

## 2023/24 ANNUAL TEACHING PLANS: AGRICULTURAL SCIENCES: GRADE 10 (TERM 1)

TERM 1	WEEK 1	WEEK 2	WEEK 3	WEEK 4	WEEK 5	WEEK 6	WEEK 7	WEEK 8	WEEK 9		WEEK 10/11	
<b>CAPS TOPIC</b>	<b>AGRO-ECOLOGY (CAPS PG. 14)</b>	<b>INTERACTIONS IN ECOSYSTEMS AND ECOLOGICAL FARMING (CAPS PG. 14)</b>	<b>GRAZING ECOLOGY (CAPS PG. 14)</b>	<b>PASTURE OR VELD MANAGEMENT (CAPS PG. 14)</b>	<b>BIOMES OF SOUTH AFRICA (CAPS PG. 15)</b>	<b>AGRICULTURAL ECONOMICS (CAPS PG. 15)</b>	<b>POPULATION GROWTH AND ECONOMIC VALUE OF PLANT AND ANIMAL PRODUCTS (CAPS PG. 15)</b>	<b>LAND REDISTRIBUTION (CAPS PG. 15)</b>	<b>INDIGENOUS KNOWLEDGE (CAPS PG. 15)</b>	<b>AGRICULTURAL ORGANISATIONS (CAPS PG. 16)</b>	<b>REVISION/TESTS WEEK &amp; ASSESSMENT</b>	
<b>CORE CONCEPTS, SKILLS AND VALUES</b>	Concepts: Ecology, levels of organisation, agro-ecology, agro-ecosystems, components of ecosystems, biotic and abiotic factors	Energy flow in ecosystems, nutrient cycling in ecosystems, interactions between organisms, ecological farming methods	Pastures, grazing ecology, optimal grazing, veld types of South Africa, characteristics of grazing plants, scientific approach to pasture evaluation and monitoring	Importance of pastures for the livestock industry, relationship between pasture management and pasture condition, veld management practices and systems, advantages and disadvantages of grazing systems, pasture veld management practices that lead to poor pasture conditions	Main types of biomes of SA, identification of biomes on a map, human impact on biomes, importance of biomes, climate change and global warming, factors that cause global warming, impact of climate change or global warming, long and short-term weather prediction and cyclic patterns of rainfall in SA, adaptation measures	Agri – Industry, classification and utilisation patterns of food products in SA	Impact of population growth and shift on agricultural production in SA, impact of the demand for agricultural commodities on industries, changes in the world and SA population over the past 100 years, impact of secondary and tertiary agricultural development in SA	Land ownership models in SA, land reform programmes in SA, land redistribution and development after 1994, legal concepts, aims/purposes of agricultural legislation, important laws affecting agriculture	Concept of IKS, comparison between indigenous and scientific knowledge, indigenous knowledge used in agriculture, advantages and disadvantages of using indigenous technical knowledge, agricultural production, protection and management of IKS in SA	Basic aims, national, provincial and local levels of agricultural organisations, roles of agricultural organisations in SA, FOUR benefits/advantages of nationally recognised agricultural organisations for individual farmers	<b>TASK 2: TEST (75%) –100 marks</b> <b>Term 1: Content</b>	
<b>REQUISITE PRE-KNOWLEDGE</b>	Link with Grade 7 and 8 NS and SS and Gr 8 and 9 Agricultural Studies											
<b>RESOURCES (OTHER THAN TEXTBOOK) TO ENHANCE LEARNING</b>	Own developed Power Point slides and videos, past examination papers, practical work											
<b>INFORMAL ASSESSMENT</b>	Questions from past papers, tests, practical work & worksheets, homework, classwork The assessment mentioned under formal assessment is the minimum number of pieces Educators are free to add more informal assessment pieces to enhance learning											
<b>SBA (FORMAL ASSESSMENT)</b>	<b>TASK 1: (25%) Practical investigation/assignment</b>								<b>TASK 2: TEST (75%) –100 marks (Term 1: Content)</b>			

## 2023/24 ANNUAL TEACHING PLANS: AGRICULTURAL SCIENCES: GRADE 10 (TERM 2)

TERM 2	WEEK 1	WEEK 2	WEEK 3	WEEK 4	WEEK 5	WEEK 6	WEEK 7	WEEK 8	WEEK 9	WEEK 10	WEEK 11	
<b>CAPS TOPIC</b>	<b>SUSTAINABLE NATURAL RESOURCE UTILISATION (CAPS PG. 17)</b>	<b>SOIL CONSERVATION AND MANAGEMENT (CAPS PG. 17)</b>	<b>WATER MANAGEMENT (CAPS PG. 17) AGRICULTURAL POLLUTION (CAPS PG. 17)</b>			<b>SOIL SCIENCE (CAPS PG. 17) MINERALS (CAPS PG. 17)</b>			<b>ROCKS AND THEIR FORMATION (CAPS PG. 17)</b>	<b>Revision and remedial: Task 3: Controlled TEST Marks: 100 Time: 1½ hours Covers term 2 content 100% of term</b>		
<b>CORE CONCEPTS, SKILLS AND VALUES</b>	Concepts: Natural and agricultural resources, different types of agricultural resources and their importance in agriculture, pressure exerted on natural resources by growing population, sustainable utilisation of natural resources	<i>The concept:</i> Soil degradation, the types (physical, biological and chemical degradations) and processes of soil degradation (focus on causes, adverse effects and control) The impact of soil degradation on agricultural productivity	The criteria to define water quality, <i>the concepts:</i> Water source and water supply (scarcity of water), the different sources of water utilized in agriculture/farming industry, the different forms/ways in which water is used specifically in agriculture, factors that affect the supply of water in agriculture, the basic agricultural practices/activities that contribute to the pollution of soil water, subsoil or ground water and surface water (water quality), the appropriate management practices/strategies which can be adopted to prevent and control water pollution including the National Water Act of 1998 <i>The concept:</i> Agricultural pollution and different types of pollution, the major kinds/types of soil pollutants (causes, effects and control measures), the economic impact of soil pollutants on natural resource sustainability for agricultural production, waste management in agriculture			<i>The concept:</i> Soil, the main functions/importance of soil in an ecosystem, <i>the following major components of soil:</i> organic matter, soil air, soil water and mineral particles <i>The concept:</i> Minerals, the main differences between primary and secondary minerals, examples of primary minerals, examples of secondary minerals			<i>The concept:</i> Rocks/mother rock, the main types of rocks based on their origin (formation) that are important in soil formation processes (igneous rocks, sedimentary and metamorphic), the cultivation properties/suitability of soil that originate from different types of rocks			
<b>REQUISITE PRE-KNOWLEDGE</b>	Link with Grade 9 NS											
<b>RESOURCES (OTHER THAN TEXTBOOK) TO ENHANCE LEARNING</b>	Own developed PowerPoint slides and videos, past examination papers											
<b>INFORMAL ASSESSMENT</b>	Questions from past papers, tests, practical work & worksheets, homework, classwork The assessment mentioned under formal assessment is the minimum number of pieces Educators are free to add more informal assessment pieces to enhance learning											
<b>SBA (FORMAL ASSESSMENT)</b>									<b>TASK 3: JUNE EXAMINATION: 100 % of TERM TERM 2 content</b>			

## 2023/24 ANNUAL TEACHING PLANS: AGRICULTURAL SCIENCES: GRADE 10 (TERM 3)

TERM 3	WEEK 1	WEEK 2	WEEK 3	WEEK 4	WEEK 5	WEEK 6	WEEK 7	WEEK 8	WEEK 9	WEEK 10/11		
<b>CAPS TOPIC</b>	<b>WEATHERING OF ROCKS (CAPS PG. 19)</b>	<b>SOIL FORMING FACTORS (CAPS PG. 19)</b>	<b>SOIL FORMING PROCESSES (CAPS PG. 19)</b>	<b>ANIMAL STUDIES (CAPS PG. 19)</b>	<b>CATTLE BREEDS (CAPS PG. 20)</b>	<b>SHEEP BREEDS (CAPS PG. 20)</b>	<b>GOAT BREEDS (72%) (CAPS PG. 21)</b>	<b>PIG BREEDS (75%) (CAPS PG. 21)</b>	<b>POULTRY BREEDS (CAPS PG. 22)</b>	<b>HORSE BREEDS (CAPS PG. 22) GAME ANIMALS (CAPS PG. 22)</b>	<b>REVISION &amp; TESTS</b>	
<b>CORE CONCEPTS, SKILLS AND VALUES</b>	<i>The concept:</i> Weathering of rocks, the importance of the weathering of rocks, the weathering factors important in soil formation	The description of the following main soil forming factors: Geographical/topographical factors, <i>climatic factors</i> , organisms/biological factors that influence soil formation, the human activities that can have a direct impact on soil formation, parent material and time	Soil forming processes that are active in soils: mineralisation, humification, leaching, illuviation, plinthite formation, inversion and bioturbation	Development and domestication of farm animals, the general economic importance of the livestock industry in SA, The basic differences between ruminants and non-ruminants, cattle – beef cattle breeds	Dairy cattle breeds, dual purpose cattle breeds (2 examples of each)	The main groups of sheep breeds on their utilisation, general characteristics of a functional ram and ewe, wool breed, dual purpose sheep breeds, mutton breeds, pelt breeds (2 examples each)	Classification of the following main goat breeds based on their utilisation: Milk/dairy breeds, meat breeds, mohair breeds (2 examples each)	Classification of the main group of pig breeds based on their production, the differences between indigenous and improved breeds, pork breeds, bacon breeds (2 examples of each)	Classification of the main types of poultry and differences between the main chicken/fowl breeds (SA indigenous breeds, dual purpose breeds or heavy breeds, light breeds and ornamental/pedigree breeds) according to the following types of production: Broiler production and egg production. Basic requirements for successful production	Classification of the main horse breeds based on their purposes, warm-blooded and cold-blooded horses, riding/light horse breeds, draught horse breeds	Classification of the main game animals based on their purposes, importance of game farming	<b>Task 5: TERM TEST – 100% TERM 3 – Content 100 marks</b>
<b>REQUISITE PRE-KNOWLEDGE</b>	Link with Grade 9 NS and Agricultural Studies Gr 8 & 9											
<b>RESOURCES (OTHER THAN TEXTBOOK) TO ENHANCE LEARNING</b>	Own developed PowerPoint slides and videos, past examination papers											
<b>INFORMAL ASSESSMENT</b>	Questions from past papers, tests, practical work & worksheets, homework, classwork The assessment mentioned under formal assessment is the minimum number of pieces Educators are free to add more informal assessment pieces to enhance learning											
<b>SBA (FORMAL ASSESSMENT)</b>	TASK 4: Research or assignment		Task 5: TERM TEST – 100% of TERM: TERM 3 Content :100 marks									

## 2023/24 ANNUAL TEACHING PLANS: AGRICULTURAL SCIENCES: GRADE 10 (TERM 4)

TERM 4	WEEK 1	WEEK 2	WEEK 3		WEEK 4	WEEK 5	WEEK 6	WEEK 7	WEEK 8	WEEK 9	WEEK 10
<b>CAPS TOPIC</b>	<b>PLANT STUDIES (CAPS PG. 23)</b>	<b>HORTICULTURE CROPS (CAPS PG. 23)</b>	<b>HORTICULTURE CROPS (CAPS PG. 23)</b>	<b>FODDER CROPS AND FORESTS (CAPS PG. 24)</b>	<b>BIOLOGICAL CONCEPTS AND CELL DIVISION (CAPS PG. 24)</b>		<b>REVISION AND END OF THE YEAR EXAMINATION</b>				
<b>CORE CONCEPTS, SKILLS AND VALUES</b>	The average volumes of production of economically important crops/plants, the main production areas of crops in South Africa, the general economic importance and utilization of crops, criteria for successful crop production, field crops, grain crops, oil seed crops, industrial crops	Horticultural crops, vegetables, fruit	Flower crops, shrubs and indigenous crops	Legume fodder crops, grass fodder crops – climate and soil requirements, <i>The concept:</i> Forests, the classification of the main groups of forests crops/trees, the distinction between indigenous and exotic forests, reasons for promoting and growing protected trees/plant and eradicating invasive trees/plant	<i>The basic concept:</i> Cell, tissue and organs in living organism (organisational levels of a multi-cellular organism), plant and animal cells including the labelled diagrams of plant and animal cells, identification of the main cell structures and organelles and their functions in both plant and animal cells, differences between an animal cell and a plant cell, the cell division process and its application, <i>the concept:</i> cell division, the types of cell division the differences between mitosis and meiosis		<b>PAPER 1</b> <b>Marks: 150</b> <b>Time: 2½ hours</b> <i>Learners must answer all 4 questions</i>  <b>Topics</b> Agri-ecology Agri-industry Animal studies		<b>PAPER 2</b> <b>Marks: 150</b> <b>Time: 2½ hours</b> <i>Learners must answer all 4 questions</i>  <b>Topics</b> Soil science Plant studies Optimal resource utilisation Biological concepts		
<b>REQUISITE PRE-KNOWLEDGE</b>	Link with Gr 9 NS and Agricultural Studies Gr 8 & 9										
<b>RESOURCES (OTHER THAN TEXTBOOK) TO ENHANCE LEARNING</b>	Own developed Power Point slides and videos, past examination papers										
<b>INFORMAL ASSESSMENT</b>	Questions from past papers, tests, practical work & worksheets, homework, classwork The assessment mentioned under formal assessment is the minimum number of pieces Educators are free to add more informal assessment pieces to enhance learning										
<b>SBA (FORMAL ASSESSMENT)</b>											