Holy Family Catholic School – Faculty of Geography Autumn Term 2 Year 10

Learning Intention	Vocab	Concept	Retrieval	Success Criteria	Hinge Questions for this lesson	Red Zone
W1 L1 To explain the formation of tropical storms	Evaporation, Coriolis Effect, Low Pressure	Weather Hazards	• What are the two main types of Earth's crust? • What is the name of the semi-molten layer beneath the Earth's crust?	• I can describe the conditions needed for a tropical storm to form. • I can explain the stages of tropical storm formation.	Which condition is needed for a tropical storm to form?	Explain how tropical storms form. (4 marks)
W1 L2 To explore how climate change affects tropical storms	Climate Change, Sea Surface Temperature, Intensity	Weather Hazards	• What theory explains the movement of tectonic plates? • At which type of plate boundary are new oceanic plates created?	• I can describe how climate change may affect tropical storms. • I can explain why warmer oceans influence storm intensity.	What is likely to happen to tropical storms as ocean temperatures rise?	Explain how climate change may affect the frequency and intensity of tropical storms. (6 marks)
W1 L3 To understand the effects of a tropical storm	Primary Effects, Secondary Effects, Infrastructure	Weather Hazards	• What happens when two continental plates collide? • Which type of plate boundary is most commonly associated with	• I can identify primary and secondary effects of tropical storms. • I can explain how tropical storms affect people and the environment	Which is a primary effect of a tropical storm?	Describe the effects of a tropical storm. (4 marks)

			powerful earthquakes?			
W2 L4 To understand the effects of a tropical storm	Social, Economic, Environmental	Weather Hazards	• In which year did the Haiti earthquake occur? • What was the magnitude of the Haiti earthquake?	• I can distinguish between social, economic and environmental effects. • I can use a case study to support my understanding.	Which is an economic effect of a tropical storm?	Using a named example, assess the social, economic and environmental impacts of a tropical storm. (9 marks) MARKING POINT
W2 L5 To understand how the effects of a tropical storm can be reduced	Prediction, Planning, Protection	Weather Hazards	• Which city was located close to the earthquake's epicentre? • What type of plate boundary caused the Haiti earthquake?	• I can identify methods used to reduce storm impacts. • I can explain how monitoring and planning improve safety.	Which strategy helps reduce deaths from tropical storms?	Explain how people can reduce the effects of tropical storms. (6 marks)
W2 L6 To investigate the extreme weather hazards that affect the UK	Heatwave, Flooding, Storm	Weather Hazards	• Approximately how many people were killed in the Haitian 2010 earthquake? • Give one reason why the impacts of	• I can identify different extreme weather hazards in the UK. • I can explain how these hazards affect people and places.	Which is an example of extreme weather in the UK?	Describe two types of extreme weather that affect the UK. (4 marks)

			the earthquake were so severe in Haiti.			
W3 L7 To explain the causes, effects and consequences of the Cumbria floods	Relief Rainfall, Floodplain, Infrastructure	Weather Hazards	• State one immediate response to the Haiti earthquake. • State one long-term response to the Haiti earthquake.	• I can describe the causes of the Cumbria floods. • I can explain the effects and longer-term consequences.	What was a major cause of the Cumbria floods?	Using a named example, explain the causes and effects of a flood event. (6 marks)
W3 L8 **To understand how we investigate past climate and explain the evidence for climate change**	Ice Cores, Tree Rings, Climate Proxy	Climate change	• In which year did the Japan earthquake occur? • What was the magnitude of the Japan earthquake?	• I can identify sources of evidence for past climate. • I can explain what climate records tell us about climate change.	Which source provides evidence of past climates?	Explain how scientists use evidence from the past to study climate change. (6 marks)
W4 L9 **To describe the human causes of climate change.**	Fossil Fuels, Greenhouse Gases, Deforestation	Climate change	• What secondary hazard caused many of the deaths from the 2011 Japan earthquake? • Name the power station affected by the tsunami caused	• I can identify human activities that increase greenhouse gases. • I can explain how these activities contribute to climate change.	Which human activity contributes most to climate change?	Explain how human activities contribute to climate change. (4 marks)

			by the 2011 Japan earthquake.			
W4 L10 To describe the natural causes of climate change	Orbital Changes, Solar Activity, Volcanic Eruptions	Climate change	Which two tectonic plates were involved in causing the earthquake? Give one reason why Japan was better prepared than Haiti.	• I can identify natural causes of climate change. • I can explain how natural factors affect global temperatures.	Which is a natural cause of climate change?	Describe two natural causes of climate change. (4 marks)
W4 L11 To describe the natural causes of climate change	Milankovitch Cycles, Sunspots, Volcanic Activity	Climate change	• State one immediate response to the Japan earthquake. • State one long-term response to the Japan earthquake and tsunami.	I can explain how natural climate processes operate. I can compare different natural causes of climate change.	Sunspot activity affects climate by changing:	Explain how natural factors can lead to climate change. (6 marks)
W5 L12 To understand how mitigation strategies can reduce the impacts of climate change	Renewable Energy, Carbon Capture, Afforestation	Climate change	• Why does air rise at the Equator? • What weather conditions are typically found at the Equator?	• I can identify different mitigation strategies. • I can explain how mitigation reduces greenhouse gas emissions.	Which strategy is an example of mitigation?	Explain how mitigation strategies can reduce climate change. (6 marks)

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W5 L13 To understand how adaptation strategies can reduce the impacts of climate change	Adaptation, Flood Defences, Drought Resistance	Climate change	• Why are many of the world's deserts found around 30° north and south of the Equator? • What is the name of the three cells in the global air circulation model?	• I can identify adaptation strategies. • I can explain how adaptation helps people manage climate change.	Which is an example of adaptation?	Explain how adaptation strategies help communities cope with climate change. (6 marks)
W6 L14 To understand what an ecosystem is and how energy is transferred in an ecosystem	Ecosystem, Producer, Consumer	Ecosystems	What are two conditions needed for tropical storms to form? What is the name given to tropical storms in the Atlantic Ocean?	• I can describe the features of an ecosystem. • I can explain how energy flows through a food chain.	Energy enters most ecosystems through	Explain how energy is transferred through an ecosystem. (4 marks)
W6 L15 To understand all elements are interdependent in a food web	Food Web, Interdependence, Biodiversity	Ecosystems	• Why do tropical storms weaken when they move over land? • Explain how climate change may affect the frequency or intensity of tropical storms.	• I can explain the relationships in a food web. • I can describe how changes affect other organisms.	What does interdependence mean?	Explain how a change in one species can affect a food web. (6 marks)

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W6 L16 To understand the features of global biomes	Biome, Vegetation, Climate	Ecosystems	What is the name of the force that causes tropical storms to spin? Which of the following helped reduce the impacts of the 2011 Japan earthquake?	• I can identify the main global biomes. • I can describe the characteristics of different biomes.	Which biome is characterised by very low rainfall?	Describe the characteristics of one global biome. (4 marks)