

# Key Points to Learn

1. Ecosystem	The living and non-living components of an environment and the interrelationships between them.
2. Biotic	The living elements of an environment
3. Abiotic	The non-living elements of an environment
4a. Food chain	A line of linkages between producers and consumers
4b. Food web	A diagram that shows all the linkages between producers and consumers in an ecosystem
5. Producers	Organisms that get their energy from the sun
6. Consumers	Organism that get their energy from consuming other organisms
7. Scavengers	Organisms that consume dead animals or plants
8. Decomposers	Organisms such as bacteria that break down plant and animal matter
9. Nutrient Cycle	Nutrients from the soil are taken up by the roots of plants. They then transfer to living and then dead animal or plant matter. They then decompose and return to the soil. The cycle starts again.
10. Surface run-off	Rainfall that runs into rivers/lakes as surface water
11. Leaching	Nutrients wash out of the soil by water
12. Small-scale UK ecosystem	<p><b>Case Study: Epping Forest</b></p>
13. Biome	Global scale ecosystem

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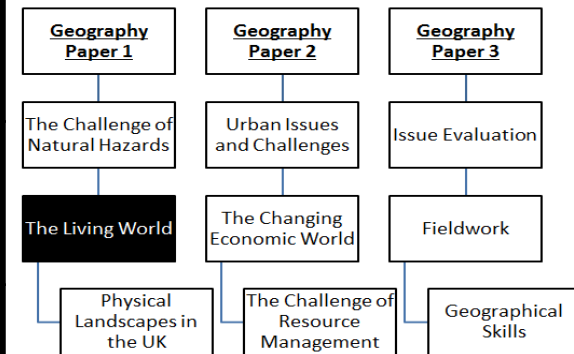
14. Hottest at the equator	It is hottest at the equator because the sun rays are more concentrated as they have to heat a smaller surface area due to the curvature of the earth.
16. Tropical Rainforest	Hot and wet biome found between the two tropics focussed on the equator. Red, infertile soil with high rates of leaching and decomposition. Case Study: <b>Amazon Rainforest</b>
17. Biodiversity	The variety of life within an ecosystem
18. Buttress Roots	Wide shallow roots at the base of the tree. Allows the tree to grow tall to get sunlight.
19. Drip Tips	Leaves with a pointed tip and a waxy surface. Allows water to fall off the leaf and not damage it.
20. Three toed sloth	Moves so slowly it allows algae to grow in its fur for camouflage.
21. Toucan	Large, lightweight bill with saw like edges to cut down fruits. Strong claws to stay on branches.
22. Yanomami	Indigenous tribe in the Amazon rainforest
23. Causes of Deforestation	<ul style="list-style-type: none"> <li>Subsistence farming – farming for yourself – Slash and burn</li> <li>Commercial Farming – farming for a profit</li> <li>Logging – cutting down trees to sell</li> <li>Road building – Transamazonian highway</li> <li>Mineral extraction – Grand Carajas Mine</li> <li>Energy development – Belo Monte Dam</li> <li>Population growth – People moving out of cities</li> </ul>

# Year 11 Knowledge Organiser

## Topic: The Living World A

Name.....

## Big Picture



## Background

The living world focuses on the world around us. This unit will focus on ecosystems, where they are and how they work. By understanding the global circulation model this will help you in Natural Hazards. Your key case studies are: Amazon Rainforest, Sahel Region and the Sonoran desert. You will also need to be aware of a local example - .e.g Epping Forest.

## GCSEPod



# Key Points to Learn

24. Social	Related to people and community
25. Economic	Related to money
26. Environmental	Related to nature
27. Effects of Deforestation	Economic development - Soil erosion Climate change – trees when cut down release huge amounts of carbon
28. Value of the rainforest	The rainforest are known as the “Lungs of the Earth” and is the most biodiverse place on earth.
29. Sustainable	Meeting human need now and in the future without damaging the environment
30. Selective logging	The cutting down of trees which are old and common leaving rare and young trees to grow
31. Ecotourism	Tourism that gains an income but preserves the environment
32. Debt reduction	Decreasing a countries debt in return for preserving rainforests.
33. International agreements	A signed treaty between countries – e.g. FSC reduces demand for hardwoods
34. Hot Desert	A biome found 300N and 300 S of the equator. The soil is dry, sandy, infertile with a white layer on top. <b>Case Study: Sonoran Desert</b> – USA Mexico border.
35. Giant Saguaro Cactus	A cactus with pleated skin – expands to store more water. Shallow roots to get water from rainfall quickly.
36. Desert Yellow Daisy	Small leaves to reduce water loss from transpiration. Fine hairs on stem to capture water in the air

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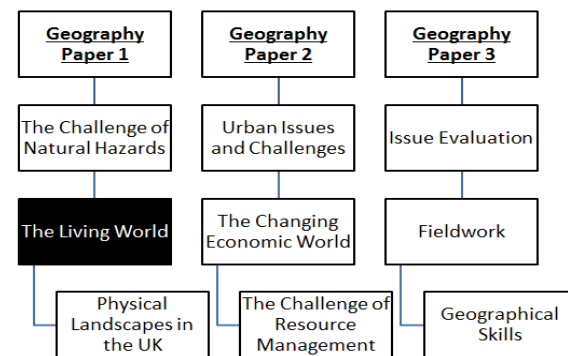
37. Great Basin Sagebrush	Small leaves to reduce water loss from transpiration. Long roots to find water deep down.
38. Camel	Closable nostrils/two sets of eyelashes – stops sand going into eyes and nose. Wide feed to not sink in the sand.
39. Opportunities in the Hot Desert	<b>Mineral extraction</b> – Cananea mine - copper <b>Energy</b> – Sonoran solar project – good as no clouds in high pressure area <b>Farming</b> - cotton farming in Marana – used boreholes – mostly closed <b>Tourism</b> – Sonoran desert activities – museums etc <b>Xeriscaping</b> – dry landscaping
40. Challenges in the hot Desert	<b>Extreme temperature</b> – water from the CAP evaporates – 4.4% a year <b>Water supply</b> - CAP brings water in but groundwater running low <b>Inaccessibility</b> – hard to build and maintain road – New Cornelia Mine closed <b>Cost</b> – too expensive to cover the CAP
41. Desertification	The process where land is turned to desert
42. Causes of Desertification	<b>Climate change, Population growth, Deforestation, Overgrazing/cultivation and Soil erosion.</b> Vegetation removed, soil becomes loose and wind blows it away – remaining land becomes baked and hard. No water can infiltrate. Soils less fertile, less plants, becomes worse.
43. Appropriate technology	Technology that uses local knowledge and material
44. Magic Stones of Burkina Faso	Villagers place stones in a pattern to stop water running off the surface and gives it time to infiltrate the soil.
45. The Great Green Wall	Countries along the Sahel region planting trees to combat desertification.
46. The Sahel Region	10 countries in and around the Sahara desert.

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### GCSEPod



**Geography**  
**Paper 1**

The Challenge of  
Natural Hazards

The Living World

Physical  
Landscapes in  
the UK

**Geography**  
**Paper 2**

**Urban Issues  
and Challenges**

The Changing  
Economic World

The Challenge of  
Resource  
Management

**Geography**  
**Paper 3**

Issue Evaluation

Fieldwork

Geographical  
Skills