

Reflect

Have you ever been caught in a storm? You are outside on a summer night and all of a sudden here come the wind, lightning and heavy rain. It starts raining so hard that you can hardly see in front of you. The rain turns to hail, but after a few minutes the whole thing is gone. All that is left are big puddles of water, leaves, or branches blown off of trees and shrubs, and grey skies.



Thunderstorms usually produce lightning, heavy rains, and big wind gusts.

Were you prepared for the fast approaching storm? Were you able to take shelter? What about pets, livestock or plants?

What is a natural disaster?

Changes to land happen at different speeds. A volcano or an earthquake can change landforms in minutes! Wind, water, and ice are just as powerful; they cause changes to Earth's surface quickly. For example, sudden waves called tsunamis can uproot trees and shift whole beaches. In other cases, though, wind, water, and ice take much longer to change Earth's surface.

Natural disasters have a profound effect on the environment. For example, sometimes an ecosystem experiences a **drought**. When this happens, many plants cannot get enough water and can perish or die as a result. Animals are affected by drought, too. Some animals can survive by moving to new areas. It can take years of rain for an area to recover from the drought.

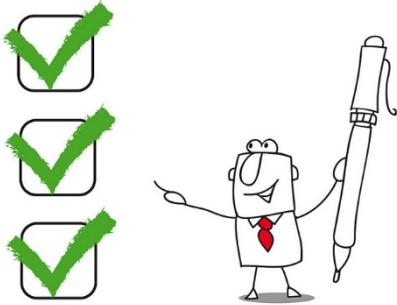
Events like hurricanes, fires, and floods can quickly change an environment. These changes may cause organisms to perish or move to another area. They may also cause new organisms to move into or grow in the area. For example, when an area floods, many land animals are forced to move. If the flood creates a new **habitat**, such as a lake, animals like frogs and fish will survive and grow in the area.



drought: a period of little or no rain

Try Now

Does your family have a plan of action in the event of an emergency? What types of preparation plan has your family created? Where do you go, who do you call, and what do you do if you get separated?



Write down some natural hazards that may occur in your area. Discuss with your family how you plan to respond in the event of one of these emergencies.



Good or Bad?

Look at the pictures to the right. The picture shows a forest fire. Although many plants and animals are destroyed in fires, forest fires actually help the jack pine. Its cones need heat in order to open and release the seeds. Without the heat in forest fires, new jack pines cannot grow.

A forest fire can be started naturally by lightning hitting a tree. It can also be started by human activity, like a campfire or BBQ grill. It is important to always make sure the fire is out before you leave it.

1. Can you think of other ways that a forest fire may be helpful to an ecosystem?
2. How can humans prevent forest fires?
3. What impact does a fire have on an ecosystem?



This is a picture of cones on a jack pine. The cones need heat to open.

Look Out!

What causes natural disasters? Many natural disasters are caused by some sort of weather event. Different types of weather events are likely in different areas and during different seasons. For example, the Midwest area of the United States sees numerous tornadoes every spring and summer.



Tornadoes can happen quickly with little or no warning.

Look at the picture to the right. This tornado has the energy to rip through towns, ruin homes and even kill humans and

animals. Constant research is being done by scientists to increase warning time. Increased warning times will allow people to have more time to get to safety either in a shelter or by evacuating.

natural disaster: a natural event, such as a fire, tornado, or earthquake, that causes catastrophic damage or loss of life



What Do You Think?

Natural disasters happen all over the world. Some events affect thousands of people who live in big cities while others may only affect a few hundred that live in a small rural community.

Do some research.

Look to see if you can find the three latest natural disasters that have happened around the world. Then look to see if you can determine some of the earliest reported natural disasters in history.

Design a way to explain.

Create and use a timeline to explain different natural disasters that have happened. Remember to discuss the following items on your display:

- Location
- How many people were affected
- Disaster relief/prevention
- Warning systems
- Results or lesson learned from event

Connecting With Your Child

Natural Hazards in Everyday Life Children are probably familiar with events that have occurred in an area close to where they live. Geographic location determines many factors that make an area prone to a certain type of event.

Make a list of events that have happened around your area. Once you have completed your list, research other events that you and/or your child are not familiar with. If you have never experienced an earthquake, get on the internet and try to find areas that frequently experience earthquakes. Repeat this same idea with as many events as possible: fire, floods, tornadoes, tsunamis, hurricanes, blizzards, volcanic eruptions, etc.

Once you and your child have completed the research and looked at various events, see if your child can identify those areas on a globe or

map. Help your child understand different types of events and how your geographical location plays a role in what kind of events you experience in your area.

Here are some questions to consider.

- Where do natural disasters occur?
- Can we prevent them?
- Is there some areas that are more prone to certain types of events?
- List three different areas and what types of events might happen there.
- Could the event be prevented or could people be warned?