Summary for Life On Earth (Biology Unit 4)

1) The main minerals needed for plant growth are

Nitrogen (N) – for leaf growth

Phosphorus (P) – for root growth

Potassium (K) – for fruit and flower growth

Trace minerals are minerals that are needed in small amounts to keep the plants healthy.

2)

Plants lacking Nitrogen have small yellow leaves

Plants lacking Phosphorus have small roots

Plants lacking Potassium have poorly developed flowers

3)

Fertilisers can be liquid or granules

Liquid fertilisers are quick acting but drain away quickly

Granule fertilisers are slow acting and last longer in the soil

4)

Farmers put chemicals called Fertilisers and Pesticides onto their fields.

These chemicals produce higher yields of plants – Feed the World's growing population.

Overuse of these chemicals can damage the environment

Pesticides may build up in food chains

Fertilisers may cause fish death in lakes by encouraging Algae (green plant) growth

Natural farming (Organic) doesn't use chemicals and relies on natural methods to try to increase yields and control pests.

5)

Climate change is raising the temperature of the Earth's atmosphere.

Polar ice caps are melting and Ecosystems are affected.

Burning fossil fuels (coal, oil, and gas) produces a greenhouse

Gas called Carbon Dioxide (CO_2)

Carbon Dioxide traps heat in the atmosphere

Burning less fossil fuels will help reduce climate change

6)
Acid rain is mostly caused by Sulphur Dioxide gas being released from Power Stations and industry into the air
Acid rain damages plants and buildings as well as affecting aquatic (water) environments

7)
State that the five basic needs for human survival are
A) Food B) Water C) Air D) Warmth E) Shelter

8)
State that Carbon is recycled in nature
State that Carbon is removed from the atmosphere as Carbon Dioxide by green plants photosynthesising (making food)
Be able to describe ways by which the Carbon is then returned to the atmosphere (e.g. respiration, burning)

9)
Be able to state that Indicator Species show the level of pollution by their presence or absence in an Ecosystem
Be able to give an example of an Indicator Species for water pollution (e.g. trout) and an example for air pollution (E.g. lichen)

10)
Recognise what is meant by the terms Extinction (irretrievable loss of a Species) and
Endangered Species (Species close to Extinction) and be able to describe a Conservation method to protect endangered species (e.g. Zoos)

Recognise that human behaviour such as overhunting and habitat destruction has led to endangered species.

11) Be able to perform calculations to work out averages
12) Be able to draw a bar or line graph.
13) Be able to select relevant information from written text.
14) Be able to construct a table with suitable headings.
15) Understand the terms independent and dependent variable.