

# Weather Extremes



Name:

Date:

**Test your knowledge: Match the words with the descriptions.**

Tornado

Blizzard

Hurricane

Heatwave

Flood

Drought

Typhoon

Hailstorm

an overflow of water that submerges land which is usually dry

a prolonged period of excessively hot weather, often accompanied by high humidity

a mature tropical cyclone that develops in the western part of the North Pacific Ocean

a rapidly rotating column of air extending from a thunderstorm to the ground

a weather condition where balls or lumps of ice fall from the sky

a severe snowstorm characterized by strong winds and low visibility

a large tropical storm system with strong winds and heavy rain

a prolonged period of abnormally low rainfall, leading to a shortage of water

# Weather Extremes

Name:

Date:



## Weather extremes in detail

Now take a closer look at a weather extreme and answer the related questions.

### Flood

A flood is an overflow of water that submerges land typically dry. Floods occur for various reasons, including prolonged heavy rainfall, accelerated snowmelt, severe winds over water, high tides, tsunamis, or dam failures. Human activities like deforestation, removal of wetlands, and construction on floodplains often increase the intensity and frequency of floods. Climate change further exacerbates flooding by intensifying weather events and causing sea levels to rise, thereby increasing flood risks.

Floods can happen anywhere in the world but are most frequent in low-lying areas, near rivers, or in coastal regions. Areas such as river deltas and coastal cities are particularly vulnerable due to their proximity to large water bodies. Floods can vary in frequency; some regions experience seasonal floods, while others may face unpredictable flash floods due to sudden heavy rainfall.

The dangers posed by floods are significant. For humans, floods can cause fatalities through drowning, injuries from debris, and outbreaks of waterborne diseases due to contaminated water sources. Animals may be displaced or killed, and their habitats severely disrupted. The environment suffers from soil erosion, destruction of vegetation, and pollution from debris and contaminants. Economically, floods damage infrastructure, homes, and businesses, leading to costly repairs and loss of income for affected communities.

To protect against floods, various measures can be taken. Building levees, dams, and flood barriers can help control water flow and protect populated areas. Urban planning should consider flood risks by avoiding construction in flood-prone zones and using flood-resistant designs. On a personal level, individuals can prepare emergency kits, stay informed about flood warnings, and evacuate when necessary. Communities can also implement flood forecasting systems to predict and respond to potential flood threats, minimizing damage and enhancing safety.



**For each statement, choose if it is true or false.**

**Floods are most frequent in mountainous regions.**

True  False

**Climate change can increase the risk of flooding.**

True  False

**Building levees can help protect populated areas from floods.**

True  False

**Flash floods occur due to prolonged light rainfall.**

True  False

**Floods can lead to outbreaks of waterborne diseases.**

True  False

**Deforestation can decrease the intensity and frequency of floods.**

True  False

**Flood forecasting systems can help minimize flood damage.**

True  False

**Floods only occur in coastal regions.**

True  False

# Weather Extremes

Name:

Date:



## The Great Flood of 1993: A Decade of Recovery and Change

In 1993, the Mississippi and Missouri Rivers swelled beyond their banks, causing one of the most devastating floods in the history of the United States. A volcanic winter from Mount Pinatubo's eruption in 1991 was a suspected trigger. The flood lasted from April to October, engulfing 320,000 square miles and costing up to \$16 billion. The scale of destruction was unparalleled; entire towns like Valmeyer, Illinois, were relocated. This catastrophe affected agriculture, commerce, and infrastructure, reshaping the Midwest's landscape.

The flood's immediate impact was felt deeply across the social and economic fabric of the region. Thousands of homes were destroyed, leaving communities to grapple with displacement and loss. Emergency responses highlighted the need for improved infrastructure and flood management systems. The Army National Guard and American Red Cross played pivotal roles in relief efforts, showcasing the resilience and solidarity of affected communities.



Uncredited USACOE photographer. [File:MO capital flood 93.jpg](#)

Politically, the flood prompted significant federal involvement, with President Bill Clinton declaring disaster zones and advocating for \$2.5 billion in relief. This event underscored the importance of environmental policy and proactive disaster planning. The subsequent decade saw substantial investments in flood defenses, reshaping governmental approaches to natural disasters.

Economically, recovery was a slow process, marked by rising costs in reconstruction and agricultural losses. The flood served as a catalyst for change, prompting technological advancements in weather forecasting and emergency preparedness. The legacy of the 1993 flood is a testament to the resilience of the human spirit, as communities rebuilt and adapted in the face of adversity.

# Weather Extremes



Name:

Date:

## Weather extremes in the news

Carefully read the newspaper article about the extreme weather event on the previous page. Then conduct your own research: Can you find a similar event with the same weather extreme? This page can help you with your research: <https://www.loveexploring.com/gallerylist/84422/dramatic-weather-events-from-1900-to-today>

Then note the similarities and differences between the two events in the table.

Similarities	Differences

**What do you notice when looking at the list of weather extremes? What do you think the future development will look like?**

---

---

---

---

---

---

---

---

---

---