



4.5 EXTREME WEATHER EVENTS

OBJECTIVES

The students

- Report on local extreme weather events.
- Discuss and report on locally appropriate safety precautions and preparations for extreme weather events.
- Connect the study of extreme weather to their Pacific Island environment.
- Create game cards and play the Extreme Weather Safety Game.

CLIMATE EDUCATION FRAMEWORK

- 3-5Climate.A.5 Extreme weather events (for example, tropical storms, typhoons, hurricanes, and long droughts) happen more in some places than in other places, and more in some times of the year than other times of the year.

BACKGROUND

This activity continues the topic of extreme weather events explored in grade three. It is suggested that the teacher keep the students focused on those sorts of events that occur in the Pacific Islands such as typhoons or hurricanes, severe droughts, and tropical storms including lightning. See Appendix E *Lightning*.

The focus in grade four is on appropriate safety precautions and preparations. These are generally best described by local authorities. These should be reviewed by the teacher and discussed with the students. A guest speaker from NOAA or another local weather related agency will add much to the importance of this issue.

Students often want to include tsunamis as extreme weather when in fact these are the result of geological events, often earthquakes or submarine landslides. However, increased wave action and high surf often result from tropical storms and typhoons.

The students begin with a list of extreme weather events. They work in small groups to research and report on these events. Lastly they create game cards on the event and related safety measures based on their research.

STUDENT ROLE

Meteorologist

MATERIALS

chart paper and markers

game card making supplies or SP 4.5B EXTREME WEATHER GAME CARDS

game boards and directions

Working Dictionary

resources on severe weather and/or Internet access

SP 4.5A EXTREME WEATHER

Appendix E LIGHTNING

PRODUCTS

List of extreme weather events

Reports on extreme weather events

Game cards for the *Extreme Weather Game*

Working definition of extreme weather

PROCEDURES

1. **Help the class make a list of kinds of extreme weather events. Have the students work in small groups to make concept maps about each of the kinds of extreme weather on the list.**

Have them

- Describe the different kinds of extreme weather, the effects of these events, and any other ideas they suggest including safety issues and precautions.
✓ See the Background if tsunamis are suggested. Ask students what causes them. Then ask how this is related to weather.
- Identify the kinds of extreme weather experienced locally.
✓ Discuss personal experiences students may have had with extreme weather events if they are comfortable in doing so.
- Identify some kinds of extreme weather experienced in other places.
✓ Help them to identify where such events are likely to occur.
- Share their group concept maps and then revise and add to them as they choose.

2. **Have the students work in groups to research and report on the kinds of extreme weather that occur locally. Use SP 4.5A EXTREME WEATHER or similar questions to help students with their research efforts.**

Have them include

- A description of the event.
- Factual information they find in books, on the Internet, or from other resources, including local experts.
✓ If possible, invite a local expert to speak to the class about extreme weather events. Help students prepare a list of their questions to share with the speaker ahead of time.
- Drawings or other types of illustrations.
- Potential effects of the particular severe weather event.
- Locally appropriate safety and preparation information.

3. **Have the student groups report on the information they have found.**

4. **Have the groups make game cards for the *Extreme Weather Safety Game* based on their research.**
 - Use SP 4.5B EXTREME WEATHER GAME CARDS or plain paper.
 - Have them create true or false statements, questions with 2-3 word answers, or multiple choice items.
 - The question and answer should be on the same side of the card.
 - Check the cards for accuracy.
 - Duplicate the cards for each game set. The game is played in groups of 3-5.
 - Have the students cut out and assemble the sets of game cards—a game set is made of the cards contributed by each group.
 - Duplicate a game board for each group.
 5. **Go over the directions for the *Extreme Weather Safety Game* with the class and have the groups play the game.**
 6. **Have the students write a Working Definition for extreme weather. Put it in the Working Dictionary.**
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EXTENSIONS

- Have students create posters about extreme weather events found in other places.
- Place a game set or two in the Weather Center for students to play when they have the opportunity.



**EXTREME
WEATHER
SP 4.5A**

Name: _____

Date: _____

Type of extreme weather:

Describe the event:

Describe some possible effects from this weather:

Interesting facts:

Safety and preparation information:

Tell where you got your information from:

EXTREME WEATHER SAFETY GAME

GAME DIRECTIONS

PLAYERS

2–4 players

1 judge

MATERIALS PER GROUPS

colored game marker for each player

one die

game board

set of question cards

RULES

1. Each player chooses a colored marker and places it near **START** on the game board.
2. Each player rolls the die. The player rolling the highest number goes first. Players take turns, rotating clockwise around the group.
3. Each player in turn rolls the die. The number on the die indicates the number of spaces the player may move.
4. **HOWEVER**, before a player moves, the judge will draw a question card from the deck and ask the question of the player. If the answer is correct, the player may move the number of spaces shown on the die. If the answer is incorrect, the player must remain on the same space until the next turn.
THE JUDGE'S DECISIONS ARE FINAL.
5. If a player lands on one of the special spaces (see game board), the player must follow the directions given on the game board for that space.
6. The winning team is the first one to have all the players in their group reach **FINISH**.



**EXTREME WEATHER
GAME CARDS
SP 4.5B**

Name: _____

Date: _____

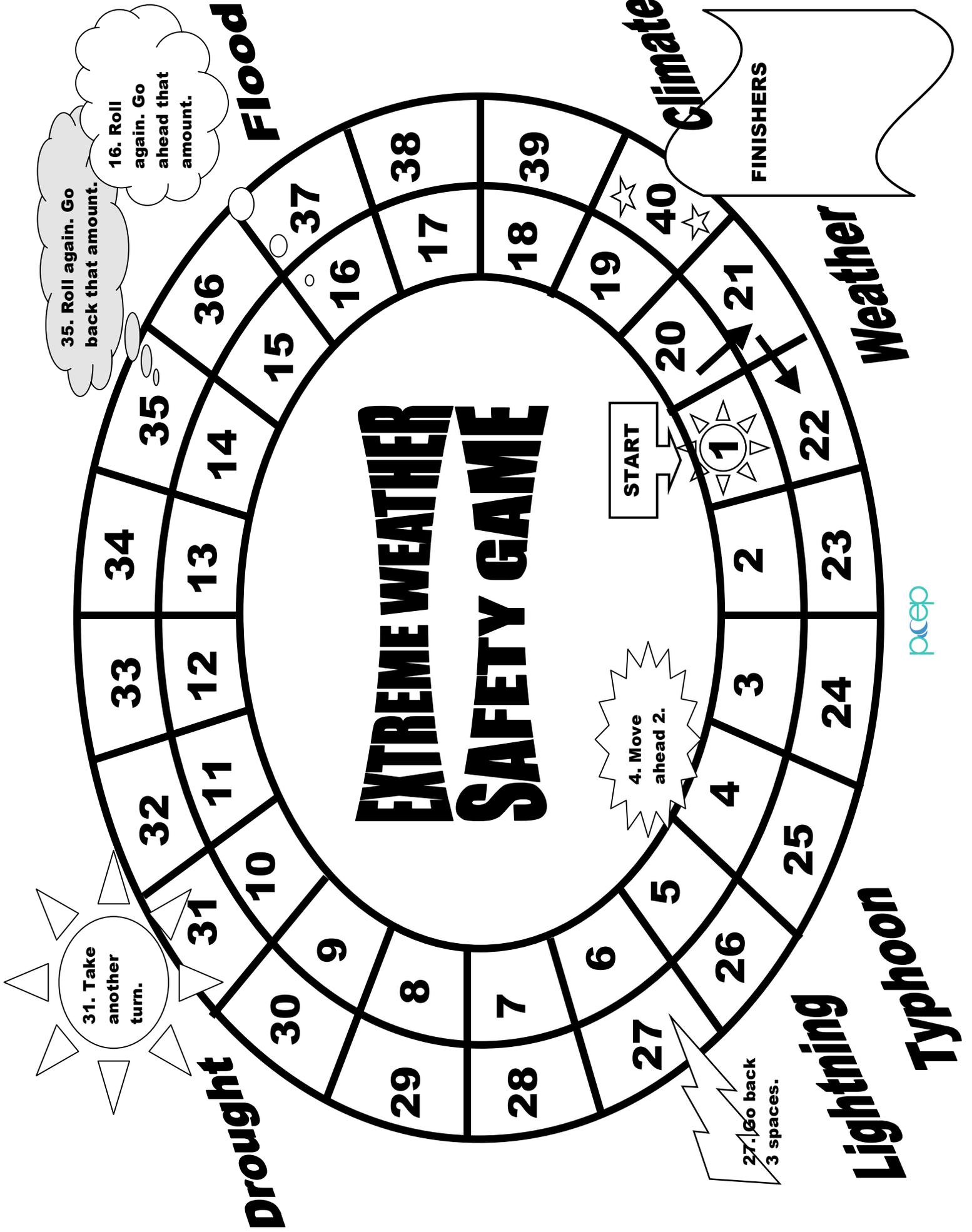


**EXTREME WEATHER
GAME CARDS
SP 4.5B**

Name: _____

Date: _____

EXTREME WEATHER SAFETY GAME



35. Roll again. Go back that amount.

16. Roll again. Go ahead that amount.

4. Move ahead 2.

27. Go back 3 spaces.