



<p>Lesson Overview:</p> <ol style="list-style-type: none"> 1. What is the global atmospheric circulation pattern? 2. What is the global distribution of tropical storms and how are they formed? 3. How will climate change influence storms? 4. What happened in Super Typhoon Haiyan? (Case study- impacts and responses) 5. How can the impacts of tropical storms be reduced? 6. What are the UK's weather hazards and are they becoming more extreme? 7. What happened in the Somerset Levels Floods 2014? (causes, effects, responses) 8. Skills practice (OS map skills- Somerset) and Weather Hazards consolidation/ revision 9. How do we know that the has climate changed over time? 10. What are the natural causes of climate change? 11. How does the greenhouse effect work? 12. How can climate change be managed? 13. Climate change consolidation/ revision 14. How do rivers shape the land and how should they be managed? (Recap of Rivers unit from Year 9) 	<p>Key Words:</p> <p>Adaptation- actions taken to adjust to events such as climate change to manage or cope with the consequences.</p> <p>Afforestation- planting trees to create new forests and absorb CO2.</p> <p>Carbon capture and storage (CCS)- carbon dioxide created by burning fossil fuels is captured and stored underground.</p> <p>Carbon footprint- measurement of the carbon dioxide produced by human activities, e.g. burning fossil fuels.</p> <p>Carbon sink- Plants storing CO2 as a result of photosynthesis.</p> <p>Climate change- a long-term change in the earth's climate, due to a change in global average atmospheric temperature.</p> <p>Coriolis effect- the effect of the earth's rotation which makes a tropical storm spin as it moves 5° north or south of the equator</p> <p>Dredging- digging sediment out of rivers if they've become clogged up.</p> <p>Eye- the calm centre of a tropical storm caused by cold air sinking (high pressure). It's clear with no wind or rainfall.</p> <p>Eye wall- the area surrounding the eye of a tropical storm where the most intense weather conditions occur- strongest winds and torrential rainfall. Very unstable low pressure.</p> <p>Extreme weather- a weather event significantly different from the usual weather pattern, or an especially severe event.</p> <p>Fossil fuels- coal, oil and gas which are all non-renewable</p> <p>Global atmospheric circulation- world wide system of winds which transfer heat from the equator to the poles in circular movements.</p> <p>Hurricane warning- advises that hurricane conditions are expected and that people should take immediate action</p> <p>Hurricane watch- advises hurricane conditions are possible</p> <p>Mitigation- limiting or reducing the impacts of something e.g. climate change</p> <p>Primary impacts- the impacts that happen during an event.</p> <p>Renewable energy- a source of energy that will never run out.</p> <p>Saffir-Simpson scale- the scale used to measure the power of tropical storms (1-5) based on wind speeds.</p> <p>Secondary impacts- impacts that happen as a result of the primary impacts e.g. homelessness, economic losses.</p> <p>Storm surge- a wall of water (around 5m high) flooding coasts as ocean is drawn up by the low pressure in a tropical storm.</p> <p>Tropical Storm (hurricane, cyclone, typhoon)- an area of low pressure with powerful winds moving in a spiral around a calm central point called the eye. Winds are over 175km per hour and rainfall is very heavy.</p>
<p>Suggested reading:</p> <p>Fiction books-</p> <p>Floodland by Marcus Sedgwick</p> <p>Weather by Jenny Offill</p> <p>Non-fiction book-</p> <p>No one is too small to make a difference by Greta Thunberg</p>	<p>Skills:</p> <ul style="list-style-type: none"> • Describing distribution of tropical storms. Links to lines of latitude. • Comparing number of storm days per region. • Interpreting data on the changing intensity and frequency of tropical storms in relation to climate change. • Chronology- time line to represent UK extreme weather events since 2003. • Apply OS map skills to Somerset Levels case study. • Analysis of climate change graphs comparing Carbon Dioxide and Temperature • Critical understanding of the social, economic and environmental impacts of storms around the world.