

2023/24 ANNUAL TEACHING PLANS: AGRICULTURAL TECHNOLOGY: 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
CAPS TOPIC	(CAPS PG. 14) SAFETY					(CAPS PG. 15) STRUCTURAL MATERIALS				
CONCEPTS, SKILLS AND VALUES	<i>OHS Act</i> : Introduction to the OHS Act: Familiarise the learners with relevant workshop practices and regulations applicable to the farm workshop so that they can conduct themselves appropriately in the workshop: protective clothing, ear protection and eye protection	General workshop rules: Safety when working on or under a motor vehicle in the workshop, injuries in the workshop (cuts, bruises, eye injuries, burns and bone fractures)	Electrical safety: General electrical safety rules, situations that can cause electrical shock to workers, actions that should be taken to secure the person that has sustained an electrical shock, reduce the risk of electrical injury with overhead power lines reduce the risk of contact with overhead power lines	Fire prevention: Fire prevention rules, discovering a fire, emergency evacuation, fire extinguishers, how to use a fire extinguisher, when to use a fire extinguisher, types of fire extinguishers, fire extinguishing chart Basic general safety regulations: Safe handling and safety regulations applicable to all workshop equipment, farm equipment as well as skills and construction processes must be dealt with through the content during the year	Metals: <i>Ferrous metals</i> : Mild steel identification and uses of mild steel products: beams, purlins, square tubing, square bar, lip channel, angle iron, round tubing, and round bar Corrosion: Types and protection against corrosion: Hardening and softening of steel, tempering, annealing and case hardening	Timber: Timber used on the farm: Uses and properties of: Pine, wattle, blue gum, poplar and meranti, protection of timber products: Timber, posts/poles: types, construction and uses	<i>Building</i> : Basic components of a concrete mixture: Cement, sand, stone/aggregate, water, and cement bricks, building mixtures: Concrete, mortar and screed	<i>Fencing</i> : <i>Types of wire, fences and netting</i> : sheep, cattle, game, <i>types of wire strands</i> : Barb wire, binding wire, galvanised steel wire, <i>type of wire netting</i> : Bonnox, jackal proof, chicken mesh. Components of a fence: <i>Posts</i> : types and uses, <i>droppers</i> : Types and uses, <i>anchors and supports</i> : Types, uses and basic sketching, <i>gates</i> : Placing, erecting and basic sketches	Revision/Consolidation	
REQUISITE PRE-KNOWLEDGE	Link with Grade 8 and 9 Agricultural studies									
RESOURCES (OTHER THAN TEXTBOOK) TO ENHANCE LEARNING	Internet/videos/practical demonstrations	Internet/videos/practical demonstrations	Internet/videos/practical demonstrations	Internet/videos/practical demonstrations	Internet/videos/practical demonstrations	Internet/videos/practical demonstrations	Internet/videos/practical demonstrations	Internet/videos/practical demonstrations	Internet/videos/practical demonstrations	Internet/videos/practical demonstrations
INFORMAL ASSESSMENT, REMEDIATION	Past examination papers/tests/practical tests	Past examination papers/tests/practical tests	Past examination papers/tests/practical tests	Past examination papers/tests/practical tests	Past examination papers/tests/practical tests	Past examination papers/tests/practical tests	Past examination papers/tests/practical tests	Past examination papers/tests/practical tests	Past examination papers/tests/practical tests	Past examination papers/tests/practical tests
SBA (FORMAL ASSESSMENT)	<i>First part of PAT must be handed out to the learners</i>		TASK 1 PRACTICAL TASK (25%): minimum marks 50	<i>Learners must start with the second part of the PAT (manufacturing) of the PAT project/product (four half-hour periods must be allocated for this per cycle/week)</i>					TASK 2: TEST (75%) minimum 100 marks	

2023/24 ANNUAL TEACHING PLANS: AGRICULTURAL TECHNOLOGY: 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
CAPS TOPIC	(CAPS PG. 17) ENERGY		(CAPS PG. 17) CONSTRUCTION PROCESSES							
CONCEPTS, SKILLS AND VALUES	<i>Electrical energy:</i> 12 Volt DC current: <i>Basic principles of electrical energy:</i> Current, amperes, resistance and potential difference, standard symbols and units as applicable to DC circuits, basic calculations	Basic components in a basic electrical ignition system of a motor vehicle – working, function and problem solving: battery, ignition coil, distributor, spark plug, ignition timing	Basic components of the electrical circuit of a motor vehicle: Fuses, lights, wires, trailer coupling plug for vehicles (male and female plugs)	Arc welding: safety, protective clothing, hazards associated with arc welding, arc <i>welding machine:</i> Basic construction, and working, arc welding electrodes, basic arc welding principle, welding defects	Soft soldering: application and methods, equipment used, types of solders, fluxes, safety	Hard soldering: brazing: application and method, equipment used, type of welding rod, fluxes, safety	Revision/Consolidation			
REQUISITE PRE-KNOWLEDGE	Link with Grade 8 and 9 Agricultural studies									
RESOURCES (OTHER THAN TEXTBOOK) TO ENHANCE LEARNING	Internet/videos/practical demonstrations	Internet/videos/practical demonstrations	Internet/videos/practical demonstrations	Internet/videos/practical demonstrations	Internet/videos/practical demonstrations	Internet/videos/practical demonstrations	Internet/videos/practical demonstrations	Internet/videos/practical demonstrations	Internet/videos/practical demonstrations	Internet/videos/practical demonstrations
INFORMAL ASSESSMENT, REMEDIATION	Past examination papers/tests/practical tests	Past examination papers/tests/practical tests	Past examination papers/tests/practical tests	Past examination papers/tests/practical tests	Past examination papers/tests/practical tests	Past examination papers/tests/practical tests	Past examination papers/tests/practical tests	Past examination papers/tests/practical tests	Past examination papers/tests/practical tests	Past examination papers/tests/practical tests
SBA (FORMAL ASSESSMENT)									TASK 3: JUNE EXAMINATION (100%) minimum of 100 marks	

2023/24 ANNUAL TEACHING PLANS: AGRICULTURAL TECHNOLOGY: 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		
CAPS TOPIC	(CAPS PG. 19) TOOLS AND EQUIPMENT											
CONCEPTS, SKILLS AND VALUES	Tools, equipment, implements and mechanised systems, basic hand tools used in workshop: <i>Saws</i> : Hack saw and junior saw, <i>hammers</i> : Ball pane, soft face and rubber, <i>punches</i> : Centre, and flat nose, <i>cold chisels</i> : Flat, cross-cut and round nose, <i>screw drivers</i> : Star (Philips) and flat point, <i>pliers</i> : Combination, long nose, round nose, vice grip and water pump, <i>drills</i> : Hand <i>drill bits and reamers</i> : Iron, wood and concrete, <i>measuring and marking</i> : Squares, scribes, chalk, measuring tape, venire, calliper, callipers, micrometre and combination set, <i>files</i> : profiles, <i>tin snips</i> : Various types, <i>riveting</i> : Pop riveting; and rivets, <i>spanners</i> , Ring, combination, open end, socket, pipe wrench, and shifting, <i>Allen keys</i> : Function			Horticulture cultivation tools: Identification, function: <i>Garden tools</i> : Spade fork and rake, power <i>tools</i> : Lawn mower and brush cutter, animal drawn implements: Plough, planter, basic primary cultivation implements: Parts, function and maintenance: Plough, ripper, disk, offset, wonder tiller, disk plough			Engines: Working, construction and components: 2-stroke, 4-stroke petrol and diesel; <i>Service of engines</i> : Ignition, cooling, lubrication, braking, oil- air cleaning, vehicle components/parts and <i>engine systems</i> : Lubrication and temperature control of engines				Revision/consolidation	
REQUISITE PRE-KNOWLEDGE	Link with Grade 8 and 9 Agricultural studies											
RESOURCES (OTHER THAN TEXTBOOK) TO ENHANCE LEARNING	Past examination papers			Past examination papers			Past examination papers				Previous exam papers/revision tests/tutoring	
INFORMAL ASSESSMENT REMEDIATION	Questions from past papers, tests Practical work			Questions from past papers, tests Practical work			Questions from past papers, tests Practical work					
SBA (FORMAL ASSESSMENT)	TASK 4: TEST (100%) minimum of 100 marks											

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

TERM 4	WEEK 1	WEEK 2	WEEK 3	WEEK 4	WEEK 5	WEEK 6	WEEK 7	WEEK 8-10 FINAL EXAMINATION
CAPS TOPIC	(CAPS PG. 20) IRRIGATION AND WATER SUPPLY						Revision/Consolidation	ASK 6: FINAL EXAMINATION (MINIMUM 200 MARKS) (30 % OF YEAR MARK) PAPER Marks: 200 Time: 3 hours <i>Learners must answer all 6 questions.</i> Section A: Question 1 (40 marks) <ul style="list-style-type: none"> • Short questions Section B: (160 marks) <ul style="list-style-type: none"> • Question 2 (35 marks): Structural materials and related drawings, measurements and safety • Question 3 (20 marks): Electric energy and related tools, materials and safety • Question 4 (35 marks): Skills and construction processes and related tools, materials, drawings, measurements and safety • Question 5 (40 marks): Tools, implements and equipment and related tools, materials, drawings, calibrations and safety • Question 6 (30 marks): Irrigation and water supply, related tools, materials, drawings, measurements and communication See CAPS for cognitive levels
CONCEPTS, SKILLS AND VALUES	<i>Basic water pumping methods:</i> Working, construction and components: windmill, water tower, power head <i>Micro irrigation systems:</i> Working, construction and components: micro spray irrigation, drip irrigation			Water supply to animals: Construction and safety principles, troughs, valves, connection pipes, reservoirs				
REQUISITE PRE-KNOWLEDGE	Link with Grade 8 and 9 Agricultural studies/Previous content							
RESOURCES (OTHER THAN TEXTBOOK) TO ENHANCE LEARNING	Past examination papers			Past examination papers		Past examination papers		
INFORMAL ASSESSMENT, REMEDIATION	Questions from past papers, tests Practical work			Questions from past papers, tests Practical work				
SBA (FORMAL ASSESSMENT)	<i>PAT (Task 5) must be finished in this term (2 weeks before final examination)</i> <i>Marks must be awarded according to the guidelines provided for the final product</i> <i>Preparation for (Task 6):</i>							