Scott
Scott Medical and Healthcare College

Spring Term
Term 2

Geography

Year 11

Name: _____

Tutor: _____

Care to Learn

Learn to Care

GREENSHAW LEARNING TRUST

Year 11 Homework Timetable

Monday	English Task 1	Option A Task 1	Option C Task 1
Tuesday	Sparx Science	Option B Task 1	Sparx Maths
Wednesday	Sparx Maths	Science Task 1	Option C Task 2
Thursday	Option A Task 2	Sparx Catch Up	Option B Task 2
Friday	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
Geography
History
Spanish

Option B
Geography
Psychology
Health and Social Care

Option C
Childcare
Drama
Psychology
Sport

Half Term 3 (6 weeks) - Year 11		
Week / Date	**Homework task 1 Cornell Notes**	**Homework task 2 Exam Question**
Week 1 6th January 2025	**Cornell Notes on:** Global distribution of resources.	**Question**: Describe the global inequality in the supply and consumption of either food *or* water *or* energy. (6)
Week 2 13th January 2025	**Cornell Notes on:** The provision of food, water and energy in the UK.	**Question**: Explain why the UK's energy mix will include both renewable and non-renewable sources in the future (6)
Week 3 20th January 2025	**Cornell Notes on:** Global food supply and food insecurity.	**Question**: Explain how both physical and human factors affect the world's supply of food (6)
Week 4 27th January 2025	**Cornell Notes on:** Increasing food supplies.	**Question:** Explain how one or more agricultural changes have increased world food production. (4)
Week 5 3rd February 2025	**Cornell Notes on:** Indus Basin Irrigation System	**Question**: Use an example from a LIC / NEE to explain how local strategies are being used to increase sustainable supplies of food. (6)
Week 6 10th February 2025	**Cornell Notes on:** Sustainable food production.	**Question:** Explain how different strategies can be used to make food supplies more sustainable. (6)

Half Term 4 (6 weeks) - Year 11		
Week / Date	**Homework task 1 Cornell Notes**	**Homework task 2 Exam Question**
Week 7 24th February 2025	**REVISION -** Paper 1 and Paper 2 **Cornell Notes on (Revision):** Hard and soft engineering	**Question**: What are the advantages and disadvantages of hard engineering at the coast? (6)
Week 8 3rd March 2025	**Mock Exams** **Cornell Notes on (Revision):** Case Study -Lyme Regis	**Question**: To what extent can the coastal management at Lyme Regis be considered a success? (6)
Week 9 10th March 2025	**Mock Exams** **Cornell Notes on (Revision):** Opportunities for development (Svalbard).	**Question**: Using a case study, to what extent have opportunities for economic activity been developed in your chosen environment? (9)
Week 10 17th March 2025	**Cornell Notes on (Revision):** Challenges in Svalbard	**Question**: Explain how cold environments like Svalbard can provide challenges for development. (6)
Week 11 24th March 2025	**Cornell Notes on (Revision):** Management of economic development.	**Question**: Outline three possible environmental impacts of economic development on cold environments. (6)
Week 12 31st March 2025	**Cornell Notes on (Revision):** Ecosystems case study - Malaysian Rainforest.	**Question**: 'Tropical rainforests should be protected from economic development.' Do you agree? Explain your answer.(9)

Knowledge Organiser: The Challenge of resource management

<table>
<tr><th>Session</th><th>Keywords</th><th colspan="3"></th></tr>
<tr><td rowspan="2">1. Global distribution of resources</td><td>Resources are things that humans require for life or to make our lives easier. Humans are becoming increasingly dependent on exploiting these resources, and as a result they are in high demand.</td><td colspan="3">Resources such as food, energy and water are what is needed for basic human development.
FOOD: Without enough nutritious food, people can become malnourished. This can make them ill. This can prevent people working.
WATER: People need a supply of clean and safe water for drinking, cooking and washing. Water is also needed for food, clothes and other products.
ENERGY: A good supply of energy is needed for a basic standard of living. People need light and heat for cooking or to stay warm. It is also needed for industry.</td></tr>
<tr><td colspan="4">• As LICs and NEEs develop further, they require more energy for industry.
• LICs and NEEs want similar lifestyles to HICs, therefore they will need to consume more resources.</td></tr>
<tr><td>2. Provision of food, water and energy in the UK</td><td>Food in the UK
Growing Demand: UK imports about 40% of its food. This increases people's carbon footprint. There is growing demand for a greater choice of exotic foods. Many food types are unsuitable to be grown in the UK.
Impact of Demand: Importing food adds to our carbon footprint. However, it supports workers with an income and families in LICs.
Agribusiness: Is when farming is treated like a large industrial business.
+ Intensive farming maximises the amount of food produced.
- Only employs a small number of workers.
Sustainable Foods: Organic foods that have little impact on the environment and are healthier have been rising.
Local food sourcing is also rising in popularity.
• Reduces emissions by only eating food from the UK.
• Buying locally sourced food supports local shops and farms.</td><td>Water in the UK
Growing Demand: The average water used per household has risen by 70%. This growing demand is predicted to increase by 5% by 2020. This is due to; A growing UK population / water intensive appliances / Industrial and leisure use.
Impact of demand: The north and west have a water surplus (more water than is required).
The south and east have a water deficit (more water needed than is actually available).
Water Transfer: involves moving water through pipes from areas of surplus (Wales) to areas of deficit (London). Opposition includes:
• Effects on land and wildlife.
• The amount of energy required to move water over long distances.
Pollution and Quality: Cause and effects include:
• Chemical run-off from farmland can destroy habitats and kills animals.
• Oil from boats and ships poisons wildlife.
Management
UK has strict laws that limit the amount of discharge from factories and farms.</td><td>Energy in the UK
Growing Demand: The UK consumes less energy than compared to the 1970s despite a smaller population, due to the decline of industry.
Energy Mix: The majority of UK's energy mix comes from fossil fuels. By 2020, the UK aims for 15% of its energy to come from renewable sources. These renewable sources do not contribute to climate change.
• 75% of the UK's oil and gas has been used up.
• Coal consumption has declined.
Significance of Renewables
+ The UK government is investing more into low carbon alternatives.
+ UK government aims to meet targets for reducing emissions.
+ Renewable sources include wind, solar and tidal energy.
- Although infinite, renewables are still expensive to install and have visual impacts on the landscape.
- Shale gas deposits may be exploited in the near future</td></tr>
</table>

Knowledge Organiser: The Challenge of resource management			
Session	**Keywords**		
3. Global food supply and food insecurity	**Food security** having access to enough affordable, nutritious food to maintain a healthy life. **Food insecurity:** when areas are without sufficient food supplies.	**The key causes of food insecurity** **Human causes** • **Technology** in HICs, mechanisation and agribusiness give high levels of productivity. • **Poverty** prevents poorer families affording technology, irrigation or fertilisers. • **Conflict** can lead to the destruction of crops and livestock. • **Water-stress** - lack of water affects many areas that suffer food scarcity. **Physical causes** • **Climate** regions experiencing extreme temperatures and rainfall struggle to produce food. • **Pest and diseases** spread from the Tropics with rising temperatures.	**Impact of food Insecurity** **Famine -** widespread shortage of food often causing malnutrition, starvation and death. **Rising prices** - Food prices are rising, mainly due to increased cost of fertilisers, food storage and transportation. **Soil erosion** - through overgrazing, cultivation, deforestation and growing too many crops lead to the removal of fertile top soil layers. **Undernutrition** - the lack of a balanced diet, and deficiency in minerals and vitamins. **Social unrest** - 'food riots' often happen as a result of increased food prices.
4. Increasing food supplies		**Four ways to increase food supply** 1. **Irrigation -** artificially watering the land. Can involve expensive dams and reservoirs. Tend to benefit larger commercial farming. 2. **Aeroponics -** plants are sprayed with fine water mist containing plant nutrients. 3. **Hydroponics -** Plants are grown in water that contain plant feed. 4. **Appropriate technology –** using skills or materials that are cheap and easily available to increase output. 5. **Biotechnology –** uses living organisms to make or modify products and processes.	

Knowledge Organiser: The Challenge of resource management			
Session	**Keywords**		
5. Indus Basin example	**Indus Basin Irrigation System** - the largest continuous irrigation scheme in the world.	**Example: Indus Basin Irrigation System** Three large dams and over a hundred smaller dams to regulate water flow. **Advantages** • Improves food security for Pakistan, making 40% more land available for cultivation. • Irrigation has increased crop yields • Diets have improved • HEP is generated. **Disadvantages** • Unfair share of water. • Salinisation can damage the soil. • High cost to maintain reservoir capacity.	
6. Sustainable food supplies	**Sustainable Food Supply:** Ensures that fertile soil, water and environmental resources are available for future generations.	**Three ways to develop sustainable food supplies;** 1. **Organic farming -** growing crops or rearing livestock without artificial chemicals. 2. **Permaculture -** a system of food production which follows the patterns and features of natural ecosystems. 3. **Urban Farming -** Cultivation, processing and distribution of food in and around settlements. Eg. THe Michigan Urban Farming Initiative ● addresses the problems of urban decay, poor diet and food insecurity. ● Communities encouraged to work together.	**Food miles -** the distance covered supplying food to customers. **Carbon footprint -** the measure of the greenhouse gases that each individual produces, through the direct or indirect burning of fossil fuels. **Reducing food loss and waste** -32% of food is lost or wasted each year. - Halving food waste could reduce the gap between food supply and demand by 22% by 2050. **The Makueni Food and Water Security Programme** - designed to help two small villages and primary school in Makueni County, Kenya. Aims - improve water supply - provide training programmes - grow trees It has been successful.

Session	Key terms	Specific knowledge
7. Hard and soft engineering	**Hard engineering**: Using artificial, man-made structures to control natural processes	**Groynes:** Wood barriers prevent longshore drift, so the beach can build up. £150,000 each (every 200m) Advantage: Beach still accessible. Disadvantage: No deposition further down coast = erodes faster further down the coast. **Sea Walls:** Concrete walls break up the energy of the wave. Has a lip to stop waves going over. £1,000,000 per 100m **Advantage**: Long life span and highly effective protection. **Disadvantage**: Can look obtrusive and expensive and high maintenance costs. **Gabions:** Cages of rocks absorb the waves energy, protecting the cliff behind. £50,000 per 100m Advantage: Cheap to produce and flexible in final design Disadvantage: The look very unattractive and Cages rust in 5-10 years. **Rip rap or rock armour:** Large boulders dumped at the foot of a cliff £200,000 per 100m **Advantage**: Provide interest at the coast, e.g fishing **Disadvantage**: Can be expensive to transport rocks and don't fit with local geology
	Soft engineering: More environmentally friendly techniques that work with natural processes to protect the coast	**Beach Nourishment:** Beaches built up with sand, so waves have to travel further before eroding cliffs. Cost: £500,000 per 100m **Advantage: Cheap and easy to maintain and provide a beach for tourists.** **Disadvantage: Needs replacing especially after storms and offshore dredging damages seabed.** **Dune regeneration**: Marram grass is planted to stabilize dunes and help them develop. Cost: £200-£2,000 per 100m **Advantage: Creates wildlife habitats. Disadvantage**: Time consuming to plant and fence off marram grass, and growth time long.
	Managed retreat	**Managed retreat:** Controlled retreat of the coastline, allowing the sea to flood low-lying land **Advantages:** Creates a large natural saltmarsh which forms a natural buffer to the sea and Establishes valuable wildlife habitat. **Disadvantages:** Unpopular with locals whose homes are left undefended and people have to be relocated from homes

8. Lyme Regis	**Example:** **Lyme regis**	**Location and Background**: 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 Phase 1: 1990 - 95, new sea wall / promenade built. 2003-04 cliffs stabalised cost £1.4m 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 Phase 3: Not undertaken. As the costs outweighed the benefits, it was decided that the area west of The Cobb should be left alone. 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 stabalise the rock and protect 480 homes. Total cost £20m	**Positive outcomes:** ● New beaches have increased visitor numbers and seaside businesses are thriving ● New defences have stood up to recent storms ● The harbour is now better protected, benefitting boat owners and fishermen. **Negative outcomes:** ● **I**ncreased visitor numbers has lead to conflict with locals as traffic and pollution have increased. ● Some people think the new defences have spoilt the natural coastal landscape ● Stabalising the cliffs prevents landslips which reveal new, important fossils

Session	Key terms	Specific knowledge	Geographical Concepts
9.	**Opportunities for development** The process of a country in terms of economic growth, the use of technology and human welfare	**Svalbard** 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.	**Opportunities for Development in Svalbard** • **Mineral extraction -** more than 300 people employed in coal mines. New mine opened in 2014 near Svea. • **Energy developments -** Svalbard is located close to the Mid-Atlantic ridge and could develop **geothermal energy** • **Fishing -** 150 species of fish. The Barents Sea is one of the richest fishing grounds in the world. • **Tourism -** In 2011 70,000 people visited Longyearbyen. The harbor was recently enlarged with a new terminal. Tourism provides 300 jobs and could be developed further
10.	**Infrastructure** The basic equipment and structures (roads, utilities, water, sewage) that are needed for a region to function properly	**Challenges in Svalbard** **Extreme temperature:** Winter temperatures can drop below -30°C in Longyearbyen. In the winter, there is limited sunlight, the sea freezes and roads become very dangerous. **Construction:** 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. **Services** (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. **Accessibility:** 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.	

11.	**Economic development** Chances for people to improve their standard of life through development **Conservation** Managing the environment in order to preserve, protect or restore it **Management Strategies** Techniques of controlling, responding to, or dealing with an event	Cold environments have an high value as wilderness areas and therefore need to be protected Strategies can be used to balance the needs of economic development and conservation.	**Economic development in Alaska** 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. **Strategies in Alaska** **Technology:** 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. **Governments:** The National Environmental Policy Act ensures companies involved with oil must protect the environment and recognise the rights of native people. The USA has created the Western Arctic Reserve, a 9 million hectare protected wilderness where drilling for oil and tourism is banned. **International agreements:** Agreement on the Conservation of Polar Bears, Oslo, 1973. THis was signed by the USA and Norway (Svalbard) and other countries to ban hunting of Polar Bears unless for scientific purposes. **Conservation agreements:** 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

Session	Key terms	Specific knowledge	Geographical Concepts
12.	**Deforestation- cutting down of trees on a large scale.**	**About Malaysia** Country in Southeast Asia. Made up of the Peninsular Malaysia and east Malaysia, which is part of the island Borneo. The natural vegetation in Malaysia is tropical rainforest. 67% of Malaysia's land is covered in rainforest. **<u>Threats to the rainforest.</u>** **Logging** • Most widely reported cause of destruction to biodiversity. • Timber is harvested to create commercial items such as furniture and paper. • Violent confrontation between indigenous tribes and logging companies. **Agriculture** • Large scale **'slash and burn'** of land for ranches and palm oil. • Increases **carbon emission**. • **River saltation** and **soil erosion** are increasing due to the large areas of **exposed land.** • Increase in **palm oil** is making the **soil infertile**. **Mineral Extraction** • **Precious metals** are found in the rainforest. • Areas **mined** can experience **soil and water contamination**. • **Indigenous people** are becoming **displaced** from their land due to roads being built to transport products. **Population pressure** ● Poor encouraged to move to the countryside by the government. ● Between 1956-1980's 15 000 hectares of rainforest were destroyed to make way for housing. **Mineral Extraction** ● Mining of tin and smelting ● Rainforest cleared for mining and road construction.	**Impacts of deforestation** **Economic development** + Mining, farming and logging creates employment and tax income for the government. + Products such as palm oil provide valuable income for countries. - The loss of biodiversity will reduce tourism. **Soil erosion** - Once the land is **exposed by deforestation,** the soil is more **vulnerable to rain**. - With **no roots to bind soil together**, soil can easily **wash away.** **Climate Change** -When rainforests are cut down, the climate becomes **drier.** -Trees are **carbon 'sinks**'. With greater deforestation comes more greenhouse emissions in the atmosphere. -When trees are burnt, they **release more carbon in the atmosphere**. This will enhance the **greenhouse effect.**

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: Global distribution of resources.

Links **Questions**	**Notes**

Summary

WEEK 1: Exam Question (Homework task 2)

Question: Describe the global inequality in the supply and consumption of either food *or* water *or* energy. (6)

Answer:

WEEK 1: Exam Question review and improvement (Classwork)

Question: Describe the global inequality in the supply and consumption of either food *or* water *or* energy. (6)

Answer:

WEEK 2: Cornell Notes (Homework task 1)

Topic: The provision of food, water and energy in the UK.

Links **Questions**	**Notes**

Summary

Exam Question (Homework task 2)

Question: Explain why the UK's energy mix will include both renewable and non-renewable sources in the future (6)

Answer:

WEEK 2: Exam Question review and improvement (Classwork)

Question: Explain why the UK's energy mix will include both renewable and non-renewable sources in the future (6)

Answer:

WEEK 3: Cornell Notes (Homework task 1)

Topic: Global food supply and food insecurity.	

Links **Questions**	**Notes**

Summary

WEEK 3: Exam Question (Homework task 2)

Question: Explain how both physical and human factors affect the world's supply of food (6)

Answer:

WEEK 3: Exam Question review and improvement (Classwork)

Question: Explain how both physical and human factors affect the world's supply of food (6)

Answer:

WEEK 4: Cornell Notes (Homework task 1)

Topic: Increasing food supplies.

Links **Questions**	**Notes**

Summary

WEEK 4: Exam Question (Homework task 2)

Question: Explain how one or more agricultural changes have increased world food production. (4)

Answer:

WEEK 4: Exam Question review and improvement (Classwork)

Question: Explain how one or more agricultural changes have increased world food production. (4)

Answer:

WEEK 5: Cornell Notes (Homework task 1)

Topic: Indus Basin Irrigation System

Links **Questions**	**Notes**

Summary

WEEK 5: Exam Question (Homework task 2)

Question: Use an example from a LIC / NEE to explain how local strategies are being used to increase sustainable supplies of food. (6)

Answer:

WEEK 5: Exam Question review and improvement (Classwork)

Question: Use an example from a LIC / NEE to explain how local strategies are being used to increase sustainable supplies of food. (6)

Answer:

WEEK 6: Cornell Notes (Homework task 1)

Topic: Sustainable food production.

Links **Questions**	**Notes**

Summary

WEEK 6: Exam Question (Homework task 2)

Question: Explain how different strategies can be used to make food supplies more sustainable. (6)

Answer:

WEEK 6: Exam Question review and improvement (Classwork)

Question: Explain how different strategies can be used to make food supplies more sustainable. (6)

Answer:

WEEK 7: Cornell Notes (Homework task 1)

Topic: Hard and soft engineering

Links **Questions**	**Notes**

Summary

WEEK 7: Exam Question (Homework task 2)

Question: What are the advantages and disadvantages of hard engineering at the coast? (6)

Answer:

WEEK 7: Exam Question review and improvement (Classwork)

Question: What are the advantages and disadvantages of hard engineering at the coast? (6)

Answer:

WEEK 8: Cornell Notes (Homework task 1)

Topic: Case Study - Lyme Regis

Links **Questions**	**Notes**

Summary

WEEK 8: Exam Question (Homework task 2)

Question: To what extent can the coastal management at Lyme Regis be considered a success? (6)

Answer:

WEEK 8: Exam Question review and improvement (Classwork)

Question: To what extent can the coastal management at Lyme Regis be considered a success? (6)

Answer:

WEEK 9: Cornell Notes (Homework task 1)

Topic: Opportunities for development (Svalbard).

Links **Questions**	**Notes**

Summary

WEEK 9: Exam Question (Homework task 2)

Question: Using a case study, to what extent have opportunities for economic activity been developed in your chosen environment? (9)

Answer:

WEEK 9: Exam Question review and improvement (Classwork)

Question: Using a case study, to what extent have opportunities for economic activity been developed in your chosen environment? (9)

Answer:

WEEK 10: Cornell Notes (Homework task 1)

Topic: Challenges in Svalbard

Links **Questions**	**Notes**

Summary

WEEK 10: Exam Question (Homework task 2)

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

Answer:

WEEK 10: Exam Question review and improvement (Classwork)

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

Answer:

WEEK 11: Cornell Notes (Homework task 1)

Topic: Management of economic development.

Links **Questions**	**Notes**

Summary

WEEK 11: Exam Question (Homework task 2)

Question: Outline three possible environmental impacts of economic development on cold environments. (6

Answer:

WEEK 11: Exam Question review and improvement (Classwork)

Question: Outline three possible environmental impacts of economic development on cold environments. (6

Answer:

WEEK 12: Cornell Notes (Homework task 1)

Topic: Ecosystems case study - Malaysian Rainforest.

Links **Questions**	**Notes**

Summary

WEEK 12: Exam Question (Homework task 2)

Question: ‘Tropical rainforests should be protected from economic development.’ Do you agree? Explain your answer.(9)

Answer:

WEEK 12: Exam Question review and improvement (Classwork)

Question: ‘Tropical rainforests should be protected from economic development.’ Do you agree? Explain your answer.(9)

Answer: _____