





## Year 7 – Geography – Spring 2024

How do responses to weather systems affect the severity of their impact?

<u>Key Knowledge</u>	
1	<p>Areas of the world have differing environmental regions based on geographical location An environmental region is an area defined by its environmental conditions – climate, landforms, soil characteristics, and wildlife.</p> 
2	<p>Polar regions are located at the north and south poles – they are cold and dry Arid regions are located along the tropic lines – they are hot and dry Tropical regions are located along the equator – they are hot and wet</p>
3	<p style="text-align: center;">Climate zones map</p> 
4	<p style="text-align: center;">Weather systems are affected by high and low pressure</p> 
5	<p style="text-align: center;">Weather systems create frontal, convectional, and relief rainfall</p> 
6	<ul style="list-style-type: none"> <li>❖ Tropical storms are formed...             <ul style="list-style-type: none"> <li>✓ at latitudes between 5° and 20° North or South of the Equator</li> <li>✓ over deep (70m+) warm oceans (27°C+)</li> <li>✓ during periods of low pressure</li> <li>✓ when there are light winds</li> <li>✓ Coriolis force (spin of the Earth)</li> </ul> </li> </ul>
7	<p style="text-align: center;">The human impact of tropical storms is managed by implementing the three Ps – Planning, Preparation, and Prediction</p>
8	<p style="text-align: center;"><b>Planning</b></p> <ul style="list-style-type: none"> <li>• Training emergency services how to react to a storm can reduce the number of deaths.             <ul style="list-style-type: none"> <li>• Planning evacuation routes can allow people to get away from the storm quicker.</li> </ul> </li> </ul>

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<b>9</b>	<b>Prediction</b>
	<ul style="list-style-type: none"><li>Scientists use satellites, <i>radar</i> and aircraft to monitor storms and computers to predict where they will hit, giving people time to evacuate.</li></ul>
<b>10</b>	<b>Protection</b>
	<p>Buildings can be made to withstand tropical storms. They can be put on stilts to lift them out of floodwater or be built with reinforced materials to prevent wind damage.</p> <ul style="list-style-type: none"><li>Levees and sea walls can be built to prevent flooding.</li></ul>

### Think Like a Geographer – Big Ideas

#### Interdependence

*Considering how can we be unique and yet subject to similar global forces  
Exploring the social, economic, environmental and political links between places in order to understand the significance and impact of changing connection*

#### Scale and Connection

*People and places are connected, recognising the significance of local, regional, national, international and global perspectives*

#### Earth is the home of human kind

*Linking the physical world to human environments*

### Questions

What are environmental regions defined by?	Environmental regions are defined by environmental conditions such as climate, landforms, soil characteristics, and wildlife.
Where are polar regions typically located, and what are their characteristics?	Polar regions are located at the north and south poles. They are characterized by being cold and dry.
Describe arid regions and where they are typically found.	Arid regions are located along the tropic lines. They are hot and dry.
What defines tropical regions, and where are they situated?	Tropical regions are located along the equator. They are characterized by being hot and wet.

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### How do responses to weather systems affect the severity of their impact?

What factors affect the formation of tropical storms?	Tropical storms are formed at latitudes between 5° and 20° North or South of the Equator, over deep warm oceans (27°C+), during periods of low pressure, and when there are light winds due to the Coriolis force.
How can the human impact of tropical storms be managed?	The human impact of tropical storms can be managed through the implementation of the three Ps: Planning, Preparation, and Prediction.
How does planning help mitigate the impact of tropical storms?	Planning involves training emergency services, establishing evacuation routes, and preparing communities for storm impacts, ultimately reducing the number of deaths.
What role does prediction play in managing tropical storms?	Prediction involves the use of satellites, radar, aircraft, and computers to monitor and forecast storm paths, providing people with time to evacuate and prepare.
How can protection measures mitigate damage from tropical storms?	Protection measures include constructing buildings to withstand storms (e.g., using reinforced materials or elevating structures on stilts), building levees, and sea walls to prevent flooding.
What geographical factors contribute to the formation of weather systems?	Weather systems are influenced by high and low pressure systems, which create frontal, convectional, and relief rainfall patterns.