**KAMPALA JUNIOR ACADEMY**

P.4 TOPICAL QUESTIONS TERM 2020 NO. 1

SCIENCE

Name: ………………………………………………….......…….Stream ………….

**PLANT LIFE**

1. What name is given to plants that bear flowers? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
2. Define the term non flowering plants. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
3. How do plants like beans and cow peas reproduce? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
4. How do conifers reproduce? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
5. State one similarity between maize and mosses. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
6. What is leaf venation? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
7. Name the type of leaf venation drawn below.

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

1. Mention any one example of a compound leaf. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
2. Explain the main function of leaves on a plant. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
3. How are the foliage leaves useful on an onion? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
4. What is photosynthesis? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
5. How do plants reduce the amount of carbondioxide in the atmosphere? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
6. Which parts of a flower make up a pistil? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
7. In the space provided, draw and name the female part of a flower.
8. How are the cotyledons on a germinating seed useful to it? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
9. What process in plants is shown by the following diagram?

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

1. Define the term pollination. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
2. What is difference between root tubers and stem tubers? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
3. How is a root cap useful on roots? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
4. Give an example of an annual crop. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Section B**

1. Match the crops to their diseases.

|  |  |
| --- | --- |
| **Crop** | **Diseases** |
| Cassava  Tomato  Bananas  Cotton | Leaf spot  Cassava mosaic  Tomato blight  Panama |

Cassava \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Tomato \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Bananas \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Cotton \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

1. (a) List down the two types of germination.
2. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
3. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

(b) State the role of each of the following during germination.

(i) oxygen \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

(ii) moisture \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

1. Give an example of each of the following crops.
2. Leguminous \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
3. Cereals \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
4. Leafy vegetables \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
5. Stem tuber \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
6. (a) How is a moth able to pollinate flowers at night?

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

(b) Besides a moth, name any other insect pollinator.

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(c) How are bright petals useful during pollination?

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

1. Why do bees commonly visit flowers?

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1. (a) Name the two plant systems you know.
2. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
3. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

(b) In the space given, draw a diagram showing prop roots.

(c) How are the roots drawn above important to a maize plant.

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1. (a) What is transplanting?

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(b) Why is transplanting done during hot weather?

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(c) Draw and name a garden tool useful for transplanting.

(d) Why are some seeds first planted in a nursery bed?

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1. (a) What are weeds

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

(b) Give two examples of weeds common in the garden.

(i) \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

(ii) \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

(c) Give one way of removing weeds from the garden.

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1. Below is a diagram showing a maize seed. Use it to answer the questions that follow.
2. What collective name is given to the parts marked **X**? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
3. Of what use if part **Y** to the seed drawn above. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

END

**KAMPALA JUNIOR ACADEMY**

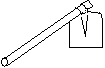
P.4 TOPICAL QUESTIONS TERM 2020 NO. 2

SCIENCE

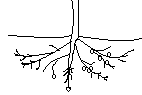
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**CROP GROWING**

1. Give one economic value of crops to farmers. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
2. What are perennial crops? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
3. Besides digging, give any other value of the garden tool shown in the diagram.



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1. Name the garden tool used for turning manure. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
2. Why are beans and peas grouped under leguminous crops? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
3. Give an example of a fruit vegetable. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
4. What type of roots do cereals posses? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
5. Briefly explain the term seedling. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
6. Why do some plants with weak stems climb others? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
7. Define the term seed viability. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
8. State any one condition under which a seed may fail to germinate. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
9. Give the importance of the structures (swellings) shown on the roots below.

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1. What is broadcasting method of growing or planting seeds? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
2. Name one plant that can be pruned. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
3. In which way are traps useful to the crop farmers? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
4. State one quality of a good planting material. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
5. Name one disease that commonly affects the coffee plants in the community. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
6. Give one advantage of planting seeds using broadcasting method. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
7. Define the term “nursery bed” \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
8. State one characteristic of monocotyledonous seeds. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
9. (a) What name is given to the groups of crops that grow and live for many seasons?

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(b) Give two examples of such crops named above.

(i) \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

(ii) \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

1. Suggest one way of harvesting the above crops named.

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

1. Match the garden tools to their functions.

|  |  |  |  |
| --- | --- | --- | --- |
|  |  |  |  |
|  |  |  |  |

(cutting down any big trees, harvesting rice, gathering rubbish, transplanting

1. (a) What is mulching?

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(b) State one source of mulches in our community.

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

(c) Mention two advantages of mulching our garden.

(i) \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

(ii) \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

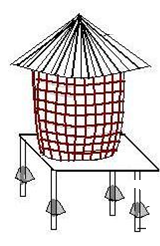
1. (a) Why is rusting of tools dangerous? Give two reasons.
2. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
3. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

(b) State any one condition necessary for rusting to take place.

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(c) How is rusting similar to germination of seeds?

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

1. The diagram below shows a traditional grain store.

P

1. Identify the farm store above. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
2. Name the part marked p above. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
3. How is the named part above important on the farm structure? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
4. List down one crop whose seeds can be kept in the farm structure. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
5. (a) Define the term pests.

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(b) Identify any two common insect pests in the garden.

(i) \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

(ii) \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

(c) Give one natural method of controlling the above named pests.

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

1. State the method of harvesting the following crops.
2. Bananas \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
3. Cassava \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
4. Coffee \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
5. Maize \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
6. Study the diagram below and use it to answer the questions that follow.
7. What method of planting seeds is shown above? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
8. Besides the methods named, identify any other method of planting seeds. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
9. Give one advantage of using the method shown in the diagram. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

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**KAMPALA JUNIOR ACADEMY**

P.4 TOPICAL QUESTIONS TERM 2020 NO. 3

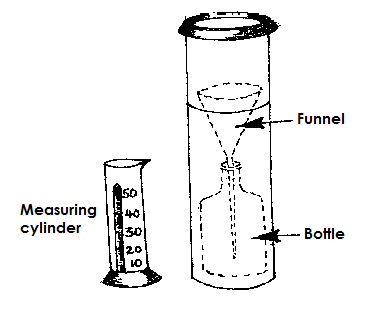
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**WEATHER CHANGES AROUND US**

1. Explain the term weather. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
2. Name the type of weather when people commonly put on light clothes. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
3. Which type of clouds resemble cotton piles. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
4. In which basic units is rainfall measured? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
5. Name the condition of weather shown in the diagram.

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

1. What type of rainfall is received around mountains and hills. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
2. Besides rainfall, give any other use of clouds to people. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
3. Which type of clouds appear highest in the sky? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
4. Who are meteorologists? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
5. Windy is to wind blow as \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ is to sunshine
6. What is the source of heat in the water cycle? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
7. Define the term temperature. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
8. What term is given to the average weather condition of a place? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
9. In which units is temperature measured? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
10. How is the weather instrument below useful to farmers?



\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

1. What is the suitable place for the above drawn weather instrument? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
2. Give a reason to your answer in No. 16. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
3. Of what use is a funnel on a measuring cylinder? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
4. Give one danger of clouds in the environment. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
5. How is sunshine helpful during photosynthesis? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
6. Match the following correctly

Barometer temperature

Thermometer speed of wind

Wind vane air pressure

Anemometer direction of wind

Barometer \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Thermometer \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Wind vane \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Anemometer \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

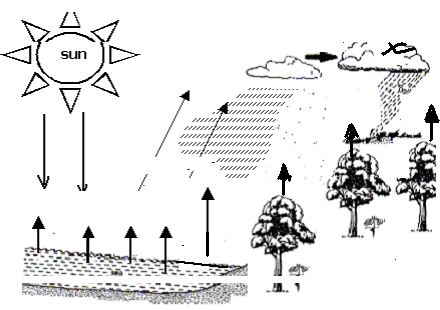
1. (a) Why is the Stevenson screen painted with white colours?

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

(b) List down any three delicate weather instruments that can be kept in a Stevenson screen.

(i) \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

(ii) \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

1. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
2. Mention the four weather conditions.
3. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
4. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
5. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
6. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
7. The diagram below shows the water cycle.
8. Identify the two processes involved in rainfall formation.
9. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
10. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
11. What is the role of the sun during the rainfall formation? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
12. Suggest one way of harvesting rain water. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
13. (a) What is the main natural source of water?

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

(b) List down two artificial sources of water.

(i) \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

(ii) \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

(c) Give one way in which water can be contaminated.

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

1. (a) What do we call the process by which
2. vapour changes into a liquid \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

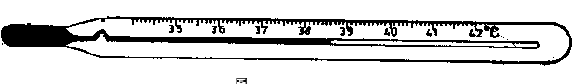
(ii) liquid changes into vapour \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

(b) Name two common diseases spread during a wet season.

(i) \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

(ii) \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

1. The diagram below shows an instrument. Use it to answer questions that follow.



1. Identify the above instrument. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
2. How is the kink useful to the named instrument? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
3. Why is liquid **X** commonly used in such an instrument? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
4. What is the normal human body temperature on the Celsius scale? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
5. Give three importance of keeping daily records of weather.
6. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
7. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
8. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

*END*

**GROWING CROPS**

**Crops**

A crop is a plant grown for a purpose.

**Types of crops**

1. Cereals
2. Legumes
3. Root crops
4. Fruit crops
5. Vegetables

**Cereals**

Cereals are some times called grains or monocots.

**Examples of cereals**

* Maize
* Millet
* Sorghum
* Rice
* Wheat
* Barley

**Leguminous crops (Legumes)**

* They have nodules on their roots.
* They have seeds in pods.

**Examples of legumes**

* Beans
* Peas
* Groundnuts
* Soya beans

**Root structure of a leguminous crop**

**Root nodules:-**

* Swellings found on roots of leguminous plants.
* They keep nitrogen fixing bacteria.

NB: Nitrogen fixing bacteria trap nitrogen from air and change in to nitrates as plant food.

These are crops grown purposely for the fruits.

**Fruit crops**

* Mangoes
* Apples
* Pumpkins
* Pawpaw
* Pine apples.

**Root crops (Rood tubers)**

* Sweet potatoes
* Cassava
* Carrots

These are crops which store their food in roots

**Vegetables**

* Cabbage
* Spinach
* Lettuce
* Dodo
* Nakati
* Bbuga

**Types of vegetables**

* Leaf vegetables eg cabbages , spinach etc
* Root vegetables eg carrots
* Fruity vegetables egtomatoes , eggs plants etc.

**Groups of crops**

1. Annual crops
2. Perennial crops

**Annual crops:**

These crops grow, produce and die within a year.

**Examples:**

* Beans
* Maize
* Soya beans
* Millet
* Sorghum
* Rice etc

**Perennial crops**

These crops grow, produce and die in more than a year.

Examples:-

* Tea
* Coffee
* Cocoa
* Mango
* Banana
* Cotton

**Garden tools and their uses**

|  |  |
| --- | --- |
| Hoe | * Digging * Planting * Weeding * Harvesting |
| Spade | * Mixing manure * Lifting soil. * For loading and offloading manure |
| Rake | * Leveling soil * Collecting weeds. |
| Wheel barrow | * Carrying soil * Carrying manure * Carrying harvests |
| Slasher | * Cutting grass * Cutting weeds |
| Axe | * Cutting big trees * Chopping wood |
| Panga | * Cutting small branches * Cutting trees. * Harvesting sugar cane |
| Forked hoe | * Digging hard ground * Digging stony ground |
| Watering can | * Watering crops * Watering seedling |
| Trowel | * Transplanting * Carrying seedlings |
| Garden fork | * Mixing manure |
| Pick axe | * Digging in rocky ground. * Digging in stony soils. |
| Secateur | * Pruning crops |
| Pruner | * Pruning crops |
| Hand fork | * Light weeding * Removing seedling from soil. |
| Sprayer | * Spraying crops. |
| Knives | * Harvesting * Pruning * peeling |
| Tape measure | * Spacing crops in the garden. |
| Sickle | * Harvesting cereals |

**Care for garden tools**

* Washing after use and drying them.
* Keep the tools in dry place.
* Painting some of them.
* By oiling them.

**Crop growing practices.**

1. **Land preparation**

It is done during dry season to:-

* + Prevent the weeds from germinating again after digging and ploughing.
  + Avoid the soil from sticking on to the hoe or plough.

**Ways of preparing land**

* Digging
* Ploughing
* Slashing / clearing
* Cutting big trees
* Harrowing
* De – trashing. (Removing tree stumps)

**Garden tool / implements used in preparing land**

* Hoes
* Ox ploughs
* Tractors
* Slashers
* Rakes
* Panga
* Axe

**Importance of preparing land**

1. To soften the soil.
2. Digging and ploughing allows water into the soil.
3. It makes planting easy.
4. Allows air in to the soil.
5. Cutting away big trees opens space for crops to get enough sunlight.
6. To remove weeds
7. **Selecting viable planting materials**
8. Examples of planting materials.
9. Seeds
10. Suckers
11. Stem cuttings
12. Rhizomes
13. bulbs
14. **Qualities of good planting materials**
15. They should be mature
16. They should not be damaged
17. They should be free from pests.
18. They should be free from diseases.
19. They should not be too old.
20. They should be of the same variety.
21. **Importance of selecting planting materials**
22. It prevents wastage of land.
23. It ensures quality plants.
24. It prevents wastage of time.
25. It prevents wastage of labour.

**Seed viability** : is the ability of a seed to germinate

**Planting and sowing**

This is putting of planting materials in the soil to germinate.

NB: Planting is done during wet / rainy season.

**Reasons for planting crops in wet season.**

* There is enough water for seed germination.
* The soil is soft for easy growth of roots.

**Methods of planting**

1. Planting in rows
2. Broadcasting method.

**Row planting**

This is when planting materials are put in the soil in lines.

**Advantages of row planting**

* It makes weeding easy.
* It makes harvesting easy.
* It controls easy spread of pests and diseases.
* It avoids wastage of seeds and other planting materials.
* It allows proper spacing of crops.

**Disadvantages of row planting**

* It needs a lot of labour.
* It is time consuming.
* It requires large piece of land

**Example of plants planted by row planting**

* Maize
* Cassava
* Beans
* Pineapple
* Potatoes.

**Broad casting method**

This is the putting of seeds in the soil while scattering them.

**Advantages of broadcasting methods**

1. It saves time.
2. It does not need a lot of labour.
3. It does not waste nutrients in soil.

**Disadvantages of broadcasting methods**

1. It makes weeding difficult.
2. It makes harvesting difficult.
3. Pests and diseases can easily spread.
4. Competition for nutrients and sunlight

**Nursery bed.**

A nursery bed is a small garden where seedlings are grown before they are transplanted.

**Transplanting**

This is the transfer of seedlings from a nursery bed to the main garden.

NB:

* Trowel is the garden used during transplanting.
* Transplanting is best done in the evening.

**Why transplanting is done in the evening**

* It prevents wilting of the seedlings.
* There is little loss of water from the soil through evaporation.

**Garden tool used for transplanting.**

**Examples of plants grown in a nursery bed.**

1. Tomatoes
2. Onions
3. Coffee
4. Cabbbages
5. Passion fruits.
6. Cucumber
7. Watermelon
8. Pawpaw

**Importance of a nursery bed**

1. It gives a farmer time to prepare the main garden.
2. It protects seedlings from heavy rain drops.
3. It protects seedlings from strong sunshine.
4. It helps farmers to select healthy seedlings.
5. It helps water to sink deeply in to the soil.

**Advantages of early planting**

* Crops make full use of rainfall for the season.
* Cereals mature early therefore get good market.
* Crops grow fast enough and compete with weeds for light nutrients and water before they flow.

**Gap filling**

The planting of seeds or seedlings where they did not germinate in the garden.

Staking

Provision of extra support for plants with weak stems using sticks .

**Caring for crops.**

Ways in which farmers care for their crops in the garden

1. Thinning
2. Watering
3. Weeding
4. Manuring
5. Applying fertilizers.
6. Staking
7. Mulching
8. Providing shade.
9. Pruning

**Weeding**

This is removal of unwanted plants from the garden.

**Examples of weeds**

1. Spear grass.
2. Elephant grass.
3. Black jack
4. Star grass
5. Wandering Jew
6. Guinea grass
7. Thorn apple

**Garden tools for weeding**

1. Hand fork
2. Slasher
3. Hoe

**Dangers of weeds in the garden**

1. They compete for light, water, nutrients and space with crops.
2. They encourage easy spread of pests.
3. They encourage easy spread of diseases.
4. They make harvesting difficult.

**Ways of controlling weeds.**

1. Slashing
2. Spraying / using herbicides.
3. Up rooting
4. Crop rotation
5. Mulching
6. Digging.

**Advantages of weeding a garden**

1. It reduces the competition for light, nutrients, water and space in the garden.
2. It makes harvesting easy.
3. It controls the easy spread of diseases.
4. It prevents the easy spread of crop pests.

**Uses of weeds to people.**

1. Some weeds are used as herbal medicine.
2. Some weeds are used as mulches.
3. Some weeds are used as animal feeds e.g. elephant grass for cattle.

**Manuring**

It is the putting of manure in the soil to make it more fertile.

**Sources of manure**

* Animal dung and urine
* Plant remains
* Green plants.

**Types of manure (natural fertilizers)**

1. Compost manure: It is got from plant materials and animal wastes.
2. Green manure: It is got from ploughed, buried and rotten green materials like legumes.
3. Farm yard manure (F.Y.M): It is got from farm animal wastes, urine and decayed material.

**Mulching**

Mulching is the covering of top soil with dry plant materials.

NB: Mulches are plant materials used for mulching.

**Examples of mulches**

* Elephant grass
* Coffee husks
* Banana leaves
* Chopped stems of bananas.
* Spear grass.

**Advantages of mulching**

* It keeps water (moisture) in the soil.
* It controls soil erosion.
* It makes the soil fertile.
* It controls the rapid growth of weeds.

**Disadvantages of mulching**

* Mulching keeps pests.
* Some mulches can grow into weeds.
* Mulching is a fire hazard
* It is tiresome.

**Pruning**

The cutting of excess leaves or branches from a plant

**Advantages of pruning**

* It reduces the easy spread of crop diseases.
* It reduces competition for sunlight, water, nutrients and air.
* It improves on crop yields.

**Garden tool for pruning**

**Thinning**

It is the removal of excess plants in the garden / nursery bed.

**Advantages of thinning**

* It reduces competition for crop nutrients.
* It reduces the easy spread of pests.
* It reduces the spread of crop diseases.
* It improves on crop yields.
* It reduce on the weight of a plant

**PESTS**

A pest is an animal that destroys crops.

**Examples of crop pests.**

* Army worms
* Birds
* Rats
* Termites
* Maize stalk borer
* Locusts
* Squirrels
* Aphids
* Cotton stainer
* Snails
* Banana weevil
* Maize weevil

**Dangers of crop pests.**

* They weaken plants.
* They lead to low produce.
* They lead to poor growth of crops.
* They destroy crops.

**Ways of controlling crop pests.**

* Spraying pesticides.
* Using scare crows
* By crop rotation.
* Planting pest free materials.
* Regular weeding.
* Up rooting and burning infected crops
* Proper spacing.
* Early planting.
* By trapping
* By fencing
* By poisoning
* Early harvesting

**Crop diseases**

**Some crop diseases.**

|  |  |
| --- | --- |
| **Disease** | **Plant attacked** |
| Cassava mosaic  Leaf rot | Cassava plant |
| Tomato blight | Tomatoes |
| Ground nut Rosette | Groundnuts |
| Leaf spot  Maize streak | Maize |
| Powderly mildew | Mangoes, pawpaws, turnips |
| Smuts | Sugarcane, maize, sorghum |
| Rust | Cereals (millet, maize, barley, wheat) |
| Panama | Banana |

**Ways of controlling crop diseases**

* By crop rotation.
* Spraying chemicals.
* Uprooting and burning of infected crops.
* Planting healthy materials.
* Proper spacing
* Early planting.

**Crop rotation**

It is the growing of different types of crops on the same piece of land seasonally.

**Advantages of crop rotation**

* Keeps the soil fertile.
* Controls soil erosion.
* Controls crop pests.
* Controls crop diseases.

**NB:**

1. Legumes are alternated with non – leguminous plants.

Why: They make soil more fertile since legumes add nutrients to the soil.

1. Shallow rooters are alternated with deep rooters.

Why? This balances the use of nutrients from soil at different levels.

Watering : Is the supply of water to crops

**Uses of water in soil**

* It makes the soil soft for roots to grow easily.
* It is used for seed germination.
* Plants use water to make food.
* It softens the ground for easy weeding.
* Cools the plants during transpiration.

**Harvesting**

This is collecting of ready (mature) crops from the garden.

* It is done during the dry season to dry harvests.

**Some garden tools for harvesting**

|  |  |
| --- | --- |
| **Tool** | **Purpose** |
| Sickle | Harvesting cereal crops |
| Hoe | Harvesting root crops. |
| Panga | Harvesting sugarcane, banana. |

**Methods of harvesting**

1. Hand picking (e.g coffee, oranges etc)
2. Cutting stems (e.g. sugarcane, banana)
3. Up rooting (e.g. groundnuts, cassava)
4. Digging (e.g. potatoes).

**Storing of food**

Keeping of food safely for future use.

**Reasons why farmers store food.**

1. To be eaten in dry season.
2. For planting in next season.
3. To be sold when market prices are better.

**Places where food can be stored**

1. In granaries
2. Silos
3. In refrigerators / freezers

Types of stores

* Traditional stores eg granaries
* Modern stores eg. silos

**Qualities of a good store**

* It should be well ventilated.
* The roof should be leak proof.
* It should have rat guards.
* It should be clean and dry.

**A diagram showing a granary.**

**Rat guard**

**NB:**

1. Rat guard prevents rats from entering the store.
2. Leak proof roof prevents damping and rotting of the seeds.

**Some storage pests**

* Rats
* Maize weevil
* Bean weevil
* A storage beetle.
* Harvest mite

**Food preservation**

Is the preventing food from going bad.

**Methods of preserving food ( modern / local)**

|  |  |
| --- | --- |
| **Method** | **Example of food** |
| Sun drying | Cassava, sweet potatoes, maize, Irish potatoes, Onions, millet, rice, sun flower, wheat, beans, soya beans, peas, mushroom |
| Freezing | Oranges, mangoes, avocados, sweet banana, Irish potatoes, cucumber, cabbage, water melon. |
| Tinning / canning | Beans, Tomatoes |
| Salting | Meat / fish |
| Smoking | Meat + fish |
| Refrigeration | All fruits / vegetation / meat / fish |
| Roasting | Meat / fish |

**Food path**

Food path are different stages in food production.

Type of food path

* Village food path
* Town foodpath
* Earning food path

Village food path: This is the food path where farmers grow crops for home consumption

**Stages of village food path**

* Land preparation (clearing the land)
* Planting
* Caring for crops
* Harvesting

**Town food path** : This is the food path where farmers good or produce food for sale.

**Stages in town food path.**

* Clearing the land
* Planting
* Caring for crops
* Harvesting
* Drying seeds
* Marketing
* Buying and cooking food
* Eating

**Earning food path**

This is the food path where people who work and get salary use it to buy food in markets

**Stages of earning food path**

* Getting salary
* Budgeting
* Buying food

**Blocks of food path**

Blocks of food path are problems faced in food production and may lead to little yield when harvested.

**Examples of blocks of food path**

* Crop pests
* Crops diseases
* Poor farming methods
* Poor health (elnino , drought )
* Earth quake

**TOPICAL QUESTIONS**

1. What do we call plants with root nodules?

2. Mention one example of a root tuber.

3. In the space below draw a garden tool for transplanting.

4. Give one example of a crop grown in a nursery bed.

5. Which season is best for harvesting?

6. Define crop rotation.

7. Apart from broadcasting methods of planting, name the other method.

8. Suggest one use of weed to people.

9. Write F.Y.M in full.

10. Give one disease that attacks tomatoes in the garden.

11. (a) What is harvesting?

(b) Mention two tools for harvesting.

(c) Suggest one method of harvesting.

12. (i) Give the meaning of the word pest!

(ii) Name two storage pests you know.

(iii) State one danger of pests to crops.

13. (a) Write two qualities of good planting materials.

(b) Mention one example of planting materials.

(c) Suggest one importance of early planting.

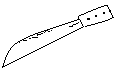
14. (a) Give two ways of preserving food.

(b) Why are rat guards put on the granary.

(c) List one place where food can be stored.

15. (a) Which term is used for covering of top soil with dry plant materials?

(b) Write three examples of mulches.

16. Name the garden tools below:-

 (i) (ii)