



Autumn Term
Term 1

Geography

Year 10

Name: _____

Tutor: _____

Care to Learn,
Learn to Care

Year 10 Homework Timetable

Monday	English Exam Question	English Sparx	Maths Sparx
Tuesday	Option A Exam Question	Science Carousel	Science Sparx
Wednesday	Option B Exam Question	Option A Carousel	Maths Sparx
Thursday	Option C Exam Question	Option B Carousel	Science Sparx
Friday	Science Exam Question	Option C Carousel	Catch Up Sparx

Sparx Science

- Complete 100% of their assigned homework each week

Sparx Maths

- Complete 100% of their assigned homework each week

Option A
History
Geography

Option B
Health and Social Care
Languages
Drama

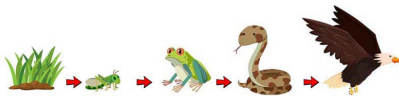
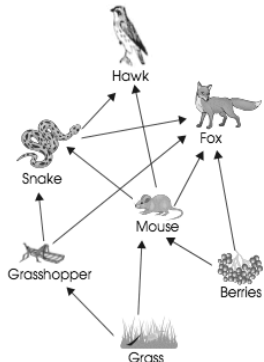
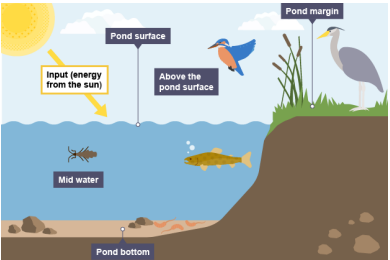
Option C
Psychology
Health and Social Care
Sport

Half Term 1 (7 weeks) - Year 10	
Week / Date	Homework task 2 Exam Questions
Week 1 7th September 2026	Question 1: What is an ecosystem? (1) Question 2: Outline what would happen if all the mice were removed from the food web on the knowledge organiser. (4)
Week 2 14th September 2026	Question 1: What example of a small scale ecosystem have you studied? (1) Question 2: Describe the features of a small scale ecosystem you have studied. (4)
Week 3 21st September 2026	Question 1: Name the dominant biome found near the equator. (1) Question 2: Outline the difference between the Tundra biome and the biome most dominant in the UK. (6)
Week 4 28th September 2026	Question 1: Name the 4 layers of the rainforest. (1) Question 2: Outline the difference between the 4 layers of the rainforest. (6)
Week 5 5th October 2026	Question 1: Which of the following best describes the adaptation of Buttress Roots? (1) Question 2: Describe and explain how plants have adapted to live in a tropical rainforest environment. (6)
Week 6 12th October 2026	Question 1: What animal has web-like feet which allows it to glide through the air to escape predators? (1) Question 2: Describe and explain how animals have adapted to live in a tropical rainforest environment. (6)
Week 7 19th October 2026	Question 1: Give one reason why tropical rainforests are important (1) Question 2: Outline two causes of deforestation. (4)

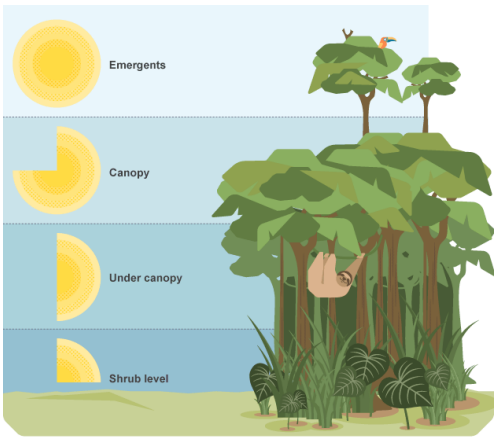
Half Term 2 (6 weeks) - Year 10

Week / Date	Homework task 2 Exam Question
Week 8 9th November 2026	Question 1: What percentage of Malaysia is covered by tropical rainforest? (1) Question 2: Evaluate the impacts of logging and commercial farming in Malaysia. (6)
Week 9 16th November 2026	Question 1: What is biodiversity? (1) Question 2: Evaluate the impacts of the loss of biodiversity in Malaysia. (6)
Week 10 23th November 2026	Question 1: What is an indigenous tribe? (1) Question 2: Name an indigenous tribe in Malaysia. (1) Question 3: Evaluate the impacts of the decline of indigenous tribes in Malaysia. (6)
Week 11 30th November 2026	Question 1: Which of the following is the best definition of sustainability? (1) Question 2: Evaluate the impacts of the decline of indigenous tribes in Malaysia. (6)
Week 12 7th December 2026	Question 1: Which of the following is the best definition of selective logging? (1) Question 2: Explain how the management of the rainforest in Malaysia is sustainable. (6)
Week 13 14th December 2026	Question 1: Define ecotourism. (1) Question 2: Explain how ecotourism can be a good way of managing the Malaysian rainforest sustainably. (6)

Geography Year 10 Knowledge Organiser: Ecosystems and the Tropical Rainforest

Session	Keywords	Knowledge	Geographical concepts	
1 Introduction to Ecosystems	Producers: In an ecosystem plants generate glucose (sugar) using the sun's energy (photosynthesis). Consumers: In an ecosystem animals feed by eating plants and other animals. Decomposers: In an ecosystem fungi feed by making dead plants and animals rot.	An ecosystem is a community of plants and animals that interact with each other and their environment. A food chain (Figure 1) shows how plants and animals get their energy. A food chain starts with a producer, which makes their food by photosynthesis. Consumers are next in the chain. Figure 1 	When all the food chains in an ecosystem are joined up together, they form a food web 	The hot, damp conditions on the forest floor allow for the rapid decomposition of dead plant material. This provides plentiful nutrients that are easily absorbed by plant roots. However, as these nutrients are in high demand from the many fast-growing plants, they do not remain in the soil for long and stay close to the surface. If vegetation is removed, the soils quickly become infertile.
2 Pond ecosystem		The features of a freshwater pond ecosystem are: 1. Pond bottom - very little oxygen or light at the bottom of the pond. Decomposers and scavengers live here where they feed on dead material, eg water worms 2. Mid water - fish are the main predators here. Food is found on the pond bottom or the pond surface. Animals here breathe through their skin or gills, e.g. stickleback fish, water fleas and dragonfly nymphs. 3. Pond surface - There is plenty of oxygen and light here. Animals found here include ducks, water boatmen, midge larvae and tadpoles. 4. Pond margin - plants provide a sheltered habitat for insects and small animals such as frogs. There is lots of light and oxygen so plants such as marsh marigold thrive. 5. Above the pond surface - birds such as kingfishers and insects like dragonflies are common here.	Changes to ecosystems Ecosystems are very sensitive to change. The living and non-living components of the ecosystem can be altered by either natural factors or human management. Changes to the ecosystem caused by natural factors include: • drought • flood • fire • disease Changes to the ecosystem caused by human management include: • introducing more fish (fish stocking) • altering the drainage of the land which may influence the amount of water • changing the pH level of the water • altering the nutrient levels of the water if fertilisers are leached into the water resulting in eutrophication	

Geography Year 10 Knowledge Organiser: Ecosystems and the Tropical Rainforest

Session	Keywords	Knowledge	Geographical concepts
3 Biomes	A biome is a large scale ecosystem eg desert, polar, tundra, tropical rainforest, coniferous forest, savanna	• Tundra - found near the North and South poles. Very few plants and animals can survive here. • Taiga (coniferous forest) - found in Scandinavia, Russia and Canada. Evergreen trees thrive in this cool temperate climate. • Temperate deciduous forest - found across Europe (the UK's most dominant biome) and in the USA. These trees lose their leaves every year and thrive in mild and wet conditions known as a temperate maritime climate. • Temperate grassland - found in Hungary, South Africa, Argentina and the USA. Consists of grass and trees that thrive in a temperate continental climate of moderate rainfall and mild conditions. • Chaparral or evergreen hardwood (Mediterranean) - found around the Mediterranean Sea, around Perth and Melbourne in Australia and California in the USA. • Desert - found near the Tropics of Cancer and Capricorn. Conditions here are very hot and dry. Plants and animals are specially adapted to survive in the harsh conditions. • Tropical rainforest - found near the Equator. The climate is hot and humid and many different species can be found here. • Savanna grassland - found mainly in central Africa, southern India, northern Australia and central South America. Long grasses and a few scattered trees are found in these hot and dry conditions.	
4 Tropical rainforests	Rainforests are wet with over 2,000 mm of rainfall per year and warm with an average daily temperature of 28°C. Temperatures never drop below 20°C and rarely exceed 35°C.	There are 4 layers to a rainforest Emergent: the tallest section, lots of light. Birds and butterflies live here Canopy: More light here, makes up the most of the rainforest vegetation. In the canopy, tall trees which block most sunlight Under canopy: Some light, new young trees competing to get through the canopy. Monkeys and other animals live here, Lianas and other plants hang down to the floor. Shrub layer: dark damp, lots of tree litter, large tree trunks. Lots of insects. 	The geographical location of tropical rainforests In a description of location you should include: lines of latitude, continents, countries and oceans. Tropical rainforests are found in areas near the equator, between the tropics of Cancer and Capricorn. These countries include northern South America, Central Africa, Indonesia and northern India. An example of a tropical rainforest is the Amazon which is mostly found in Brazil.

Geography Year 10 Knowledge Organiser: Ecosystems and the Tropical Rainforest

Session	Keywords	Knowledge	Geographical concepts
5 How plants are adapted to living in the rainforest	Adaptation: the process of change by which an organism (plant or animal) becomes better suited to its environment	<u>Plant adaptations to the rainforest:</u> EMERGENTS - Some trees are fast growing to EMERGE above forest canopy and capture sunlight. LIANA – a plant that takes root in soil but that is supported by trees so it can grow upwards to get sunlight DRIP TIP leaves to allow excess water to spill off, preventing leaf damage. Many trees have wide deep BUTTRESS roots at the base to stabilise the tree. EPIPHYTES - these are plants which live on the branches of trees high up in the canopy . They get their nutrients from the air and water, not from the soil.	
6 How animals are adapted to living in the rainforest	Adaptation: the process of change by which an organism (plant or animal) becomes better suited to its environment		<u>Animal adaptations to the rainforest:</u> The SPIDER MONKEY has long limbs and a strong tail for living in the canopy. They also have sharp nails for peeling off the bark to eat the sap underneath. ANTEATERS are mammals that live in the ground layer. They have long tongues that can gather up to 35,000 ants and termites each day and sharp claws that can tear open anthills. Anteaters have a good sense of smell to find food The FLYING FROG has web-like feet which allow it to glide through the air to escape predators. The SLOTH uses camouflage and moves very slowly to make it difficult for predators to spot.

Geography Year 10 Knowledge Organiser: Ecosystems and the Tropical Rainforest

Session	Keywords	Knowledge	Geographical concepts
7 Causes of deforestation	Deforestation is the permanent destruction of forests in order to make the land available for other uses.	Rainforests are important because: 1. They remove carbon dioxide from the atmosphere. 2. Provides habitats for 75% of the world's plants and animals 3. They regulate the earth's climate 4. About 25% of all medicines come from rainforest plants	Deforestation is the main threat to rainforests. Deforestation is often caused by one of these three activities; 1. Mining: destroys trees and habitats. Chemicals and toxins infiltrate into the ground and get into the water table 2. Cattle farming: Land cleared for cattle as well as for growing the feed for the cattle. 3. Crops: forest areas cleared and burned to make room for new crops eg Soya beans. The burning releases greenhouses into the atmosphere, the soil will have less nutrients in because there is a smaller variety of plants. Habitats destroyed.
8 Threats to the Malaysian Rainforest	A rainforest works through interdependence. This is where the plants and animals depend on each other for survival. If one component changes, there can be serious knock-on effects for the entire ecosystem.	Malaysia is a LIC country in south-east Asia. 67% of Malaysia is a tropical rainforest with 18% of it not being interfered with. However, Malaysia has the fastest rate of deforestation compared to anywhere in the world	Causes of deforestation Road Building: In Malaysia, logging companies use an extensive network of roads for heavy machinery and to transport wood. Logging: Timber is harvested to create commercial items such as furniture and paper. Agriculture: Large scale 'slash and burn' of land for ranches and palm oil. 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 Energy Development : Hydro-electric power (HEP). • The Bakun Dam was built in 2011 in Malaysia is key for creating energy in this developing country, however, both people and environment have suffered as it flooded 700km² of rainforest.

Geography Year 10 Knowledge Organiser: Ecosystems and the Tropical Rainforest

Session	Keywords	Knowledge	Geographical concepts
9 Impacts of deforestation on the Malaysian rainforest part 1	Biodiversity is a variety of species of plants and animals in a habitat	Deforestation has significant economic benefits + Mining, farming and logging creates employment and tax income for the government. + Products such as palm oil provide valuable income for countries. Uncontrolled and unchecked exploitation can cause environmental damage. - Soil erosion: - Once the land is exposed by deforestation, the soil is more vulnerable to rain. - Climate change: -Trees are carbon 'sinks'. With greater deforestation comes more greenhouse emissions in the atmosphere.	Main issues with biodiversity decline • Keystone species (a species that are important to other species) are extremely important in the rainforest ecosystem. Humans are threatening these vital components. • Decline in species could cause tribes being unable to survive. • Plants & animals may become extinct. • Key medical plants may become extinct.
10 Impacts of deforestation on the Malaysian rainforest part 2	Indigenous tribes are groups of people who have always lived in the rainforests and who get everything they need from the forest.	The Decline of Indigenous Tribes Malaysia's Orang Asli have been stripped of historic lands and are more susceptible to deadly illness. Loss of forest due to illegal logging has significantly reduced the bat population. Bats are a natural means by which fruit crops are pollinated, so there is an enormous impact on indigenous people and their food security when the forest is illegally cleared. A. because the food source has directly been removed through illegal logging B. because the bat population is no longer available to pollinate the wider forest area. Malaysia now has a situation where some communities have to pollinate fruit trees by hand. The problem is exacerbated by the increased use of pesticides, which further cause problems in maintaining wildlife and rainforest. Pesticides are being used more because the bat population no longer provides the natural means by which insect populations are managed.	

Geography Year 10 Knowledge Organiser: Ecosystems and the Tropical Rainforest

Session	Keywords	Knowledge	Geographical concepts
11 Sustainable management of tropical rainforests	Sustainable management is where resources are used to support current economic development, but will still be available for future generations to use.	Tropical rainforests can be managed in the following ways to reduce deforestation: • Logging and replanting - selective logging of mature trees ensures that the rainforest canopy is preserved. This method allows the forest to recover because the younger trees gain more space and sunlight to grow. Planned and controlled logging ensures that for every tree logged another is planted. • Education - Promoting the value and benefits of biodiversity associated with tropical rainforests. • Ecotourism - this encourages sustainable tourism that creates jobs for local people whilst ensuring that the money generated is used to protect and conserve the tropical rainforest for future generations to enjoy. • International agreements - agreements to protect tropical rainforests have been made between different countries through debt-for-nature swaps. This is when a country which is owed money by another country cancels part of the debt if an agreement is made by the debtor country to ensure the conservation of its tropical rainforests.	
12 & 13 Sustainable management of the Malaysia Rainforests	Sustainable management is where resources are used to support current economic development, but will still be available for future generations to use.	The Malaysian government have implemented the following policies to ensure that the tropical rainforest can be conserved and enjoyed by future generations: • Public awareness of the value of tropical rainforests increased through education. • Local communities included and involved in forest conservation projects. • Use of alternative timber sources such as rubber trees was encouraged. • Selective logging of mature and commercially viable trees over a 40-year cycle to ensure that trees had time to re-establish themselves. This is known as a Selective Management System. • Ecotourism promoted and developed in tropical rainforest areas. • Permanent Forest Estates have been created by the government where no change of land use is allowed. • Creation of National Parks to protect biodiversity.	

WEEK 1: Exam Question (Homework task 2)

Question 1: What is an ecosystem? (1)

Question 2: Outline what would happen if all the mice were removed from the food web on the knowledge organiser. (4)

[illegible]

WEEK 1: Exam Question review and improvement (Classwork)

Question 1: What is an ecosystem? (1)

Question 2: Outline what would happen if all the mice were removed from the food web on the knowledge organiser. (4)

[illegible]

WEEK 2: Exam Question (Homework task 2)

Question 1: What example of a small scale ecosystem have you studied? (1)

Woodland	
Field	
Pond	
Tropical Rainforest	

Question: 2: Describe the features of a small scale ecosystem you have studied. (4)

[illegible]

WEEK 2: Exam Question review and improvement (Classwork)

Question 1: What example of a small scale ecosystem have you studied? (1)

Woodland	
Field	
Pond	
Tropical Rainforest	

Question: 2: Describe the features of a small scale ecosystem you have studied. (4)

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WEEK 3: Exam Question (Homework task 2)

Question 1: Name the dominant biome found near the equator. (1)

Tropical Rainforest	
Tundra	
Deciduous Forest	
Desert	

Question 2: Outline the difference between the Tundra biome and the biome most dominant in the UK. (6)

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WEEK 3: Exam Question review and improvement (Classwork)

Question 1: Name the dominant biome found near the equator. (1)

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Desert	

Question 2: Outline the difference between the Tundra biome and the biome most dominant in the UK. (6)

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WEEK 4: Exam Question (Homework task 2)

Question 1: Name the 4 layers of the rainforest. (1)

- _____
- _____
- _____
- _____

Question 2: Outline the difference between the 4 layers of the rainforest. (6)

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WEEK 4: Exam Question review and improvement (Classwork)

Question 1: Name the 4 layers of the rainforest. (1)

- _____
- _____
- _____
- _____

Question 2: Outline the difference between the 4 layers of the rainforest. (6)

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WEEK 5: Exam Question (Homework task 2)

Question 1: Which of the following best describes the adaptation of Buttress Roots?

Many trees have wide roots at the base to stabilise the tree so that it can grow tall.	
Plants which live on the branches of trees high up in the canopy . They get their nutrients from the air and water, not from the soil.	
A plant that takes root in soil but that is supported by trees so it can grow upwards to get sunlight	
Fast growing trees emerge above the forest canopy and capture sunlight.	

Question 2: Describe and explain how plants have adapted to live in a tropical rainforest environment. (6)

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WEEK 5: Exam Question review and improvement (Classwork)

Question 1: Which of the following best describes the adaptation of Buttress Roots?

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Plants which live on the branches of trees high up in the canopy . They get their nutrients from the air and water, not from the soil.	
A plant that takes root in soil but that is supported by trees so it can grow upwards to get sunlight	
Fast growing trees emerge above the forest canopy and capture sunlight.	

Question 2: Describe and explain how plants have adapted to live in a tropical rainforest environment. (6)

[illegible]

WEEK 6: Exam Question (Homework task 2)

Question 1: What animal has web-like feet which allows it to glide through the air to escape predators? (1)

Question 2: Describe and explain how animals have adapted to live in a tropical rainforest environment. (6)

[illegible]

WEEK 6: Exam Question review and improvement (Classwork)

Question 1: What animal has web-like feet which allows it to glide through the air to escape predators? (1)

Question 2: Describe and explain how animals have adapted to live in a tropical rainforest environment. (6)

[illegible]

WEEK 7: Exam Question (Homework task 2)

Question 1: Give one reason why tropical rainforests are important (1)

Question 2: Outline two causes of deforestation. (4)

WEEK 7: Exam Question review and improvement (Classwork)

Question 1: Give one reason why tropical rainforests are important (1)

Question 2: Outline two causes of deforestation. (4)

WEEK 8: Exam Question (Homework task 2)

Question 1: What percentage of Malaysia is covered by tropical rainforest? (1) _____

Question 2: Evaluate the impacts of logging and commercial farming in Malaysia. (6):

[illegible]

WEEK 8: Exam Question review and improvement (Classwork)

Question 1: What percentage of Malaysia is covered by tropical rainforest? (1) _____

Question 2: Evaluate the impacts of logging and commercial farming in Malaysia. (6):

[illegible]

WEEK 9: Exam Question (Homework task 2)

Question 1: What is biodiversity? (1)

Question 2: Evaluate the impacts of the loss of biodiversity in Malaysia. (6)

[illegible]

WEEK 9: Exam Question review and improvement (Classwork)

Question 1: What is biodiversity? (1)

Question 2: Evaluate the impacts of the loss of biodiversity in Malaysia. (6)

[illegible]

WEEK 10: Exam Question (Homework task 2)

Question 1: What is an indigenous tribe? (1) _____

Question 2: Name an indigenous tribe in Malaysia. (1) _____

Question 3: Evaluate the impacts of the decline of indigenous tribes in Malaysia. (6)

WEEK 10: Exam Question review and improvement (Classwork)

Question 1: What is an indigenous tribe? (1) _____

Question 2: Name an indigenous tribe in Malaysia. (1)_____

Question 3: Evaluate the impacts of the decline of indigenous tribes in Malaysia. (6)

[illegible]

WEEK 11: Exam Question (Homework task 2)

Question 1: Which of the following is the best definition of sustainability? (1)

Recycling all waste so that no rubbish ever has to go to landfill again.	
When a country can afford to keep importing goods from other countries without running out of money.	
Meeting the needs of people today without reducing the ability of future generations to meet their own needs.	
Ensuring that a city has enough green spaces so tourists have places to visit.	

Question 2: Evaluate the impacts of the decline of indigenous tribes in Malaysia. (6)

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WEEK 12: Exam Question (Homework task 2)

Question 1: Which of the following is the best definition of selective logging? (1)

When all trees in an area are cut down at the same time so the land can be cleared quickly.	
The practice of cutting down only certain chosen trees, while leaving the rest of the forest intact to continue growing.	
Choosing to harvest only small bushes and plants while leaving all trees untouched.	
When a government selects certain forests each year to completely ban logging in.	

Question 2: Explain how the management of the rainforest in Malaysia is sustainable. (6)

[illegible]

WEEK 12: Exam Question review and improvement (Classwork)

Question 1: Which of the following is the best definition of selective logging? (1)

When all trees in an area are cut down at the same time so the land can be cleared quickly.	
The practice of cutting down only certain chosen trees, while leaving the rest of the forest intact to continue growing.	
Choosing to harvest only small bushes and plants while leaving all trees untouched.	
When a government selects certain forests each year to completely ban logging in.	

Question 2: Explain how the management of the rainforest in Malaysia is sustainable. (6)

[illegible]

WEEK 13: Exam Question (Homework task 2)

Question 1: Define ecotourism. (1)

Question 2: Explain how ecotourism can be a good way of managing the Malaysian rainforest sustainably. (6)

[illegible]

WEEK 13: Exam Question review and improvement (Classwork)

Question 1: Define ecotourism. (1)

Question 2: Explain how ecotourism can be a good way of managing the Malaysian rainforest sustainably. (6)

[illegible]

