basic education

Department:
Basic Education
REPUBLIC OF SOUTH AFRICA

Curriculum and Assessment Policy Statement

Grade 8 & 9

SERVICES TECHNOLOGY:

MAINTENANCE

&

UPHOLSTERY

CONTENT

SECTION 1:

INTRODUCTION TO THE CURRICULUM AND ASSESSMENT POLICY STATEMENT

1.1 Background

The South African Constitution, Act 108 of 1996, enshrines the right of every child to access quality basic education without there being any form of discrimination. There are learners participating in the General Education and Training Band who have an interest and talent in applied knowledge and in technical and vocational skills subjects which are currently not available in the National Curriculum Statement, Grades R to 12 (2011). This cohort of learners should be given an opportunity to achieve a formal qualification or recognition of achievement towards a qualification that is related to any vocational and occupational learning within their area of interest and aptitude.

This Subject Statement has been developed to respond more effectively to the needs of these learners who have been identified and assessed through the protocols approved by the Department of Basic Education and who will benefit from curriculum content that is aligned to the Senior Phase of the National Curriculum Statement at a more applied and functional level in accordance with their interest and aptitude.

It is critical, that through differentiated methodologies, the learners enrolled for this qualification will be able to progress with regard to applied competencies, even where they might not be able to attain the minimum theoretical requirements of the respective grades of the senior phase. There should always be high expectations for all learners and the necessary scaffolding and learning support to master foundational competencies (language and numeracy) relevant to the specific subject, so that they are in a position to demonstrate the practical competencies that they have mastered which will make it possible for them to progress to further education and training pathways.

The learning programme will be structured in such a way that it would adequately prepare learners to progress onto the academic, technical vocational or technical occupational pathways of the Further Education and Training Band, albeit with endorsement. It will also enable learners across the range of competencies and aptitudes to obtain a recognised and accredited qualification or certificate of attainment.

The programme aims at contributing to the ideal of education to produce learners who will function **meaningfully** and **effectively** in the society, be able to enter future **careers** and be equipped to meet the requirements of the **economy** (local and global).

1.2 Overview

Through the policy document the Minister of Basic Education will be able to prescribe the minimum norms and standards for technical occupational education in the General Education and Training band.

The following legal framework will be adhered to:

(i) National Curriculum Statement, Grades R to 12 (2011) together with the National Protocol for Assessment and the National Policy pertaining to the Programme and Promotion Requirements of the National Curriculum Statement, Grades R to 12;

(ii) Draft Technical Vocational Subject Statements listed in the Draft General Certificate of Education: Technical Occupational, a Qualification at Level 1 on the National Qualification Framework;

(iii) General and Further Education and Training Quality Assurance Act, 2001 (Act No.58 of 2001); the General and Further Education and Training Amendment Act, 2008 (Act No 50 of 2008); the NQF Act, 2008 (Act no 67 of 2008) and the Continuing Education and Training Act, 2006 as amended by Act No 3 of 2012 and Act No 1 of 2013;

(iv) The General and Further Education and Training Qualifications Sub- Framework (August 2013);

(v) Standards and quality assurance for General and Further Education and Training (June 2008, Revised April 2013);

(vi) Policy and regulations pertaining to the conduct, administration and management of assessment for the General Education and Training Certificate in Skills and Vocational Training: A qualification at Level 1 on the National Qualification Framework (NQF);

(vii) Education White Paper 6 on Special Needs Education: Building an Inclusive Education and Training System (2001);

(viii) The United Nations Convention on the Rights of Persons with Disabilities adopted by the United Nations General Assembly on 13 December 2006 and ratified by the South African parliament on 5 June 2007;

(ix) The White Paper on the Rights of Persons with Disabilities, 2015;

(x) Section 11 of the Children's Act (2007);

(xi) Chapter 5, section 76 of the Children's Act as amended (2007);

(xii) Umalusi's Quality Assurance of Assessment: Directives, Guidelines and Requirements;

(xiii) Skills Development Act, 1998 (Act 97 of 1998); and

(xiv) Assessment Policy for Qualifications and Part Qualifications on the Occupational Qualifications Sub-Framework (OQSF), 2014 of the QCTO.

1.3. General Aims of the Technical Occupational Curriculum

(a) The National Curriculum Statement, Grades R to 9 gives expression to the knowledge, skills and values worth learning in South African schools. The Technical Occupational Curriculum aims to ensure that learners, irrespective of their abilities, have the opportunity to develop competences for meeting challenges and taking up opportunities in the fast changing 21st century and are also guided to apply knowledge and skills in ways that are meaningful to their own lives. In this regard, the curriculum promotes knowledge in local contexts, while being sensitive to global imperatives, including the demands of the fourth industrial revolution. Sustaining development-relevance in the face of constant and rapid change requires curricula to be lifelong learning systems in their own right, capable of constant self-renewal and innovation.

(b) The curriculum serves the purposes of:

- Equipping learners, irrespective of their socio-economic background, race, gender, physical ability or intellectual ability, with the knowledge, skills and values necessary for self-fulfilment, and meaningful participation in society as citizens of a free country;

- Promoting critical thinking, creativity and innovation, communication, collaboration, information, media and ICT literacies, flexibility and adaptability, initiative and self-

direction, social and cross-cultural, productivity and accountability, leadership and responsibility and life-long learning;

- Facilitating the transition of learners from education institutions to the workplace;
- Providing employers with a sufficient profile of a learner's competences.
- Being sensitive to issues of diversity such as poverty, inequality, race, gender, language, age, and other factors;
- Valuing indigenous knowledge systems: acknowledging the rich history and heritage of this country as important contributors to nurturing the values contained in the Constitution; and
- Credibility, quality and efficiency: providing an education that is comparable in quality, breadth and depth to those of other countries.

(c) The curriculum is based on the following principles:

- Social transformation: ensuring that the educational imbalances of the past are redressed, and that equal educational opportunities are provided for all sections of the population;
- Active and critical learning: encouraging an active and critical approach to learning, rather than rote and uncritical learning of given truths;
- High knowledge and high skills: the minimum standards of knowledge and skills to be achieved at each grade are specified and set high, achievable standards in all subjects;
- Progression: content and context of each grade shows progression from simple to complex; and
- Human rights, inclusivity, environmental, gender and social justice and equality: infusing the principles and practices of social justice and human rights as defined in the Constitution of the Republic of South Africa as well as the greening of the economy.

(d) Inclusivity should become a central part of the organisation, planning and teaching at each school. This can only happen if all teachers have a sound understanding of how to recognise

and address barriers to learning, and how to plan for diversity. The key to managing inclusivity is ensuring that barriers are identified and addressed by all the relevant support structures within the school community, including teachers, District-Based Support Teams, School-based Support Teams, parents and Special Schools as Resource Centres. To address barriers in the classroom, teachers should use various curriculum differentiation strategies such as those included in the Department of Basic Education's Guidelines for Responding to Learner Diversity in the Classroom (2011), as well as the Standard Operating Procedures for Accommodations in Assessment (2016).

1.3.1. The aims of the General Certificate of Education: Technical Occupational

The specific aims of the qualification are to:

- Give recognition to learners who would meet the requirements and achieve the competencies as specified in the Exit Level Outcomes and associated Assessment Criteria as set out in the GFETQSF along differentiated pathways;
- Provide a foundation of quality, standardised general education which will suit the needs of these learners and help prepare them for life after school and enable them to access particular employment or occupational workplace-based learning. It may also enable the learners to access a vocational qualification at a Technical and Vocational Education Training College;
- Promote Lifelong learning to enable learners to continue with further learning and skills development in the workplace;
- Prepare learners to function better in a fully inclusive society and workplace; and
- Provide employers with a profile of the learner's competence.

1.3.3.1. Learners successfully completing the qualification will be able to:

- Identify, select, understand and apply knowledge to the intended purpose and identify solutions to problems in the field of study;

- Demonstrate the necessary applied knowledge and skills identified for competence in a subject, as specified in the subject statement;
- Demonstrate knowledge and skills gained for purpose of formal communication and basic numerical operations;
- Have the ability to apply knowledge and skills in changing contexts;
- Reflect on their learning in order to promote an interest in learning and further study; and
- Demonstrate basic entrepreneurial skills that will enable them to create their own work and business opportunities in the contexts in which they live.

1.4. Subjects and Time Allocation

Instructional Time for the Technical Occupational Learning Programmes is 27½ hours in a five-day cycle

<table>
<tr><th colspan="2">Subjects

General Education</th><th colspan="2">Time</th></tr>
<tr><td colspan="2" rowspan="2">Languages

(Home Language and First Additional Language)

All 11 official languages (Afrikaans, English, isiNdebele, isiXhosa, isiZulu, Siswati, Sesotho, Setswana, Sepedi, Tshivenda, Xitsonga)</td><td colspan="2">3 Hours for Home Language</td></tr>
<tr><td colspan="2">2 hours for First Additional Language</td></tr>
<tr><td colspan="2">Mathematics</td><td colspan="2">3 hours</td></tr>
<tr><td rowspan="3">Life Skills</td><td>Personal and Social Well-being

(including aspects of Life Orientation, Social Sciences and Economic and Management Sciences)</td><td>2½ hours</td><td rowspan="3">6 hours</td></tr>
<tr><td>Physical Education</td><td>1 hour</td></tr>
<tr><td>Creative Arts</td><td>1 hour</td></tr>
</table>

	Natural Sciences	1½ hours from year 2 onwards This time to be used in year 1 to support Languages and Mathematics	

Information Communication Technology

ICT is a compulsory subject for all learners. It can be offered either as a stand-alone or integrated across various subjects. If offered as a stand-alone a school may use time allocated to the Technical Occupational programme. ICT does not count towards the qualification but is a necessary life-long skill. ICT is not to be confused with the Technical Occupational Subject "Office Administration" which is an elective.

Subjects	**Time**
Technical Occupational: Electives	

Agricultural Studies Art and Crafts Civil Technology: Bricklaying and Plastering Civil Technology: Plumbing Civil Technology: Woodworking and Timber Consumer Studies: Food Production Consumer Studies: Sewing Early Childhood Development Electrical Technology: Electrical Hospitality Studies Mechanical Technology: Body Works: Panel Beating and or Spray Painting Mechanical Technology: Motor Mechanics Mechanical Technology: Sheet Metal Work Mechanical Technology: Welding Mechanical Technology: Maintenance Office Administration Personal Care: Ancillary Health Care Personal Care: Beauty and Nail Technology Personal Care: Hairdressing Service Technology: Upholstery Wholesale and Retail	13½ hours

Total: General and Occupational	27½

The table below proposes the learner progression across the years at a GET.

GRADE 8	GRADE 9
Base Line Assessment for Language and Mathematics • **Intervention (ISP)** **General Education:** • **Home Language** • **FAL** • **Mathematics** • **Natural Sciences** • **Life Orientation** • **Human and Social sciences** **ELECTIVES:** • **Creative Arts** • **Technology** • **Economics and Management Sciences** • ICT Enrichment	**Base Line Assessment for Language and Mathematics** • **Intervention (ISP)** **General Education:** • **Home Language** • **FAL** • **Mathematics** • **Natural Sciences** • **Life Orientation** • **Human and Social sciences** **ELECTIVES:** • **Creative Arts** • **Technology** • **Economics and Management Sciences** • ICT Enrichment

Technical Occupational **Minimum of 2 Skills across the year** **Progress to grade 9 with appropriate support for Languages, Natural Sciences and Mathematics.**	**Technical Occupational** **Minimum of 2 Skills across the year** GCE: TO Qualification Or Certificate of Achievement (External exam- results verified / moderated)

Note:

Grades 8 & 9 are an orientation years and learners must be exposed to occupational skills so that they can select a skill with which they will continue from Grades 10-12. It is important that learners experience the core competencies of the skills so that an informed choice can be made.

SECTION 2:

INTRODUCTION TO: MAINTENANCE

2.1 What is Maintenance?

Maintenance as a subject covers the skills and knowledge required to perform elementary repair and maintenance work at a basic level focusing on the household and small construction environments. Maintenance skills are used by handymen who prevent equipment from breaking down and materials from deteriorating to solve minor problems before they become more serious ones. Handymen keep records of repairs undertaken and the dates when equipment was last repaired, inspected or serviced. This helps them to establish an inspection and repair schedule.

2.2 Topics to be studied in Maintenance:

Topics	Sub Topics
1. Generics	OCCUPATIONAL HEALTH AND SAFETY ACT 85 of 1993 (OHS)
	First Aid
	Graphic Communication
	Entrepreneurship
2. Metal- work	Safety
	Measuring and marking
	Filing and grinding
	Cutting
	Drilling
	Soldering, welding and fastening
3. Mechanical Maintenance	Safety
	Service of vehicle
	Tyre maintenance
	Battery maintenance
	Basic maintenance of vehicles

	Basic maintenance on mechanical devices
4. Plumbing	Safety
	Tools & equipment
	Materials
	Measuring and marking
	Fitment of pipes and installations
	Maintenance of pipes, valves, cisterns, geysers,
5. **Painting and Water-proofing**	Safety
	Paints/material
	Tools and equipment
	Mixing of paints
6. Glazing	Glass, Safety and Types
	Cutting
7. Electrical	Safety
	Electrical, tools and material
	Maintenance of electrical components
8. Woodworking	Safety
	Measuring and marking
	Cutting and finishing
	Tools and materials
	Maintenance and repairs
9. Bricklaying and Plastering :	Safety
	Tools &equipment
	Mixtures of mortar
	Repairs & maintenance of walls
	Flooring and Tiling: Tools &equipment Adhesives Measuring

	Preparation-surfaces Grouting and cleaning
10. Upholstery	Tools
	Materials & care
	Measuring and calculations
	Pre-covering (Preparation)
	Cutting layout requirements
	Final covering
	Repair damaged furniture

2.3 Specific Aims:

The learner is able to:

1. Know and apply basic skills to solve metal work problems
2. Maintain basic mechanical devices
3. Maintain plumbing installations
4. Apply basic bricklaying, plastering, flooring, tiling painting and water-proofing skills used in the building and construction industry.
5. Apply basic glazing skills used in the building and construction industry
6. Maintain electrical appliances
7. Apply basic woodworking skills used in the building and construction industry

9. Know and apply basic skills used in upholstery industry.

2.4 Requirements for Maintenance as a subject

2.4.1 Time Allocation

The total number of hours allocated for the subject in a five-day cycle is 2 hours.

- Terms 1-3: 30 weeks (8 weeks per term=16hrs) for teaching and learning and 2 weeks (4 hours) for formal assessment.
- Term 4: 6 weeks (12 hours for teaching and learning and 4 weeks (8 hours) for formal assessment.
- Total of 60 hours per year.

Sufficient time must be allocated in the school timetable for the practical work required.

2.4.2 Resources

Human resources

Maintenance requires a trained subject specialist. It is preferred that the teacher offering Maintenance is an artisan / technician / technical teacher in a Maintenance related area. Industry related experience and workshop management skills are essential and a tertiary qualification in technical teaching is preferred.

Maintenance teachers are required to:

- Know and understand South African Standards (SANS)
- Teach the subject content with confidence and flair
- Interact with learners in a relaxed but firm manner
- Manage the workshop resourcing, budget and safety
- Manage the teaching environment
- Conduct stock taking and inventory
- Plan for practical work
- Plan for theory lessons
- Conduct weekly practical sessions
- Maintain and service the workshop as a whole
- Maintain and service the tools and instruments
- Ensure learner safety
- Produce working PAT projects in cooperation with learners
- Carry out School Based Assessment (SBA)
- Implement innovative methods to keep the subject interesting
- Be self-motivated to keep her/him abreast of the latest technological developments
- Regularly attend skills workshops.

Learner Resources:

- Text/ resource book
- Suitable protective clothing
- Consumable material
- Stationery

2.4.3 Infrastructure, equipment and finances

Schools must ensure that teachers have the necessary infra-structure, equipment and financial resources for quality teaching and learning.

Infrastructure

- Maintenance as a subject cannot be implemented in a school without an equipped workshop.
- Electricity supply to the workshop is crucial, preferably a three phase, four-wire supply, but at least single phase with a high current circuit breaker.

- Lighting and ventilation is of extreme importance and a workshop should ideally have multiple exits with doors that open outward.
- Tools and equipment should have sufficient storage and well developed storage management system with an up to date inventory. Shelves should be clearly marked and storage areas defined.
- Good housekeeping principles require that all workshops be cleaned regularly. A suitable waste removal system should be in place to accommodate refuse, off-cut materials as well as chemical waste. The requirements of the Occupational Health and Safety (OHS) Act 85 of 1993 need to be complied with at all times.
- Ladder safety, different ladder types and scaffolding in order to access higher levels.
- Machinery on stands should be permanently affixed to the floor, with isolation switches for the mains supply. All machines should have working machine guards.
- Electrical motors should ideally be painted bright orange. Specification plates should be clearly legible.
- The workshop must have a lockable mains distribution board. The workshop must be fitted with an emergency cut of switch/s which is/are easily accessible at all times. The red, mushroom type, emergency switch should preferably be lockable to prevent accidental re-connection with mains in the case of it being activated.
- Safety rules must be displayed on posters in the workshop.

Equipment

The following is the minimum requirement for a Maintenance workshop.

- **Metal-work**

Non- Consumable	Hand tools: steel rule, measuring tape, square, scriber, punch, hammer ball-pein 2lb, 4lb, hacksaw, snips, side-cutter, pliers, bench vice, pop riveter, files, welding vice grips, vice grips, Electric powered tools and equipment: angle grinder, electric drill, soldering iron, cut off saw, welding equipment –gas, arc, mig, safety glasses, leather Apron, welding helmets, safety gloves, bench grinder, drill press
Consumable	Sheet-metal, round bar, angle iron, and square bar and tubing, drill bits, mutton cloth, hand cleaner, welding rods, flux, welding wire, oil

- **Mechanical maintenance** -

Non- Consumable	Hand tools: spanners, manual jack, hydraulic jack, creeper, hammers, screwdrivers, filter straps, plug spanners, lead lights, multi-meters, timing light, torque wrench, gloves, goggles. Electrical tools and equipment: grinders, battery-charger and tester
Consumable	Mutton cloth, hand cleaner, grease, filters (oil, fuel, air.) gearbox oil, diff oil, engine oil.

- **Plumbing–**

Non- Consumable	Hand tools: shifting, stilton wrench, gas gun, under basin spanner, tin snips, tap reseating tool, vice grips, spirit levels, hack saw, water pump pliers, masonry drill bits, measuring tape. Electrical tools and equipment: Impact drill, angle grinder.
Consumable	Various pipes and fittings

- **Electrical**–

Non- Consumable	Hand tools: testers, wire strippers, pliers, side cutters, screwdrivers Electrical tools and equipment: soldering equipment
Consumable	Electrical wire, fuses, solders, insulation tape.

- **Painting, and Water-proofing**–

Non- Consumable	Hand tools: brushes, roller, trays, hot-air gun, scrapers, paint-scrapers

	Electrical tools and equipment: paint-strippers
Consumable	Paints, water-proofing material, thinners, turpentine, cleaning material, Polly fill, sanding-papers, masking-tape

- **Glazing**–

Non- Consumable	Hand tools: glazing tools, glass cutters, T-square, measuring tapes, different glass types, putty, safety gloves Electrical tools and equipment
Consumable	Glass, window putty, cleaning material,

- **Woodwork**–

Non- Consumable	Hand tools: Chisel, measuring tape, spirit level, screwdrivers, hammers, saws, square, drill bits Electrical tools and equipment: Electric-planer and sander, jigsaw, small electrical drill, cordless drill.
Consumable	Timber screws, nails, wood protective vanish and wood glue

- **Building, Plastering, Flooring and Tiling** –

Non- Consumable	Hand tools: concrete mixer, spades and shovels, spirit levels, trowels, chalk-line, corner blocks, cutting tools, tile cutter, tile fitting tools, pick, wheelbarrow Electrical tools and equipment: drill, angle grinder
Consumable	Cement, sand, stone, bricks (different sizes) Carpet, tiles, tile adhesive, grout

- **Upholstery**

Non consumable	Scissor, Staple gun, Screw gun, Foam cutter, Staple remover Rubber mallet, cutting table, working tables, Hand screw drivers, Combination spanners, Circular needles, Button needles, Upholstery Tack hammer, Spray glue gun, Jig saw and Air Compressor.
Consumable	Foam, Upholstery fabrics, Staples, Marking chalk, Cotton, Foam Tacks, Curve grip, Zips and sliders, Brass studs, Brad nails, Webbing, Poly-prop, Twine, Button moulds, Piping cord, Calico Helical springs and clips.

Finances:

Budget and inventory

This subject should only be given from skill centres that have the trades in question it will not be a financially viable to start a maintenance centre from scratch, the learner must move through all the different trades to acquire the knowledge.

A budget must be allocated for the subject. The amount will be determined by the number of learners taking the subject across all the years and the nature of the practical work required as stipulated in the curriculum. The budget needs to be revised annually and must consider all resources needed per year. The funding must make provision for maintenance of equipment and the replacement over the years.

Resourcing could be sub divided into the following categories:

- Safety Equipment
- Tools and Equipment
- Consumable Materials
- Practical Assessment Task Resources (PAT)
- Teaching and Learning Support Material
- Maintenance

A stock inventory must be maintained by the teacher and verified annually by a Senior Management Team member.

2.5 Career opportunities

Career and occupational opportunities for learners with a foundation in **Maintenance** include but is not limited to:

- General handyman
- Maintenance manager/assistant
- Buildings manager
- Entrepreneur.

Handymen work in various settings. They can be employed in hospitals, colleges, offices, apartment buildings, factories, schools, stores and malls. In small establishments where they are responsible for all types of maintenance,

SECTION 3:

OVERVIEW OF TOPICS PER TERM AND ANNUAL TEACHING PLANS

3.1 Content overview

1. GENERICS

TOPIC	GRADE 8	GRADE 9
INTRODUCTION TO MAINTENANCE	Define maintenance and its role.	
OCCUPATIONAL HEALTH AND SAFETY ACT 85 of 1993 (OHS)	Requirements of the OHS Act pertaining to: Personal safety, general safety, safety and health aspects associated with storage of materials, workshop rules and procedures, accidents, safety signs.	Requirements of the OHS Act pertaining to: Personal safety, general safety, fire prevention and protection and basic first aid.
OCCUPATIONAL HEALTH AND SAFETY ACT 85 of 1993 (OHS) (First Aid)	Requirements of the OHS Act pertaining to: Personal safety, general safety, safety and health aspects associated to minor injuries:	

	cuts, burns, bleeding, bruises and oxygen deprivation. HIV/ Aids and awareness of substance abuse.	
TOOLS AND EQUIPMENT	Identification and proper use of the following: hand tools and portable electrical tools.	General safety rules pertaining to hand tools, portable electric tools and machinery.
GRAPHICS/ COMMUNICATION SKILLS	Introduction to graphics as a means of communication. Make general drawing principles relevant to all types of drawing by applying various scales, dimensioning, freehand drawings, geometrical constructions related to setting up a drawing paper application of SANS 0143.	Introduction to graphics as a means of communication. Make general drawing principles relevant to all types of drawing by applying various scales, freehand drawings, geometrical constructions related to setting up a drawing paper application of SANS 0143. Make simple isometric drawings with isometric and non-isometric lines as well as auxiliary views. 1-Point perspective drawings of castings.
ENTREPRENEURSHIP	The entrepreneur, starting a business, factors of production, forms of ownership, levels of	The entrepreneur, starting a business, factors of production, forms of ownership, levels of management and functions of management,

	management and functions of management and sectors of economy.	sectors of economy, functions of a business and a business plan.

2. METALWORK

TOPIC	GRADE 8	GRADE 9
OCCUPATIONAL HEALTH AND SAFETY ACT 85 of 1993 (OHS)	Requirements of the OHS Act pertaining to: Personal safety, general safety, good housekeeping in workshops, safety regulations regarding tools.	Requirements of the OHS Act pertaining to: safety regulations regarding tools, machinery and materials.
TOOLS AND EQUIPMENT	Identification, knowledge and safety use of metalwork tools for measuring, marking and cutting tools.	Application, use and safety of different metalwork tools for measuring, marking, cutting and drilling.
JOINING	Basic methods of joining metals	Methods of joining metals

3. MECHANICAL MAINTENANCE

TOPIC	GRADE 8	GRADE 9
OCCUPATIONAL HEALTH AND SAFETY ACT 85 of 1993 (OHS)	Requirements of the OHS Act pertaining to: Personal safety, general safety, safety and health aspects associated with mechanical devices, safety rules when working on vehicles and mechanical devices.	Requirements of the OHS Act pertaining to: tyres, mechanical devices, battery, vehicles, tools and engine components.
TYRE MAINTENANCE	Identification, inspect, use and explain the use of different jacks, tyre tread -wear, tyre pressure gauge, uneven tread wear.	Application, use and safety of tyre changing, balancing equipment, knowledge of punctures, repairs, replacing and rotation of tyres.
BATTERY MAINTENANCE	Identification of vehicle battery, terminals, safety and knowledge of batteries and cleaning corroded battery terminals.	Demonstrate and explain the following: vehicle battery maintenance, mounting of battery in a compartment cleaning of battery compartment including terminals, check acid level in a battery.
BASIC MAINTENANCE OF VEHICLES	Identification, use and safety of tools, and materials. Care and maintenance of interior and exterior of vehicle. Checking levels and	Identification and explanation of the basic components/ parts on an engine, changing plugs, filters, oils and fluids. functions of vehicle

	changing all fluids, serviceable parts in a vehicle, warning lights and symbols in dashboard and cleaning and polishing a vehicle.	components, air and oil filters, water and oil pumps, alternators and batteries, multimeter, oil drain pan.
BASIC MAINTENANCE OF MECHANICAL DEVICES	Identification of basic components of an engine, changing spark plugs and filters, changing components of an engine in any mechanical device.	Application of safety and knowledge of tools and equipment: Removal and replacing of oil filters, air filters and inspection of pully belt.

4. ELECTRICITY

TOPIC	GRADE 8	GRADE 9
OCCUPATIONAL HEALTH AND SAFETY ACT 85 of 1993 (OHS)		
TOOLS AND MATERIAL	Identification, explain wire strippers, side cutters and screwdrivers, safe use and care of electrical tools hand tools and basic hand	Application of knowledge, safe use and care of electrical equipment, tools and materials, changing bulbs, wiring a distribution board and repair on

	tools, different types of lights and saving electricity.	electrical appliances e.g. Kettle, iron, microwave etc.
MAINTENANCE OF ELECTRICAL COMPONENTS	Joining electrical wires, soldering, light bulbs changing, repairing damaged wiring or loose connections, load shedding, colour coding and simple electrical circuit.	Application of skills and knowledge and safety of electric devices: replace, repair and install electrical appliances and components. Fault finding and maintenance of residential and domestic dwellings.

5. **PLUMBING**

`TOPIC	GRADE 8	GRADE 9
OCCUPATIONAL HEALTH AND SAFETY ACT 85 of 1993 (OHS)	Demonstrate and apply plumbing tools safety.	Requirements of the OHS Act pertaining to: plumbing and good housekeeping.
TOOLS AND EQUIPMENT	Identification and demonstration of the use of basic hand tools and cleaning of gutters.	Identification and proper use and care of: plumbing tools and equipment.
MATERIALS	Knowledge, care and use of plumbing materials.	Identify, care, use, application of materials.

MEASURING AND MARKING	Identification, use and safety of basic hand tools.	Measure, mark, cut and clean pipes using cutting tools, marking off tools and heating tools.
FITMENT AND MAINTENANCE OF PIPES	Identification and knowledge of different types of pipes.	Fix and seal leaks for sink, toilet and tap, using silicone, replace and fix toilet mechanism
UNBLOCKING OF DRAINS	Methods of unblocking and cleaning of drains and knowledge of materials that block drains.	Methods of unblocking of drains, showers, bath, and cleaning manholes.

5. PAINTING AND WATER-PROOFING

TOPIC	GRADE 8	GRADE 9
OCCUPATIONAL HEALTH AND SAFETY ACT 85 of 1993 (OHS)	Requirements of the OHS Act pertaining to: painting, waterproofing tools and materials, storage of flammable and no- flammable materials.	Requirements of the OHS Act pertaining to: health and safety hazards, painting, waterproofing tools and materials, storage of flammable and no- flammable materials.

PAINTS AND MATERIALS, MIXING AND APPLICATION	Knowledge of different types of paints, materials, preparation, priming and bonding liquids.	Knowledge of different types of paints, materials preparation, priming application, colour mixing and methodology of painting. Identify consumables cleaning materials.
TOOLS AND EQUIPMENT	Hand tools for painting and waterproofing. Identify consumables and cleaning materials	Application, use, safety, knowledge of painting tools, waterproofing tools and equipment.
WATERPROOFING	Waterproofing methods.	Knowledge of materials and sealing of general leaks.

6. GLAZING

TOPIC	GRADE 8	GRADE 9
GLASS - TYPES, SAFETY AND CUTTING	Knowledge, safety and types of glass. Identification, knowledge and safety of glazing tools.	Knowledge, safety and types of glass. Identification, knowledge and safety of glazing tools. Use of glazing tools and methods of glazing. Installation of glass. Methods of securing a glass to doors and windows.

8. WOODWORKING

TOPIC	GRADE 8	GRADE 9
OCCUPATIONAL HEALTH AND SAFETY ACT 85 of 1993 (OHS)	Requirements of the OHS Act pertaining to: woodworking tools, equipment, portable machinery and materials.	Requirements of the OHS Act pertaining to: woodwork tools, equipment, portable machinery and materials
MEASURING, MARKING, CUTTING AND FINISHING	Identification of marking, measuring, setting out and cutting tools.	Apply knowledge of the joints, measuring, cutting and planning to size
TOOLS AND MATERIALS	Identification, knowledge, maintenance, use and safety of basic woodwork tools, equipment, portable machinery and materials.	Apply knowledge of basic woodwork hand tools and electrical equipment.
MAINTENANCE, REPAIRS AND INSTALLATIONS	Identification, knowledge, use and safety of basic repair tools. Application of finishing products.	Skills application, knowledge, use and safety of basic repair tools. Repair and replace wooden doors, door locks, windows and cupboards. Application of finishes.

9. BRICKLAYING AND PLASTERING.

TOPIC	GRADE 8	GRADE 9
OCCUPATIONAL HEALTH AND SAFETY ACT 85 of 1993 (OHS)	Requirements of the OHS Act pertaining to: basic bricklaying tools and equipment. Site safety.	Requirements of the OHS Act pertaining to: basic bricklaying tools and equipment. Site safety. Compliance to building regulations, safe lifting and carrying methods.
TOOLS AND EQUIPMENT	Identification, use and safety of basic site equipment, bricklaying, setting out, joining, brick cutting and plastering tools. Application and use of materials.	Skills application: Use and safety of basic bricklaying and plastering hand tools, power tools, measuring devices and lifting equipment.
REPAIRS AND MAINTENANCE OF WALLS	Preparation of surfaces for repair and maintenance of walls.	Preparation of surfaces for repair and maintenance of walls. Knowledge and use of building material. Repair and maintain cracked and damaged walls and concrete floors. Construction of a single brick wall.

10. FLOORING

TOPIC	GRADE 8	GRADE 9
OCCUPATIONAL HEALTH AND SAFETY ACT 85 of 1993 (OHS)	Requirements of the OHS Act pertaining to: basic flooring and finishings such as carpets and tiles.	Requirements of the OHS Act pertaining to: basic flooring and finishings such as carpets and tiles and laminated floors.
TOOLS AND EQUIPMENT	Proper use of tools associated with carpet and tiling maintenance	Proper use of tools associated with carpet, lamination and tiling maintenance, Knowledge and use of different adhesives and material. Mixture and application of adhesives.
ADHESIVES	Knowledge and use of different adhesives and material.	
MEASURING	Calculate the area of walls and floors.	Calculate the area of walls and floors plus the number of tiles required, SI unit conversion.

FITTING AND REPAIRING OF CARPETS AND TILES	Methods of repairing and replacing floor tiles and carpets, floor fixatives for different finishing, proper preparation before installing different types of flooring, grouting and cleaning.	Skills application, knowledge of laying out the first tile on the floor and wall.

3.2 CONTENT OUTLINE PER TERM

GRADE 8

TERM 1		
MAINTENANCE GENERICS		
WEEK	**TOPIC**	**CONTENT**
1 – 2 **4 hours**	**INTRODUCTION TO MAINTENANCE**	Define maintenance Role of maintenance
	OCCUPATIONAL HEALTH AND SAFETY ACT 85 of 1993 (OHS)	Workshop orientation: • Workshop rules and procedures • Definition of an accident • Causes of accidents • Identify unsafe acts and unsafe conditions • Good housekeeping • Personal safety equipment: ▪ Eye and ear protection ▪ Head protection ▪ Footwear ▪ Protective clothing • Safety signs First Aid- Understand and deal with HIV/Aids: • Describe HIV/Aids • Causes of HIV/Aids • Describe HIV/Aids as an infectious disease

		• Know the danger of HIV/Aids and how it is transmitted Basic First Aid – incident management – cardiopulmonary resuscitation (CPR) • Define first aid • Basic first aid kit content Types of injuries: • Cuts • Burns • Fractures • Electrical shock • Trauma (shock) Demonstrate application of basic first aid • Stop bleeding Emergency evacuation drill
3 – 4 **4 hours**	**GRAPHIC/ COMMUNICATION SKILLS**	Introduction of Graphics communication: o What is graphics communication o What is engineering graphics and design Purpose of engineering and design: o The language of graphics Demonstrate and apply all aspects of drawing: General drawing principles

		○ The correct use and care of drawing instruments ○ The danger of sharp instruments that could cause injuries, and the possible transfer of HIV and Aids ○ The relevant line types as contained in the SANS 1011 guidelines ○ Guidelines for pencil linework: NOTE: A 0,5 clutch pencil with either a 2H or 3H lead should be used. A-type line (darkest line): Border and tittle/name block, outlines and visible parts B-type line (medium line): All writing and numbering, dimensions, projection planes C-type line (lightest line): Planning, constructions, projections, guidelines (for writing) Chain line (medium line): Centre lines, centre axis Dash/broken-line (medium line) Hidden details • Setting up a drawing sheet ○ A4 sized drawing sheet with boarders and basic name/title block • Geometric constructions ○ Bisecting lines, perpendicular lines, parallel lines, dividing lines into a given number of equal parts, fillets and roundings, bisecting angles, transferring angles, constructing 30°

		,45°, 60° and 90° angles as well as dividing circles into 4, 6, 8 and 12 equal segments • Free hand drawing • Scaled drawing
5 **2 hours**	**ENTREPRENEURSHIP**	Starting a business • Factors of production • Forms of ownership • Levels of management • Functions of management Sectors of economy
6 **30 min**	**TOOLS AND EQUIPMENT**	General safety rules pertaining to hand tools and portable electrical tools
METALWORK (Specific)		
6 - 7 **3hour 30 min**	**OCCUPATIONAL HEALTH AND SAFETY ACT 85 of 1993 (OHS)**	• Identify the tools used in metal work • Identify personal protective clothing for metalworking • Safety regulations regarding tools and materials
	TOOLS AND EQUIPMENT	Identification, knowledge and safety use of different metalwork tools for measuring, marking and cutting: • Steel rule • Steel tape

		• Scriber • Engineers chalk • Engineering square • Files • Hacksaws • Tin snips • Portable electric drill • Angle grinder
	JOINING	Explain the basic methods of joining metals: • Soldering • Welding • Semi-permanent joining methods
MECHANICAL MAINTENANCE (Specific)		
8 – 9 **4 hours**	**OCCUPATIONAL HEALTH AND SAFETY ACT 85 of 1993 (OHS)**	• Explain the safety precautions when you are working on the car • Application of the OHS Act pertaining to mechanical devices • Safety and health aspects associated with safety rules when working on vehicles and mechanical devices
	TYRE MAINTENANCE	• Identify tyre tread-wear • Inspect tyres for uneven tread wear and explain the reasons • Use the tyre pressure gauge to correctly inflate tyres • Identify and explain how different jacks work: trolley-jack, scissor jack, hydraulic jack and trestle

	BATTERY MAINTENANCE	• Identify the vehicle battery, the positive and negative terminals • Explain how to care and maintain a vehicle battery

	BASIC MAINTENANCE OF VEHICLES	Identify exterior and interior basic serviceable parts in the vehicle:
		• Exterior
		  ○ Wiper blades
		  ○ Globes
		  ○ Brake pads
		• Interior
		  ○ Filters (air, oil and petrol)
		  ○ Spark plugs
		Checking levels and filling up of:
		• Coolant
		• Dipstick (motor oil)
		• Brake fluid
		• Transmission oil
		• Power steering fluid
		Checking the dashboard warning lights symbols
		Cleaning and polishing vehicle

	BASIC MAINTENANCE ON MECHANICAL DEVICES	• Identify basic components/ parts of an engine • Able to change spark plugs and filters of a lawn-mower • Able to change components of an engine in any mechanical device

ELECTRICITY (Specific)		
10 – 11 **4 hours**	**OCCUPATIONAL HEALTH AND SAFETY ACT 85 of 1993 (OHS)**	• Demonstrate and apply all aspects of safety pertaining to: ○ Electrical wiring – colour coding 3 cord ○ Components – plug and single pole switch ○ Tools and equipment – screwdrivers, wire strippers, pliers, side cutters and multimeter
	TOOLS AND MATERIAL	• Identify and explain the use of wire strippers, side cutters and screwdrivers • Differentiate between electrical hand tools and basic hand tools • Describe the differences between incandescent, energy saving light bulbs and light-emitting diode (LED) lights • Explain the advantages and disadvantages of each light bulb
	MAINTENANCE OF ELECTRICAL COMPONENTS	• Demonstrate the joining of electrical wires using strip connectors and soldering • Safely change light bulbs and starters • Explain the colour coding of the 3-core cord • Effect basic repairs to damaged wiring or loose connections • Introduce simple electrical circuit • Explain load shedding and how to save electricity
	Formal Assessment: The weeks allocated for formal assessment are integrated across the weeks planned for teaching and learning. The assessment will consist of Practical Task/s with a 60% weighting and a Theory test with a 40% weighting.	

TERM 2		
PLUMBING (Specific)		
1 – 2 **4 hours**	**OCCUPATIONAL HEALTH AND SAFETY ACT 85 of 1993 (OHS)**	Demonstrate and apply all aspects of safety pertaining to: ○ Plumbing tools – water pump pliers, spanners, screwdrivers, hacksaw and shifting spanner
	TOOLS AND EQUIPMENT	• Identify basic hand tools such as: ○ Hacksaws ○ Water pump pliers ○ Pipe cutters ○ Spanners • Demonstrate how to use basic hand tools • Use a ladder safely and clean gutters
	MATERIALS	• Identification and proper use of pipes (copper, polyvinyl chloride (PVC), galvanised and polycop)
	UNBLOCKING OF DRAINS	• Clean drains • Demonstrate how to unblock drains

PAINTING AND WATERPROOFING (Specific)		

4 – 4
4 hours
	OCCUPATIONAL HEALTH AND SAFETY ACT 85 of 1993 (OHS)	Demonstrate and apply all aspects of safety pertaining to:
		• Painting tools:
		  ○ Brushes
		  ○ Paint roller and refills
		  ○ Paint tray ladders
		  ○ Scaffolding
		  ○ Scraper
		• Water-proofing tools:
		  ○ Brushes applicators
		  ○ Trowels
		  ○ Measuring tape
		  ○ Hot air gun
		• Materials:
		  ○ Paints
		  ○ Cleaning agents (thinners, paraffin, turpentine, benzene and methylated spirits)
		  ○ Sika and membrane
		  ○ Sand papers
		Safe storage of flammable and non-flammable materials

	TOOLS AND EQUIPMENT	• Identify and discuss the uses of basic hand tools used for painting and waterproofing • Identification of consumable cleaning materials
	PAINTS AND MATERIALS,	• Identify and explain the use of primers, bonding liquids, roof paints, interior and exterior paints

	MIXING AND APPLICATION	• Explain the need for the proper preparation of surfaces before work begins
	WATER-PROOFING	Explain the basic types of waterproofing methods; sealers, epoxies and membranes
GLAZING (Specific)		
5 **2 hours**	**GLASS- TYPES, SAFETY AND CUTTING**	• Demonstrate and apply all aspects of safety pertaining to glazing tools: cutters, screwdrivers and squares • State the basic types of glasses and where they are used
WOODWORK (Specific)		
6– 7 **4 hours**	**OCCUPATIONAL HEALTH AND SAFETY ACT 85 of 1993 (OHS)**	Demonstrate and apply all aspects of safety pertaining to: • Woodworking tools • Equipment and portable machinery • Materials
	MEASURING, MARKING AND CUTTING	Identify basic marking, measuring, setting out and cutting hand tools
	TOOLS AND MATERIALS	Identify and have knowledge of: • Woodworking tools – steel rule, square, marking gauge, tenon saw, coping saw, chisels, planes, mallets and hammers

		• Equipment and portable machinery – electric drill, jig saw, planer, sander, grinder, router, circular saw and drill press • Materials - timber (solid, chipboard, ply wood), pine and saligna, glue (contact and cold), screws and varnish (clear, stain and lacquer)
	MAINTENANCE, REPAIRS AND INSTALLATIONS	• Minor repairs of loose joints • Replacing of hinges to doors and windows • Application of finishing products
BRICKLAYING AND PLASTERING (Specific)		
8 – 9 **4 hours**	**OCCUPATIONAL HEALTH AND SAFETY ACT 85 of 1993 (OHS)**	• Demonstrate and apply all aspects of safety pertaining to basic bricklaying with emphasis on site safety. • Demonstrate and apply all aspects of safety pertaining to bricklaying tools and equipment.
	TOOLS AND EQUIPMENT	Identify and proper use of tools associated with: • Basic site equipment • Bricklaying tools • Setting out tools • Joining tools • Brick cutting tools • Plastering tools Application and use of the following materials: • Concrete • Screed

		• Mortar • Stones • Sand • Cement • Lime
	REPAIRS AND MAINTENANCE OF WALLS	• Definition of mortar and concrete • Mix proportions of mortar and concrete
FLOORING (Specific)		
10 **2 hours**	**OCCUPATIONAL HEALTH AND SAFETY ACT 85 of 1993 (OHS)**	• Demonstrate and apply all aspects of safety pertaining to flooring with emphasis on basic flooring finishing such as: ○ Carpets ○ Tiles • Demonstrate and apply all aspects of safety pertaining to flooring tools and equipment
	TOOLS AND EQUIPMENT	Identify and proper use of tools associated with: • Carpet maintenance: ○ Caulk gun / silicone ○ Knee pads ○ Pliers ○ Pry bar / crowbar ○ Putty knife ○ Rubber mallet ○ Stapler ○ Utility knife

		○ Measuring tapes • Tiling maintenance: ○ Stanley knife ○ Straight-edge ○ Tile cutters ○ Trowel ○ Angle grinders ○ Measuring tapes ○ Spirit level
	MEASURING	Calculate the area of the following: • Walls • Floors
	ADHESIVES	Identify the proper adhesives to be used: • Cement • Contact glue, tile fix, tile-bond, grout, tile cement, silicone, mastic sealants and PVC adhesives Identify materials - spacers, edge trims
	FITTING AND REPAIRING OF CARPETS AND TILES	Methods of repairing and replacing floor tiles and carpets • Explain the applications of floor fixatives for different finishing • Explain the need for proper preparation before installing different types of flooring: sanding and cleaning Application of skills to grouting and cleaning
Formal Assessment:		

The weeks allocated for formal assessment are integrated across the weeks planned for teaching and learning. The assessment will consist of SBA with a 60% weighting and a Theory test with a 40% weighting.

3.3 CONTENT OUTLINE PER TERM

GRADE 9

TERM 1		
MAINTENANCE GENERICS		
WEEK	**TOPIC**	**CONTENT**
1 – 2 **4 hours**	**OCCUPATIONAL HEALTH AND SAFETY ACT 85 of 1993 (OHS)**	General safety rules: • Unsafe conditions or acts • Use personal protective equipment (PPE) • Good housekeeping • Workshop layout • Demarcated areas, emergency stops, exits and first aid stations • Safety signs Fire prevention and protection: • Elements of fire

		• Classification of fires • Causes of fires • Types of firefighting equipment Basic First Aid – response and incident management Practical Skill: • First aid for fractured arm • First aid for shock
	GRAPHIC/ COMMUNICATION SKILLS	Demonstrate and apply all aspects of drawing: • Geometric constructions ○ Reduction and enlargement of plane figures ○ Regular polygons with 3, 4 and 6 sides • Free hand drawing ○ Scaled drawing Relationship between orthographic and isometric drawing ○ Introduction to 1st angle orthographic projection (2D) views and isometric (3D) drawings. ○ Identifying the three primary dimensions to strengthen the understanding of the relationship between orthographic views and isometric drawings

		○ Copying basic isometric drawings according the given dimensions
	TOOLS AND EQUIPMENT	General safety rules pertaining to hand tools, portable electric tools and machinery
	ENTREPRENEURSHIP	Starting a business • Factors of production • Forms of ownership • Levels of management • Functions of management • Sectors of economy Securing finance
METALWORK (Specific)		
3 - 4 **2 hours**	**OCCUPATIONAL HEALTH AND SAFETY ACT 85 of 1993 (OHS)**	• Safety regulations regarding tools, machinery and materials • Application of the safety rules and measures for: ○ Hand tools ○ Portable electrical power tools and machinery
	TOOLS AND EQUIPMENT	Apply knowledge and safety use of different metalwork tools for measuring, marking, cutting and drilling: • Steel rule • Steel tape • Scriber

		• Engineers chalk • Engineering square • Files • Hacksaws • Tin snips • Electric drill • Portable electric grinder
	JOINING	Explain the various methods of joining metals using: • Soldering • Screw • Gas welding • Arc welding
MECHANICAL MAINTENANCE (Specific)		
5 - 6 **4 hours**	**OCCUPATIONAL HEALTH AND SAFETY ACT 85 of 1993 (OHS)**	Application of the OHS Act pertaining to: • Tyres • Mechanical devices • Battery • Vehicles • Tools • Engine component
	TYRE MAINTENANCE	• Explain and demonstrate procedures to follow when changing or repairing a tyre • Identification and operation of a jack, wheel spanner and change tyres safely • Observation and explanation of tyre rotation and tyre cleaning

		Demonstrate and explain the following: • Proper gauging of different sized tyres and wheel changing • Plug and patches • Removal of tyres • Inspection for damage and wear on tyres and rims • Patch tubes • Re-assemble
	BATTERY MAINTENANCE	Demonstrate and explain the following: • Vehicle battery maintenance • Mounting of battery in a compartment • Cleaning of battery compartment including terminals • Check acid level in a battery
	BASIC MAINTENANCE OF VEHICLES	• Identify and explain the basic components/ parts on an engine • Explain and apply the skills of changing plugs and filters in an engine • Explanation and application of the procedure for changing oils and fluids in a vehicle • Know the basic workings and functions of vehicle components: o Air and oil filters o Water and oil pumps o Alternators and batteries o Multimeter • Demonstrate and explain oil drain pan

		• Demonstrate how to wash the vehicle engine compartment
	BASIC MAINTENANCE ON MECHANICAL DEVICES	Demonstrate and explain the following: • Removal and replacing of oil filters using appropriate spanners • Removal and replacing air filters • Inspection of pully belt for wear and tear
ELECTRICITY (Specific)		
7 – 8 **4 hours**	**OCCUPATIONAL HEALTH AND SAFETY ACT 85 of 1993 (OHS)**	Demonstrate and apply all aspects of safety pertaining to electrical installation regulations: • Electrical safety and hazards • Correct Identification and fitting of wiring for a domestic installation • Installation regulations as per: SANS 101142-1 • Replacing and repairing of power / extension cords and appliances • Overloading of power points • Safety on earth leakage protection device • Overcurrent in the supply • Correct use of fitting of wiring
	TOOLS AND MATERIAL	Apply knowledge and safety use of different tools, equipment and materials for electrical installation Tools: • Screw drivers

		• Wire strippers • Pliers • Side cutters • Multi-meter • Hack saw • Hammer • Crimping tool • Portable electric drill • Fish tape or draw wire • Pipe bending spring • Utility knife • Files • Soldering iron • Solder sucker Materials: • PVC • Flexible conduit • Insulation tape • Light switches • Wiring wires • Plugs • Day / night switches Demonstrate and apply safety precautions when changing the following bulbs: • Bayonet • Screw • Fluorescent tubes • LED lights

		• Flood lights • Day/night switch Demonstrate and apply safety precautions in wiring a distribution board (DB) – layout
	MAINTENANCE OF ELECTRICAL COMPONENTS	Demonstration and application of fault finding of a domestic electrical circuit and replacing and repairing of electrical appliances and components Replace: • Electrical fittings for stove elements and fuses • Starters/lamps on fluorescent fittings • Electrical fittings • Light • Geyser element and thermostat • Plugs Repair: • Household appliances (iron, kettle and toaster) • Defected female and male plugs on a lead wire • Broken extension lead • Solder and insulate wires Installation of fixed appliances: • Stove • Geyser • Water pump
Formal Assessment:		

The weeks allocated for formal assessment are integrated across the weeks planned for teaching and learning. The assessment will consist of Practical Task/s with a 75% weighting and a Theory test with a 25% weighting.

TERM 2		
PLUMBING (Specific)		
1 – 2 **4 hours**	**OCCUPATIONAL HEALTH AND SAFETY ACT 85 of 1993 (OHS)**	Safety in relation to plumbing and good housekeeping.
	TOOLS AND EQUIPMENT	Identification, use, care and maintenance of plumbing tools and equipment: • Pipe vice • Hack saw • Pipe cutters (copper tube) • Reamers • Pipe wrenches (stilson wrench) • Gas torch

		• Plumb bob Adjustable spanner or shifting spanner
	MATERIALS	Identification and proper use of pipes and pipe sizes • PVC pipes • Pex (multi-layer) pipe • Copper pipes • Galvanized pipes • Plastic fittings • Galvanized fittings • Brass fittings • Copper fittings • Adhesives pipes and fittings

	MEASURING, MARKING AND CUTTING	Explain and demonstrate how to measure, mark, cut and clean pipes using appropriate tools:
		
		• Cutting tools:
		  ○ Pipe cutters (steel pipe and link pipe cutter for cast iron pipes)
		• Marking off tools:
		  ○ Punches (Centre punch, prick punch)
		  ○ Scriber
		  ○ Dividers
		• Heating tools:

		○ Soldering iron
	FITMENT AND MAINTENANCE OF PIPES	• Use the tools for fixing downpipes and gutters with their fittings • Connect and fix certain leaks: elbows, T-pieces and couplings • Perform a leak fixing under the sink, toilet and tap • Demonstrate the sealing of leaks using silicone • Replace and fix toilet flushing mechanisms
	UNBLOCKING OF DRAINS	• Demonstrate how to unblock drains • Unblock a bath, shower using plungers and drain claws • Clean and unblock drains and manholes using chemicals
PAINTING AND WATERPROOFING (Specific)		
3 **2 hours**	**OCCUPATIONAL HEALTH AND SAFETY ACT 85 of 1993 (OHS)**	Demonstrate and apply all aspects of safety regulations regarding: • Paint and paintwork • Health and safety hazards for painters

		• Safety tips for painters • Waterproofing • Safe storage of flammable and non-flammable materials
	TOOLS AND EQUIPMENT	Demonstrate and apply all aspects of safety pertaining to: • Painting tools: o Brushes o Paint roller and refills o Paint tray o Ladders o Scaffolding o Scraper • Waterproofing tools: o Brushes o Trowels o Measuring tape o Hot air gun • Materials: o Paints o Cleaning agents (thinners, paraffin, turpentine, benzene and methylated spirits) o Sika and membrane o Sand papers

	PAINTS AND MATERIALS, MIXING AND APPLICATION	Explain different types of paints: • Latex paint (water based) • Gloss / enamel (oil based paints) Identification of consumable cleaning materials: • Paraffin • Turpentine • Thinners • Sandpapers Apply the sequence of preparation to painting by demonstrating: • Cleaning • Preparation • Priming • Base coating
	WATERPROOFING	Discuss and apply the knowledge of sealing general leaks using: • Sealers • Sika membranes • Sealing compounds • Resin based methods • Epoxies
WOODWORK (Specific)		

4 - 5
 	
4 hours
	OCCUPATIONAL HEALTH AND SAFETY ACT 85 of 1993 (OHS)	• Demonstrate and apply all aspects of safety pertaining to woodwork tools, equipment, portable machinery and materials
		• Apply the safety rules of cutting, planning and drilling tools in fitting of doors and windows, fixing cupboards hinges, tables and drawers
		• Knowledge, safety and use of:
		  ○ Portable electric tools
		  ○ Hand tools

	TOOLS, MATERIALS AND FINISHING	Application of knowledge of hand and electric tools: • Cordless drills • Chisels • Knifes • Mallet hammer • Marking gauge • Try square • Bevel gauge
	MEASURING, MARKING AND CUTTING	Apply knowledge of woodwork joints, measure, mark, cut and plane to size pieces of timber to make the following joints: • Butt • Mortice and tenon • Dovetail

		• Lapped

	MAINTENANCE, REPAIRS AND INSTALLATIONS	Demonstrate and apply knowledge and skills to:
		• Repair and replace:
		  ○ Doors and door locks
		  ○ Cupboards
		  ○ Windows
		  ○ Apply appropriate finishes
		• Sanding and cleaning old furniture (surface preparation)

BRICKLAYING AND PLASTERING (specific)		
6 **2 hours**	**OCCUPATIONAL HEALTH AND SAFETY ACT 85 of 1993 (OHS)**	• Demonstrate and apply all aspects of safety pertaining to basic bricklaying with emphasis on site safety • Explain the need for compliance to building regulations • Demonstrate safe lifting and carrying methods

	TOOLS AND EQUIPMENT	Identify and have knowledge of tools and materials associated with bricklaying and plastering Identification and proper use and care of the basic bricklaying tools and equipment: • Hand tools: such as trowels, hammers and bolsters, trowels, hawks, ladders, saws, spirit levels, cement mixers, etc • Power Tools: such as heavy -duty drills and mixers for motar and plaster • Measuring devices: including laser levels and tape measure • Lifting equipment, such as bosuns chairs
	REPAIRS AND MAINTENANCE OF WALLS	• Prepare surfaces to repair cracks on wall and on concrete • Repair a concrete floor • Repair cracks on damaged plaster work for the change in the mortar mixture ratios • Mix mortar proportionally for cracks on walls/ plaster
FLOORING (Specific)		
7 **2 hours**	**OCCUPATIONAL HEALTH AND SAFETY ACT 85 of 1993 (OHS)**	Demonstrate and apply all aspects of safety pertaining to flooring with emphasis on basic flooring finishing such as: • Carpets

		• Tiles • Laminated floors Demonstrate and apply all aspects of safety pertaining to flooring tools and equipment
	TOOLS AND EQUIPMENT	Demonstrate the proper use of tools associated with: • Carpet maintenance o Screwdriver o Caulk gun / silicone gun o Knee pads o Pliers o Pry bar / crowbar o Putty knife o Rubber mallet o Stapler o Utility knife o Measuring tapes • Tiling maintenance o Utility knife o Straight-edge o Tile cutters o Trowel o Angle grinders o Measuring tapes o Spirit level • Laminated floor maintenance:

		○ Tapping block ○ Pull bar ○ Spacer ○ Utility knife ○ Hammer ○ Measuring tapes ○ Carpenters square ○ Router ○ Drill ○ Saw ○ Chalk line ○ Dividers • Materials ○ PVC adhesives ○ Silicone ○ Mastic sealants ○ Contact glue ○ White vinegar
	MEASURING	Calculate quantities of the following: • Area • Number of tiles required SI unit's conversion
	FITTING AND REPAIRING OF CARPETS AND TILES	Demonstrate and explain how to lay out and set-out the first tile on the floor and wall using: • Measuring tape • Spirit level

		• Chalk line
GLAZING (Specific)		
8 **2 hours**	**GLASS- TYPES, SAFETY AND CUTTING**	Demonstrate the ability to safely use tools required when working with glass: • Glass cutter • Pliers • Square • Measuring tape • Sandpaper • Glass nippers Explain and demonstrate: • Setting out the glass sheet to minimize waste • Proper handling and transportation of glass • Cutting and profiling of glasses • Applying putty on to a window pane and doors • Applying the correct finishing touches after glazing • Safe disposal of glass
Formal Assessment		

The weeks allocated for formal assessment are integrated across the weeks planned for teaching and learning. The assessment will consist of SBA with a 60% weighting and a Theory test with a 40% weighting.

SECTION 4

ASSESSMENT

4.1 Introduction

This section on assessment *standardises* the recording and reporting processes for the Technical Occupational Curriculum and Assessment Policy Statement that is offered in schools that offer this learning programme. It also provides a policy framework for the management of school based assessment and school assessment records.

It is critically required of teachers to offer all measures of differentiated assessment as outlined in Chapter 9 of the National Protocol for Assessment. Especially learners in special schools who follow the Technical Occupational Curriculum over a period of four years have diverse learning styles and support needs. Since a learner or learners may be functioning on different levels, the assessment / recording / reporting system must make provision to reflect the level(s) of each leaner. Each learner, regardless of his/her number of years in the school, must have access to the standard of assessment best suited to his/her needs. The learner's *abilities* determine what will be expected of him/her and the *pacing* of instruction must accommodate each individual learner within a framework of high expectations (See Chapter 9 of the National Protocol for Assessment).

Learners are also eligible for Accommodations and Concessions as outlined in the Standard Operating Procedures for the Assessment of Learners who Experience Barriers to Assessment from Grade R to 12 (2017).

All decisions related to differentiated assessment are made through completing the protocols as outlined in the Policy on Screening, Identification, Assessment and Support (2014) and recorded and tracked through the Individual Support Plans of learners.

4.2 Assessment Principles

4.2.1 Definition

Assessment is a continuous planned process of identifying, gathering and interpreting information about the performance of learners, using various forms of assessment. It involves four steps: generating and collecting evidence of achievement; evaluating this evidence; recording the findings and using this information to understand and thereby assist the learner's development in order to improve the process of learning and teaching. Assessment should be both informal (Assessment for

Learning) and formal (Assessment of Learning). In both cases regular feedback should be provided to learners to enhance the learning experience.

Assessment is a process that measures individual learners' attainment of knowledge (content and concepts) and skills by collecting, analysing and interpreting the data and information obtained from this process to:

- Enable the teacher to judge a learner's progress in a reliable way;
- Inform learners of their strengths, weaknesses and progress; and
- Assist teachers, parents and other stakeholders in making decisions about the learning process and the progress of learners.

Assessment should be mapped against the content, skills, intended aims and topics specified in the learning programme. In both informal and formal assessments, it is important to ensure that in the course of a school year:

- All of the topics and content are covered;
- The full range of skills is included; and
- A variety of different forms of assessment are used.

4.2.2 Informal Assessment or Daily Assessment

Assessment for learning has the purpose of continuously collecting information on a learner's achievement that can be used to improve their learning. Informal assessment is a daily monitoring of learners' progress. This is done through observations, discussions, practical demonstrations, learner-teacher conferences, informal classroom interactions, etc. Informal assessment may be as simple as stopping during the lesson to observe learners or to discuss with learners how learning is progressing. Informal assessment should be used to provide feedback to the learners and to inform planning for teaching, but need not be recorded. It should not be seen as separate from learning activities taking place in the classroom. Learners or teachers can assess their performance in the tasks. Self-assessment and peer assessment actively involves learners in assessment. This is important as it allows learners to learn from and reflect on their own performance. The results of the informal daily assessment tasks are not formally recorded unless the teacher wishes to do so. **The results of daily, informal assessment tasks are not taken into account for progression, promotion and certification purposes.**

Informal, on-going assessments should be used to scaffold the acquisition of knowledge and skills and should be the stepping stones leading up to the formal tasks in the Programmes of Assessment.

4.2.3 Formal Assessment

All assessment tasks that make up a formal programme of assessment for the year are regarded as Formal Assessment. Formal Assessment Tasks are marked and formally recorded by the teacher for progression and certification purposes. All Formal Assessment Tasks are subject to moderation for the purpose of quality assurance and to ensure that appropriate standards are maintained. Formal assessment tasks form part of a year-long formal Programme of Assessment.

a. Why use a Formal Assessment task?

"Formal Assessment Task (assessment of learning)" – is a systematic way of assessment used by teachers to determine how well learners are progressing in a level and in a particular subject.

b. What is a Formal Assessment Task?

It is a set of questions and or instructions that learners need to respond to. A task may consist of a range of activities. A formal task must be valid, fair and reliable and must cover sufficient knowledge and or skills to report on the learners' progress.

Teachers must ensure that assessment criteria are very clear to the learners before the assessment process commences. This involves explaining to the learners which knowledge and skills are being assessed and the required length of responses. Feedback should be provided to the learners after assessment and could take the form of whole-class discussion or teacher-learner interaction. Examples of formal assessments include projects, oral presentations, simulations, performances, tests, examinations, practical demonstrations, etc. The **forms of assessment** used should be appropriate to the age and the developmental level of the learners as well as the context of the subject or skills being assessed. The assessment tasks should be carefully designed to cover the topic, content and or skills of the subject. The design of these tasks should therefore ensure that a variety of skills are assessed.

Practical Assessment Tasks allow for learners to be assessed on a regular basis during the school year and also allow for the assessment of skills that cannot be assessed in a written format, e.g. test or examination.

Assessment in the General Certificate of Education: Technical Occupational (GCE: TO)

Assessment in the GCE: TO is underpinned by the objectives of the National Qualifications Framework (NQF). These objectives are to:

- Create an integrated national framework for learning achievements.
- Facilitate access to and progression within education, training and career paths.
- Enhance the quality of education and training.
- Redress unfair discrimination and past imbalances and thereby accelerate employment opportunities.
- Contribute to the holistic development of the learner by addressing:
  - Social adjustment and responsibility;
  - Moral accountability and ethical work orientation;
  - Economic participation; and
  - Nation-building.

The principles that drive these objectives are:

- ***Integration***

  To adopt a unified approach to education and training that will strengthen the human resources development capacity of the nation.

- ***Relevance***

  To be dynamic and responsive to national development needs.

- ***Credibility***

  To demonstrate national and international values and acquired competencies and skills so as to ensure the recognition of the qualification to be attained.

- ***Coherence***

  To work within a consistent framework of principles and certification.

- ***Flexibility***

  To allow for creativity and resourcefulness when achieving skills to cater for different learning styles and use a range of assessment methods, instruments and techniques.

- ***Participation***

  To enable stakeholders to participate in setting standards and co-ordinating the achievement of the qualification.

- ***Access***

To address barriers to learning at each level to facilitate learners' progress.

- ***Progression***

  To ensure that the qualification framework permits individuals to move through the levels of the national qualification via different, appropriate combinations of the components of the delivery system.

- ***Portability***

  To enable learners to transfer parts of a qualification from one learning institution and/or employer to another institution or employer.

- ***Articulation***

  To allow for vertical and horizontal mobility in the education system when pre-requisites for accreditation have been successfully completed.

- ***Recognition of Prior Learning***

  To grant credits for a unit of learning following an assessment or if a learner possesses the capabilities specified in each skills area.

- ***Validity of assessments***

  To ensure assessment covers a broad range of knowledge, skills, values and attitudes (SKVAs) needed to demonstrate applied competency. This is achieved through:

  - Clearly stating the skill to be assessed;
  - Selecting the appropriate or suitable evidence;
  - Matching the evidence with a compatible or appropriate method of assessment; and
  - Selecting and constructing an instrument(s) of assessment.

- ***Reliability***

  To assure assessment practices are consistent so that the same result or judgment is arrived at if the assessment is replicated in the same context. This demands consistency in the interpretation of evidence; therefore, careful monitoring of assessment is vital.

- ***Fairness and transparency***

  To verify that no assessment process or method(s) hinders or unfairly advantages any learner. The following could constitute unfairness in assessment:

  - Inequality of opportunities, resources or teaching and learning approaches;

- Bias based on ethnicity, race, gender, age, disability or social class;
- Lack of clarity regarding topic, content or skill being assessed; and
- Comparison of learner's work with that of other learners, based on learning styles and language.

- ***Practicability and cost-effectiveness***

  To integrate assessment practices within the teaching and learning process and strive for cost and time-effective assessment.

4.3 Managing Assessment

Assessor Requirements

Assessors must be subject specialists with adequate formal assessment experience. If the teacher conducting the assessments has not been declared a competent assessor, an assessor who has been declared competent may be appointed to oversee the assessment process to ensure the quality and integrity of assessments for the qualification.

Types of Assessment

Assessment benefits the learner and the teacher. It informs learners about their progress and helps teachers make informed decisions at different stages of the learning process. Depending on the intended purpose, different types of assessment can be used.

- **Baseline assessment:** At the beginning of a level or learning experience, baseline assessment establishes the knowledge, skills, values and attitudes (SKVAs) that learners bring to the classroom. This knowledge assists teachers to plan learning programmes and learning activities.

- **Diagnostic assessment:** This assessment diagnoses the nature and causes of barriers to learning experienced by specific learners. It is followed by guidance, appropriate support and intervention strategies. This type of assessment is useful to make referrals for learners requiring specialist help.

- **Formative assessment (Informal Assessment):** This assessment monitors and supports teaching and learning. It determines learners' strengths and weaknesses and provides feedback on progress. It determines if a learner is ready for summative assessment.

- **Summative assessment (Formal Assessment)** This type of assessment gives an overall picture of student progress at a given time. It determines whether the student is sufficiently competent to progress to the next level.

Planning Assessment

An assessment plan should cover three main processes:

- **Collecting evidence:** The assessment plan indicates which learning programme topics, content and skills will be assessed, what assessment method or activity will be used and when this assessment will be conducted.

- **Recording:** The process of recording refers to the assessment instruments or tools with which the assessment will be captured or recorded. Therefore, appropriate assessment instruments must be developed or adapted.

- **Reporting:** All the evidence is put together in a report to deliver a decision for the subject.

Methods of Assessment

Methods of assessment refer to who carries out the assessment and includes teacher assessment, self-assessment, peer assessment and group assessment.

TEACHER ASSESSMENT	The Teacher assesses learners' performance against given criteria in different contexts, such as individual work, group work, etc.
SELF-ASSESSMENT	Learners assess their own performance against given criteria in different contexts, such as individual work, group work, etc.
PEER ASSESSMENT	ers assess another student or group of learners' performance against given criteria in different contexts, such as individual work, group work, etc.
GROUP ASSESSMENT	Learners assess the individual performance of other learners within a group or the overall performance of a group of learners against given criteria.

Task lists and **checklists** show the learners what needs to be done. They consist of short statements describing the expected performance in a particular task. The statements on the checklist can be ticked off when the learner has adequately achieved the criterion. Checklists and task lists are useful in peer or group assessment activities.

Rubrics are a hierarchy (graded levels) of criteria with benchmarks that describe the minimum level of acceptable performance or achievement for each criterion. It is a different way of assessment and cannot be compared to tests. Each criterion described in the rubric must be assessed separately. Mainly, two types of rubrics, namely holistic and analytical, are used.

Competence Descriptions

All assessment should award marks to evaluate specific assessment tasks. However, marks should be awarded against rubrics and not simply be a total of ticks for right answers. Rubrics should explain the competence level descriptors for the skills, knowledge, values and attitudes (SKVAs) a learner must demonstrate to achieve each level of the rating scale. When teachers or assessors prepare an assessment task or question, they must ensure that the task or question addresses an aspect of a topic or skill. The relevant content must be used to create the rubric to assess the task or question. The descriptions must clearly indicate the minimum level of attainment for each category on the rating scale.

Strategies for Collecting Evidence

A number of different assessment instruments may be used to collect and record evidence. Examples of instruments that can be (adapted and) used in the classroom include:

Record sheets: The teacher observes learners working in a group. These observations are recorded in a summary table at the end of each task. The teacher can design a record sheet to observe learners' interactive and problem-solving skills, attitudes towards group work and involvement in a group activity.

Checklists: Checklists should have clear categories to ensure that the objectives are effectively met. The categories should describe how the activities are evaluated and against what criteria they are evaluated. Space for comments is essential.

School Assessment Programme

The **Programme of Assessment** is designed to spread formal assessment tasks in all subjects in a school across a term.

The programme of assessment should be recorded in the Teacher's planning file (Portfolio of Assessment) for each subject.

The following should at least be included in the Teacher's File:

- A contents page;
- The formal schedule of assessment;
- The requirements for each assessment task;
- The tools used for each assessment task;
- Recording instrument(s) for each assessment task; and
- A mark sheet and report for each assessment task.

The learner's Evidence of Performance must at least include:

- A contents page;
- The assessment tasks according to the assessment programme as indicated below;
- The assessment tools or instruments for the task; and
- A record of the marks (and comments) achieved for each task.

Where tasks cannot be contained as evidence in the Portfolio of Evidence (PoE), its exact location must be recorded and it must be readily available for moderation purposes.

Assessment for Grade 8 and 9

Grades 8 and 9 reporting only in the terms when the skill is done. This subject is offered over a year, where the learner is exposed to the basic skills required for the subject.

Grade 8&9	**Formal School-Based Assessments**
	Learner performance in the Term:
	Practical 60% *
	Theory 40%
Term Report	100%

Grade 8

Focus is on a broad overview of the subject with a basic understanding and mastery of some of the basic skills required in the subject. Learners must in Grade 8 start to develop a greater degree of independent mastery of the subject skills.

Grade 8	**Formal School-Based Assessments**			**Final End-of-Year Assessments**
	Term 1	Term 2	Term 3	Term 4
	Practical 60%	Practical 60%	Practical 60%	
	Theory 40%	Theory 40%	Theory 40%	Pen and Paper Test/ Exam 40%
Term Report	100%	100%	100%	
End of Year	SBA 60%			40%
Total	**SBA (60%) +End of year assessment (40%)**			**100%**

Grade 9

Focus is on a broad overview of the subject with a basic understanding and mastery of some of the basic skills required in the subject. Learners must in Grade 9 start to develop a greater degree of independent mastery of the subject skills

<table>
<tr><td rowspan="5">Grade 8</td><td colspan="3">Formal School-Based Assessments</td><td>Final End-of-Year Assessments</td></tr>
<tr><td>Term 1</td><td>Term 2</td><td>Term 3</td><td>Term 4</td></tr>
<tr><td>Practical 60%</td><td>Practical 60%</td><td>Practical 60%</td><td rowspan="3">Pen and Paper Test/ Exam 40%</td></tr>
<tr><td>Theory
40%</td><td>Theory
40%</td><td>Theory
40%</td></tr>
<tr><td>Term Report</td><td>100%</td><td>100%</td><td>100%</td></tr>
<tr><td>End of Year</td><td colspan="3">SBA
60%</td><td>40%</td></tr>
<tr><td>Total</td><td colspan="3">SBA (60%) +End of year assessment (40%)</td><td>100%</td></tr>
</table>

CLARIFICATION ON ASSESSMENT PERIODS

Grade 8 and 9: **Term 1-** theory assessment to consist of work done in term 1 only
Term 2- theory assessment to consist of work done in terms 2 only
Term 3- theory assessment to consist of work done in term 3 only
Term 4- theory assessment to consist of work done in terms 1-4

Timing of formal assessment

Suggested Program of Assessment for MAINTENANCE

GRADE 8					
Term	**Content/ concept/skill**	**Activities**	**Forms of Assessment**	**%**	**FATs based on activities in CAPS: TO**
Term 1	**OHS ACT** • **Regulations related to maintenance workshop**	Demonstration and exploration	Pen and paper responding to questions	40%	FAT 1
	First Aid • **Handling and care**				
	Communication • **Conversions, freehand drawing and scale drawings**	Drawings			
	Entrepreneurship •				
	Metalwork • **Tools and equipment handling, care and use**	Respond to questions			
	Metalwork: • Able to measure mark, measure, cut and join sheet-metal. • Able to cut sheet-metal with tinsnips	**Activity 2** Manufacture of a key-holder	Practical	60%	

Term 2	**MECHANICAL MAINTENANCE;** • Able to prepare mortar mixture and apply to surfacing • Able to use ladder and scaffolding.	**Activity 1** Mechanical maintenance: check tyre pressure, gauge threads and rotate tyres	Practical	60%	FAT 2
	PLUMBING; • Able to identify, use and apply knowledge, safety and maintenance of plumbing tools equipment and material	**Activity 2** Plumbing; Demonstrate cutting, cleaning and join pipes	Practical	40%	
	PAINTING AND WATERPROOFING • Knowledge, safety, uses and maintenance of tools equipment and material	**Activity 3** Respond to questions	Pen and paper test (Oral or written	60%	
Term 3	**GLAZING:** • Able to identify, use and apply knowledge of safety and maintenance of tools and equipment	**Activity 1** Demonstrate how to cut glass	Practical	60%	FAT 3
	ELECTRICAL: • Able to identify, strip, connect wires and apply knowledge use and safety of electrical tools equipment and material •	**Activity 2** Electrical; Demonstrate how to connect a simple circuit using appropriate tool (e.g.lead-light)	Practical	60%	
	WOODWORKIG	**Activity 3**	Pen and paper test	60%	

	• Knowledge, safety, uses and maintenance of tools equipment and material	Woodwork; Demonstrate how to measure, mark and cut a piece of timber to size	(Oral or written		
Term 4	**BRICKLAYING, PLASTERING AND TILING**: • Able to prepare mortar mixture and apply to surfacing • Able to use ladder and scaffolding. •	**Activity 1** Demonstrate how to paint a wooden or steel window/door frame	Practical	40%	FAT 4
	UPHOLSTERY: • Able to identify, use and apply knowledge of safety and maintenance of flooring tools, hardware, adhesives and material	**Activity 2** Demonstrate how to prepare a floor for tiling or carpeting		35%	
	Theory: Painting, glazing and Flooring • • Knowledge, safety, uses and maintenance of tools equipment and material	**Activity 3** Respond to questions	Pen and paper test (Oral or written	25%	

Term	Content/ concept/skill	Activities	Forms of Assessment	%	FATs based on activities in CAPS: TO
Term 2	**Mechanical maintenance:** • Able to identify, use and apply knowledge of safety, maintenance of tools and equipment. • Able to identify and apply knowledge of different plugs and filters.	**Activity 1** Demonstrate how change plugs and filters on motor-vehicle and mechanical appliance – lawn-mower	Practical	35%	FAT 2
	Painting and Glazing: • Able to identify, use and apply knowledge of safety, maintenance of tools and equipment and materials. • Able to identify and apply knowledge of paints and processes of glass cutting.	**Activity 2**: Demonstrate how to paint a dry-wall.	Practical	20%	
		Activity 4: Demonstrate how to cut glass	Practical	20%	
	Theory: Mechanical Maintenance and Painting and glazing • Knowledge, safety, uses and maintenance of tools, equipment and materials as well as processes on painting, glazing and changing of fluids in vehicles	**Activity 4** Respond to questions	Pen and paper test (Oral or written	25%	

Term 3	**Metalwork:** • Able to identify, use and apply knowledge of safety and maintenance of metalwork tools and material. • Able to identify and apply knowledge of different metals and methods of joining metal.	**Activity 1** Manufacture a garden rake	Practical	40%	FAT 3
	Plumbing: • Able to identify, use and apply knowledge, safety and maintenance of plumbing tools equipment and material. • Able to identify and apply knowledge of pipes, fittings and methods of joining the different pipes.	**Activity 2**: Demonstrate how to fit a gutter joint and down-pipe		35%	
	Theory: Metalwork and Plumbing • Knowledge, safety, uses and maintenance of tools, equipment and materials as well as processes on joining metals and plumbing pipes.	**Activity 3** Respond to questions	Pen and paper test (Oral or written	25%	
Term 4	**Electrical:** • Able to identify, use and apply knowledge, safety and maintenance of	**Activity 1:** Demonstrate how to change a stove element and fuse	Practical	20%	FAT 4
		Activity 2:	Practical	20%	

	electrical tools equipment and material. • Able to identify and apply knowledge of different bulbs and fittings	Demonstrate how to change a light-bulb and starter for a fluorescent light fitting.			
	Woodwork: • Able to identify, use and apply knowledge, safety and maintenance of woodwork cutting and drilling tools, equipment and material. • Able to identify and apply knowledge of doors, hinges and processes on hanging various doors.	**Activity 3** Demonstrate how to hang an internal house panel door	Practical	35%	
	Theory: Electrical and Woodwork • Knowledge, safety, uses and maintenance of woodwork and electrical tools, equipment and materials, as well as knowledge of different bulbs and doors.	**Activity 4** Respond to questions	Pen and paper test (Oral or written	25%	

GRADE 9					
Term	**Content/ concept/skill**	**Activities**	**Forms of Assessment**	**%**	**FATs based on activities in CAPS: TO**
	OHS ACT •				**FAT 1**
	First Aid •				
	Communication •				
	Entrepreneurship •				
Term 1	**Building and plastering** • Able to identify, use and apply knowledge of safety and maintenance of building tools and material • Able to read apply knowledge of measurements and estimates of building material.	**Activity 1** Demonstrate how to layout and construct small foundations for a brick braai stand.	Practical	**40%**	FAT 1
	Flooring • Able to identify, use and apply knowledge of safety and maintenance of tiling, carpeting and	**Activity 2** Demonstrate how to repair a damaged carpet or laminate floor.	Practical	**35%**	

	laminate floor tools and material				
	Theory: Building and plastering/ flooring • Knowledge, safety, uses and maintenance of tools equipment and processes on building, carpeting and laminates, adhesives, paving bricks, and mortar mixtures	**Activity 3** Respond to questions	Pen and paper test (Oral or written	25%	

Term 2	**Mechanical Maintenance** • Able to identify, use and apply knowledge of safety, maintenance of tools and equipment in the service of a motor vehicle. • Able to identify and apply knowledge of fluids (oils) and filters for different vehicles and machinery	**Activity 1** Demonstrate how to complete a minor service on a motor vehicle	Practical	25%	FAT 2
	Painting and glazing/waterproofing • Able to identify, use and apply knowledge of safety and maintenance of glazing	**Activity 2** Demonstrate how to waterproof a shower wall.	Practical	25%	

	tools, equipment and materials. • Able to identify and apply knowledge of paints and processes of application • Able to identify use and apply knowledge of safety and maintenance of waterproofing tools and materials				
	Electrical • Able to identify, use and apply knowledge, safety and maintenance of electrical tools equipment and material. • Able to identify and apply knowledge of different electrical switches.	**Activity 3** Demonstrate how to repair a broken extension cord	Practical	25%	
	Theory: Mechanical Maintenance, Painting, Glazing and Electrical • Knowledge, safety, uses and maintenance of tools, equipment and materials as well as processes on painting, glazing, maintenance of vehicles, and repair	**Activity 4** Respond to questions	Pen and paper test (Oral or written	25%	

	on electrical components.				
Term 3	**Metalwork** • Able to identify, use and apply knowledge of safety and maintenance of metalwork tools and material. • Able to identify and apply knowledge of different metals and methods of welding, as well as the processes of drilling and grinding metal.	**Activity 1** Demonstrate how to braze using oxy-acetylene equipment.	Practical	20%	FAT 3
	Woodwork • Able to identify, use and apply knowledge, safety and maintenance of woodwork cutting and drilling tools, equipment and material.	**Activity 2** Demonstrate how to hang a cupboard door.	Practical	20%	
	• Able to identify and apply knowledge of doors, hinges and processes on hanging various doors and window frames. • Able to identify and apply adhesives for edging of cupboards.	**Activity 3** Demonstrate how to replace a window frame	Pratical	20%	
	Plumbing	**Activity4**	Pratical	15%	

	• Able to joining pipes, sanitary ware, taps and mixers and unblock drains	Demonstrate how to unblock a drain and replace a sink mixer			
	Theory: Metalwork, Woodwork and Plumbing • Knowledge, safety, uses and maintenance of tools, equipment and materials as well as processes on joining metals and the hanging of a cupboard door	**Activity 5** Respond to questions	Pen and paper test (Oral or written	25%	
Term 4	Core content and Concept across the years	External moderation of school assessment over terms 1, 2 and 3.		50%	GCE: TO Qualification
		Activity 1 Practical	Formal external Practical Assessment Task	25%	
		Activity 2 Respond to questions	Formal external assessment: Written test (or oral where necessary)	25%	

Recording and Reporting

Recording is a process in which the teacher documents the level of a learner's performance in a specific assessment task. It indicates learner progress towards the achievement of the knowledge and skill. Records of learner performance should provide evidence of the learner's progression. Records of learner performance should also be used to verify the progress made by teachers and learners in the teaching and learning process. Reporting is a process of communicating learner performance to learners, parents, schools, and other stakeholders. Learner performance can be reported in a number of ways. These include report cards, parents' meetings, school visitation days, parent-teacher conferences, phone calls, letters, class or school newsletters, etc.

Good record keeping is essential in all assessment, particularly in continuous assessment. A record book or file must be kept up to date by each teacher. It should contain:

- Learners' names;
- Dates of assessment;
- Name and description of the assessment activity;
- The results of assessment activities, according to Subject; and
- Comments for support purposes.

Teachers report in percentages against the subject. The various achievement levels and their corresponding percentage bands are as shown in the table below. Recording is a process in which the teacher documents the level of a learner's performance. Teachers record the actual raw marks against the task using a record sheet. Records of learner performance should also be used to verify the progress made by teachers and learners in the teaching and learning process. Records should be used to monitor learning and to plan ahead.

Note: The seven-point scale should have clear descriptions that give detailed information for each level. Teachers will record actual marks against the task by using a record sheet; and report percentages against the subject on the learners' report cards.

Codes and percentages for reporting

Rating code	Description of competence	Percentage	Nature of support provided to learners
7	Outstanding achievement	80 – 100	Independent
6	Meritorious achievement	70 – 79	Independent, verbal cues needed
5	Substantial achievement	60 – 69	Minimum support
4	Adequate achievement	50 – 59	Moderate support
3	Moderate achievement	40 – 49	Maximum support (Physical / Verbal)
2	Elementary achievement	30 – 39	Goals to be revisited – Change of direction required.
1	Not achieved	0 – 29	Little / no interest shown in the activity despite maximum support

All records must be accessible, easy to interpret, securely kept, confidential and helpful in the teaching and reporting process. The school assessment policy determines the details of how record books must be completed. Schools are required to provide quarterly feedback to parents on the Programme of Assessment, using a formal reporting tool, such as a report card. The schedule and the report card should indicate the overall level of performance of a learner.

NOTE:

Criterion referencing is best used to describe learner's performance in a skill. Teachers must make use of suitable analytical rubrics when assessing a learner's competence for a specific skill using practical demonstrations.

Progression and Promotion:

Learners will progress with age cohort in this Phase (Year 1-4). Where a learner does not meet the minimum requirements to be promoted to the next year then a learner may spend one extra year in the phase (Year 1-4) to strengthen their ability to achieve the qualification.

4.4 Moderation of Assessment

Moderation refers to the process that ensures that the assessment tasks are fair, valid and reliable. Moderation must be implemented at school, district, and provincial levels as required. Comprehensive and appropriate moderation practices must be in place for the quality assurance of all subject assessments. The Formal School Based Assessment and the practical assessment tasks must be moderated by the relevant subject specialists at the district and, if required, provincial levels in consultation with the moderators at school.

Moderation serves five purposes:

1. It must ascertain whether subject content and skills have been sufficiently covered.
2. The moderator must ensure that the correct balance of cognitive demands are reflected in the assessments.
3. The assessments and marking are of an acceptable standard and consistency.
4. The moderator must make judgements about the comparability of learner performance across schools; whilst recognising that teachers teach in different ways.
5. The subject specialist/moderator must identify areas in which a teacher may need development and support and must ensure that this support is provided.

4.4.1 Internal moderation

Assessment must be moderated according to the internal moderation policy of the School, Provincial and National Departments. Moderation is a continuous process. The moderator's involvement starts with the planning of assessment methods and instruments and follows with continuous collaboration with and support to the assessors. Internal moderation creates common understanding of topics and skills and maintains these across the learning programmes.

4.4.2 External moderation

External moderation is conducted by the Districts and or Provincial offices, Department of Basic Education, Umalusi and, where relevant, the QCTO. The external moderator:

- Monitors and evaluates the standard of all summative assessments;
- Maintains standards by exercising appropriate influence and control over assessors;
- Ensures proper procedures are followed;

- Ensures summative integrated assessments are correctly administered;
- Observes a minimum sample of 12 summative assessments in total;
- Gives written feedback to the relevant quality assuror; and
- Moderates in case of a dispute between an assessor and a student.

Policy on inclusive education requires that assessment procedures for students who experience barriers to learning be customised and supported to enable these students to achieve their maximum potential.

Moderation is therefore an on-going process and not a once-off end-of-year event.

4.5 General

This document should be read in conjunction with:

- White Paper 6 on Special Needs Education: Building an Inclusive Education and Training System (2001);
- *National Policy Pertaining to the Programme and Promotion Requirements of the National Curriculum Statement Grades R – 12*; and (NPPPPR) (2011);
- *National Protocol for Assessment Grades R – 12. (NPA) (2011);*
- *Guidelines for Responding to Diversity in the Classroom through the Curriculum and Assessment Policy Statements* (2011);
- *Guidelines to Ensure Quality Education and Support in Special Schools and Special School Resource Centres* (2013);
- *Policy on Screening, Identification, Assessment and Support* (2014);
- *Guidelines for Full-service/Inclusive Schools* (2010); and
- *Standard Operating Procedures for Assessment of Learners who Experience Barriers to Assessment* (2016).