

PENANG SANGAM HIGH SCHOOL

YEAR 13 GEOGRAPHY SUB - STRAND: VEGETATION

WEEK:7

Sub-strand - Soil

Instructions

You should spend 3weeks in this particular worksheet try to complete because it will be collected and marked. So organise yourself and attempt this worksheet in a timely manner.

*Let's begin!!!!*      Lesson Notes

Instructions ( at least spend 2hrs for this lesson) Refer to page 100 – 108

*Please go through the notes first and understand before you attempt the questions. Keep in mind the questions will be focussing onto some parts of the notes only, meaning that is where your learning should be.*

This is a recapping or recalling class since it's been long that we reengage the learning that you have understood from year 11. The aim of this lesson is to test your knowledge on the topic whether you still remember some vital facts in Soil (Y11) or not? Write the answers in this worksheet as the space provided. *Take the challenge!!!*

**Take Note!!** The Soil notes have been given to everyone before the school was closed in week 10. But if you did not have it you can call in to school or come and see me in school.

Stay alert and attentive at all times *Please!!!!*

Questions

1. What is the ecological importance of soil?

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2. Discuss the significance of nutrient presents in the soil.

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3. Discuss on hydraulic conductivity

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4. Define Soil Degradation

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5. Explain, some causes of soil degradation.

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6. Describe what role played by the organisms in soil development.

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Ok !! some notes for you to learn more about factors that affects soil

## Causes and consequences of Soil Degradation

### 1. Deforestation

- is the removal of the forest without replacing it.
- Human is the main cause of this and it speeds up the rate of soil erosion by cutting down native forest once protected the soil. Secondly the tree roots keep the subsoil stable. But settlers burnt the forests and replace it with pasture for pastoral farming and development.
- For instance, in New Zealand sheep farming and development dominates most parts of the main island thus soil erosion costs the government about \$150million annually.

### Consequences

- i. Good fertile land that has dried and cracked from exposure to the sun and lack of rain.
- ii. Animals ate and trampled plants and trees also exposed the soil to rain and wind. In the South Island of New Zealand , farmers burnt tussock and planted pasture. Thus exposed soil vulnerable to wind, frost and rain erosion.

### 2. Overgrazing

- There is a common practise in the world for grazing to many stock on the land. To overstock grazing on the land disrupts the carrying capacity. Cattles, cows, draught animals and small ruminants graze on common grazing areas such as roadsides, steam banks and other public land.

### 3. Soil Erosion

- is the removal of the top layer of the soil by various means, which include both natural events and human activities.
- Man has caused a rapid increase in the rate of soil being erode throughout the world. The main agents of this erosion are water, wind and glaciers.

### Characteristics of Fluvial erosion

- a. Sheet erosion – uniform removal of the top soil just like a sheet
- b. Rill erosion – Heavy water flow cause rill on land.
- c. Gully erosion – Rill will enlarge as gullies and land will be disordered or deformed to a stage, for example Chambai valley .

### Activity

1. Define deforestation - \_\_\_\_\_

2. Discuss two human activities that could affect our environment. \_\_\_\_\_

3. Briefly explain what is overgrazing and how it affects our environment. \_\_\_\_\_

4. Describe an example of soil degradation. \_\_\_\_\_

5. Overpopulation and poverty is a rival to soil management. In your own words explain this statement. \_\_\_\_\_