

Teacher materials

Weather and climate: Extreme weather

Scenario description

Players take on the role of decision makers responding to extreme weather events in a fictional town. They must analyse data, make decisions and allocate resources to minimise damage and protect the community. Players must think critically about water management, evacuation plans and disaster mitigation strategies.

Approximate location: Southern USA



Learning objectives

- To understand how climate change is leading to an increased frequency of extreme weather events.
- To examine the social, economic and environmental impacts of extreme weather events.
- To make decisions about how to prepare for and respond to extreme weather events.

Key geographical terminology	Key decisions	Think, work and apply like a geographer
<ul style="list-style-type: none"> • Climate change: When atmospheric conditions such as temperature and rainfall change over time. Currently, our climate is becoming warmer over time, and this is called global warming. • Drought: A prolonged period of low rainfall and a high level of evaporation. • Flood: An overflow of water onto surrounding land after heavy rainfall. 	<ul style="list-style-type: none"> • How should water supplies be managed during periods of drought? • How can people be protected from extreme heat? • How should wildfires be responded to? • How can we protect people and property from flooding and the impacts of severe storm events? 	<p>Encourage students to explore the links between gameplay and real-world job roles, such as:</p> <ul style="list-style-type: none"> • emergency response training • meteorologists, climate change scientists and policy makers • GIS and data science • utility companies

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Questions to explore	<ul style="list-style-type: none"> • How do meteorologists predict extreme weather events? • What are the short-term and long-term impacts of droughts, storms and heatwaves? • How can communities adapt to and mitigate the effects of climate change? • What role do emergency services play in disaster response? • Should economic factors influence disaster response strategies? • How do different parts of the world experience and manage climate crises?
Emotional and ethical considerations	<ul style="list-style-type: none"> • Ethical decision-making: How should we identify who will be most affected by these events? Who should get priority in a disaster? How do we balance economic and environmental concerns? • Eco-anxiety: Acknowledge climate change concerns but focus on solutions and resilience.
Links to other BBC resources	<ul style="list-style-type: none"> • BBC Bitesize – Weather: https://www.bbc.co.uk/bitesize/topics/zx38q6f/articles/zqnb3j6 • BBC Bitesize – Extreme weather in the UK: https://www.bbc.co.uk/bitesize/topics/zx38q6f/articles/zwfn9q • BBC Bitesize – Climate: https://www.bbc.co.uk/bitesize/topics/zx38q6f/articles/zqqvf82 • BBC Bitesize – Climate change: https://www.bbc.co.uk/bitesize/topics/zx38q6f/articles/z773ydm • BBC Bitesize for Teachers – Climate: https://www.bbc.co.uk/teach/class-clips-video/articles/zd7x6v4 • BBC Bitesize for Teachers – Drought in Queensland, Australia: https://www.bbc.co.uk/teach/class-clips-video/articles/zwqbydm • BBC Bitesize The Regenerators – What is global warming?: https://www.bbc.co.uk/bitesize/articles/zcdw7yc#z4wj2v4
Play <i>Planet Planners</i> on Roblox	<p>The URL for the game is: https://www.roblox.com/games/80099528313812. This link will take you to the Roblox platform.</p>

