



Aspire Achieve Thrive

**Summer Term**  
**Term 3**  
**Geography**  
**Year 10**

**Name:** \_\_\_\_\_

**Tutor:** \_\_\_\_\_

**Year 10 Homework Timetable**

|                  |                       |                       |                 |
|------------------|-----------------------|-----------------------|-----------------|
| <b>Monday</b>    | English Task 1        | Ebacc Option A Task 1 | Option C Task 1 |
| <b>Tuesday</b>   | Option B Task 1       | Sparx Science         | Science Task 1  |
| <b>Wednesday</b> | Sparx Maths           | Option C Task 2       | Sparx Science   |
| <b>Thursday</b>  | Ebacc Option A Task 2 | Sparx Maths           | Option B Task 2 |
| <b>Friday</b>    | Sparx Science         | Science Task 2        | English Task 2  |

**Sparx Science**

- Complete 100% of their assigned homework each week

**Sparx Maths**

- Complete 100% of their assigned homework each week

| Option A (EBACC) | Option B                 | Option C                 |
|------------------|--------------------------|--------------------------|
| Computer Science | Business Studies         | Art                      |
| French           | Hospitality and Catering | Business Studies         |
| Geography        | Drama                    | Hospitality and Catering |
| History          | Music                    | Child Development        |
|                  | Geography                | Computer Science         |
|                  | Health and Social Care   | Drama                    |
|                  | ICT                      | Photography              |
|                  | Media Studies            | Science (Triple)         |
|                  | Music                    | Sport                    |
|                  | Sport                    |                          |
|                  | Travel and Tourism       |                          |

| Half Term 5 (5 weeks) - Year 10 |                                                                              |                                                                                                                                              |
|---------------------------------|------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------|
| Week / Date                     | Homework task 1<br>Cornell Notes                                             | Homework task 2<br>Exam Question                                                                                                             |
| Week 1<br>21st April 2025       | <b>Cornell Notes on:</b> Physical characteristics of cold environments       | <b>Question:</b> Outline the location and characteristics of the tundra environment (6)                                                      |
| Week 2<br>28th April 2025       | <b>Cornell Notes on:</b> Adaptations to cold environments                    | <b>Question:</b> Explain how plants and animals adapt to cold environments. (6)                                                              |
| Week 3<br>5th May 2025          | <b>Cornell Notes on:</b> Opportunities for development in Svalbard           | <b>Question:</b> Explain how fishing and energy development create opportunities for development in a cold environment you have studied. (6) |
| Week 4<br>12th May 2025         | <b>Cornell Notes on:</b> Challenges to development in Svalbard               | <b>Question:</b> Explain how cold environments like Svalbard provide challenges for development (6)                                          |
| Week 5<br>19th May 2025         | <b>Cornell Notes on:</b> Protection of cold environments as wilderness areas | <b>Question:</b> Outline three possible sustainable protection methods in cold environments. (6)                                             |

### Half Term 6 (7 weeks) - Year 10

| Week / Date               | Homework task 1<br>Cornell Notes                                 | Homework task 2<br>Exam Question                                                                                                 |
|---------------------------|------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------|
| Week 6<br>2nd June 2025   | <b>Cornell Notes on:</b> Global atmospheric circulation          | <b>Question:</b> Explain how the global atmospheric circulation system affects the weather and climate in the tropics. (6)       |
| Week 7<br>9th June 2025   | <b>Cornell Notes on:</b> Where and how tropical storms form      | <b>Question:</b> Explain how tropical storms form. (4)                                                                           |
| Week 8<br>16th June 2025  | <b>Cornell Notes on:</b> Typhoon Haiyan - A Tropical storm       | <b>Question:</b> Describe the primary and secondary effects of a tropical storm. Use a named example and your own knowledge. (9) |
| Week 9<br>23rd June 2025  | <b>Mock Exams</b><br>Revision 1: Nepal earthquake, 2015 (LIC)    | <b>Mock Exams</b><br>Revision 2: Chile earthquake, 2010 (HIC)                                                                    |
| Week 10<br>30th June 2025 | <b>Mock Exams</b><br>Revision: Coastal management at Lyme Regis  | <b>Mock Exams</b><br>Managing river floods in Exeter                                                                             |
| Week 11<br>7th July 2025  | <b>Cornell Notes on:</b> Reducing the effects of tropical storms | <b>Question:</b> Explain why planning and being prepared is the best option for reducing the effects of tropical storms. (6)     |
| Week 12<br>14th July 2025 | <b>Cornell Notes on:</b> Somerset Levels floods                  | <b>Question:</b> Evaluate the impacts of a major climatic event in the UK. (6)                                                   |

## Geography Year 10 Knowledge Organiser: Cold environments and weather hazards

| Session                                                            | Keywords                                                                                                                                                                                                                                                                                                                                                                                                                                                               | Knowledge                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | Geographical concepts                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
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| <p>Week 1</p> <p>Physical characteristics of cold environments</p> | <p><b>Climate:</b> The average weather pattern over a long period of time (30 years).</p> <p><b>Permafrost:</b> Permanently frozen ground, found in polar and tundra regions</p> <p><b>Polar:</b> The most extreme cold environment with permanent ice. Regions around the North pole (Arctic Sea) or South pole (Antarctica)</p> <p><b>Tundra:</b> A vast, flat, treeless Arctic region of Europe, Asia and North America where the subsoil is permanently frozen</p> | <p style="text-align: center;"><u><b>Polar</b></u></p> <p><b>Climate</b> - Winter temperatures often fall below - 50°C. Very low precipitation.</p> <p><b>Soils</b> - Permanently frozen in permafrost</p> <p><b>Plants</b> - Some moss found at fringes of ice</p> <p style="text-align: center;"><u><b>Tundra</b></u></p> <p><b>Climate</b> - Winter temperatures drop to - 20°C. High precipitation at coast (mainly snow)</p> <p><b>Soils</b> - Permafrost – mostly frozen but will melt near the surface in summer. Infertile, often waterlogged</p> <p><b>Plants</b> - Low growing (bearberry and arctic moss)<br/>Some low bushes and small trees may grow in warmer regions</p> <p style="text-align: center;"><u><b>Alpine</b></u></p> <p><b>Climate</b> - Temperature decreases 0.6°C for every 100m altitude. Both tundra and Polar environments are present depending on altitude.</p> | <p><b>Distribution:</b> Most of the world's cold environments are found close to the <b>poles</b> in the Arctic and Antarctic.</p> <p><b>Biodiversity:</b> The Variety of life in the world or in a particular ecosystem. Cold environments have very low biodiversity, this means there are fewer species of plants and animals than most other environments.</p> <p><b>Interdependence:</b> Different parts of the cold environment ecosystem are closely linked together and depend on each other, especially in a such a harsh environment. For example, Plants gain nutrients from the soil and provide nutrients to the animals that eat them. The animals spread the plants seeds helping them to grow.</p> |
| <p>Week 2</p> <p>Adaptations to cold environments</p>              | <p><b>Adaptations:</b> The evolutionary process whereby an organism becomes better able to live in its habitat or habitats.</p>                                                                                                                                                                                                                                                                                                                                        | <p><b>Plants:</b> Few plants are found in polar regions. A wide variety are found in tundra regions. These have adapted to cope with low temperatures, strong winds and dry conditions. An example is the Bearberry.</p> <p><b>Bearberry adaptations</b></p> <ul style="list-style-type: none"> <li>• <b>Low growing (5-15cm)</b> to survive strong winds.</li> <li>• <b>Hairy stems</b> to retain heat.</li> <li>• <b>Bright red berries</b> eaten by birds to distribute seeds.</li> <li>• <b>Small waxy leaves</b> reduce water loss</li> </ul>                                                                                                                                                                                                                                                                                                                                                 | <p style="text-align: center;"><u><b>Animals</b></u></p> <ul style="list-style-type: none"> <li>• <b>Polar bears</b> are well adapted to the polar environment. Thick fur, insulating layer of fat, black nose and footpads to absorb sun.</li> <li>• <b>Arctic fox</b> changes its coat from white to brown as the snow melts. It's bushy tail is used to keep it warm</li> </ul>                                                                                                                                                                                                                                                                                                                                 |
| <p>Week 3</p> <p>Opportunities for development in Svalbard</p>     | <p><b>Opportunities for development</b></p> <p>The process of a country in terms of economic growth, the use of technology and human welfare</p>                                                                                                                                                                                                                                                                                                                       | <p><b>Svalbard</b> is located in the Northern Hemisphere in the Arctic Circle. It is in the continent of Europe and is an archipelago of islands north of Norway. To the West of Svalbard is Greenland. The Ocean surrounding Svalbard is the Arctic Ocean, to the East of Svalbard is the Barent Sea. Much of Svalbard has a polar climate with 60% being covered with glaciers.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | <p style="text-align: center;"><b>Opportunities for Development in Svalbard</b></p> <ul style="list-style-type: none"> <li>• <b>Mineral extraction</b> - more than 300 people employed in coal mines. New mine opened in 2014 near Svea.</li> <li>• <b>Energy developments</b> - Svalbard is located close to the Mid-Atlantic ridge and could develop <b>geothermal energy</b></li> <li>• <b>Fishing</b> - 150 species of fish. The Barents Sea is one of the richest fishing grounds in the world.</li> <li>• <b>Tourism</b> - In 2011 70,000 people visited Longyearbyen. Harbour was recently enlarged with a new terminal. Tourism provides 300 jobs and could be developed further</li> </ul>                |

## Geography Year 10 Knowledge Organiser: Cold environments and weather hazards

| Session                                                  | Keywords                                                                                                                                                                                                                                                                                                                       | Knowledge                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | Geographical concepts |
|----------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------|
| <p>Week 4</p> <p>Challenges in Svalbard</p>              | <p><b>Infrastructure</b><br/>The basic equipment and structures (roads, utilities, water, sewage) that are needed for a region to function properly</p>                                                                                                                                                                        | <p style="text-align: center;"><b>Challenges in Svalbard</b></p> <p><b>Extreme temperature:</b> Winter temperatures can drop below -30°C in Longyearbyen. In the winter, there is limited sunlight, the sea freezes and roads become very dangerous.</p> <p><b>Construction:</b> Due to harsh conditions most construction has to be done in the brief summer period. The frozen ground (permafrost) can provide a solid foundation but if it melts it can be very dangerous as it becomes unstable and can cause houses and roads to collapse or crack.</p> <p><b>Services</b> (water, electricity, sanitation etc.) : Most services here are provided to individual buildings by overground heated water and sewage pipes. These pipes need to be kept off the ground to prevent thawing of the permafrost.</p> <p><b>Accessibility:</b> Located in a remote part of the world and can only be reached by plane or ship and there is only one airport which is located at Longyearbyen. There are only 50 km of roads in Longyearbyen and the rest of the island has no roads. Most people use snowmobiles to get around the area, especially in winter.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                       |
| <p>Week 5</p> <p>Cold environments under threat</p>      | <p><b>Wilderness areas</b><br/>Wilderness areas are unspoilt and remote regions of the world</p> <p><b>Fragile environment:</b><br/>An environment that is both easily disturbed and difficult to restore</p>                                                                                                                  | <p><b>Why cold environments need protecting;</b></p> <ul style="list-style-type: none"> <li>• Tundra vegetation takes a very long time to become established.</li> <li>• Wild beauty and potential for adventure activities attracts tourism and benefits local economies</li> <li>• Tundra is a delicate ecosystem which is easily disturbed by human activities, such as off-road driving. This can cause thawing of Permafrost which then takes decades to recover</li> <li>• Tundra is home to indigenous people who depend on the wildlife for survival.</li> </ul> <p>The <b>Antarctic Treaty</b> was signed in 1959 by countries with territorial claims to Antarctica. Its main aim is to protect the natural environment of the largest wilderness on Earth.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                       |
| <p>Week 6</p> <p>Management for economic development</p> | <p><b>Economic development</b><br/>Chances for people to improve their standard of life through development</p> <p><b>Conservation</b><br/>Managing the environment in order to preserve, protect or restore it</p> <p><b>Management Strategies</b><br/>Techniques of controlling, responding to, or dealing with an event</p> | <p><b>Economic development in Alaska:</b> The Trans-Alaskan pipeline carries oil from the ground which is very hot (49°C). This could melt the soil. The pipeline crosses caribou migration routes. The Trans-Alaskan pipeline carries a risk of cracking due to earthquakes, which could cause oil leaks. Off road driving is popular in Alaska. Usually taking place in summer when snow has melted. Vehicles leave deep tyre tracks and destroy vegetation.</p> <p style="text-align: center;"><b>Strategies in Alaska</b></p> <p><b>Technology:</b> The pipeline is raised and insulated to retain heat and prevent it melting the ground. It was needed to raise the pipe above the ground allowing migrating Caribou to continue their pattern. Technology allows the pipeline to move and slide if earthquakes happen. The flow is automatically cut off if there is a leak.</p> <p><b>Governments:</b> The National Environmental Policy Act ensure companies involved with oil must protect the environment and recognise the rights of native people. The USA have created the Western Arctic Reserve, a 9 million hectare protected wilderness where drilling for oil and tourism is banned.</p> <p><b>International agreements:</b> Agreement on the Conservation of Polar Bears, Oslo, 1973. This was signed by USA and Norway (Svalbard) and other countries to to ban hunting of Polar Bears unless for scientific purposes.</p> <p><b>Conservation groups:</b> The World Wildlife Fund is a conservation group that helps to protect Arctic environments in Canada. It works with local communities, oil companies to manage ecosystems. They work with Alaska Native communities to help them find solutions</p> |                       |

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| Week 6<br><br>Global atmospheric circulation system     | <b>Natural hazards</b> are physical events such as earthquakes and volcanoes that have the potential to do damage to humans and property. Hazards include tectonic hazards, tropical storms and forest fires. | <b>Global atmospheric circulation</b><br>High pressure = dry / Low pressure = wet<br>As the air heats it rises – causing low pressure. As it cools, it sinks, causing high pressure. Winds move from high pressure to low pressure. They curve because of the <b>Coriolis</b> effect (the turning of the Earth)<br><br>Global atmospheric circulation creates winds across the planet and leads to areas of high rainfall, like the tropical rainforests, and areas of dry air, like deserts.                                                                                                                                            | The system is driven by the equator, which is the hottest part of the Earth. Air rises at the equator, leading to low pressure.<br><br>When the air reaches the edge of the atmosphere, it cannot go any further and so it travels to the north and south. The air becomes cold and falls to create high pressure and dry conditions at around 30° north and south of the equator.<br><br>Large cells of air are created in this way. Air rises again at around 60° north and south and descends again around 90° north and south. |                                                                                                                                                                                                                                                                                                                                                                          |                                                                                                                                                                                                                           |
| Week 7<br><br>Where and how are tropical storms formed? | <b>Tropical storm:</b><br>Also known as a hurricane, typhoon or cyclone. A large mass of cloud bringing high winds and heavy rain.                                                                            | <b>Conditions required for a tropical storm to form;</b> <ul style="list-style-type: none"><li>Tropical storms form where oceans are above 27°C.</li><li>Tropical storms form 5° to 15° north and south of the equator, but not at the equator, as there is no Coriolis force present.</li></ul> The central part of the tropical storm is known as the <b>eye</b> . It is an area of light wind speeds and no rain. It contains descending air.<br>Large towering cumulonimbus clouds surround the eye. These are caused by warm moist air condensing as it rises. This leads to very heavy rainfall and wind speeds of up to 320 km/h. |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | <b>Formation of Tropical Storms</b> <ol style="list-style-type: none"><li>Air is heated above warm tropical oceans</li><li>Air rises under low pressure conditions</li><li>Strong winds form as rising air draws in more air and moisture causing torrential rain</li><li>Air spins due to Coriolis effect</li><li>Cold air sinks in the eye so it is clear and dry</li><li>On meeting land, it loses source of heat and moisture so loses power.</li></ol> |                                                                                                                                                                                                                           |
| Week 8<br><br>Typhoon Haiyan                            | <b>Typhoon Haiyan</b> - A tropical storm that hit the Philippines<br><b>Date:</b> November 2013<br><b>Strength:</b> One of the strongest cat 5 storms! 170mph wind                                            | <b>Primary Effects</b><br>6,300 killed, most by the storm surge<br>40,000 homes destroyed<br>400mm of rain caused major floods<br>600,000 people displaced<br>Wind damaged power lines<br>90% of Tacloban (a city in the Philippines) destroyed                                                                                                                                                                                                                                                                                                                                                                                          | <b>Secondary Effects</b><br>6m jobs lost (fishing / farming)<br>14 million people affected<br>Flooding caused landslides - blocking roads and restricting aid<br>Looting and violence in Tacloban<br>Infrastructure destroyed<br>Shortages of power, water, food and shelter leads to disease                                                                                                                                                                                                                                      | <b>Immediate Responses</b><br>Overseas aid from NGOs<br>US helicopters assisted search and rescue<br>Field hospitals for injured<br>1200 evacuation centers                                                                                                                                                                                                                                                                                                 | <b>Long-term Responses</b><br>Oxfam help re-establish fishing and rice industries quickly<br>UN and international financial aid, supplies and medical support<br>Rebuilding infrastructure<br>More cyclone shelters built |

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| <p>Week 9</p> <p>Revision 1</p> <p>Nepal earthquake, 2015 (LIC)</p>      | <p><b>Date:</b> 25 April 2015</p> <p><b>Magnitude:</b> 7.9</p> <p><b>Epicentre:</b> 50miles NW of Kathmandu</p> <p><b>Plate margin:</b> Indo-Australian plate colliding with the Eurasian plate</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | <p><b>Primary effects</b></p> <p>9000 killed, 20,000 injured, 8 million people affected - most people were killed by collapsing buildings.</p> <p>Widespread damage to buildings and roads, including 7000 schools destroyed which affected children's education.</p> <p>Hospitals were overwhelmed, adding to the casualties.</p> <p>Power and water were cut off. It is estimated that the total costs was US\$5 billion damage</p> <p><b>Secondary effects</b></p> <p>Landslides/avalanches cut off villages</p> <p>Mt Everest avalanche killed 19 people</p> <p>Flooding from rivers blocked by landslides.</p> | <p><b>Immediate responses</b></p> <p>Overseas aid e.g. Oxfam</p> <p>Aid including helicopters for search and rescue on Mt Everest, where 19 people died in an Avalanche.</p> <p>300,000 people migrated from Kathmandu to friends/family for support/shelter</p> <p><b>Long-term responses</b></p> <p>Roads repaired, landslides cleared, flood lakes drained.</p> <p>International conference for technical/financial help.</p> <p>Indian border blockage caused fuel/medicine shortages</p>                                                                                                                                                                                               |
| <p>Week 9</p> <p>Revision 2</p> <p>Chile earthquake 2010 (HIC)</p>       | <p><b>Date:</b> 27 February 2010</p> <p><b>Magnitude:</b> 8.8</p> <p><b>Epicentre:</b> Off the coast of central Chile</p> <p><b>Plate margin:</b> Nazca plate subducting under the South American plate</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | <p><b>Primary effects</b></p> <p>500 killed, 12,000 injured - most people were killed by the tsunami</p> <p>Destruction of buildings and roads, although these were repaired quickly.</p> <p>Power, water, communication cut</p> <p>It is estimated that the total costs was US\$30 billion damage</p> <p><b>Secondary effects</b></p> <p>Landslides cut towns off</p> <p>Tsunami damaged coastal towns</p> <p>Chemical plant near Santiago evacuated</p>                                                                                                                                                           | <p><b>Immediate responses</b></p> <p>Roads repaired in 24 hrs, particularly Route 5, the main road into Santiago. This helped the quick recovery.</p> <p>Water/power restored in 10 days</p> <p>US\$60 million was raised in an appeal and built 30,000 substantial wooden shelters</p> <p>Swift response by emergency services saved many lives</p> <p><b>Long-term responses</b></p> <p>No need for foreign aid as the country is a HIC</p> <p>Government reconstruction plan helped 200,000 households</p> <p>Full recovery in 4 years.</p>                                                                                                                                              |
| <p>Week 10</p> <p>Revision 1</p> <p>Coastal management at Lyme Regis</p> | <p><b>Location and Background:</b> Lyme Regis is a small coastal town on the south coast of England, famous for its fossils! Much of the town is built on unstable cliffs. The coastline is eroding rapidly</p> <p>Phase 1: 1990 - 95, new sea wall / promenade built. 2003-04 cliffs stabilised cost £1.4m</p> <p>Phase 2: 2005 - 2007, further sea walls and promenade built, wide shingle beach created with shingle dredged from the English channel and imported from France and rock armour added to The Cobb. Total cost: £22m</p> <p>Phase 3: Not undertaken. As the costs outweighed the benefits, it was decided that the area west of The Cobb should be left alone.</p> <p>Phase 4: 2013 - 2015, a second sea wall is constructed in front of the first to provide extra protection. Extensive nailing and drainage completed on the cliffs to stabilise the rock and protect 480 homes. Total cost £20m</p> |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | <p><b>Positive outcomes:</b></p> <ul style="list-style-type: none"> <li>• New beaches have increased visitor numbers and seaside businesses are thriving</li> <li>• New defences have stood up to recent storms</li> <li>• The harbour is now better protected, benefitting boat owners and fishermen.</li> </ul> <p><b>Negative outcomes:</b></p> <ul style="list-style-type: none"> <li>• Increased visitor numbers has lead to conflict with locals as traffic and pollution have increased.</li> <li>• Some people think the new defences have spoilt the natural coastal landscape</li> <li>• Stabilising the cliffs prevents landslips which reveal new, important fossils</li> </ul> |

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| <p>Week 10</p> <p>Revision 2</p> <p>Flooding-causes and costs (Exeter example)</p> | <p><b>Physical: Prolong &amp; heavy rainfall</b> - Long periods of rain causes soil to become saturated increasing runoff</p> <p><b>Physical: Relief</b> - Steep-sided valleys channels water to flow quickly into rivers causing greater discharge.</p> <p><b>Physical: Geology</b> - Impermeable rocks causes surface runoff to increase</p> <p><b>Human: Land Use</b> - Tarmac and concrete are impermeable. This prevents infiltration &amp; causes runoff.</p> | <p><b>How has Exeter been affected by flooding?</b> In 1960 and in 2012 there was major flooding in Exeter. In 1960 1,000 properties were affected.</p> <p><b>What has been done to reduce the risk of flooding?</b> £32m flood defence scheme. The flood defences will reduce the risk of flooding to more than 3,200 homes and businesses in Exeter. Strategies based around increasing flow and capacity include; new relief channel, raised flood defence wall, flood gates at The Quay.</p> |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                                                                                                                                                                                                                                      |                                                                                                                                                                                                                                                                                  |
| <p>Week 11</p> <p>Reducing the effects of tropical storms</p>                      | <p><b>Path:</b> The direction a tropical storm takes (also known as the track).</p>                                                                                                                                                                                                                                                                                                                                                                                 | <p><b>Monitoring</b></p> <p>Monitoring wind patterns allows the path of a tropical storm to be predicted. Use of satellites to monitor path to allow evacuation, meaning less people would be impacted by the storm.</p>                                                                                                                                                                                                                                                                         | <p><b>Protection</b></p> <p>To protect against tropical storms people can:</p> <ul style="list-style-type: none"> <li>- Use sandbags to protect against flooding and board up windows to protect against the high winds.</li> <li>- Avoid building in high risk areas</li> <li>- Practice emergency drills and evacuation routes</li> </ul>                                                                                                                                                                                                               | <p><b>Planning</b></p> <p>Planning involves building structures that will protect people in high risk areas. These can include;</p> <p>Reinforced buildings and stilts to make safe from floodwater</p> <p>Flood defences eg levees and seawalls</p> |                                                                                                                                                                                                                                                                                  |
| <p>Week 12</p> <p>Somerset Levels Floods</p>                                       | <p><b>The Somerset Levels floods</b> - An extreme weather event in the UK</p> <p><b>Date:</b> January 2014</p>                                                                                                                                                                                                                                                                                                                                                      | <p>The Somerset Levels area of low-lying land in SW England.</p> <p><b>Causes:</b> Record rainfall in January and February (350mm). The River Parrot had not been dredged for 20 years. High tide and storm surge swept up rivers from the Bristol Channel</p>                                                                                                                                                                                                                                   | <p><b>Social Effects:</b> 600 houses flooded and 16 farms evacuated. Villages such as Moorland cut off - disrupting work, schools and shopping. Power supply, roads and railway cut off</p> <p><b>Economic Effects:</b> £10 million damage, 14,000ha of farmland flooded and 1,000 livestock evacuated. Bristol to Taunton railway line closed</p> <p><b>Environmental impacts:</b> Floodwaters contaminated with sewage, oil and chemicals. Stagnant water that had collected for months had to be reoxygenated before being pumped back into rivers</p> | <p><b>Immediate responses:</b></p> <p>Cut-off villagers used boats for transport to go to school and for shopping. Community groups gave support</p>                                                                                                 | <p><b>Long-term responses:</b> £20 million Flood Action Plan launched by Somerset County Council and Environment Agency to reduce future risk. In March 2014, 8km of the Rivers Tone and Parrot dredged. River banks raised and strengthened and more pumping stations built</p> |

## STEP 2: CREATE CUES

**What:** Reduce your notes to just the essentials.

**What:** Immediately after class, discussion, or reading session.

**How:**

- Jot down key ideas, important words and phrases
- Create questions that might appear on an exam
- Reducing your notes to the most important ideas and concepts improves recall. Creating questions that may appear on an exam gets you thinking about how the information might be applied and improves your performance on the exam.

**Why:** Spend at least ten minutes every week reviewing all of your previous notes. Reflect on the material and ask yourself questions based on what you've recorded in the Cue area. Cover the note-taking area with a piece of paper. Can you answer them?

## STEP 1: RECORD YOUR NOTES

**What:** Record all keywords, ideas, important dates, people, places, diagrams and formulas from the lesson. Create a new page for each topic discussed.

**When:** During class lecture, discussion, or reading session.

**How:**

- Use bullet points, abbreviated phrases, and pictures
- Avoid full sentences and paragraphs
- Leave space between points to add more information later

**Why:** Important ideas must be recorded in a way that is meaningful to you.

## STEP 3: SUMMARISE & REVIEW

**What:** Summarise the main ideas from the lesson.

**What:** At the end of the class lecture, discussion, or reading session.

**How:** In complete sentences, write down the conclusions that can be made from the information in your notes.

**Why:** Summarising the information after it's learned improves long-term retention.

# WEEK 1: Cornell Notes (Homework task 1)

**Topic:** Physical characteristics of cold environments

Revision guide page: 70

## Links



## Questions

## Notes

### Polar (climate / soils / plants)

### Tundra (climate / soils / plants)

### Alpine

## Summary

## WEEK 1: Exam Question (Homework task 2)

**Question:** Outline the location and characteristics of the tundra environment (6)

Answer:

[illegible]

## WEEK 1: Exam Question review and improvement (Classwork)

**Question:** Outline the location and characteristics of the tundra environment (6)

Answer:

[illegible]

## WEEK 2: Cornell Notes (Homework task 1)

**Topic:** Adaptations to cold environments

Revision guide page 71

### Links



### Questions

### Notes

#### Plants (Bearberry)

#### Animals (Polar Bear and Arctic Fox)

### Summary

## WEEK 2: Exam Question (Homework task 2)

**Question:** Explain how plants and animals adapt to cold environments. (6)

Answer:

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## WEEK 2: Exam Question review and improvement (Classwork)

**Question:** Explain how plants and animals adapt to cold environments. (6)

Answer:

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## WEEK 3: Cornell Notes (Homework task 1)

**Topic:** Opportunities for development in Svalbard

Revision guide page 76

### Links



### Questions

#### Notes

##### Where is Svalbard?

##### Mineral extraction

##### Energy development

##### Fishing

##### Tourism

### Summary

### WEEK 3: Exam Question (Homework task 2)

**Question:** Explain how fishing and energy development create opportunities for development in a cold environment you have studied. (6)

Answer:

[illegible]

## WEEK 3: Exam Question review and improvement (Classwork)

**Question:** Explain how fishing and energy development create opportunities for development in a cold environment you have studied. (6)

Answer:

[illegible]

## WEEK 4: Cornell Notes (Homework task 1)

**Topic:** Challenges to development in Svalbard

Revision guide page: 76

### Links



### Questions

#### Notes

##### What is infrastructure?

##### Extreme temperatures

##### Construction

##### Services

##### Accessibility

### Summary

## WEEK 4: Exam Question (Homework task 2)

**Question:** Explain how cold environments like Svalbard provide challenges for development (6)

Answer:

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## WEEK 4: Exam Question review and improvement (Classwork)

**Question:** Explain how cold environments like Svalbard provide challenges for development (6)

Answer:

[illegible]

Week 5: Cornell Notes (Homework task 1)

|                                                            |                        |
|------------------------------------------------------------|------------------------|
| Topic: Protection of cold environments as wilderness areas | Revision guide page 77 |
|------------------------------------------------------------|------------------------|

|                                                                                                                                   |       |
|-----------------------------------------------------------------------------------------------------------------------------------|-------|
| <div>Links</div> <div></div> <div>Questions</div> | Notes |
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Summary

## WEEK 5: Exam Question (Homework task 2)

**Question:** Outline three possible sustainable protection methods in cold environments. (6)

Answer:

[illegible]

## WEEK 5: Exam Question review and improvement (Classwork)

**Question:** Outline three possible sustainable protection methods in cold environments. (6)

Answer:

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## WEEK 6: Cornell Notes (Homework task 1)

**Topic:** Global atmospheric circulation

Revision guide page 14

**Links**



**Questions**

**Notes**

**Summary**

## WEEK 6: Exam Question (Homework task 2)

**Question:** Explain how the global atmospheric circulation system affects the weather and climate in the tropics. (6)

Answer:

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## WEEK 6: Exam Question review and improvement (Classwork)

**Question:** Explain how the global atmospheric circulation system affects the weather and climate in the tropics. (6)

Answer:

[illegible]

## WEEK 7: Cornell Notes (Homework task 1)

**Topic:** Where and how tropical storms form

Revision guide page: 18

### Links



### Questions

### Notes

#### Conditions required for tropical storms to form

#### What is the eye?

#### Formation of a tropical storm

### Summary

## WEEK 7: Exam Question (Homework task 2)

**Question:** Explain how tropical storms form. (4)

Answer:

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## WEEK 7: Exam Question review and improvement (Classwork)

**Question:** Explain how tropical storms form. (4)

Answer:

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## WEEK 8: Cornell Notes (Homework task 1)

**Topic:** Typhoon Haiyan - A Tropical storm

Revision guide page 19

### Links



### Questions

### Notes

#### Typhoon Haiyan details

#### Primary effects

#### Secondary effects

#### Immediate responses

#### Long-term responses

### Summary

## WEEK 8: Exam Question (Homework task 2)

**Question:** Describe the primary and secondary effects of a tropical storm. Use a named example and your own knowledge. (9)

Answer:

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## WEEK 8: Exam Question review and improvement (Classwork)

**Question:** Describe the primary and secondary effects of a tropical storm. Use a named example and your own knowledge. (9)

Answer:

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## WEEK 9: Assessment Week Revision (Homework task 1)

**Topic** Revision 1: Nepal earthquake, 2015 (LIC)

[illegible]

## WEEK 9: Assessment Week Revision (Homework task 2)

## Topic Revision 2: Chile earthquake, 2010 (HIC)

[illegible]

## WEEK 10: Assessment Week Revision (Homework task 1)

## Topic Revision: Coastal management at Lyme Regis

[illegible]

## WEEK 10: Assessment Week Revision (Homework task 2)

**Topic** Managing river floods in Exeter

[illegible]

## WEEK 11: Cornell Notes (Homework task 1)

**Topic:** Reducing the effects of tropical storms

Revision guide page 20

### Links



### Questions

### Notes

#### Monitoring

#### Prediction

#### Protection

### Summary

## WEEK 11: Exam Question (Homework task 2)

**Question:** Explain why planning and being prepared is the best option for reducing the effects of tropical storms. (6)

Answer:

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## WEEK 11: Exam Question review and improvement (Classwork)

**Question:** Explain why planning and being prepared is the best option for reducing the effects of tropical storms. (6)

Answer:

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## WEEK 12: Cornell Notes (Homework task 1)

**Topic:** Somerset Levels Floods

Revision guide page: 27

|                  |                              |
|------------------|------------------------------|
| <b>Links</b>     | <b>Notes</b>                 |
|                  |                              |
| <b>Questions</b> | <b>Causes</b>                |
|                  |                              |
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|                  |                              |
|                  | <b>Social impacts</b>        |
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|                  | <b>Environmental impacts</b> |
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|                  | <b>Responses</b>             |
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**Summary**

## WEEK 12: Exam Question (Homework task 2)

**Question:** Evaluate the impacts of a major climatic event in the UK. (6)

Answer:

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## WEEK 12: Exam Question review and improvement (Classwork)

**Question:** Evaluate the impacts of a major climatic event in the UK. (6)

Answer:

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