

# ScienceNews

## Activity Guide for Students: Planning Ahead to Prevent Future Disasters

### Directions:

In this activity, you will be acting as members of a planning board who have learned that due to climate change, your area is at increased risk of devastation from natural hazards. Your teacher will tell you what the natural hazard will be. As a class, you will brainstorm solutions to the problem and then form small groups to do research on your solutions. The research will help your group create a proposal to implement your solutions.

Your group will present its action plan to your teacher, who is the chair of the planning board, and to the other groups. Following presentations by all groups, each group will gather again to quickly reassess its proposal and consider information from the other presentations.

For the final steps in this activity, your class will meet to discuss the merits of the proposals and vote on which ones to fund and implement.

### The setup

First, read the online *Science News* articles "[How to protect your home from disasters amplified by climate change](#)" and "[Technology and natural hazards clash to make 'natech' disasters](#)." Then, listen to the planning board briefing on the increased risk of a natural hazard. Your teacher will present the brief to you or you will be asked to brainstorm solutions to address problems posed by the hazard scenario your area faces.

### Class discussion

Discuss the following questions with your class.

1. What information do you need to have about this particular type of natural hazard?
2. What outside groups should the town or county planning board consult to develop solutions for preventing or mitigating a potential disaster?
3. What are some solutions that could be used to prevent or mitigate a potential disaster?
4. How do community leaders decide which solutions to use?

## **Proposals**

After your class has brainstormed and suggested a few solutions, you will work in a small group during and after class to flesh out proposed solutions. Use the following questions to guide your proposal. You will then create a five-minute-long presentation about your proposal that can be given via whiteboard or PowerPoint. If you are doing this class remotely, your teacher will provide guidance on how to make your presentations.

1. What solutions will you research to create your proposal?
2. How do your solutions address the possible threats posed by the natural hazard? Note whether they are short-term or long-term strategies.
3. What are some of the drawbacks of your solutions?

## **Presentations and group discussions**

After presenting your proposal and receiving feedback, you will form into your small groups once more and answer the following questions before voting on which proposals to fund:

1. How does your group's proposal compare with those proposed by the other groups?
2. What is the most important part of your proposal in terms of preventing disasters? If the disaster cannot be prevented, what is the most important part of your proposal in terms of mitigating the damage from the disaster?
3. Why is it important to collaborate and seek feedback from other groups working toward the same overall goal?

4. How can your group combine resources and expertise with other groups to most effectively reach the overall goal?

**Vote**

After your group finishes its last assessment, gather with the rest of the class for any final discussion before holding the planning board vote.

