* | |
| **3.3.3.AG:** Develop a natural disaster safety plan for a community.  *Purpose: This indicator prompts students to inquire about natural disasters that typically occur in a community and then develop a practical plan to protect the community.* | |
| **I Can Statement(s)** | |
| * I can identify the range of natural hazards people face. * I can explain how some populations are more vulnerable than others are. * I can use maps (or other sources of geographic information) to gather evidence and draw conclusions about patterns of natural disasters around the world. * I can develop a natural disaster safety plan for a community. | |
| **Unit Sequence of Teacher Instructional Practices and Actions Students will Take to answer the Overarching Inquiry Question** | **Instructional** **Guidance and Resources**  *Instructional Guidance and resources listed below are offered as suggestions for educators to assist students in reaching the goals of the proposed sequence.* |
| Explain the goal of the unit study to students.  For unit 4, students will describe the natural hazards people face in the country/region they chose to study and how the people there can keep themselves safe. For connections with this unit, students focus on the relationship between natural disasters and geographic location. | Teacher will set the purpose for learning. Students will use one country or region to study this year and apply the learned geography skills to a project that is formatted in the teacher or students’ choice. As you begin to plan this unit, select a model country to use that students may not select for their own project. Use this country in your examples throughout the unit as you discuss the I Can Statements and skills.  For example, the teacher could model applying these skills with The United States. The teacher could choose to have students present their findings in different ways (small groups, partners, with students from other countries/regions on their continent, whole group, virtually) for the end of the unit. |
| Guide a conversation with students to discuss what natural disasters are. Students could share what they know about natural disasters and how people could plan for them and stay safe. | It is important for students to understand that there are wide varieties of natural disasters that occur throughout the world, and some places are more vulnerable than others are to specific disasters. |
| **I can identify the range of natural hazards people face.** | |
| Students will identify natural disasters such as tornadoes, volcanoes, fires, earthquakes, and floods by looking at images in a Gallery Walk.  During the Gallery Walk, students will put a sticky note on the image to identify what they think the natural disaster is and why. | This indicator prompts students to consider the various threats to humans including earthquakes, floods, hurricanes, tornadoes, volcanoes, and wildfires, and how human actions (e.g., building in a floodplain) can increase exposure and loss.  Teacher could consider integrating science standard 3.E.4B.3 to teach about natural events. (3.E.4B.3 Obtain and communicate information to explain how natural events (such as fires, landslides, earthquakes, volcanic eruptions, or floods) and human activities (such as farming, mining, or building) impact the environment.)  Teachers will provide images around the room for students to visit as stations, making observations and drawing conclusions about each.  Teacher could also have students work through the [Little House Activity](https://drive.google.com/file/d/189as4kh7qaSB0WME93rufPhxbEN1qPWf/view) again (see unit 2 for description), but change the focus from why you would want to live in a specific area to how an area could be affected by certain natural disasters. Potential questions to ask students would be what area would be affected by a blizzard, flood, hurricane, wildfire, etc.; what changes might need to be made to certain areas to keep the people safe; what area should you avoid living in because it is prone to a certain natural disaster.  The National Geographic Kids books are a possible resource for kid-friendly images and vocabulary related to the natural disasters. |
| **I can use maps (or other sources of geographic locations) to gather evidence and draw conclusions about patterns of natural disasters around the world.**  **I can explain how some populations are more vulnerable than others are.** | |
| Guide a conversation with students about what natural disasters occur in their local community, South Carolina, or regions of the United States.  Students will look at natural disasters that occur in [South Carolina](https://www.scemd.org/prepare/) and record information gleaned from the site in a manner determined by the teacher. Students can use this information to evaluate whether or not it is safe to live in their area based on the disaster their region of SC is prone to.  Students will also explore ways to prevent impact to homes and property from disasters that occur regularly in their local area. | Discuss natural hazards that face your community. Encourage students to consider if those same hazards affect every community in South Carolina.  Teachers could allow students to work in pairs and list the natural hazards that they would face in their community.  Teachers could allow students to look outside of their local areas at places that are affected by natural disasters regularly (like the coast of South Carolina being affected by hurricanes). They can examine the safety of the people who live there and how those people could prevent impact to homes and property from the specific natural disasters that occur in those locations.  Teachers should review types of hazards utilizing information from South Carolina Emergency Management Division  [Prepare - South Carolina Emergency Management Division](https://www.scemd.org/prepare/) |
| Students will work in small groups to look at natural hazards within the United States and the World. Students should notice patterns in locations, as well as areas that are more prone to one or more natural hazards, and write observations on sticky notes. Students will rotate to these three sites:  Resources:  [United States Natural Disaster Analysis](https://www.adt.com/natural-disasters/declaration-analysis)  [Interactive Global Hazards Map](https://maps.ngdc.noaa.gov/viewers/hazards/?layers=0)  [Which States Are Most Prone to Natural Disasters?](https://www.moving.com/tips/which-states-are-most-prone-to-natural-disasters/)  Students will use the information gathered to decide where would be the safest place in the world to live. Students will create an image/writing/model/etc. to defend their choice with evidence from the maps and prior learning in the unit. | This could look like a Jigsaw Activity. Encourage students to discuss their observations.  Consider asking open-ended questions such as:   * Can you list three observations about \_\_\_\_? * What patterns can you see between \_\_\_\_ and \_\_\_\_? * Can you speculate why \_\_\_\_ natural hazards are more likely to occur in \_\_\_\_ than \_\_\_\_? |
| **I can develop a natural disaster safety plan for a community.** | |
| Students will create a natural disaster safety plan for their local community.  Students will design a public service announcement to share with their local community about how to be safe from natural disasters that might affect them. | In preparation for their culminating task, teachers should allow students to use this time to create a natural hazard safety plan for a region within South Carolina (local to where students live).  Resource:  [Ready.Gov](https://www.ready.gov/make-a-plan) (Natural Disaster Safety Plan)  Things to think about:   * How are you helping students see that people can cause themselves to be more “at risk?” * How are you encouraging students to draw their own conclusions about their findings? |
| Students will describe the natural hazards people face in the country/region they chose to study and how the people there can keep themselves safe. For connections with this unit, students focus on the relationship between natural disasters and geographic location. | Tasks for Unit 4 for the yearlong study:   * Describe natural hazards * Make connections between country/region’s geographic location and natural hazards * Student designs their own emergency preparedness plan for their country/region of study to minimize hazards   Things to keep in mind:   * Preventative measures that are already in place (levees, shelters, etc.) * Any modifications or suggestions that the student has to minimize hazards   Encourage students to connect back to the overarching inquiry question about the natural hazards people face around the world and what can be done to prepare for them. |
| **Resources** | |
| For suggested content, see the [Grade 3 World Geography Alignment Guide](https://ed.sc.gov/instruction/standards-learning/social-studies/resources/).  For further information about natural disaster preparedness see SCEMD [Prepare - South Carolina Emergency Management Division](https://www.scemd.org/prepare/)  [Ready.Gov](https://www.ready.gov/make-a-plan) (Natural Disaster Safety Plan)  [FEMA’s “Be a Hero”](https://www.fema.gov/media-library-data/bb917e271da92ac61b0e717074f5281e/FEMA_MS_TG_082613_508.pdf) Planner (could be easily scaffolded down for 3rd Grade)  [Disaster Supply Kit](https://www.shakeout.org/california/downloads/ShakeOut_P3_DisasterSuppliesKit.pdf) Lesson  [Ready - Set - Prepare](https://www.utah.gov/beready/family/documents/ReadySetPrepare02.pdf) Booklet  **Mapping Resources:**  [United States Natural Disaster Analysis](https://www.adt.com/natural-disasters/declaration-analysis)  [Interactive Global Hazards Map](https://maps.ngdc.noaa.gov/viewers/hazards/?layers=0)  **Literature Resources:**  Five Epic Disasters (I Survived True Stories #1) by Lauren Tarshis (2014)  What was Hurricane Katrina? by Robin Koontz (2015)  Flood by Alvaro F. Villa (2013)  Over in the Wetlands: A Hurricane-on-the-Bayou Story by Caroline Starr Rose (2015)  A Place Where Hurricanes Happen by Renee Watson (2010)  National Geographic Leveled Readers for Kids- each book is titled by the natural disaster it is describing (Tornado, Hurricanes, etc.)  [Natural Disasters Around the World](https://www.readingrockets.org/article/natural-disasters-around-world-understanding-and-empathy-through-childrens-books)(Readingrockets.org) | |

**References**