



Soil conservation and Fertilizers

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Intro: Previous Knowledge

- ▶ 1. What are the important substances in soil?
- ▶ 2. What are two benefits of earthworms?
- ▶ 3. What are two harmful organisms?
- ▶ 4. Why is the termite not consider an organism to benefits plants like the earth worm?

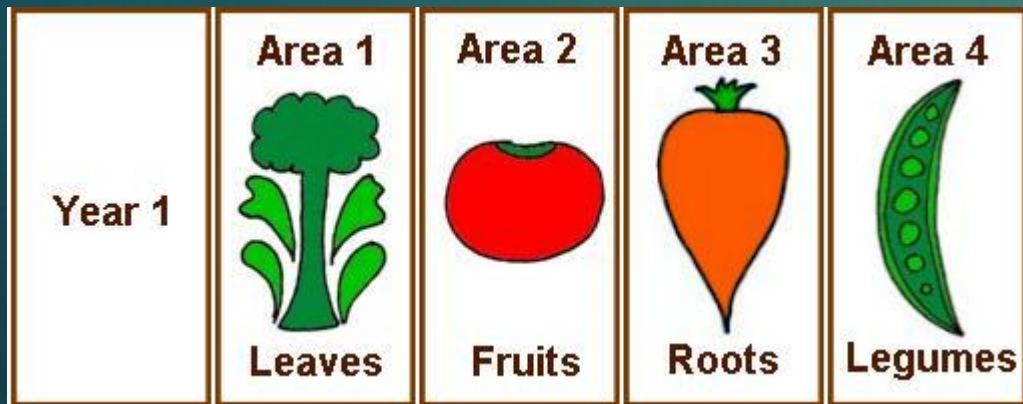
Soil conservation: TERRACING

- ▶ Piles of stones are laid along the side of the hill, and behind them the soil is built up.
- ▶ The surface of the soil is now in many flats parts and the crop can be planted.
- ▶ If water tries to run down the hill it is taken up the soil and the plants in the top terraces and cannot cause so much damage



Crop rotation:

- ▶ Different crops are grown each year. Rotation of crops has the advantage of covering the ground, and also making use of the different nutrients in the soil.



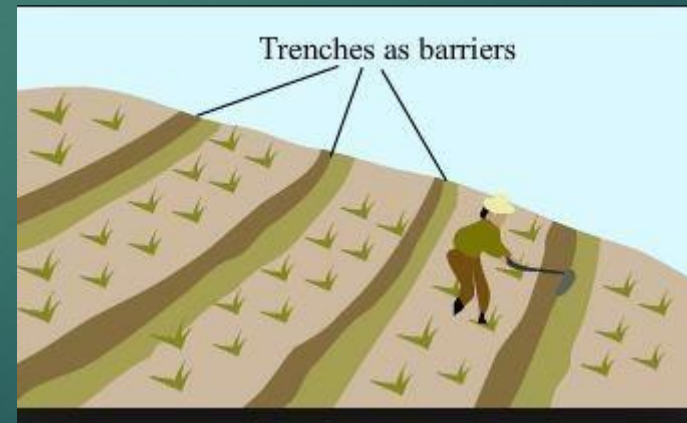
Intercropping

- ▶ If a crop has been planted in rows and there is bare ground in between, another plant should be put there.
- ▶ Example: cassava, which has deep roots, can be grown in amongst maize, which has shallow roots.



Contour ploughing:

- ▶ As water runs down the hill it is stopped by the rows of plants that are put in along the contours. Physical breaking soil.



What are fertilizers?

- ▶ any substance containing chemical elements needed for plant growth.



Two types of fertilizers

Natural (organic)

- ▶ Farmyard manure. (Consists of dung, urine produced by farm animals mixed with straw).
- ▶ Compost: rotting remains of vegetable matter.(brown manure)
- ▶ Disadvantage: takes long to decompose



Artificial (inorganic)

- ▶ Contains mineral nutrients which can be absorbed by plants straight away.
- ▶ They contain Nitrogen, phosphorus and potassium.
- ▶ Advantage: they can grow well without doing crop rotation. Disadvantage diseases can spread more quickly through them.



Create a venn diagram between the two types of fertilizers.

