Fertiliser and farming practices interactive worksheet

1. Drag and drop the correct option to match the pictures.

Organic fertiliser

Artificial fertiliser

2. Drag and drop the correct words into the sentence:

amino acids **greater** **proteins** **nitrogen** **plants** **plough** **efficient**

Plants use _____ to make _____ which are used to synthesise _____.

More nitrogen makes _____ grow faster and bigger, which means the farmer has a _____ yield.

The invention of a different type of _____ was lighter to pull, meaning instead of four oxen and two people, two horses could pull it with only one person. This meant it was more _____ and cost effective, so more land could be cultivated, leading to higher food production.

3. What is a monoculture? Select the correct option.

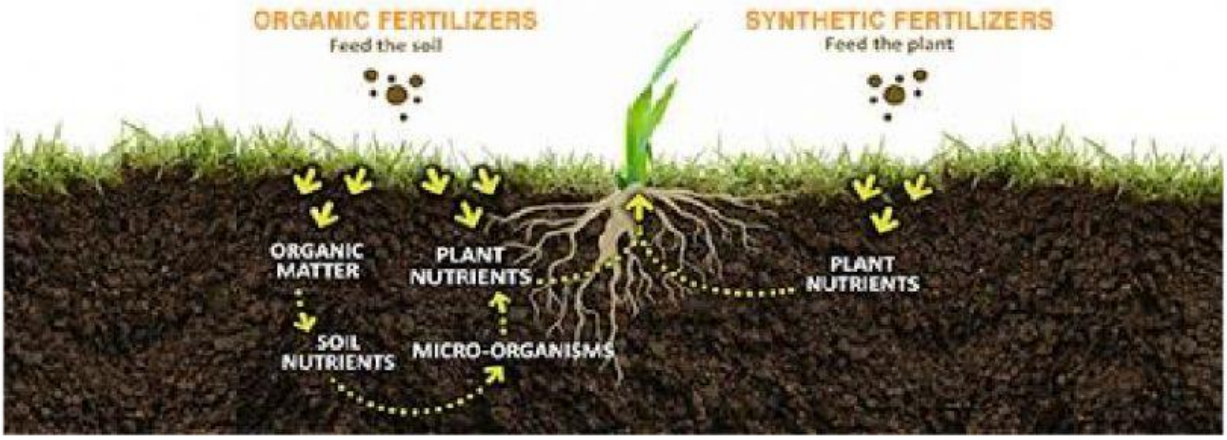
a) A colony of bacteria
b) A single, homogeneous culture without diversity
c) An area of organic farming

4. Give 3 reasons why the human population has increased in the past 250 years.

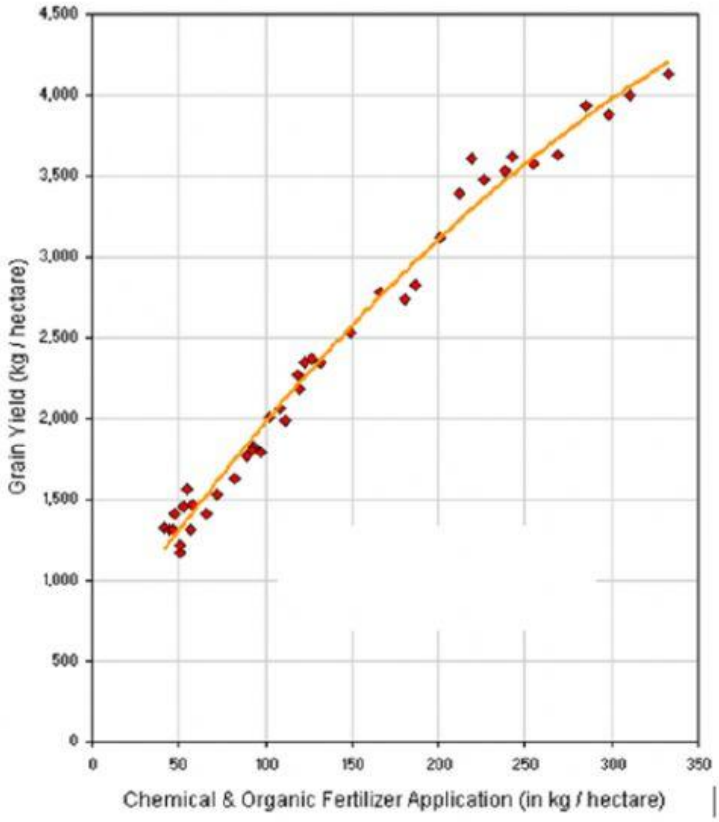
5. What is special about clover and why does the farmer plant it in his field? Select the correct option.

a) It is a high value crop
b) It is quick to grow
c) It fixes nitrogen into the ground

6. Explain how organic fertilisers such as manure have a different effect on soil than artificial fertilisers, using the picture below to help



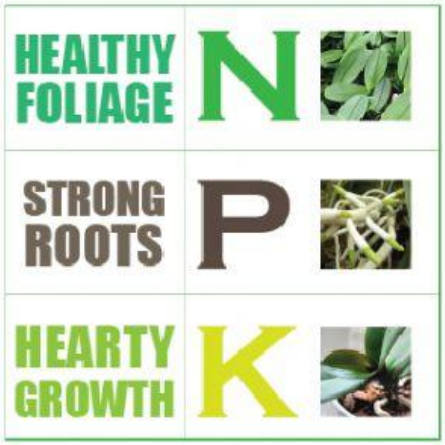
7. The graph below shows the relationship between the amount of fertiliser put on crops ("Chemical and Organic Fertiliser Application" – the x-axis) and the crop yield ("Grain Yield" – the y-axis). Use the graph to describe the effect of increasing the amount of fertiliser on crop yield.



8. What role do micro-organisms have in the soil? You can use the internet to find the answer.

9. The amount of N, P and K present in fertilisers varies to meet the needs of different plants.

Proportions of nitrogen, phosphorus and potassium are shown on the fertiliser packaging in the order of N:P:K.



'N' = nitrogen (as nitrate) for leaf growth

'P' = phosphorus (as phosphate) for root growth

'K' = potassium (as potash) for fruit and flower growth

Decide which fertiliser to apply, put the letter in the table and give a reason for your choice.

Plant	Fertiliser (N, P or K)	Reason
Football pitch		
Tomato crop		
Carrot crop		

Extension question

10. If I am the answer, what is the question? For each of these words, write a question for which these would be the answer.

High yield	Fertilisers	Pesticides
Nitrates	Organic	Amino acids
Proteins	Leaching	Intensive farming