ZIMBABWE

MInISTRY OF PRIMARY AnD SECOnDARY EDUCATIOn

AGRICULTURE SYLLABUS

FORM 1 - 4

2015-2022

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Revised 2015

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Development

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- Chibero College of Agriculture

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AGRICULTURE SYLLABUS

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Agriculture is an applied science learning area that involves theory and practical activities in soil, water, plant and animal management, farm tools and machinery as well as agri-business. This four-year learning phase (Forms 1 - 4) will provide learners with opportunities to identify, investigate and solve problems, carry out agricultural activities and assess their viability in a sustainable manner. The learners will be assessed through continuous and summative assessments.

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Zimbabwe's economy is agro-based. The nation embarked on an agrarian land reform and therefore it is imperative that learners, in their diversity, acquire necessary agricultural knowledge, skills and positive attitudes from grassroots level. This would enable all learners to be proactive, productive and to add value to the community and national economy. Learners should value the dignity of labour and harness available opportunities for enterprise development. Learners are expected to exhibit skills in:

- Problem solving
- Critical thinking
- Decision making
- Conflict management
- Leadership
- Self-management
- Communication
- Information and Communication Technology (ICT)and innovation
- Enterprise development

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The Form 1 – 4 Agriculture syllabus will cover theory and practical activities in areas of soil, water, plant and animal management, farm tools and machinery and agri-business. This four-year learning phase seeks to develop skills in sustainable soil, water, plant and animal management, farm tools and machinery as well as production of agricultural commodities. The syllabus will help all learners to acquire marketing and value addition skills.

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Learner centred and hands on approaches should be used in the development of concepts and skills. These approaches should be inclusive and should encourage curiosity and promote practical-oriented learning. Learners should apply their experiences, knowledge, skills and attitudes independently. Linkage between theory and practice should be implemented in the teaching and learning of agriculture.

The following are suggested methods of teaching and learning of Agriculture:

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- Demonstrations
- Experimentation
- Problem-solving
- Discovery method
- Collections
- Project-based learning
- Research
- Educational tours
- E-learning
- Debate
- Design-based learning
- Dramatization/role-play
- Case studies

- Gallery walk
- Re

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By the end of this learning phase learners should be able to:

4.1 relate the socio-economic importance of agriculture to the country

4.2 select suitable techniques, equipment and materials for safe and correct use

4.3 relate the environment and climatic conditions to agricultural activities

4.4 plan, implement and manage an agricultural enterprise

4.5 design and carry-out experimental or investigative activities using appropriate techniques

4.6 present and interpret information in the form of graphs, diagrams and tables

4.7 solve agricultural problems theoretically and practically

4.8 carry out relevant estimations, measurements and calculations

4.9 design agricultural equipment and structures using local materials

4.10 select appropriate techniques to add value to agricultural produce

4.11 demonstrate the ability to conserve natural resources sustainably

4.12 apply scientific principles and indigenous knowledge systems to improve nutritional value and food security

4.13 practice conservation techniques to protect the environment

4.14 select an agricultural career using the knowledge and skills acquired

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Eight periods of 35 minutes per week should be allocated for adequate coverage of the syllabus. Two double periods for theory and a block of four periods for practicals should be allocated. Learners should be engaged in at least one educational tour and one seminar per year.

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5.1 General Agriculture
5.2 Soil and water
5.3 Crop husbandry
5.4 Animal husbandry
5.5 Farm structures and machinery
5.6 Agri-business

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	• Forms of land use • Land tenure • Historical background to land tenure	• Population growth and land use • Farming systems	• Physical farm planning • Crop rotation	----------
	• Environmental factors	• Modification of adverse environmental factors	• Rainfall: distribution , effectiveness , reliability and intensity	• Natural disasters • Disaster and risk management strategies
	• Natural farming regions of Zimbabwe	----------	----------	----------
	• Forests	• Soft and hard wood • Tree nursery • Tree planting and management	• Timber harvesting and marketing • Deforestation	• Agro -forestry
	• Value of wildlife • Wildlife resources • Fauna and Flora • Classification of wildlife	• Sustainable utilisation of wildlife resources • Specially protected plants and animals • Dangerous animals and problem animals	• Indigenous knowledge systems in management of natural resources	• Human and wildlife conflicts

	• Weathering	----------	• Weathering	----------
	• Soil texture and soil structure	• Soil profile	• Improvement and maintenance of soil structure • Destruction of soil structure	----------
	----------	• Composition and properties of each soil type	• Improvement of physical characteristics of soils	----------
	----------	----------	• Importance of soil components • Movement of water • Field capacity • Soil macro and micro organisms • Importance of living organisms	----------
	----------	----------	• Influence of soil temperature on plant growth and soil organisms • Modification of soil temperature	----------
	• Plant nutrients	• Organic and inorganic fertilisers	• Fertiliser application • Soil pH and liming	• Nitrogen cycle

			• Soil sampling	
	• Soil erosion	----------	• Conservation methods and structures	----------
	• Causes of water loss	----------	• Drainage and water logging • Leaching	----------
	• Water conservation • Methods of water conservation	----------	• Rain water harvesting and storage	• Water pollution • Water legislation
	----------	• Importance of irrigation • Sources of water for irrigation	• Methods and types of irrigation • Choice of an irrigation system	• Irrigation equipment

	• Weathering • Soil texture and soil structure	---------- • Soil profile	• Weathering • Improvement and maintenance of soil structure • Destruction of soil structure	---------- ----------
	----------	• Composition and properties of each soil type	• Improvement of physical characteristics of soils	----------
	----------	----------	• Importance of soil components • Movement of water • Field capacity • Soil macro and micro organisms • Importance of living organisms	----------
	----------	----------	• Influence of soil temperature on plant growth and soil organisms • Modification of soil temperature	----------
	• Plant nutrients	• Organic and inorganic fertilisers	• Fertiliser application • Soil pH and liming	• Nitrogen cycle

TOPIC	FORM 1	FORM 2	FORM 3	FORM 4
TYPES OF LIVESTOCK	• Types of livestock	• Ruminants and non-ruminants	----------	----------
ANATOMY AND PHYSIOLOGY	----------	• Reproduction in poultry	• Digestive system of a ruminant and non-ruminant	• Reproductive system of a ruminant
ANIMAL NUTRITION	----------	• Livestock nutrients	• Types of feeds	• Maintenance and production rations •
SMALL LIVESTOCK PRODUCTION	• Broiler production	• Broiler management • Slaughtering, processing and marketing	• Rearing of rabbits/layers/indigenous chickens	• Slaughtering, processing and marketing
NON-RUMINANTS	----------	----------	• Rearing of non-ruminants	----------
RUMINANTS	----------	----------	----------	• Management of cattle or sheep or goats
ANIMAL HEALTH	• Signs of health and ill-health	• Livestock diseases and Hygiene	• Notifiable livestock diseases	• Animal parasites and immunisation
ANIMAL IMPROVEMENT	----------	----------	• Genetics	• Breeding

	• Implements	• Adjustments of animal drawn implements	• Maintenance	----------
	• Types of fences	• Fencing materials and tools	• Treatment of fencing materials • Fencing specifications	• Anchors and fencing calculations
	----------	----------	• Farm buildings • Properties of building materials	• Designing livestock buildings
	----------	• Siting of farm roads	• Features of farm roads	• Road construction and maintenance
	----------	----------	• Irrigation pumps	• Shellers
	• Harnesses: Yokes	• Harnesses: breast band and collar	----------	----------

	• Farm records	• Profit and Loss Account	----------	----------
	----------	----------	• Opportunity cost and choices • Demand , supply and price	• Diminishing returns • Risk and uncertainty • Decision making
	----------	----------	• Budgets	----------
	----------	• Types of markets	• Functions and factors of marketing	• Marketing legislation
	• Principles of cooperatives • Types of cooperatives	• Cooperatives	----------	----------

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	• describe forms of land use • explain factors limiting land use • identify protected areas in Zimbabwe •	• Forms of land use: - Forestry - Wildlife management - Crop and livestock husbandry • • • Factors limiting land use • Protected areas	• Carrying out community land use survey to determine the main agricultural activities • Discussing the forms of land use in their locality • Explaining factors affecting land use • Identifying protected areas in Zimbabwe	• Textbooks /Talking text books • ICT tools /Braille software / Jaw software
	• explain land tenure • describe each land tenure system	• Land tenure: - freehold, • - lease hold, - communal - resettlement	• Discussing land tenure systems • Carrying out surveys on land tenure systems in the community	• Textbooks /Talking text books • ICT tools /Braille software / Jaw software • Resource person
	• explain the importance of land as a national heritage	• Pre -colonial, colonial and post -independence land tenure, 3rd	• Discussing the importance of land as a national heritage	• Textbooks /Talking text books • ICT tools /Braille software /

	• explain ownership during pre -colonial period • discuss the effects of colonial rule on land ownership • justify land reform programme during 3rd Chimurenga /Umvukela • outline resettlement models adopted during the agrarian land reform	Chimurenga /Umvukela land tenure • Resettlement models: A1 and A2	• Discussing historical land ownership systems in Zimbabwe • Inviting resource persons involved in the 2nd and 3rd Chimurenga /Umvukela to explain the rationale of undertaking land reform • Visiting national museums and monuments • Discussing resettlement models adopted during the agrarian land reform	Jaw software • Resource person

	• outline environmental factors influencing agricultural activities • discuss the effects of environmental factors on agricultural activities • explain effects of temperature on water loss • discuss various forms of wilting • explain the causes of wilting • explain effects of temperature on agricultural activities • outline measures that can be taken to minimise effects of adverse temperature	• Environmental factors: • wind , light , temperature , rainfall and humidity • Effects of environmental factors on agricultural activities • Loss of water through evaporation • Evapo -transpiration and wilting of crops • Temporary and permanent wilting • Frost damage • Frost protection • Shade	• Discussing environmental factors and their effects on agricultural activities • Measuring environmental factors • Visiting weather stations for measurements of environmental factors • Constructing wind breaks and frost barriers	• Textbooks /Talking text books • ICT tools /Braille software / Jaw software • Weather station

	• explain the importance of natural farming regions • describe suitable farming systems for each farming region	• Natural farming regions: -Natural region 1 -Natural region 2 -Natural region 3 -Natural region 4 -Natural region 5	• Carrying out a survey to determine farming activities within their locality • discussing the importance of demarcating Zimbabwe into farming regions	• Textbooks /Talking text books • ICT tools /Braille software / Jaw software • Map templates • Pictures

	• explain social, economic, cultural and ecological importance of forests • identify major forests in Zimbabwe • identify indigenous timber trees and exotic timber trees grown in Zimbabwe	• Forests • Indigenous and exotic trees	• Discussing the importance of forests • Identifying indigenous and exotic trees in their locality using common names • Labelling identified indigenous and exotic trees	• Textbooks /Talking text books • ICT tools /Braille software /Jaw software • Resource person • Pictures

	• explain socio -economic , cultural and ecological importance of wildlife • identify flora and fauna found in Zimbabwe • classify wildlife according to feeding habits • identify wild animals classified as the big five	• Value of wildlife • Fauna and flora • Classification: -feeding habits -big five	• Discussing socio - economic , cultural and ecological value of wildlife • Surveying on wildlife resources in Zimbabwe • Identifying flora and fauna within their locality • Classifying animals according to feeding habits and naming the big five animals • Educational touring	• Textbooks /Talking text books • ICT tools /Braille software / Jaw software • Wildlife • Pictures

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	• explain socio economic, cultural and ecological importance of wildlife • identify flora and fauna found in Zimbabwe • classify wildlife according to feeding habits • identify wild animals classified as the big five	• Value of wildlife • Fauna and flora • Classification: feeding habits big five	• Discussing socio - economic, cultural and ecological value of wildlife • Surveying on wildlife resources in Zimbabwe • Identifying flora and fauna within their locality • Classifying animals according to feeding habits and naming the big five animals • Educational touring	• Textbooks /Talking text books • ICT tools /Braille software / Jaw software • Wildlife • Pictures

	• identify soil particles according to increasing order of size • explain the significance of soil texture to plant growth • describe soil structure • distinguish single grain from crumb structure • distinguish between soil structure and soil texture	• Soil texture • Soil structure	• Feeling different soil samples to determine texture • Carrying out sedimentation experiments • Discussing the significance of soil texture and structure to plant growth • Conducting experiments to determine the effects of texture on emergence of seeds • Experimenting on the characteristics of soils	• Textbooks /Talking text books • ICT tools /Braille software / Jaw software • Soil samples • Pictures • Sedimentation apparatus

	• explain the functions of major and minor plant nutrients to crop growth • describe the effects of under and over supply of nutrients on plant growth	• Major and minor nutrients	• Listing major and minor nutrients • Identifying symptoms of nutrient deficiencies and over supply	• Fertilizers • Textbooks /Talking text books • ICT tools /Braille software / Jaw software • Samples of affected plants

	• identify types of soil erosion • describe the causes and consequences of soil erosion • describe the prevention and control of soil erosion	• Soil erosion	• Identifying signs and types of soil erosion • Experimenting the effects of soil erosion on different soil types • Describing the prevention and control measures of soil erosion	• Textbooks /Talking text books • ICT tools /Braille software / Jaw software • Experiment apparatus • eroded places • Pictures showing different types of erosion

	• explain the importance of water conservation • describe methods of conserving water on arable lands	• Water conservation	• Discussing the importance of water conservation on arable lands • Implementing water conservation measures on arable land	• Textbooks /Talking text books • ICT tools /Braille software / Jaw software • Resource person EMA /AGRITEX

	• classify plants according to edible parts • classify plants according to life cycle	• edible plant parts: leaf, root, tuber, bulb, fruit, stem, seed • Life cycle: annual, biennial, perennial	• Collecting samples of parts eaten • Identifying crops according to their classes • Collecting samples, pressing and pasting onto a folder according to their classes	• Textbooks /Talking text books • ICT tools /Braille software /Jaw software • Plant samples and specimens

	• identify the external parts of a flowering plant • state functions of each part of a flowering plant	• External parts of a plant • Functions of plant parts	• Collecting maize and bean plants • Identifying external plant parts • Drawing and labelling external parts of a flowering plant • Tabulating parts and functions of a flowering plant	• Textbooks /Talking text books • ICT tools /Braille software /Jaw software • Plant samples and specimens

	• identify branches of horticulture • explain the importance of horticulture	• Branches of horticulture • Importance of horticulture	• Identifying horticultural activities in the local community and relate them to their branches • Discussing the importance of horticulture	• Textbooks /Talking text books • ICT tools /Braille software /Jaw software • Plant samples and specimens
	• state reasons for land preparation • prepare seed beds	• Seed bed preparation	• Discussing reasons for land preparation • Preparing a seed bed	• Textbooks /Talking text books • ICT tools /Braille software /Jaw software • Land preparation tools
	• establish and manage vegetable crops	• Sowing planting • Management practices • Marketing • NB: one vegetable crop to be grown in each of the following groups: leaf root legume bulbs tubers fruit crops according to recommended spacing	• Growing leaf root legume bulbs tubers fruit crops according to recommended spacing • Managing a vegetable crop up to maturity	• Textbooks /Talking text books • ICT tools /Braille software /Jaw software

	• explain the effects of pests on crops • classify pests according to their feeding habits	• Effects of pests on crops • Control measures		

	• name types of livestock • explain the importance of livestock	• Poultry • Fish • Ruminants • Non ruminants • Importance of animals	• Identifying the types of livestock • Discussing the importance of livestock • Compiling a list of products and by-products of livestock	• Textbooks /Talking text books • ICT tools /Braille software / Jaw software • Pictures of livestock and livestock products • Livestocks

	• explain the importance of rearing broilers • state the breeds of broilers • describe the housing requirements for broilers • rear broilers	• Importance of broilers • Breeds of broilers • Housing • Types of brooders	• Debating on the advantages of keeping broiler chickens • Comparing the characteristics of different breeds • Designing a brooder and deep litter • Rearing broilers	• Textbooks /Talking text books • ICT tools /Braille software / Jaw software • Pictures • Broilers

	• define animal health • distinguish between health and unhealthy farm livestock	• Animal health • Signs of health and ill - health	• Observing signs of ill - health in farm animals • Comparing healthy and unhealthy animals	• Textbooks /Talking text books • ICT tools /Braille software / Jaw software • Pictures • Vet officer • Animals

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	• list 5 tillage implements • draw and label the parts of a mould board plough • explain functions of parts of a mould board plough	• Mould board plough • Cultivator • Harrow • Planter • Ridger	• Identifying the tillage implements • Drawing and labelling a mould board plough • Describe the functions of parts of a mould board plough • Touring a farm with tillage implements	• Textbooks /Talking text books • ICT tools /Braille software / Jaw software • Pictures of implements • tillage implements

	• explain the reasons for fencing • identify different types of fences	• Purpose of fencing • Types of fences	• Discussing the reasons for fencing • Identifying different types of fences within the locality	• Textbooks /Talking text books • ICT tools /Braille software / Jaw software • Pictures of types of fence • Types of fence

	• list two types of yokes • describe types of yokes • draw and label parts of yokes • describe characteristics of wood used in making yokes	• Yokes • Characteristics of wood for making yokes	• Describing types and characteristics of yokes • Designing harnesses for cattle • Constructing yoke models	• Textbooks /Talking text books • ICT tools /Braille software / Jaw software • Pictures of yokes • Yokes

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	‡ describe the importance of farm records ‡ differentiate physical from financial records	‡ Farm records	‡ Discussing the importance of farm records ‡ Compiling records for agriculture projects at the school ‡ Educational touring of local farms	‡ Textbooks /Talking text books ‡ ICT tools /Braille software / Jaw software ‡ Farm records

	• explain the principles of agricultural cooperatives • discuss how co - operatives are formed	• Co -operatives	• Discussing the principles of cooperatives • Discussing how cooperatives are formed	• Textbooks /Talking text books • ICT tools /Braille software / Jaw software • Resource person from cooperative officer
	• explain the types of agricultural co -operatives	• Types of co -operatives in agriculture	• Discussing various types of cooperatives in the farming sector	• Textbook /Talking text books • ICT tools /Braille software / Jaw software

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	• explain the effects of population on land use	• Land pressure	• Discussing the effects of population on land use • Calculating population density in their local community	• Textbooks /Talking text books • ICT tools /Braille software / Jaw software • Demographic maps
	• describe different farming systems	• Mixed farming • Monoculture • Intercropping	• Discussing farming system • Educational touring of local farms	• Textbooks /Talking text books • ICT tools /Braille software / Jaw software • local farms

	• describe ways of reducing effects of environmental factors on agricultural activities	• Ways of reducing adverse environmental factors	• Practising shading , mulching , pot holing , manuring , tie ridging , watering , growing drought tolerant plants , cover crops , wind breaks and conservation tillage • Visiting green houses	• Textbooks /Talking text books • ICT tools /Braille software / Jaw software • Local modifications such as wind breaks , mulches , manure

	• explain sustainable methods of wildlife utilisation	• Wildlife resources: • Sustainable utilisation	• Discussing sustainable methods of wildlife utilisation • Watching documentaries	• Textbooks /Talking text books • ICT tools /Braille software / Jaw software • Protected areas •
	• identify specially protected plants and animals in Zimbabwe	• Endangered plant and animal species	• Listing specially protected plants and animals • Watching documentaries	• Textbooks • ICT tools • Protected areas • Pictures of specially protected plant and animal species
	• identify dangerous and problem animals in Zimbabwe • describe ways of dealing with dangerous and problem animals in Zimbabwe	• Dangerous and problem animals	• Surveying on local dangerous and problem animals • Demonstrating ways of dealing with dangerous and problem animals in Zimbabwe • Watching documentaries	• Textbooks /Talking text books • ICT tools /Braille software / Jaw software • Protected areas • Pictures of dangerous and problem animals

	• describe soil profile with the aid of a diagram • describe the appearance and composition of each horizon • discuss the significance of each horizon to crop growth • explain the importance of soil profile	• Soil profile • Soil profiling	• Describing soil profile with the aid of a diagram • Drawing and labelling a soil profile • Digging a profile pit • Identifying the horizons up to the maximum depth of 1.5m	• Textbook /Talking text books • ICT tools /Braille software / Jaw software • Road side excavations • Gullies • Open pits • River beds • Valley sides

	• discuss the importance of irrigation	• Importance of irrigation	• Discussing the importance of irrigation • Touring an irrigation scheme	• Textbooks /Talking text books • ICT tools /Braille software /Jaw software • irrigation equipment and systems
	• list sources of water suitable for irrigation • determine the suitability of water for irrigation	• Sources of irrigation water • Water quality	• Discussing the different sources of water for irrigation • Testing for impurities in water	• Textbooks /Talking text books • ICT tools /Braille software /Jaw software • Local water sources • Irrigation water

	• differentiate monocotyledonous from dicotyledonous plants • state botanical classes of crops	• Monocotyledonous and dicotyledonous plants • Botanical classes: - Leguminous - Brassica - Solanaceous - Graminae (Cereals) - Cucurbits	• Differentiating monocotyledonous from dicotyledonous plants • Categorising crops according to botanical classes • Carrying out field tours	• Textbooks /Talking text books • ICT tools /Braille software /Jaw software • Plant samples and specimens

	• draw the structure of maize and bean flowers • label the parts of a flower • state functions of flower parts	• Maize and bean flowers -Structure of a flowers -Functions of flower parts	• Collecting maize and bean flowers • Identifying parts of the flowers • Drawing and labelling parts of a flower • describing functions of a flower parts	• Textbooks /Talking text books • ICT tools /Braille software / Jaw software • Flower samples specimens

	• differentiate between sexual and asexual reproduction • state advantages and disadvantages of sexual and asexual reproduction • describe pollination of maize and bean flowers • describe fertilisation process in plants • explain different methods of asexual reproduction	• Reproduction • Pollination and fertilisation	• Discussing of sexual and asexual reproduction • Discussing advantages and disadvantages of sexual and asexual reproduction • Discussing pollination and fertilisation in plants • Observing and differentiating maize and bean flowers • Watching video simulations on fertilisation process in plants • Demonstrating methods of asexual reproduction such as budding , layering , cuttings and grafting	• Textbooks /Talking text books • ICT tools /Braille software / Jaw software • Samples and Specimens of reproductive organs
	• state requirements for seed germination • differentiate between seed germination and emergence • identify external and internal parts of a maize and bean seed	• Germination	• Conducting experiments on seed germination • Drawing diagrams to illustrate germination and emergence • Dissecting maize and bean seeds to observe internal parts • Identifying the parts of a maize and bean seeds	• Textbooks /Talking text books • ICT tools /Braille software / Jaw software • Maize and bean seeds

	• describe one pest with a complete metamorphosis • describe one pest with an incomplete metamorphosis •	• Life cycle of pests: • Complete and incomplete metamorphosis	• Discussing the life cycles of a pests with a complete and incomplete metamorphosis • Drawing and labelling diagram to illustrate complete and incomplete metamorphosis • Collecting and preserving pests specimens	• Textbooks /Talking text books • ICT tools /Braille software /Jaw software • Pest samples and specimens • Pictures of pests

	• identify ruminant and non - ruminant animals • distinguish ruminants from non ruminants	• Ruminants: • Cattle , sheep and goats • Non ruminants: • Horses , donkeys , pigs , rabbits , poultry	• Discussing characteristics of ruminants and non - ruminants • Observing animals to distinguish ruminants from non ruminants	• Textbooks /Talking text books • ICT tools /Braille software / Jaw software • livestock •

	• draw and label reproductive systems of a hen and cock • describe the process of egg formation • state functions of each part of an egg • draw and label parts of an egg	• Reproductive parts • Egg	• Observing the male and female organs from slaughtered hen or cock • Drawing and labelling reproductive systems of a hen and cock • Tabulating the reproductive parts and their functions • Observing and identifying parts of a boiled egg	• Textbooks / Talking text books • ICT tools • /Braille software / Jaw software • eggs • samples and specimens of chicken reproductive systems

	• name the main nutrients required by farm livestock • explain functions of each nutrient • describe deficiency symptoms of each nutrient • identify sources of main nutrients	• Livestock nutrients	• Discussing the functions of nutrients in livestock • Carrying out simple tests for nutrients in feedstuffs • Collecting and identifying samples of feedstuffs rich in carbohydrates , fats and proteins • identifying symptoms of malnutrition in livestock	• Textbooks /Talking text books • ICT tools /Braille software / Jaw software • • Feedstuffs • Animals with nutrient deficiency symptoms

	• select type of feeds from day old to slaughter • rear broilers • assess growth rates of broiler chickens • keep physical and financial records	• Broiler feeds • Management practices	• Preparing rations for broiler chickens of different ages • Brooding and rearing broilers • Weighing broilers regularly and plotting growth rate curves • Compiling physical and financial records	• Textbooks /Talking text books • ICT tools /Braille software / Jaw software • Scale *b*alance • Broiler Feeds • Broilers
	• demonstrate the slaughtering and dressing of broilers • calculate dressing *k*illing out percentage • identify market for broilers	• Slaughtering • Prossesing • Marketing	• Slaughtering and prossesing broilers using different methods • Calculating dressing *k*illing out percentage • Carrying out market research and marketing broilers • Calculating profit and loss for a broiler enterprise	• Textbooks /Talking text books • ICT tools /Braille software / Jaw software • Broilers

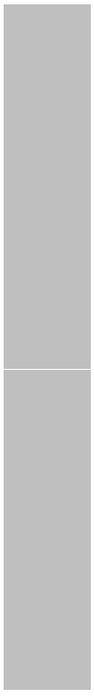
	explain causes of diseases explain the modes of livestock disease transmission justify the importance of hygiene discuss methods of disease control	Pathogens and other causes of diseases Transmission of diseases Sanitation , hygiene and other control methods	Surveying on causes and transmission of diseases in animals Discussing the importance of hygiene Investigating the remedies to prevent and control diseases Cleaning and disinfecting poultry houses	Textbooks /Talking text books ICT tools /Braille software /Jaw software Vet officer

	• carry out adjustments on animal drawn implements	• Adjustments: - Depth - Width	• Adjusting the depths and width of the mould board plough and cultivator • Adjusting depth of the harrow	• Textbooks /Talking text books • ICT tools /Braille software / Jaw software • Mould board plough • Cultivator • Harrow •

	• identify materials and tools used in fencing • discuss advantages and disadvantages of different fencing materials	• Fencing materials and tools	• Selecting suitable fencing materials • Using tools safely and correctly	• Textbooks /Talking text books • ICT tools /Braille software / Jaw software • Pictures • Fencing tools

	• discuss factors to be considered when siting a farm road • list equipment needed when siting farm roads • describe characteristics of well sited farm roads	• Siting a farm road • Siting equipment	• Discussing factors considered in siting farm roads • Describing equipment needed for siting a farm road • Siting a farm road • Maintaining roads •	• Textbooks /Talking text books • ICT tools /Braille software / Jaw software • Resource person • • Farm roads • Siting equipment

	• differentiate breast band from collar harnesses • identify and label the parts of breast band and collar harnesses • describe materials used for harnesses • harness specific animals	• breast band and collar harnesses • Materials for making harnesses • Harnessing animals	• Drawing and labelling breast band and collar harnesses • Making harnesses using locally available materials • Harnessing specific animals	• Textbooks /Talking text books • ICT tools /Braille software / Jaw software breast bands and color harnesses



	• distinguish between controlled and uncontrolled markets • describe formal and informal markets for major crops and livestock in Zimbabwe	• Controlled and uncontrolled markets • Formal and informal markets	• Surveying on marketing of agricultural products • Discussing formal and informal markets for agricultural products	• Textbooks /Talking text books • ICT tools /Braille software / Jaw software • Local agricultural markets

	• explain benefits of agricultural cooperatives • identify problems associated with agricultural cooperatives	• Agricultural co -operatives	• Discussing the benefits of agricultural co -operatives • Researching on the problems linked of agricultural co -operatives • Dramatizing problems of co -operatives	• Textbooks /Talking text books • ICT tools /Braille software / Jaw software • Co -operatives officer

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	• discuss the importance of physical farm planning	• Physical farm planning	• Discussing the importance of physical farm planning • Sketching farm layouts with suggested farming activities	• Textbooks /Talking text books • ICT tools /Braille software / Jaw software • Map templates
	• outline principles of crop rotation • design a four crop rotation cycle • discuss the advantages of crop rotation	• Principles of crop rotation	• Discussing the principles of a four crop rotation • designing a four crop rotation cycle • Practising crop rotation in the school garden	• Textbooks /Talking text books • ICT tools /Braille software / Jaw software •

	• describe distribution, effectiveness, reliability and intensity of rainfall in Zimbabwe • explain the effects of distribution and intensity of rainfall on agricultural activities	• Distribution • Effectiveness • Reliability • Intensity of rainfall • Agriculture activities in relation to distribution and intensity of rainfall	• Discussing how agricultural activities in Zimbabwe are influenced by rainfall	• Textbooks /Talking text books • ICT tools /Braille software / Jaw software • Map of Zimbabwe showing rainfall distribution

	• describe methods of harvesting trees • discuss methods of treating timber • identify possible markets	• Harvesting • Treating • Marketing	• Describing methods of harvesting trees • Harvesting trees • Treating timber • Marketing timber • Compiling production records	• Textbooks /Talking text books • ICT tools /Braille software / Jaw software • Creosote • Carbolinium • Timber
	• describe causes of deforestation • explain effects of deforestation • suggest possible solutions to deforestation • explain importance of afforestation and reforestation	• Deforestation • Afforestation • Reforestation	• Discussing effects of deforestation • Surveying on the extent of deforestation within the locality • Identifying possible solutions to deforestation in the locality • Planting trees	• Textbooks /Talking text books • ICT tools /Braille software / Jaw software • Pictures

	• explain how cultural values and beliefs affect the management of natural resources • explain how principles of conservation and preservation affect wildlife trading • describe effects of poaching • discuss biodiversity in relation to genetics, species and ecosystem diversity • describe habitats of wild animals	• Conservation and preservation • Poaching • Biodiversity • Genetic, species and ecosystem diversity • Ecology	• Discussing how cultural values and beliefs affect the management of natural resources • Conducting class/school census based on totems that relate to animals • Visiting protected areas • Debating on wildlife trade at local and international levels • Establishing a nature reserve to encourage biodiversity • Field studying of a habitat to determine animal and plant species composition	• Protected areas • Resource person • Textbooks /Talking text books • ICT tools /Braille software / Jaw software

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	• discuss various forms of weathering	• Forms of weathering	• Discussing various forms of weathering • Observing weathering • Demonstrating weathering	• Textbooks /Talking text books • ICT tools /Braille software / Jaw software • rocks

	• list the eight textural classes • determine textural class of a soil using textural triangle	• Eight textural classes in Zimbabwe	• Discussing the eight textural classes • Carrying an experiment on soil texture using the Sieve method to determine soil classes	• Sieves of varying sizes • ICT tools /Talking text books • Textbooks /Talking text books
	• explain the importance of soil structure • explain factors affecting soil structure • identify methods of improving and maintaining good structure	• Soil structure	• Explaining the importance of soil structure • Discussing factors affecting soil structure • Describing methods of improving and maintaining good structure • Carrying out field observations of different soil structures	• Textbooks /Talking text books • ICT tools /Braille software / Jaw software • Soil samples

	• describe methods of improving different soil types	• Soil improvement: • Sand and clay soils	• Describing methods of improving different soil types • Manuring soils • Adding anthill soil to sand soil • Liming	• Textbooks /Talking text books • ICT tools /Braille software / Jaw software • Lime • Organic matter

	• describe the composition of an agriculturally viable soil • explain the importance of soil component • describe the types of soil water • explain movement of water in the soil • explain field capacity • explain the role of living organisms in the soil	• Soil components • Types of soil water • Movement of water • Field capacity • Soil macro and micro organisms	• Discussing the importance of soil components • Experimenting on the percentage composition of air , water , organic and inorganic matter in the soil • Collecting soil organisms and identifying them	• Soil samples • Textbooks /Talking text books • ICT tools /Braille software / Jaw software • Soil samples

	• explain the effects of soil temperature on plant growth and soil organisms • explain effects of extreme temperatures on various stages of crop growth • outline measures that can be taken to reduce the effects of extreme soil temperatures	• Soil temperature	• discussing the effects of soil temperature on plant growth and soil organisms • Experimenting on the effects of temperature on seed germination • Conducting field experiments on mulching , shedding and watering	• Textbooks /Talking text books • ICT tools /Braille software / Jaw software •

	• describe different methods of fertiliser application • calculate fertiliser application quantities per given area • differentiate basal from top dressing	• Application methods • Calculations • Time of application	• Describing different methods of fertiliser application • Calculating fertilizer quantities • Applying organic and inorganic fertilisers	• Textbooks /Talking text books • ICT tools /Braille software / Jaw software • Organic and inorganic fertilisers • Agronomist
	• explain the importance of soil sampling • explain the principles of soil sampling • • sample soil using at least one method	• Principles • Methods of soil sampling	• Discussing the importance of soil sampling • Explaining the principles of soil sampling • Sampling soils	• Textbooks /Talking text books • ICT tools /Braille software / Jaw software • Soil sampling equipment
	• describe how soils are tested for pH • discuss the influence of soil pH • describe methods of correcting soil pH • identify types of lime • explain the importance of liming materials • explain the difference between lime and fertiliser • interpret the significance of pH values	• Soil pH • Liming	• Discussing the influence of soil pH on crop production • Determining soil pH values using pH meter and universal indicator • Demonstrating lime application	• Textbooks /Talking text books • ICT tools /Braille software / Jaw software • pH meter • Universal indicator • Soil samples

	• describe methods of soil conservation on arable and grazing lands • describe the construction of basic conservation structures to standard dimensions	• Soil conservation methods • Conservation structures	• describing methods of soil conservation on arable and grazing lands • Constructing and maintaining conservation structures • Measuring dimensions of mechanical conservation structures • Reclaiming eroded areas in and around the school • Practising biological conservation	• Textbooks /Talking text books • ICT tools /Braille software / Jaw software • Pictures

	• describe drainage and water logging • explain the effects of water logged soils on crop growth • describe methods of improving drainage	• Drainage and water logging	• Describing drainage and water logging • Explaining the effects of water logged soils on crop growth • Discussing methods of improving drainage • Field touring to identify signs of water logging • Identifying drainage structures on the land • Constructing and maintaining drainage structures	• Textbooks /Talking text books • ICT tools /Braille software / Jaw software
	• explain the causes of leaching in arable lands • explain the effects of drainage on loss of plant nutrients • describe methods of controlling leaching in arable lands	• Leaching	• Discussing the causes of leaching in arable lands • Experimenting to show leaching levels of different soils	• Textbooks /Talking text books • ICT tools /Braille software / Jaw software • • Soil samples

	• describe methods of harvesting and storing water • describe different ground water sources	• Rain water harvesting and storage • Ground water sources	• Harvesting rain water using various methods • Maintaining water harvesting structures • Identifying ground water sources	• Textbooks /Talking text books • ICT tools /Braille software / Jaw software • Water reservoirs

	• describe methods of irrigation • explain different types of irrigation • explain the advantages and disadvantages of each method of irrigation	• Methods of irrigation • Types of irrigation	• Describing methods and types of irrigation • Applying water to crops using at least one method of irrigation • Visiting irrigation schemes in the locality	• Textbooks /Talking text books • ICT tools /Braille software / Jaw software • Models • Irrigation schemes
	• discuss the factors affecting choice of an irrigation system	• Factors affecting choice of an irrigation system	• Demonstrating different methods of irrigation • Designing an irrigation system	• Textbooks /Talking text books • ICT tools /Braille software / Jaw software

	• identify parts of the internal structure of a root, stem and leaf • explain functions of tissues in a root, stem and leaf	• Tissue distribution in a: • root • stem • leaf	• Identifying the internal structure of a root, stem and leaf on a microscope • Drawing cross sectional diagrams of stem, root and leaf • Discussing the functions of root, stem and leaf	• Textbooks /Talking text books • ICT tools /Braille software / Jaw software • Microscopes • • Root, stem and leaf samples

	• describe the absorption of water by plants through osmosis • explain nutrient absorption by roots through active uptake • describe absorption of water by seeds	• Osmosis • Diffusion • Active uptake • Imbibition	• Discussing processes of osmosis , diffusion active uptake and imbibition • Experimenting osmosis • Demonstrating imbibition by means of experiments	• Textbooks /Talking text books • ICT tools /Braille software /Jaw software • Experimental apparatus • Seed • potato samples
	• discuss the role of transpiration stream • describe the role of stomata • explain how wilting occurs • outline factors affecting rate of transpiration	• Transpiration • Transpiration stream • Role of stomata in transpiration • Importance of transpiration • Wilting	• Discussing factors affecting rate of transpiration • Carrying out field experiments to demonstrate transpiration • Identifying plants that are under water stress	• Textbooks /Talking text books • ICT tools /Braille software /Jaw software • Pictures • Experiment apparatus
	• describe how plants photosynthesise • state the chemical and word equation for photosynthesis	• Gaseous exchange • Roles of chlorophyll , carbon dioxide , water and light • Word and chemical equation for photosynthesis	• Discussing the process of photosynthesis • Conducting experiments to demonstrate the need for carbon dioxide , light , water and chlorophyll	• Textbooks /Talking text books • ICT tools /Braille software /Jaw software • Experiment apparatus
	• explain the process of translocation • identify plant food storage organs • state the nature of food stored by plants	• Translocation • Food storage organs	• Describing the process of translocation • Demonstrating the process of translocation through the ring barking experiment • Selecting plants available in the locality • identifying plant storage organs	• Textbooks /Talking text books • ICT tools /Braille software /Jaw software • Plant storage organs

	• state the importance of crop breeding • explain heterosis • differentiate between open pollination and controlled pollination • state the three types of crop hybrids • describe the production of single , double and three way hybrids	• Crop breeding • Hybrids • Heterosis in plant breeding • Open and controlled pollination • Single , double and three way hybrids	• Discussing the importance of crop breeding • Identifying crop hybrids grown in the locality • Visiting a plant breeding station and observe how hybrids are produced • Demonstrating maize breeding	• Textbooks /Talking text books • ICT tools /Braille software / Jaw software • Plant breeder

	• identify parts of the digestive system of a ruminant and non - ruminant • explain functions of parts of the digestive systems • distinguish the difference between digestive systems of a ruminant and non -ruminant	• Anatomy and physiology of the digestive systems	• Explaining functions of parts of the digestive systems • Drawing and labelling digestive system of a named ruminant and non -ruminant • Describing the digestive systems • Examining the digestive systems from a slaughtered animal	• Textbooks /Talking text books • ICT tools /Braille software / Jaw software • • Specimens of digestive systems •

	• classify feed stuffs • identify feed stuffs for each class of livestock	• Roughages • Concentrates • Straight feeds	• Classifying feed stuffs • Preparing balanced ration	• Textbooks /Talking text books • ICT tools /Braille software /Jaw software • Samples of feeds •

	• identify the breeds of a named animal • describe housing systems • manage the named animal to maturity	• Animal breeds • Housing systems • Management practices	• Discussing management practices of a named animal • Rearing a named animal • Researching on breeds of pigs or donkeys	• Textbooks /Talking text books • ICT tools /Braille software / Jaw software • Resource person • Pigs /donkeys

	• recognise signs and symptoms of notifiable diseases • describe the control methods for notifiable diseases	• Notifiable diseases	• Discussing one disease from the following groups: a) Bacterial diseases: - anthrax b) Viral diseases: -foot and mouth or new castle c) Protozoan diseases: - trypanosomiasis , d) Discussing and administering disease prevention and control measures	• Textbooks /Talking text books • ICT tools /Braille software / Jaw software • Vet officer

	• explain the stages in mitosis and meiosis • outline the effects of the environment on genes	• Mitosis and meiosis	• Describing mitosis and meiosis • Discussing the effects of the environment on genes • Observing slides on stages of mitosis and meiosis	• Textbooks /Talking text books • ICT tools /Braille software / Jaw software • Microscope

	• describe routine maintenance of farm implements	• Routine maintenance: -plough, -cultivator -harrow	• describing routine maintenance of farm implements • Using and maintaining farm implements	• Textbooks /Talking text books • ICT tools /Braille software / Jaw software • pictures

	• describe the treatment of wooden fencing materials • describe treatment of metal fencing materials • treat fencing material	• Fencing materials treatment	• Describing chemicals used in treating wooden and metallic fencing material • Discussing treatment of fencing materials • Treating fencing materials	• Textbooks /Talking text books • Treating chemicals
	• Describe the standard specifications of fencing on farms • Fence to specifications	• Fencing specifications: -spacing of poles -spacing of strands	• Discussing fencing specifications • Fencing to specifications	• Textbooks /Talking text books • fencing poles and strands

	• describe features of a farm road • state the dimensions of different features on a farm road • repair a farm road	• Farm road features and dimensions • Repairs	• Discussing features of a farm road • Repairing farm roads • Touring farm roads	• Textbooks /Talking text books • ICT tools /Braille software / Jaw software • Pictures of farm roads • Road repair implements

	• identify parts of a hand or power operated irrigation pump • discuss the working principles of an irrigation pump • describe the routine maintenance of a pump	• Parts of hand or power operated pumps • Pump working principles • Maintenance	• Identifying pump parts • Discussing working principles of a pump • Maintaining pumps	• Textbooks /Talking text books • ICT tools /Braille software / Jaw software • Pumps • Pictures of pumps

	explain the opportunities available for the farmer in agriculture industry describe the factors influencing farmers' choices in agricultural enterprises explain the concept of opportunity cost	Opportunities available to the farmer Farmers choices Opportunity cost	Identifying agriculture opportunities available for enterprising at the school Choosing appropriate agricultural enterprises for the school Simulating the concept of opportunity cost Identifying opportunity costs in real life situations	Textbooks /Talking text books ICT tools /Braille software /Jaw software
	describe the laws of demand and supply interpret demand and supply curves and schedules describe determinants of market price for agricultural commodities	Demand and supply Market price	describing the laws of demand and supply interpreting demand and supply curves and schedules Demonstrating effects of price change on demand and supply Surveying on demand and supply levels of farm produce at a local market	Textbooks /Talking text books ICT tools /Braille software /Jaw software Money Local markets

	• explain the importance of budgeting in farming • identify sources of information for budgeting • calculate the gross margin for an agricultural enterprise • prepare partial and complete budgets	• Budgeting	• Discussing the role of budgets in farming • Surveying on farm budgets • Drawing up gross margin , partial and whole farm budgets from sourced information	• Textbooks /Talking text books • ICT tools /Braille software / Jaw software /Braille software /Jaw software • Money • Source documents

	• explain the functions of marketing in agriculture • state factors affecting marketing of agricultural produce	• Marketing functions • Factors affecting agricultural marketing	• Preparing agriculture produce for marketing • Selling agricultural produce to the market • Discussing functions of marketing in agriculture • Identifying factors affecting agricultural marketing	• Textbooks /Talking text books • ICT tools /Braille software /Jaw software • Agriculture produce • Local markets

	• explain the effects of natural disasters on agriculture	• Hailstorm • Floods • Cyclones • Whirl wind • Veld fire • Drought • Heat wave	• Discussing effects of natural disasters on agriculture • Watc	

	• discuss the importance of agro -forestry practices • identify agro -forestry components • establish agro -forestry plots	• Agro -forestry practices	• Discussing the importance of agro - forestry practices • Identifying agro -forestry components • Designing and implementing an agro - forestry project at school	• Textbooks /Talking text books • ICT tools /Braille software / Jaw software • Forestry officer

	• discuss possible conflicts between humans and wildlife • explain the existing legislation in managing wildlife resources in Zimbabwe • discuss the role of Government and voluntary organisations in wildlife management • discuss the role of international conventions in wildlife management	• Human and wildlife conflicts • Protection of resources • Legislation • Government and voluntary organisations • International conventions	• Discussing possible conflicts between humans and wildlife • Role playing depicting conflicts between humans and wildlife • Collecting relevant information on Government Policy as regards to wildlife management • Debating the role of Government and voluntary organisations in wildlife management	• Textbooks /Talking text books • ICT tools /Braille software / Jaw software • National Parks Wardener •

	• describe the nitrogen cycle with the aid of a diagram	• Nitrogen cycle	• Describing the nitrogen cycle • Illustrating the nitrogen cycle	• Textbooks /Talking text books • ICT tools /Braille software / Jaw software

	• explain causes of water pollution • discuss ways of reducing water pollution • describe the effects of water pollution on agricultural production •	• Water pollution	• Discussing causes of water pollution • Collecting water samples to determine levels of pollution • Discussing ways of reducing water pollution	• Textbooks /Talking text books • ICT tools /Braille software / Jaw software
	• discuss water use legislation • discuss water management in Zimbabwe	• Management of national water (ZINWA)	• Identification of water bodies	• Textbooks /Talking text books • ICT tools /Braille software / Jaw software •

	• state the word and chemical equation for aerobic respiration • distinguish between aerobic and anaerobic respiration • identify sites of respiration • describe the importance of respiration • explain the differences between photosynthesis and respiration	• Respiration	• Illustrating erobic respiration using word equation Experimenting on respiration • Comparing aerobic and anaerobic respiration • Identifying sites of respiration • Describing importance of respiration • Comparing respiration and photosynthesis	• Textbooks /Talking text books • ICT tools /Braille software / Jaw software • Experimental apparatus
	• describe each of the tropisms • demonstrate the responses of plant parts to tropisms • evaluate the importance of plant tropisms	• Plant tropisms • Responses to light , touch , gravity and water	• Describing the plant tropisms • Demonstrating each tropism through experiments • Discussing the importance of plant responses	• Textbooks /Talking text books • ICT tools /Braille software / Jaw software • Experimental apparatus

	• explain the precautionary measures taken when using and storing chemicals • describe the toxicity levels of agro chemicals • calculate the mixing ratios of chemicals used in spraying • draw and label parts of a knapsack sprayer	• Agro chemicals • Toxicity levels • Knap sack sprayer	• Reading instructions on chemical labels • Identifying the formulation of pesticide • Determining the strengths of formulation • Identifying parts of a knap sack sprayer	• Textbooks /Talking text books • ICT tools /Braille software / Jaw software • Agro chemicals samples • Knapsack sprayers • Pictures showing Agro - chemicals

	• identify the parts of the reproductive systems of the male and female ruminant • explain functions of parts of the reproductive systems • draw and label the reproductive parts of male and female ruminant	• Reproductive systems of male and female ruminants	• Drawing and labelling reproductive systems of a named male and female ruminant • Discussing functions of parts of the reproductive systems	• Textbooks /Talking text books • ICT tools /Braille software / Jaw software • Specimens of male and female ruminant reproductive systems • Pictures of male and female ruminant reproductive systems

	• calculate maintenance and production rations • prepare rations for both ruminants and non - ruminants	• Maintenance and production rations	• Calculating production ration using Pearson Square method • Mixing rations to produce a balanced diet	• Textbooks /Talking text books • ICT tools /Braille software / Jaw software • Animal nutritionist • Animal feeds

	• slaughter and dress rabbits or off ŀayers or indigenous chickens • prepare pelts or eggs for market • compile financial and production records	• Slaughtering and marketing of rabbits *l*ayers / indigenous chickens	• Slaughtering and dressing rabbits or off ŀayers • Packaging and refrigerating rabbits or off - layers or indigenous chickens • Identifying suitable market • Compiling financial and production records	• Textbooks /Talking text books • ICT tools /Braille software /Jaw software • Slaughtering materials • • small livestock

	• list exotic and indigenous breeds in Zimbabwe • describe characteristics of exotic and indigenous breeds • describe management practices	• Exotic and indigenous breeds • Management practices	• Discussing characteristics of exotic and indigenous breeds • Discussing management practices • Researching on animal breeds • Conducting a tour of animal rearing farms	• Textbooks /Talking text books • ICT tools /Braille software / Jaw software • Pictures of breeds • Resource personVet officer • livestock

	• Identify internal and external parasites of livestock • describe the life cycles of one internal and one external parasite • prevent and control parasites • Explain the Animal Health Act • describe the types of immunity in livestock	• Parasites: • Life cycle • Symptoms • Prevention • Treatment • Control • The Animal Health Act • Immunity	• Identifying internal and external parasites of livestock • Discussing the life cycle of one host tick and a roundworm • Discussing the prevention and control of internal and external parasites • Explaining the Animal Health Act • Discussing the types of immunity in livestock	• Textbooks /Talking text books • ICT tools /Braille software / Jaw software • Pictures • Vet officerSpecimens of parasites • Animal Health Act

	• explain the importance of breeding • explain the effects of the environment on breeding • distinguish cross -breeding from in -breeding • select animals for breeding	• Livestock breeding • Effects of the environment on breeding • Types of breeding • Importance of artificial selection	• Discussing the importance of breeding • Discussing the effects of the environment on breeding • Drawing genetic diagrams in test cross problems • Selecting aanimals for breeding	• Textbooks /Talking text books • ICT tools /Braille software /Jaw software • • Animal breeder

	• explain the role of anchors • outline the advantages and disadvantages of different anchors • determine the quantities of materials required per given perimeter • Construct anchors •	• Anchors • Fencing calculations	• Explaining the role of anchors • Calculating quantities of materials required per given perimeter • Discussing the advantages and disadvantages of different anchors • Constructing anchors	• Textbooks /Talking text books • ICT tools /Braille software / Jaw software • Anchors •

	• draw plans of buildings suitable for livestock • calculate costs of construction • determine the cost effectiveness of each material	• Livestock building designs • Costing	• Designing and drawing livestock houses • Calculating costs • Costing building materials	• Textbooks /Talking text books • ICT tools /Braille software / Jaw software • Building plans

	• identify parts of a maize and groundnut sheller • explain functions of each part • explain operational principles of shellers	• Parts of shellers • Operation principles	• Describing functions of maize /groundnut sheller parts • Discussing the operational principles of a sheller • Using shellers appropriately	• Textbooks /Talking text books • ICT tools /Braille software / Jaw software • Shellers

	• explain the law of diminishing returns • interpret the law of diminishing returns • describe the implications of diminishing returns in agriculture	• Law of diminishing returns • Agriculture implications of diminishing returns	• Discussing the law of diminishing returns • Interpreting the law of diminishing returns from graphs • Watching video simulations on the effects of increased inputs on outputs while other factors are held constant	• Textbooks /Talking text books • ICT tools /Braille software / Jaw software
	• Outline risks and uncertainties that can be encountered in Agriculture • distinguish between risks and uncertainties • explain ways of minimising the effects of risks and uncertainties	• Differences between risks and uncertainties • Avoiding risks and uncertainties	• Discussing risks and uncertainties • Conducting a survey to assess risks and uncertainties on the school or community farms • Discussing ways of minimising the effects of risks and uncertainties identified	• Textbooks /Talking text books • ICT tools /Braille software / Jaw software •
	• explain the importance of decision making in agriculture • outline the economic factors influencing decision making • Outline the steps to follow when making decisions on a farm	• Importance of decision making • Economic factors in decision making • Decision making process	• Discussing the importance and steps of decision making in agriculture enterprises • Identifying economic factors influencing decision making	• Textbooks /Talking text books • ICT tools /Braille software / Jaw software

	• explain the marketing legislation for agricultural produce and commodities	• Changes in marketing legislation on agricultural products	• Identifying crop and animal products that are controlled by marketing legislation in Zimbabwe	• Textbooks /Talking text books • ICT tools /Braille software / Jaw software • Newspapers • Magazines • Pictures • Flyers • Brochures

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Continuous assessment shall involve projects, theory tests and practical tests.
A learner is expected to produce a project portfolio at each of the following levels:

- Form 1
- Form 2
- Form 3
- Form 4

[illegible]	40%
[illegible]	35%
[illegible]	25%

% A profile system has to be developed for every learner to capture those attributes that cannot be measured such as the soft skills. A folio comprises test results throughout the secondary school on an annual basis and marks collected from the four prescribed projects. Observation schedules, checklists, tests and project tasks are to be set at district level and standardised nationally.

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Learners are required to take papers 1 to 3.

[illegible]	1[illegible]	40	20%
[illegible]	2[illegible]	100	35%
[illegible]	5[illegible]	100	15%

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The Summative assessment comprises two components as follows:

Paper 1 (1hr – 40 marks) 20%
There are 40 Objective type questions and candidates are required to answer all.

Paper 2 (2hrs – 100 marks) 35%
Paper 2 consists of two sections.
Section A: Six compulsory structured questions based on the whole syllabus -60Marks.
Section B: Six questions will be set: three on Crop Production and three on Animal Husbandry.
Candidates must answer twoquestions only: one from Crop Production and one from Animal

Husbandry.

Each question carries (20) marks. Candidates are expected to show thorough understanding of practical skills involved in the studied areas.

Paper 3 Coursework 15%
This is a practical coursework paper marked by the teacher and moderated by ZIMSEC. Details are available from ZIMSEC.