National 5

Unit 3

Life on earth

Ink exercise 1

Biodiversity and the distribution of life.

Once completed and marked-

Think about and list below the areas I need to work on:

Multiple choice

Tick one answer from each question.

1. What is Biodiversity?

a) A high number of different species in an ecosystem
b) The number of different species in an ecosystem
c) A low number of different species in an ecosystem

2. Which of the following is an example of an abiotic factor?

a) Temperature
b) Grazing
c) Predation

3. What are grazing and predation?

a) Abiotic factors
b) Biotic factors
c) The main components of an organisms niche

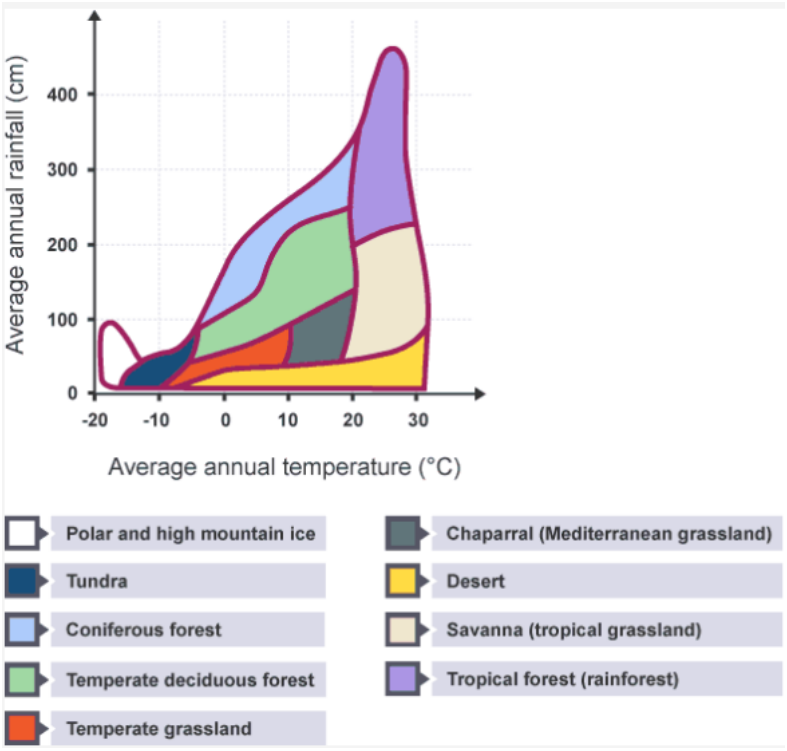
4. What name is given to a region of the planet characterised by its climate and which contains distinctive communities of plants and animals?

a) Biome
b) Ecosystem
c) Habitat

5. Which two factors can influence the global distribution of Biomes?

a) Carbon dioxide concentration and rainfall
b) Rainfall and temperature
c) Temperature and Carbon dioxide concentration

6. The graph shows how the distribution of biomes is influenced by rainfall and temperature.



Highlight which biome experiences the greatest range of temperature?

7. What is an ecosystem?

a) All the organisms of an area
b) All the non-living components of an area
c) All the organisms and non-living components of an area
d)

8. What are all organisms living in a particular area known as?

a) A population
b) A community
c) An ecosystem

9. Which of the following factors associated with an ecosystem are biotic?

a) Competition and parasitism
b) Light availability and temperature
c) Parasitism and light availability

10. Which of the following factors, associated with an ecosystem, could be components of an organism's niche?

a) Competition and parasitism
b) Light availability and temperature
c) Parasitism and light availability

11. **Read the following passage and answer the questions below.**

Deforestation

Forests cover almost a third of the Earth's land. They are home to 70% of Earth's land animals and plants, but these habitats are disappearing fast, in a process called deforestation. Trees are felled for fuel, and to make products like furniture and paper. Farmers burn forests to clear land for crops and cattle... destroying these valuable natural habitats. Tropical rainforests are especially important. They are home to more than half of all plant and animal species on Earth. It's thought that deforestation is causing over 50 species to become extinct every day, as their natural habitat is destroyed. Plants, which could be used in medicine, are killed before they're even discovered. It's not just the immediate destruction of wildlife that's the problem...Trees maintain the right conditions for all other life on Earth. They affect the soil, atmosphere and climate of the whole planet. Without roots to hold the soil together, the ground is more likely to collapse in a landslide, or be washed away by flooding. Trees also pump water into our atmosphere, through a process called transpiration. Without them the environment becomes dry. With fewer leaves falling and decomposing, soil loses

up to 90% of its nutrients. Trees absorb a greenhouse gas called carbon dioxide, and give out oxygen. Rainforests produce 40% of the world's atmospheric oxygen. However when they're burned, they release carbon dioxide instead. Around half of the Earth's forests have already disappeared. With 2000 trees destroyed every minute, deforestation now accounts for a quarter of greenhouse gas emissions. In just 100 years, there may be no rainforests left at all. We'll never stop forests being cut down, but we can make it more sustainable.

11. How much land is covered by forest?

_____ (1)

12. What percentage of land animals and plants are they home to?

_____ (1)

13. Write a sentence giving a definition of Deforestation.

_____(1)

14. List three reasons why deforestation takes place. (3)

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15. List five benefits that the world's forests give us. (5)

16. In your own words, why would removing forests reduce Biodiversity? (4)

25 marks