**AGRICULTURE SCHEMES OF WORK**

**FORM FOUR 2015**

**TERM I**

**REFERENCES:**

1. Longhorn Secondary Agriculture Book
2. Golden Tips KCSE Agriculture
3. Certificate Agriculture Book
4. KLB Top Mark Agriculture
5. KLB Secondary Agriculture
6. Teacher’s Guide

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| WK | LSN | **TOPIC** | **SUB-TOPIC** | **OBJECTIVES** | **L/ACTIVITIES** | **L/T AIDS** | **REFERENCE** | **REMARKS** |
| **1** | **1** | Livestock production (V) poultry | Parts of an egg | By the end of the lesson, the learner should be able to  Identify the various parts of an egg  Explain the functions of each part of an egg | Identifying the parts of an egg  Explaining the functions of each part of an egg  Note making  Illustrations  Asking and answering questions | Text books  Labeled diagram of internal structure of an egg  Boiled egg | KLB secondary Agriculture form 4 pg 1-3  Longhorn secondary Agriculture form 4 pg 1-2  Teachers guide pg 114-116  Gateway Agriculture revision paper 2 page 39  Golden tips agriculture page 303-304 |  |
|  | **2** | Livestock production (V) poultry | Natural incubation | By the end of the lesson, the learner should be able to  Describe natural incubation  State the advantages and disadvantages of natural incubation | Describing natural incubation  Stating the advantages and disadvantages of natural incubation  Illustration  Note making  Asking and answering questions | Text books  A diagram illustrating natural incubation  An egg  Realic of nesting box | KLB secondary Agriculture form 4 pg 1-3  Longhorn secondary Agriculture form 4 pg 1-2  Teachers guide pg 114-116  Gateway Agriculture revision paper 2 page 39  Golden tips agriculture page 303-304 |  |
|  | **3-4** | Livestock production (V) Poultry | Artificial incubation | By the end of the lesson, the learner should be able to  Outline the conditions necessary for artificial incubation  Describe the management of an incubator  State the advantages and disadvantages of artificial incubation | Outline the conditions necessary for artificial incubation  Description  Stating the advantages and disadvantages of artificial incubation  Illustration  Note making  Asking and answering questions | Text books  Diagrams illustrating the structure of an artificial incubator  Realic of an artificial incubator  An egg | KLB secondary Agriculture form 4 pg 7-9  Longhorn secondary Agriculture form 4 pg 5-6  Teachers guide pg 114-116  Gateway Agriculture revision paper 2 page 411  Golden tips agriculture page 305 |  |
| **2** | **1** | Livestock Production (V) poultry | Natural Brooding | By the end of the lesson, the learner should be able to  Define the term brooding  Describe natural brooding | Defining and describing natural brooding  Note making  Asking and answering questions  illustration | text books  diagram of broody hen  Realia of a broody hen  samples of chicken variety | KLB secondary Agriculture form 4 pg 9  Longhorn secondary Agriculture form 4 pg 7  Teachers guide pg 114-116  Gateway Agriculture revision paper 2 page 41-42  Golden tips agriculture page 305-306 |  |
|  | **2** | Livestock Production (V) Poultry | Artificial Brooding | By the end of the lesson, the learner should be able to  Explain artificial brooding  Identify the requirements in an artificial brooder | Explanation of artificial brooding  Identification of the artificial brooding requirements  Note making  Illustration  Asking and answering questions | Text books  Diagrams of a brooder  Realia of a brooder in a chicken | KLB secondary Agriculture form 4 pg 10-13  Longhorn secondary Agriculture form 4 pg 8-10  Gateway Agriculture revision paper 2 page 42  Golden tips agriculture page 306 |  |
|  | **3 and**  **4** | Livestock Production (V) Poultry | Recring systems  Free range  Fold system | By the end of the lesson, the learner should be able to  Describe free range on fold system  Outline the requirements of free range systems  State the disadvantages and advantages of free range and fold system | Describing free range and fold system  Outline the requirements of free range  Stating the advantages and disadvantages of free range and fold  Asking and answering questions | Text books  Poultry Farm  Sample of chicken feed  Photographs | KLB secondary Agriculture form 4 pg 14-15  Longhorn secondary Agriculture form 4 pg 11-13  Gateway Agriculture revision paper 2 page 43  Golden tips agriculture page 306 |  |
| **3** | **1** | Livestock Production (V) poultry | Rearing systems  Free range fold system | By the end of the lesson, the learner should be able to  Describe free range on fold system  Outline the requirements of free range systems  State the disadvantages and advantages of free range and fold system | Describing free range and fold system  Outline the requirements of free range  Stating the advantage and disadvantages of free range and fold system  Illustration  Asking and answering questions | Text books  Poultry farm  Sample of chicken feed  photographs | KLB secondary Agriculture form 4 pg 16-18  Longhorn secondary Agriculture form 4 pg 12-13  Gateway Agriculture revision paper 2 page 43  Golden tips agriculture page 307 |  |
|  | **2** | Livestock Production (V) Poultry | Rearing systems  Deep litter system  Battery cage system | By the end of the lesson, the learner should be able to  Outline the requirements in deep litter system  State the advantages and disadvantages of the deep litter and battery cage system | Outlining the requirements of deep litter  Stating the advantages and disadvantages of deep litter on battery cage system  Note making  Illustration  Asking and answering questions | Test books  School poultry farm  Sample of chicken feed  photographs | KLB secondary Agriculture form 4 pg 18-21  Longhorn secondary Agriculture form 4 pg 12-13  Gateway Agriculture revision paper 2 page 45 |  |
|  | **3** | Livestock production (V) poultry | Stress in chicken | By the end of the lesson, the learner should be able to  Define the term stress  Identify the causes of stress in chicken  State the control measures of stress in chicken | Identifying the causes of stress in chicken  Stating the control measures of stress in chicken  Illustration  Note making  Asking and answering questions | Text books  Poultry farm  photographs | KLB secondary Agriculture form 4 pg 16-18  Longhorn secondary Agriculture form 4 pg 12-13  Gateway Agriculture revision paper 2 page 45  Golden tips K.C.S.E agriculture page 307 |  |
|  | **4** | Livestock Production (V) poultry | Vices in chicken | By the end of the lesson, the learner should be able to  Identify the kinds of vices in chicken  Identify the causes of such vices in chicken  State the control measures of vices in chicken | Identifying the vices in chicken  Identifying the causes of vices in chicken  State the control measures of vices in chicken | Text books  Poultry farm  Photos illustrating example of such vices | KLB secondary Agriculture form 4 pg 23-24  Longhorn secondary Agriculture form 4 pg 20-21  Gateway Agriculture revision paper 2 page 45  Golden tips K.C.S.E agriculture page 307 |  |
| **4** | **1** | Livestock Production V Poultry | Marketing of poultry products  eggs | By the end of the lesson, the learner should be able to  Describe the marketing of eggs | Describing the marketing of eggs  Note making  Illustration  Asking and answering question | Text books  Eggs  Poultry farm  store | KLB secondary Agriculture form 4 pg 24-25  Longhorn secondary Agriculture form 4 pg 22-23  Gateway Agriculture revision paper 2 page 46  Golden tips K.C.S.E agriculture page 307 |  |
|  | **2** | Livestock production Poultry | Marketing of poultry production  Chicken meat | By the of the lesson, the learner should be able to  Describe the marketing of chicken meat | Describing the marketing of chicken meat  Note making  Illustration  Asking and answering questions | Text books  Poultry farm  photos | KLB secondary Agriculture form 4 pg 23-24  Longhorn secondary Agriculture form 4 pg 20-21  Gateway Agriculture revision paper 2 page 46  Golden tips K.C.S.E agriculture page 307 |  |
|  | **3 and 4** | Livestock production VI (Cattle) | Raising of the young stock | By the end of the lesson, the learner should be able to  Describe the feeding of a new born calf  Describe the preparation of artificial colostrums  State the importance of colostrums | Describing the feeding of a new calf  Describe the preparation of artificial colostrums  State the importance of colostrums  Illustrations  Note making  Asking and answering of questions | Text books  Dairy farm  Calf  Sample of artificial colostrums | KLB secondary Agriculture form 4 pg 23-24  Longhorn secondary Agriculture form 4 pg 20-21  Gateway Agriculture revision paper 2 page 45  Golden tips K.C.S.E agriculture page 307 |  |
| **5** | **1** | Livestock Production VI (Cattle) | Methods of calf rearing | By the end of the lesson, the learner should be able to  Describe the natural and artificial methods of feeding a calf  State the advantages and disadvantages of both natural and artificial rearing | Describing the methods of rearing  Stating the advantages and disadvantages of the methods of rearing  Illustrations  Note making  Asking and answering of questions | Text books  Dairy farm  Calf  Sample of artificial colostrum | KLB secondary Agriculture form 4 pg 29-30  Longhorn secondary Agriculture form 4 pg 26-28  Gateway Agriculture revision paper 2 page 48  Golden tips K.C.S.E agriculture page 308 |  |
|  | **2** | Livestock Production (Cattle | Weaning of calves | By the end of the lesson, the learner should be able to  discuss late weaning and early weaning programmes | Discussing both weaning and late weaning  Illustrating  Note making  Asking and answering questions | Text books  Dairy farm  Calf  Sample of colostrums | KLB secondary Agriculture form 4 pg 30-32  Longhorn secondary Agriculture form 4 pg 30-32  Gateway Agriculture revision paper 2 page 48  Golden tips K.C.S.E agriculture page 308 |  |
|  | **3 and 4** | Livestock production VI (Cattle) | Calf housing | By the end of the lesson, the learner should be able to  Identify the types of calf pens  Outline the requirements of calf pens | Identifying the types of calf pens  Outlining the requirements of calf pens  Illustration  Note making  Asking and answering questions | Text books  Dairy farm  Calf pen  Diagrams and photos of calf pens | KLB secondary Agriculture form 4 pg 32-34  Longhorn secondary Agriculture form 4 pg 30-32  Gateway Agriculture revision paper 2 page 48  Golden tips K.C.S.E agriculture page 308-309  Top mark series Revision Agriculture pg 124 |  |
| **6** | **1** | Livestock production VI (Cattle) | Routine management practices | By the end of the lesson, the learner should be able to  Describe the various routine practices in managing a calf  *© Education Plus Agencies* | Describing the routine management practices  Illustration  Note making  Asking and answering questions | Text books  Dairy farm  Realize on some tools for calf managements | KLB secondary Agriculture form 4 pg 34-36  Longhorn secondary Agriculture form 4 pg 30-32  Gateway Agriculture revision paper 2 page 49  Golden tips K.C.S.E agriculture page 308-309 |  |
|  | **2** | Livestock Production VI (Poultry) | Milk and milking  Factors affecting milk composition  Milk secreting and let down | By the end of the lesson, the learner should be able to  explain the factors that affect milk composition  Illustrate milk secretion and milk let down | Explaining factors that affect milk composition  Illustrate milk secretion and milk let down | Text books  Milk sample  Diagram illustrating the udder  Milking equipment | KLB secondary Agriculture form 4 pg 36-40  Longhorn secondary Agriculture form 4 pg 32-38  Golden tips K.C.S.E agriculture page 309-310  Top mark series Revision Agriculture page 124-126 |  |
|  | **3 and 4** | Livestock production VI (Poultry | Milk and milking  Clear milk production  Dry cow therapy | By the end of the lesson, the learner should be able to  Describe clean milk production  Describe the milking procedure  Explain dry low therapy | Describing clean milk production  Describing the milking procedure  Explaining dry low therapy  Illustration  Note making  Asking and answering question | Text books  Milking equipment  Dairy farm  cow | KLB secondary Agriculture form 4 pg 40-46  Longhorn secondary Agriculture form 4 pg 32-38  Top mark series Agriculture Revision Pg 120 |  |
| **7** | **1** | Livestock production VI (Cattle) | Marketing of milk and beef cattle | By the end of the lesson, the learner should be able to  Discuss the marketing of milk  Discuss the marketing of Beef | Discussing the marketing of milk and beef  Illustration  Note making  Asking and answering questions | Students text book  Milk products  Photographs | KLB secondary Agriculture form 4 pg 47-48  Longhorn secondary Agriculture form 4 pg 38-41  Golden tips K.C.S.E agriculture page 310 |  |

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|  | **2** | Farm power and machinery | Sources of power in the farm  Human power  Animal power | By the end of the lesson, the learner should be able to  Describe animal power  Describe human power  Stating the advantages and disadvantages of animal power | Describing human and animal power  Illustration  Note making  Asking and answering questions  Stating the advantages and disadvantages of animal power | Text books  Photo of farm workers  An agricultural farm | KLB secondary Agriculture form 4 pg 50-51  Longhorn secondary Agriculture form 4 pg 42-45  Gateway Agriculture revision paper 2 page 48  Top Mark Series Agriculture Revision pg 139 |  |
|  | **3 and 4** | Farm power and machinery | Sources of power in the farm  Wing power  Water power | By the end of the lesson, the learner should be able to  Describe wind power  Describe water power | Describing wind and water power  Illustration  Note making  Asking and answering questions | Text books  Diagrams of wind mill | KLB secondary Agriculture form 4 pg 50-51  Longhorn secondary Agriculture form 4 pg 42-45  Gateway Agriculture revision paper 2 page 77  Top Mark Series Agriculture Revision pg 139  Golden tips K.C.S.E agriculture page 308 |  |
| **8** | **1** | Farm power and machinery | Sources of power in the farm  biogas | By the end of the lesson, the learner should be able to  describe biogas wood and charcoal fuel  state the advantages of biogas charcoal and wood fuel | describing biogas wood and fuel  stating the advantages of biogas, charcoal and wood fuel | text books  wood and charcoal  biogas plant  photos  diagram of biogas digester | KLB secondary Agriculture form 4 pg 52-54  Longhorn secondary Agriculture form 4 pg 46-48  Golden tips K.C.S.E agriculture page 234-235 |  |
|  | **2** | Farm power and machinery | Sources if power in the farm  Fossil fuels  Hydro-power  Geothermal power | By the end of the lesson, the learner should be able to  Describe fossils fuels  Describe fossil fuels  Describe hydro-power  Describe geothermal power | Describing fossils fuels and hydro-electric power  Illustrations  Note making  Asking and answering questions | Text books  Photos of a geothermal station | Longhorn secondary Agriculture form 4 pg 46-48  Gateway Agriculture revision paper 2 page 71  Top Mark Series Agriculture Revision pg 139 |  |
|  | **3 and 4** | Farm power and machinery | Sources of power in the  Nuclear power  Storage battery  Electrical power | By the end of the lesson, the learner should be able to  Describe nuclear power  Describe storage battery  Describe solar power/radiation  Describe electrical power | Describing nuclear storage battery and solar power  Illustration  Note making  Asking and answering questions | Text books  Storage battery  Photos of solar panels | KLB secondary Agriculture form 4 pg 54-55  Longhorn secondary Agriculture form 4 pg 51-52  Top Mark Series Agriculture Revision pg 401 |  |
| **9** | **1** | Farm power and machinery | Tractor engine | By the end of the lesson, the learner should be able to  Describe a four stroke cycle engine  Differentiate between a petrol engine and a diesel engine | Describing a four structure engine  Differentiating between dsel and petrol engine  Illustration  Note making  Asking and answering questions | Text books  Models of engines  A tractor  photographs | KLB secondary Agriculture form 4 pg 56-61  Longhorn secondary Agriculture form 4 pg 53-56  Top Mark Series Agriculture Revision pg 140-141  Golden tips K.C.S.E agriculture page 308 |  |
|  | **2** | Farm power and machine | Tractor engine | By the end of the lesson, the learner should be able to  Describe a two stroke cycle engine | Describing a two stroke engine  Illustration  Note making  Asking and answering questions | Text books  Models of engines  A tractor  photographs | KLB secondary Agriculture form 4 pg 61-63  Longhorn secondary Agriculture form 4 pg 57-58  Top Mark Series Agriculture Revision pg 141 |  |
|  | **3 and 4** | Farm power and machinery | Systems of a tractor  Fuel system  Electrical system | By the end of the lesson, the learner should be able to  Describe the fuel system  Describe the electrical system  Describe the maintenance of the fuel and electrical systems | Describing the fuel and electrical systems  Illustrations  Note making  Asking and answering questions  Describing the maintenance of the fuel and electrical systems | Text books  Models of engines  A tractor  photographs | KLB secondary Agriculture form 4 pg 63-69  Longhorn secondary Agriculture form 4 pg 60-62  Top Mark Series Agriculture Revision pg 141-142 |  |
| **10** | **1** | Farm power and machinery | Systems of a tractor  Cooling systems  Lubricating system | By the end of the lesson, the learner should be able to  Describe the coding and its maintenance  Describe the lubricating system and its maintenance | Describing the coolong and lubricating systems and their maintenance  Illustration  Note making  Asking and answering questions | Text books  Models of engines  photographs | KLB secondary Agriculture form 4 pg 69-72  Longhorn secondary Agriculture form 4 pg 63-64  Top Mark Series Agriculture Revision pg 143-144 |  |
|  | **2** | Farm power and machinery | Systems of a tractor  Transmission system | By the end of the lesson, the learner should be able to  Describe the power transmission system | Describing the power transmission system  Note making  Illustration  Asking and answering questions | Text books  Models of engine  photographs | KLB secondary Agriculture form 4 pg 72-76  Longhorn secondary Agriculture form 4 pg 64-65  Top Mark Series Agriculture Revision pg 144 |  |
|  | **3 and 4** | Farm power and machinery | Tractor servicing  Short term services  Long term services | By the end of the lesson, the learner should be able to  Discuss the various practices on tractor maintenance, both short term services and long term services | Discussion the tractor maintenance Practices  Illustrations  Asking and answering questions  Note making | Text books  Models of engines  A tractor  photographs | KLB secondary Agriculture form 4 pg 76-77  Longhorn secondary Agriculture form 4 pg 65-66  Top Mark Series Agriculture Revision pg 144-145 |  |
| **11** | **1** | Farm power and Machinery | Farm implements  Tractor drawn implements  Disc plough  trailer | By the end of the lesson, the learner should be able to  Outline the various methods of attachment  Describe a trailer and its maintenance | Outline the methods of attachment  Describing the trailer and its maintenance  Illustration  Note making  Asking and answering of questions | Text books  Photos illustrating the various implements  Agricultural farm | KLB secondary Agriculture form 4 pg 77-79  Longhorn secondary Agriculture form 4 pg 66-70  Gateway Agriculture revision paper 2 page 81  Top Mark Series Agriculture Revision pg 145 |  |
|  | **2** | Farm Power and Machinery | Tractor drawn implements  Disc plough  Mould board plough | By the end of the lesson, the learner should be able to  Identify the various parts of a disc plough and mould board plough  State the maintenance practices of a disc plough and mould board plough  State the differences between a disc plough and a mould board plough | Identification of the parts of a disc and mould board plough  Stating the maintenance practices of disc and mould board plough  Stating the differences between a disc and mould board plough  Illustration  Note making  Asking and answering questions | Text books  Photos illustrating a disc and mould board plough  An agricultural farm | KLB secondary Agriculture form 4 pg 79-82  Longhorn secondary Agriculture form 4 pg 73-77  Gateway Agriculture revision paper 2 page 81-82  Top Mark Series Agriculture Revision pg 145-148 |  |
|  | **3&4** | Farm power and machinery | Tractor drawn implements  Harrows  Disc harrows  Spring time harrows  Spike tooth harrow  Sub soilers | By the end of the lesson, the learner should be able to  Describe the various types of harrows and sub-soilers  State the maintenance practices of the various types of harrows and sub-soilers | Description of the various types of harrows and sub-soilers  Stating the maintenance of practices of the harrows and sub-soilers  Illustration  Asking and answering questions  Note making | Text books  Photos illustrating the harrows and sub-soiler  An agricultural farm | KLB secondary Agriculture form 4 pg 82-84  Longhorn secondary Agriculture form 4 pg 73-77  Gateway Agriculture revision paper 2 page 82  Top Mark Series Agriculture Revision pg 147-148 |  |
| **12** | **1** | Farm power and machinery | Tractor drawn  Implements  Ridges  rotary tillers | By the end of the lesson, the learner should be able to  Describe the ridges and rotary tillers  State the maintenance practices of the ridges and rotary tillers | Description of the ridgers and rotary tillers  Stating the maintenance practices of the ridges and rotary tiller  Illustrations  Not making  Asking and answering questions | Text books  Photos illustrating the ridges and rotary tillers  An agricultural farm | KLB secondary Agriculture form 4 pg 85  Longhorn secondary Agriculture form 4 pg 77-79  Gateway Agriculture revision paper 2 page 82  Top Mark Series Agriculture Revision pg 148-149 |  |
|  | **2** | Farm power and machinery | Tractor drawn Implements  Mowers  Planters and seeders | By the end of the lesson, the learner should be able to  Describe the various types of mowers and the planters and seeders  State the maintenance practices of the various types of mowers and the planters and seeder | Description of the various types of mowers and planters and seeders  Stating the maintenance of practices of mowers and planters and seeders  Illustration  Note making  Asking and answering questions | Text books  Photos  Illustrating the mowers and planters and seeders  An agricultural farm | KLB secondary Agriculture form 4 pg 85-88  Longhorn secondary Agriculture form 4 pg 79-81  Gateway Agriculture revision paper 2 page 83  Top Mark Series Agriculture Revision pg 149-151 |  |
|  | **3 and 4** | Farm power and machinery | Tractor drawn implements  Cultivators and seeders  Sprayers  Harvesting machines | By the end of the lesson, the learner should be able to  Describe the cultivators/seeders, sprayers and various types of harvesting machine  State the maintenance practices of the cultivators/seeders, sprayers and harvesting machines | Describing the cultivators/seeders, sprayers and harvesting machines  Stating the maintenance practices of the cultivators seeders, sprayers and harvesting machines  Illustrations  Note making  Asking and answering questions | Text books  Photos illustrating the  Cultivators/seeder  Sprayers  Harvesting machines  An agricultural farm | KLB secondary Agriculture form 4 pg 88-90  Longhorn secondary Agriculture form 4 pg 81-82  Gateway Agriculture revision paper 2 page 84  Top Mark Series Agriculture Revision pg 149-151 |  |
| **13** | **1** | Farm power and machinery | Animal drawn implements  Ox-drawn plough  Ox-line harrow  Ox-carts  Ox-ridger | By the end of the lesson, the learner should be able to  Describe the ox-drawn plough, ox-time harrow, ox-carts and ox-ridger  State the maintenance practices of animal drawn implements  Identify the parts of an ox-drawn plough | Describing the animal drawn implements  Stating the maintenance of the animal drawn implements  Identifying the parts of an ox-drawn plough  Illustration  Note making  Asking and answering questions | Text books  Photos illustrating the animal drawn implements  An agricultural farm | KLB secondary Agriculture form 4 pg 91-95  Longhorn secondary Agriculture form 4 pg 82-85  Gateway Agriculture revision paper 2 page 84-85  Top Mark Series Agriculture Revision pg 152-154 |  |
|  | **2** | Agricultural economics (III) production economics | -nation income  GDP  GNP  Per capital income | By the end of the lesson, the learner should be able to  Explain how household firms and central authority contributes to the national income  Explain the terms GDP, GNP and per capital income | Explaining how household firms and central authorities contribute to national income  Explaining - GDP, GNP, Per capital income  Illustrations  Note making  Questioning and answering | Text books  Chart containing formulae  Newspapers  Statistical abstractor | KLB secondary Agriculture form 4 pg 96-98  Longhorn secondary Agriculture form 4 pg 87-90  Gateway Agriculture revision paper 2 page 101-102  Top Mark Series Agriculture Revision pg 161 |  |
|  | **3 and 4** | Agricultural Economics (III) productions economics | Factors of production  Land  labour | By the end of the lesson, the learner should be able to  discuss land and labour and factors of production  to explain how land and labour affect production | Discussing land and labour as factors of production  Explanation of how land and labour affect production  Illustrations  Note making  Questioning and answering | Text books  Newspapers  Statistical abstracts | KLB secondary Agriculture form 4 pg 99-102  Longhorn secondary Agriculture form 4 pg 92-94  Gateway Agriculture revision paper 2 page 102  Top Mark Series Agriculture Revision pg 161-162 |  |
| **14** |  | **END OF TERM EXAMINATIONS** | | | | | |  |
| **15** |  | **PREPARATION OF REPORTS AND CLOSING** | | | | | |  |

**AGRICULTURE SCHEMES OF WORK**

**FORM FOUR 2015**

**TERM II**

**REFERENCES:**

1. Longhorn Secondary Agriculture Book
2. Golden Tips KCSE Agriculture
3. Certificate Agriculture Book
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| WK | LSN | **TOPIC** | **SUB-TOPIC** | **OBJECTIVES** | **L/ACTIVITIES** | **L/T AIDS** | **REFERENCE** | **REMARKS** |
| **1** | **1** | Agricultural Economics (III) production economics | Factors of production  Capital  The management | By the end of the lesson, the learner should be able to  Discuss capital and management as factors of production  Explain how capital and management affect production | Discussion of capital and management factors of production  Explanation of how capital and management affect production  Illustrations  Note making  Questioning and answering | Text books  News papers  Statistical abstracts | KLB secondary Agriculture form 4 pg 102-104  Longhorn secondary Agriculture form 4 pg 94-96  Gateway Agriculture revision paper 2 page 103  Top Mark Series Agriculture Revision pg 162 |  |
|  | **2** | Agricultural economics (III) production economics | The production function | By the end of the lesson, the learner should be able to  Define production function  Identify the types of production function  Describe the types of production function | Defining production function  Identifying the types of production functions  Describing the types of production functions  Illustrating  Asking and answering of questions | Text books  Graphs of various production functions  Tables of various production functions | KLB secondary Agriculture form 4 pg 104-111  Longhorn secondary Agriculture form 4 pg 96-99  Gateway Agriculture revision paper 2 page 103  Top Mark Series Agriculture Revision pg 162-163 |  |
|  | **3 and 4** | Agricultural Economics (II) production economics | Economic laws and principles  Law of diminishing rations | By the end of the lesson, the learner should be able to  State the law of diminishing returns  Explain how it affects agricultural production | Stating the law of diminishing return  Explanation of how the law affects agricultural production  Illustration  Questioning and answering | Text books  Graphs on the three zone of a production of a function  Tables on production under this law | KLB secondary Agriculture form 4 pg 111-115  Longhorn secondary Agriculture form 4 pg 100-102  Gateway Agriculture revision paper 2 page 103  Top Mark Series Agriculture Revision pg 163 |  |

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| **2** | **1** | Agricultural economics (II) production economics | Economic law and principles  Law of substitution | By the end of the lesson, the learner should be able to  State the law of substitution  Explain how law of substitution affects Agricultural productions | Stating the law of substitution  Explanation of how the law affects agricultural production  Illustration  Asking and answering questions | Text books  Charts  Statistical abstracts | KLB secondary Agriculture form 4 pg 115-117  Longhorn secondary Agriculture form 4 pg 102-103  Gateway Agriculture revision paper 2 page 103  Top Mark Series Agriculture Revision pg 163 |  |
|  | **2** | Agricultural economics (III) production economics | Economic law and principles  Law of equimarginal returns | By the end of the lesson, the learner should be able to  State the law of equimarignal returns  Explain how the law of equimarginal returns affects production | Stating the law of equimarginal returns  Explaining how the law affects production  Illustration  Questioning and answering | Text books  Charts  Statistical abstracts | KLB secondary Agriculture form 4 pg 117  Longhorn secondary Agriculture form 4 pg 104-105  Gateway Agriculture revision paper 2 page 104  Top Mark Series Agriculture Revision pg 164 |  |
|  | **3 and 4** | Agricultural Economics (III) production economics | Principle of profit maximization | By the end of the lesson, the learner should be able to  State the principle of profit maximization  Describe various types of costs  Explain the concept of revenue | Stating the principle of profit maximization  Describe the various types of costs  Explanation of the concept of revenue  Illustration  Questioning and answering | Text books  Tables on revenues  Charts on revenue  Statistical abstracts | KLB secondary Agriculture form 4 pg 117-121  Longhorn secondary Agriculture form 4 pg 105  Gateway Agriculture revision paper 2 page 104  Top Mark Series Agriculture Revision pg 164-165 |  |
| **3** | **1** | Agricultural economics (II) Production economics | Farm planning | By the end of the lesson, the learner should be able to  Explain the factors to consider in drawing a farm planning  Outline steps in making a farm plan | Explaining the factor to consider when drawing a farm plan  Outlining the steps in making a farm plan  Illustration  Questioning and answering | Text books  Charts  Statistical abstracts | KLB secondary Agriculture form 4 pg 121-123  Longhorn secondary Agriculture form 4 pg 108-109  Gateway Agriculture revision paper 2 page 104  Top Mark Series Agriculture Revision pg 165 |  |
|  | **2** | Agricultural Economics (III) production economics | Farm budgeting | By the end of the lesson, the learner should be able to  Define farm budgeting  State the importance of farm budgeting | Definition of farm budgeting  Stating the importance of farm budgeting  Illustration  Note making  Questioning and answering | Text books  Farm records  Ag agricultural farm | KLB secondary Agriculture form 4 pg 123-127  Longhorn secondary Agriculture form 4 pg 110-112  Gateway Agriculture revision paper 2 page 104  Top Mark Series Agriculture Revision pg 165 |  |
|  | **3 and 4** | Agricultural economics (III) production economics | Farm budgeting | By the end of the lesson, the learner should be able to  Describe the types of budgeting in agriculture | Description of the types of budgeting  Illustration  Note making  Question and answering | Text books  Farm records  An agricultural farm | KLB secondary Agriculture form 4 pg 123-127  Longhorn secondary Agriculture form 4 pg 110-112  Gateway Agriculture revision paper 2 page 104 |  |
| **4** | **1** | Agricultural Economics (III) Production economics | Agricultural support services available to the farmer  Extension and training  Banking  Credit services  Agricultural Research  marketing | By the end of the lesson, the learner should be able to  explain the agricultural support services available to the farmers  extension and training  banking  credit  AI services  Agricultural research  marketing | Explanation of the Agricultural support services available to the farmer  Illustrations  Note making  Questioning and answering | Text books  Farm record  An agricultural farm | KLB secondary Agriculture form 4 pg 112-132  Longhorn secondary Agriculture form 4 pg 112-114  Gateway Agriculture revision paper 2 page 105-106  Top Mark Series Agriculture Revision pg 165-166 |  |
|  | **2** | Agricultural Economics (III) production economics | Agricultural support services available to the farmers  Veterinary services  Farm input supplies  Tractor hive services | By the end of the lesson, the learner should be able to  Explain the Agricultural support services available to a farmer  Veterinary services  Farm input supplies  Tractor hive services | Explanation of the Agricultural support services available to a farmer  Illustration  Note making  Asking and answering questions | Text books  Farm records  An agricultural farm | KLB secondary Agriculture form 4 pg 133-134  Longhorn secondary Agriculture form 4 pg 110-112  Gateway Agriculture revision paper 2 page 104  Top Mark Series Agriculture Revision pg 166-167 |  |
|  | **3 and 4** | Agricultural economics (IV) farm accounts | Risks and uncertainties in farming | By the end of the lesson, the learner should be able to  Identify the types of risks on uncertainties of a farmer may face  Outline the ways in which a farmer may adjust to uncertainty | Identification of the types of risk and uncertainties  Outlining the ways in which a farmer may adjust to the uncertainties  Illustration  Note making  Questioning and answering | charts  Text books  Financial documents  An agricultural farm | KLB secondary Agriculture form 4 pg 134-136  Longhorn secondary Agriculture form 4 pg 116-119  Gateway Agriculture revision paper 2 page 106  Top Mark Series Agriculture Revision pg 166-167 |  |
| **5** | **1** | Agricultural economics (IV) farm accounts | Importance of keeping farm accounts  Type of farm accounts | By the end of the lesson, the learner should be able to  State the importance of keeping farm accounts  Identify the types of farm accounts | Stating the importance of keeping farm records  Identification of the types of farm accounts  Illustration  A sample of financial documents  charts | charts  Text books  Financial documents  An agricultural farm | KLB secondary Agriculture form 4 pg 139  Longhorn secondary Agriculture form 4 pg 121  Gateway Agriculture revision paper 2 page 108  Top Mark Series Agriculture Revision pg 168 |  |
|  | **2** | Agricultural economics (IV) farm accounts | Financial statements  Invoice  Statement of accounts | By the end of the lesson, the learner should be able to  Describe an invoice and a statement of account  Distinguish between invoice and a statement of account | Distinguishing an invoice and a statement of account  Describing an invoice and a statement of accounts  Note making  Questioning and answering | Text books  An invoice  An agricultural firm  A chart | KLB secondary Agriculture form 4 pg 140-141  Longhorn secondary Agriculture form 4 pg 122-124  Gateway Agriculture revision paper 2 page 108  Top Mark Series Agriculture Revision pg 168 |  |
|  | **3 and 4** | Agricultural economics (IV) farm accounts | Receipts  Delivery note  Purchase order | By the end of the lesson, the learner should be able to  Describe a receipt, delivery note and purchase order  Distinguish between, receipts, delivery note and a purchase order | Description of a receipt delivery note and a purchase order  Distinguish the three documents  Illustrations  Note making  Questioning and answering | Text books  A receipt  A railway note  A purchase order  An agricultural farm | KLB secondary Agriculture form 4 pg 141-145  Longhorn secondary Agriculture form 4 pg 124-125  Gateway Agriculture revision paper 2 page 108  Top Mark Series Agriculture Revision pg 168-169 |  |
| **6** | **1** | Agricultural Economics (iV) Farm accounts | Books of accounts  Cash book  inventory | By the end of the lesson, the learner should be able to  identify the cash book and the inventory  state the uses of cash book and the inventory | identification of the cash book and the inventory  stating the uses of the cash book and the inventory  note making  illustration  questioning and answering | Text books  A cash account  An inventory  Charts | KLB secondary Agriculture form 4 pg 146-150  Longhorn secondary Agriculture form 4 pg 125-127  Gateway Agriculture revision paper 2 page 109  Top Mark Series Agriculture Revision pg 169 |  |
|  | **2** | Agricultural Economics (IV) farm accounts | Books of Accounts  Journal  ledger | By the end of the lesson, the learner should be able to  describe the journal and ledger  state the uses of a journal and ledger | description of the ledger and journal  stating the uses of the ledger and journal  illustration  questioning and answering | Text books  A ledger account page  A journal  Charts | KLB secondary Agriculture form 4 pg 150-153  Longhorn secondary Agriculture form 4 pg 127-129  Gateway Agriculture revision paper 2 page 109  Top Mark Series Agriculture Revision pg 169 |  |
|  | **3** | Agricultural Economics (IV) farm accounts | Financial statements  Balance sheet | By the end of the lesson, the learner should be able to  Analyses and prepare a balance sheet | Analyzing and preparing a balance sheet  Illustration  Questioning and answering  Note taking  Explanation | Text books  Charts  Format of balance sheet  A balance sheet | KLB secondary Agriculture form 4 pg 154-157  Longhorn secondary Agriculture form 4 pg 124-125  Gateway Agriculture revision paper 2 page 109-111  Top Mark Series Agriculture Revision pg 169 |  |
| **7** | **1** | Agricultural economics (IV) farm accounts | Financial statements  Profit and loss account | By the end of the lesson, the learner should be able to  Analyse and prepare a profit and loss account | Analyzing and preparing profit and loss account  Note making  Explanation  Illustration  Questioning and answering | Text books  Charts  A format of profit and loss account  A profit and loss account | KLB secondary Agriculture form 4 pg 157-159  Longhorn secondary Agriculture form 4 pg 132-133  Gateway Agriculture revision paper 2 page 109-111  Top Mark Series Agriculture Revision pg 169 |  |
|  | **2** | Agricultural economics (IV) farm accounts | Financial statements  Cash analysis | By the end of the lesson, the learner should be able to  Analyses and prepare a cash analysis | Analyzing and preparing cash analysis  Explanation  Illustration  Note making  Questioning and answering | Text books  Charts  A cash analysis | KLB secondary Agriculture form 4 pg 159-162  Longhorn secondary Agriculture form 4 pg 133-135  Gateway Agriculture revision paper 2 page 111  Top Mark Series Agriculture Revision pg 169 |  |
| **8** | **1** | Agricultural Economics (V)  Agricultural marketing and organization | Market and marketing | By the end of the lesson, the learner should be able to  Define marketing and market  Identify the types of markets  Describe the various types of markets available | Definition of market and marketing  Identification of the types of markets  Description of the various types  Note taking  Asking and answering questions  Illustrations | Text books  Charts  Local markets | KLB secondary Agriculture form 4 pg 137-138  Longhorn secondary Agriculture form 4 pg 164-166  Gateway Agriculture revision paper 2 page 109-111  Top Mark Series Agriculture Revision pg 173 |  |
|  | **2** | Agricultural Economics (V)  Agricultural marketing and organization | Demand, supply and price theory  demand | By the end of the lesson, the learner should be able to  Define demand  State the law of demand  Explain the factors influencing demand for a commodity | Define demand  Stating the law of demand  Explaining the factors influencing demand  Note taking  Asking and answering questions  illustration | Text books  Charts  A local market  Tables  Graphs | KLB secondary Agriculture form 4 pg 166-169  Longhorn secondary Agriculture form 4 pg 139-141  Gateway Agriculture revision paper 2 page 114  Top Mark Series Agriculture Revision pg 174 |  |
|  | **3 and 4** | Agricultural Economics (V)  Agricultural marketing and organization | Elasticity of Demand (ED) | By the end of the lesson, the learner should be able to  Describe elasticity of demand  Explain the factors influencing elasticity of demand | Description of elasticity  Explanation of the factors that influencing elasticity of demand  Illustration  Note making  Questioning and answering | Text book  Local market  Tables  Graphs | KLB secondary Agriculture form 4 pg 170-174  Longhorn secondary Agriculture form 4 pg 140-144  Gateway Agriculture revision paper 2 page 114  Top Mark Series Agriculture Revision pg 174 |  |
| **9** | **1** | Agricultural Economics (V)  Agricultural marketing and organization | Supply | By the end of the lesson, the learner should be able to  Define supply  State the law of supply  Explain the factors influencing supply of a commodity | Definition of supply  Explanation  Stating the law of supply  Illustration  Note making  Questioning and answering | Text book  A local market  Charts  Tables  Graphs | KLB secondary Agriculture form 4 pg 174-177  Longhorn secondary Agriculture form 4 pg 144-145  Gateway Agriculture revision paper 2 page 115  Top Mark Series Agriculture Revision pg 174-175 |  |
|  | **2** | Agricultural Economics (V)  Agricultural marketing and organization | Elasticity of Supply (ES) | By the end of the lesson, the learner should be able to  Describe elasticity of supply | Description of elasticity of supply  Explanation  Illustration  Note making  Asking and answering questions | Text books  A local market  Tables  Graph charts | KLB secondary Agriculture form 4 pg 177-178  Longhorn secondary Agriculture form 4 pg 145-149  Gateway Agriculture revision paper 2 page 115  Top Mark Series Agriculture Revision pg 17 |  |
|  | **3 and 4** | Agricultural economics (V)  Agricultural marketing and organization | Price Theory | By the end of the lesson, the learner should be able to  Define the term price  Discuss the determination of market prices | Definition of the term price  Discussion of the market price determination  Illustrations  Note taking  Questioning and answering | Text books  A local market  Tables  graphs | KLB secondary Agriculture form 4 pg 178-179  Longhorn secondary Agriculture form 4 pg 149-150  Gateway Agriculture revision paper 2 page 115  Top Mark Series Agriculture Revision pg 175 |  |
| **10** | **1** | Agricultural Economics (V)  Agricultural marketing and organization | Price control | By the end of the lesson, the learner should be able to  Describe price control  Illustrate the price control graphically | Description of price control  Illustration of price control graphically  Note taking  Asking and answering questions | Text books  A local market  Tales  Graphs  charts | KLB secondary Agriculture form 4 pg 178-179  Longhorn secondary Agriculture form 4 pg 149-150  Gateway Agriculture revision paper 2 page 115  Top Mark Series Agriculture Revision pg 175 |  |
|  | **2** | Agricultural Economics (V)  Agricultural marketing and organization | Marketing  Marketing functions | By the end of the lesson, the learner should be able to  Define the term marketing  Identify the meaning of the term marketing functions  Discuss the various marketing functions | Discussion  Defining marketing  Explanations  Illustration  Note making  Questioning and answering | Text books  Charts  A local market | KLB secondary Agriculture form 4 pg 186-189  Longhorn secondary Agriculture form 4 pg 153-156  Gateway Agriculture revision paper 2 page 116  Top Mark Series Agriculture Revision pg 176 |  |
| **11** | **1** | Agricultural Economics (V)  Agricultural marketing and organization | Agricultural organizations | By the end of the lesson, the learner should be able to  Describe agricultural organizations  List the various agricultural organizations  List the functions of the various organizations | Description  Listing the agricultural organization  Listing functions of the organization  Illustration  Note taking  Asking and answering questions | Text books  Charts  A local market | KLB secondary Agriculture form 4 pg 189-192  Longhorn secondary Agriculture form 4 pg 157-159  Gateway Agriculture revision paper 2 page 92-94  Top Mark Series Agriculture Revision pg 176 |  |

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|  | **2** | Agricultural Economics (V)  Agricultural marketing and organization | Co-operative societies | By the end of the lesson, the learner should be able to  Define a co-operative  Describe the formation of a co-operative  Outline the principles of co-operatives  Give the types of co-operative societies  State the functions of farmers co-operative societies | Defining a co-operative  Description  Outlining principles of a co-operative  Giving types of co-operatives  Stating the functions of a co-operative | Text books  Local market  Wall charts | KLB secondary Agriculture form 4 pg 192-195  Longhorn secondary Agriculture form 4 pg 159-162  Gateway Agriculture revision paper 2 page 117  Top Mark Series Agriculture Revision pg 176-177 |  |
|  | **3 and 4** | Agricultural Economics (V)  Agricultural marketing and organization | Association and unions | By the end of the lesson, the learner should be able to  List the various agricultural union  State the roles of agricultural unions | Listing the various unions  Stating their roles  Illustrations  Asking and answering questions | Text books  Farmers  Magazines  Wall charts | KLB secondary Agriculture form 4 pg 192-195  Longhorn secondary Agriculture form 4 pg 159-162  Gateway Agriculture revision paper 2 page 117  Top Mark Series Agriculture Revision pg 177 |  |
| **12** | **1** | Agroforestry | Forms of Agro foresty  Importance of agroforestry | By the end of the lesson,, the learner should be able to  Define agroforestry  Describe the various forms of agroforestry  State the importance of agroforestry | Definition of agroforestry  Description  Stating the importance of agroforestry  Illustration  Note taking  Questioning and answering | Text books  Specimen of fees and shrubs  Charts  Photos  Agroforestry farm | KLB secondary Agriculture form 4 pg 200-203  Longhorn secondary Agriculture form 4 pg 166-168  Gateway Agriculture revision paper 2 page 139  Top Mark Series Agriculture Revision pg 22 |  |
|  | **2** | Agroforestry | Tree nursery | By the end of the lesson, the learner should be able to  List various types of tree nurseries  Describe the various types of tree nurseries | Listing the types of nurseries  Description  Note making  Illustration  Asking and answering questions | Text books  Nursery books  Nursery beds  Agroforestry farm  Charts  photos | KLB secondary Agriculture form 4 pg 203  Longhorn secondary Agriculture form 4 pg 168-170  Gateway Agriculture revision paper 2 page 100-101  Top Mark Series Agriculture Revision pg 23 |  |
|  | **3 and 4** | Agroforestry | Nursery establishment and management | By the end of the lesson, the learner should be able to  Discuss the establishment of tree nurseries  Describe the management of tree nurseries | Discussion  Description  Illustration  Note taking  Asking and answering questions  explanation | text books  garden tools  tree seedlings  charts  watering cans  nursery beds | KLB secondary Agriculture form 4 pg 203  Longhorn secondary Agriculture form 4 pg 168-170  Gateway Agriculture revision paper 2 page 100-101  Top Mark Series Agriculture Revision pg 23 |  |
| **13** |  | **MID YEAR EXAMS** | | | | | |  |
| **14** |  | **PREPARATION OF REPORTS AND CLOSING** | | | | | |  |

**AGRICULTURE SCHEMES OF WORK**

**FORM FOUR 2015**

**TERM III**

**REFERENCES:**

1. Longhorn Secondary Agriculture Book
2. Golden Tips KCSE Agriculture
3. Certificate Agriculture Book
4. KLB Top Mark Agriculture
5. KLB Secondary Agriculture
6. Teacher’s Guide

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| WK | LSN | **TOPIC** | **SUB-TOPIC** | **OBJECTIVES** | **L/ACTIVITIES** | **L/T AIDS** | **REFERENCE** | **REMARKS** |
| **1** | **1** | Agroforestry | Care and management of trees  Agroforestry practices | By the end of the lesson, the learner should be able to  Discuss the various care and management of trees  Discuss the various agroforestry practices | Discussion  Explanation  Illustration  Asking and answering questions  Note making | Text books  Nursery beds  Watering cans  Garden tools  Tree seedlings  charts | KLB secondary Agriculture form 4 pg 208-212  Longhorn secondary Agriculture form 4 pg 174-175  Gateway Agriculture revision paper 2 page 143  Top Mark Series Agriculture Revision pg 25-26 |  |
|  | **2** | Agroforestry | Sites for agroforestry trees  Tree harvesting methods | By the end of the lesson, the learner should be able to  Describe the sites for agroforestry trees  Discuss the various tree harvesting methods | Description  Discussion  Note making  Illustration  Question and answers methods | Text books  Nursery beds  Watery cans  Garden tools  Tree seedlings  Charts | KLB secondary Agriculture form 4 pg 212-217  Longhorn secondary Agriculture form 4 pg 176-179  Gateway Agriculture revision paper 2 page 144  Top Mark Series Agriculture Revision pg 26-27 |  |
| **2 & 3** |  | **TOPICAL EXAMS** | | | | | |  |
| **4&5** |  | **POST MOCK EXAMS** | | | | | |  |
| **6&7** |  | **REVISION AND PREPARATION FOR KCSE EXAMS** | | | | | |  |
| **8** |  | **KCSE EXAMS** | | | | | |  |