

# EXTREME WEATHER

## FIELD TRIP GUIDE

**Extreme Weather** will take you on a journey, from ice to fire to tornados, while illustrating how all of these extreme elements are connected. Understanding this interconnectedness is one of the keys to living in a world where extreme weather is becoming the norm. And scientists are working to unlock other keys that will help us predict and survive the extreme weather to come.



### Before you watch the movie...

Based on the name, *Extreme Weather*, think about how it might relate to something you are studying—or have studied—in school. How are they connected?

What else comes to mind when you see the words EXTREME WEATHER? Start a list of words or ideas.

A spiral-bound notebook with ten blank lines for writing.



### DO YOU KNOW THESE KEY WORDS?

**ICE:** frozen water

**STORMS:** a violent disturbance of the atmosphere with strong winds, can include rain, snow, thunder, lightning

**WIND:** the movement of air

**DROUGHT:** an extended period of dry weather and low rainfall

**HEAT:** high temperature

**WEATHER:** conditions in the atmosphere at any given time and place, like wind, rain, sun

**CLIMATE:** weather conditions that prevail in an area over a long period of time

**ATMOSPHERE:** layer of gases surrounding earth

**OCEAN:** water that covers more than 70% of earth

Based on these words, do you have any ideas or words to add to your list?



### One more thing...

While you're watching, chew on the idea that weather events in different parts of the world are somehow connected. How can that be? Think about what you already know about oceans, currents, and the key words from the movie to connect the dots while you watch.

## During or After the Movie:

Find the answers while you watch the film. Jot down any other facts you find interesting.

❶ How many degrees Fahrenheit has the average global temperature risen in the last 150 years?

- a) 10                      b) 1.5                      c) .5

❷ \_\_\_\_\_ has been losing billions of tons of ice every year.

- a) Greenland      b) Antarctica      c) Alaska

❸ Ashes from forest fires in the United States can travel to the poles and contribute to ice melt.

- True                      False

❹ Drought affects up to \_\_\_\_\_ of the world's population.

- a) 1/2                      b) 1/3                      c) 2/3

❺ Sea levels rose by how much in the last century?

- a) 3 feet                      b) 8 inches                      c) 6 feet

❻ How many of the 15 biggest cities in the world sit on a coast?

- a) 10                      b) 7                      c) 11

❼ Wild fires can get so hot they can create their own weather system.

- True                      False

❽ Giant cloud structures over wild fires called \_\_\_\_\_ can create their own lightning and start more fires.

- a) cirrus                      b) pyrocumulus      c) stratus

## After the movie

The movie illustrates how extreme weather around the world is interconnected. What does that mean to you in your day-to-day life?

Answer one of the following questions using the information presented in the film, as well as other information available. Draw a connection between the answer and how it impacts your life, if not today, sometime in the future.

- Ⓐ Why is Alaska considered a bell weather for global ice melt?
- Ⓑ Why do warmer oceans contribute to more severe storms inland?
- Ⓒ What role does the ocean play in storms, like tornadoes, on land?

