

# EDUCATOR *GUIDE* | Activity 1

## Everyday Hazards (40 min)

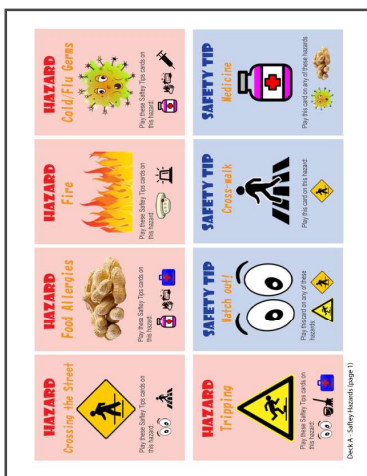
### Overview

In this activity, youth will learn about the concept of hazards and the idea that humans have developed ways to mitigate some of them. Youth act out hazards and safety tips in a form of charades and match appropriate safety tips with their respective hazards in a collaborative card game. Youth also learn the definition of the word “mitigate” and are introduced to the idea that there are careers focused on hazard mitigation.

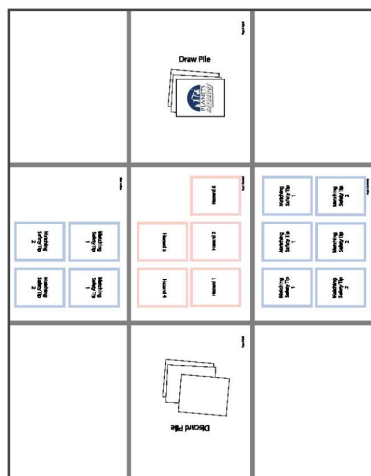
Youth will learn:

- » Humans have developed ways to mitigate safety hazards.

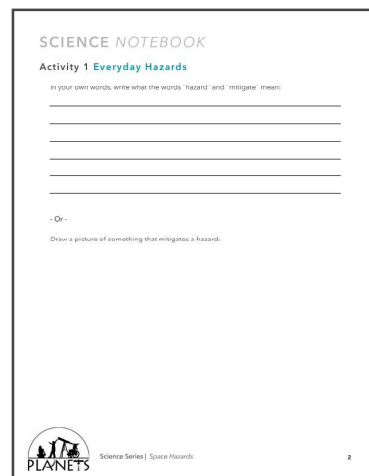
### In this activity:



*Safety Hazards Cards*  
(Deck A)



*Safety Hazards*  
*Playmat*

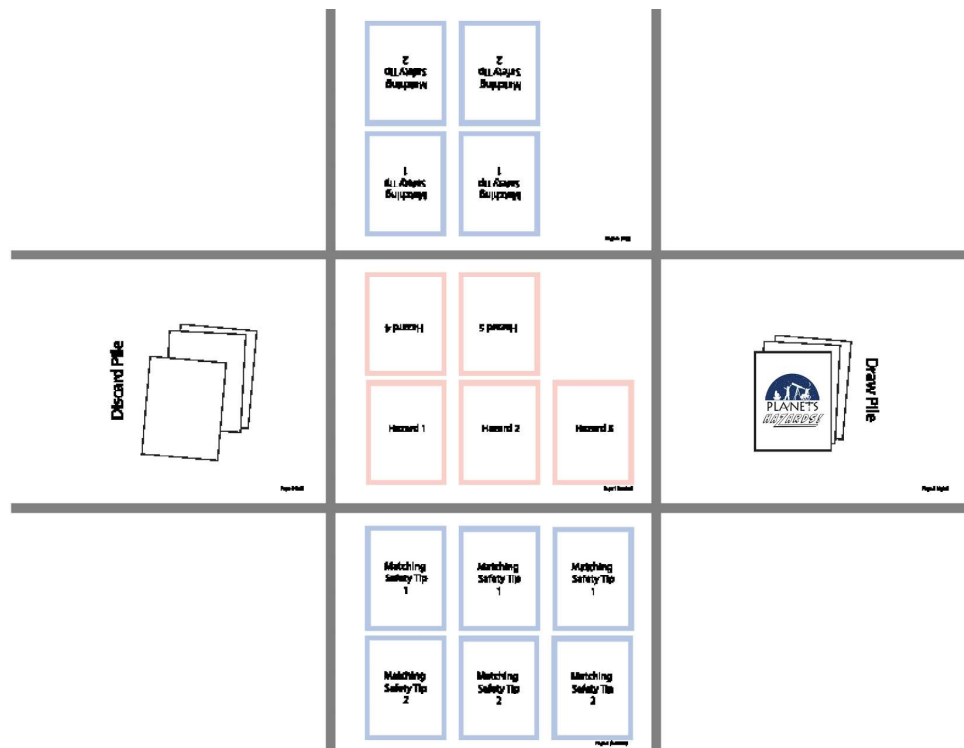


*Science Notebook*

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## Educator Preparation (1-1.5 hrs)

1. Read through the entire PLANETS Science Series educator guide to learn more about the science content in this unit. This is intended to help educators become familiar with science concepts related to hazards on Earth and in space exploration and how humans have developed ways to mitigate them. Educators can decide which concepts and vocabulary are most appropriate for their group.
2. For Activities 1-4, print one Science Notebook for each youth, in color if possible.
3. For Activity 1: For the whole group:
  - » Print one copy of the Safety Hazards playmat
  - » Tape Safety Hazards playmat together in the arrangement depicted below.
  - » Print one copy of Deck A - Safety Hazards Cards (in color if possible) (14 cards)
  - » Cut these printed card sheets into individual cards with a paper cutter or scissors.
4. Optional: Consider laminating the self-printed cards or using card protectors to preserve materials for future use.



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## Introduction to *Hazards* (30 min)

» Ask youth: What are some examples of everyday hazards? Accept all answers. If not stated, give some very simple examples (i.e. germs or slips, trips, and falls, etc.).

» Define hazard simply as “a danger.”

» Play a simple matching game of everyday hazards and safety tips with the whole class. The goal of the game is to remove all hazards.

1. Lay out the taped playmat on a table and set one deck of Safety Hazards cards (deck A) (14 cards) facedown on the “Draw pile” location. Gather youth around the Safety Hazards playing mat.

**Tip:** Don't skip the game layout, it scaffolds a more complex game in the following activities.

2. If you have more than 14 youth, split them into pairs.

3. Ask each youth or pair to draw a card from the draw pile in turn until the deck is gone.

4. Split the group into those with Hazard cards on one side of the room and those with Safety Tips cards on the other side of the room.

**Tip:** Pay extra attention to the group that is dealt the hazard card for Tripping and make sure youth are planning on acting it out in a safe way.

5. One at a time, groups will act out their card without speaking words (sound effects are ok). All youth with Hazard cards must go first.

6. When someone guesses the hazard or safety tip, have the acting group place it on the correct location on the playmat.

7. Once a Hazard card has two matching Safety Tip cards lined up underneath it, have youth flip the Hazard card over and put the Safety Tip cards in the discard place on the playmat. This means that the Hazard has been mitigated (the danger has been avoided).

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8. If there are still remaining Hazards cards after all Safety Tips have been played, then shuffle the discard pile and place it in the draw pile location on the playmat.

9. Have volunteer youth or groups draw cards in turn.

## Define Mitigate (8 minutes)

1. Define the concept of mitigation. This is an important word that is used throughout the series and is likely new to youth.

2. Explain to youth: Things that you have done to prepare for or deal with hazards are all examples of ways that humans mitigate hazards. Mitigate means to make less severe, serious, or painful. It also means to make bad things better. We can't solve or stop natural hazards from happening, but we can do things that make them less severe, serious, or painful.

3. Considering the dynamics of your group, try using the following strategies to help the definition sink in:

- » The word mitigate comes from the same root as the word mild, so you can think of it as making severe things mild.
- » You can break down the word into "mitten" and "gate".
  - i. A *mitten* helps mitigate the cold. Your hand still might get cold, but it takes longer.
  - ii. A *gate* helps mitigate fenced animals from getting out and attacking or wandering into the road while letting humans through. An animal still might escape, but it's much less likely than if the gate wasn't there.

4. Sometimes mitigating hazards makes life better for everyone. For example, ramps in sidewalks make crossing the street safer for people in wheelchairs, but it's also easier for bikes, skateboards, and hoverboards. Even people who are walking are less likely to trip.

5. Ask youth to sort through the cards in the safety hazards deck and find the ones that would mitigate the hazards. Lay all these out side-by-side on a table. What do they have in common? Take a couple of minutes to let youth share patterns that they identify. Accept all answers.



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## **Reflect (2 minutes)**

Explain to youth that a Health and Safety Officer is a person who identifies hazards and designs ways to mitigate them. Humans have also designed ways to mitigate bigger natural hazards and even hazards in space using the same idea.

Youth will get a chance to practice their skills as Health and Safety Officers in the rest of the activities in this series.