
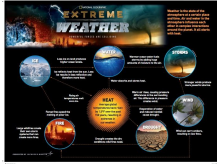

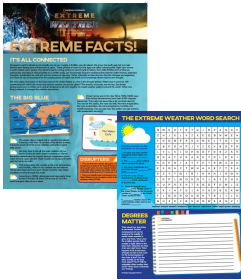


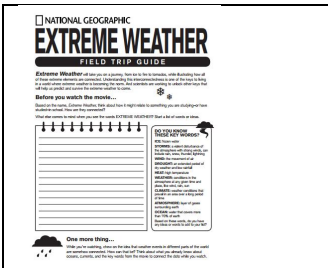
 NATIONAL GEOGRAPHIC  
**EXTREME WEATHER**

## SUMMARY OF COMPANION EDUCATOR RESOURCES

### OVERVIEW

- Extreme Weather is a 40 minute film produced for the giant screen. The film explores the connections of seemingly unrelated weather events – tornados, wildfire, glacial melting.
- Below is a summary of companion resources for use in formal or informal education settings. The resources and activities below extend the exploration of the themes covered in the film.

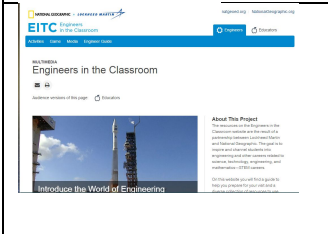
 <p>Extreme Weather Classroom Activities</p>	<p><b>EXTREME WEATHER SPECIAL COLLECTIONS PAGE</b>  <a href="http://nationalgeographic.org/education/extreme-weather">http://nationalgeographic.org/education/extreme-weather</a>          Special collection page developed to accompany the Extreme Weather 3D film. It includes resources designed to teach students about the effects of climate change on weather events.</p>
	<p><b>EXTREME WEATHER ACTIVITY / CLASSROOM MAP</b>          Available in print or at <a href="http://nationalgeographic.org/education/extreme-weather">http://nationalgeographic.org/education/extreme-weather</a>          Two sided map providing graphical representation of the connectedness of weather events. Side two offers activities and discussions to use the map in a group setting.</p>
	<p><b>CHALLENGE: EXTREME WEATHER! GAME</b> <i>(Available October 15, 2016)</i>  <a href="http://education.nationalgeographic.org/game/challenge-extreme-weather">http://education.nationalgeographic.org/game/challenge-extreme-weather</a>          The goal of Challenge: Extreme Weather! is to expose students to exciting careers in science and engineering, focused on the areas of meteorology and physics. It is a browser-based game that challenges students to take on the role of an engineer at WeatherComm. Students play through orientation and training exercises in the form of fun, self-directed missions.</p> <p>Through these engaging and fast-paced activities, students learn important concepts about the engineering process (a series of steps that engineering teams use to guide them as they solve problems). They also learn about the layers of the atmosphere and the different types of instruments used to measure weather data. After a two-part orientation, three challenges are available, and players in the role of new WeatherComm engineers can explore them in any order. The games include:</p> <ul style="list-style-type: none"> <li>• Orientation: Thunderstorms—Launch a weather balloon to forecast a thunderstorm.</li> <li>• Challenge 1: Winter Storms—Use programming to save researchers in a winter storm.</li> <li>• Challenge 2: Hurricanes—Test a weather-resistant structure against hurricane forces.</li> <li>• Challenge 3: Forest Fires—Design an aircraft to fight a forest fire and weather obstacles.</li> </ul>
	<p><b>EXTREME FACTS HANDOUT</b>          Available in print or at <a href="http://www.extremeweatherfilm.com">www.extremeweatherfilm.com</a>          Informal education or promotion resource offering quick information bites and companion activities to reinforce the film's themes. Perfect as a field trip take away, promotional piece or pre-show activity.</p>



**EXTREME WEATHER FIELD TRIP GUIDE**

[www.extremeweatherfilm.com](http://www.extremeweatherfilm.com)

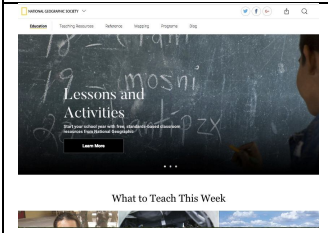
Two page resource document to aide educators in a successful field trip. Guide includes key themes, questions to pose before and after the film and group activity concepts.



**Engineers in the Classroom Program Website**

<http://www.classroomengineers.org/>

The resources on the Engineers in the Classroom website are the result of a partnership between Lockheed Martin and National Geographic. The goal is to inspire and channel students into engineering and other careers related to science, technology, engineering, and mathematics—STEM careers.



**National Geographic Education Website**

<http://nationalgeographic.org/education/>

The NG Education website offers free geography, science, and social studies resources for K-12 educators and students. These highly engaging, multimedia materials maximize learning in and out of the classroom. The site features wide-ranging instructional content—spanning pre-kindergarten through post-secondary—that brings concepts and real-world events to life for our worldwide audience.

**Teaching Resources**

Standards-based lessons and activities use National Geographic photos and video to enable educators and learners to explore the world. Hundreds of free activities and lesson plans are available for use in classrooms, homes, and other educational settings. They are searchable by grade, subject, and audience.

- Lessons, activities, units, and ideas
- Professional development resources and courses
- Collections for STEM, Common Core, citizen science, and other timely topics
- Educational interactives and games

**Reference and News**

The site’s extensive reference offerings for students combine maps, videos, photos, and text to explain complex topics in an accessible, student-friendly way. Students can search by grade and subject to satisfy their personal curiosity or conduct research for school.

- Geography and geoscience encyclopedia
- Real-world profiles of explorers and scientists
- Current-event connections
- Articles on events and research
- Homework help
- National Geographic video, photography, and illustrations

**Mapping**

Interactive maps and tools offer students the chance to see the world in new ways by inviting them to create and print their own maps, incorporate thematic data about the world, and supplement it with graphics and links of their own creation

- Interactive maps with thematic data layers for data analysis
- Geo-tours and geo-quizzes
- Black-and-white outline maps to print in sizes from 8.5x11 inches to 8x10 feet
- Historical maps and maps from National Geographic magazine

**Games and Interactive Multimedia**

The site features many games, apps, and interactives for learners with a focus on decision-making, interconnections, and learning through exploration.

- History interactives
- Interactive science models and calculators
- Exploration games
- Vocabulary games
- Geography games