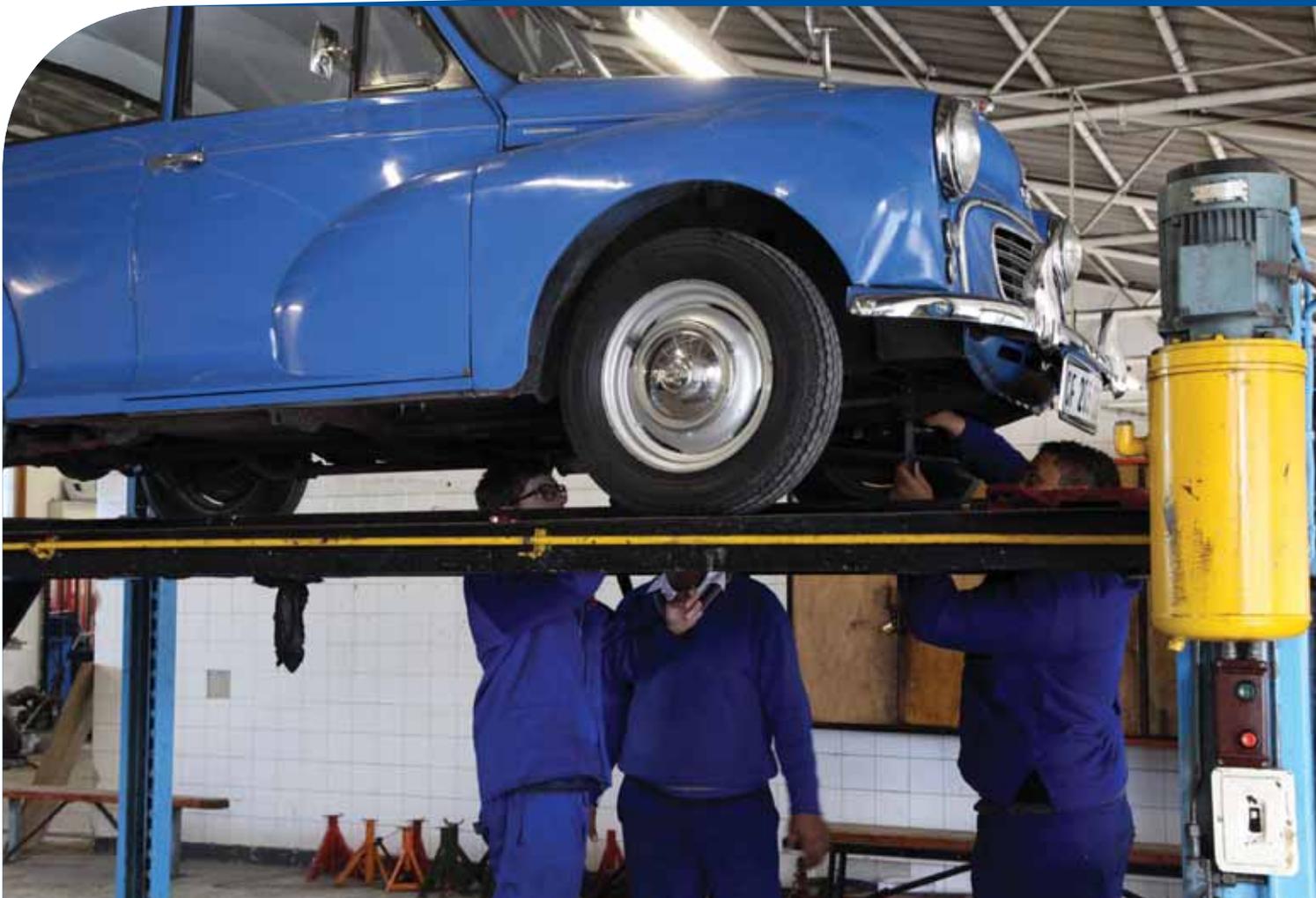




Western Cape
Government

Education



Adapted Curriculum and Assessment Policy Statement
for
Schools of Skills
and Schools with Skills Units

Automotive Repair and Maintenance

Year 1, 2, 3 and 4

2013

PREFACE TO THE SKILLS CURRICULUM

This Curriculum and Assessment Policy Statement has been adapted to meet the needs of learners who experience barriers to learning and who have been placed in a School of Skills. It has been designed to enable learners who continue their schooling at a School of Skills to develop to their potential based on a curriculum that supports their cognitive ability. These learners are afforded the opportunity to achieve in areas where they can be successful, such as learning a skill.

The skills curriculum document provides the content and skills to be taught across the four years. It is based on the curriculum as developed with teachers and is aligned to the SAQA qualifications used for skills development in South Africa. This curriculum document has also been unpacked as an Annual Teaching Plan that will act as an exemplar for the sequencing and pacing of teaching, learning and assessment per term across the four years.

Year One is an orientation year and learners must be exposed to a minimum of two vocational skills so that they can select a skill they will continue from Year Two. The content in Year One could be spread over one or two terms. This will differ from school to school depending on the programme for the year. Where content for Year One is based on one term only, schools must expand on the work to cover two terms workload. Schools that offer more than the minimum two skills in Year One may adapt the Annual Teaching Plan for Year One to accommodate their rotation system to expose learners to more skills e.g. schools may offer a skill per term for Terms 1, 2 and 3 and learners then select the skill they will specialise in and start it in Term 4. It is important that learners in Year One experience the core competencies of the skills so that an informed choice can be made.

Years Two, Three and Four are the critical years for learners in a School of Skills. It is important that learners are exposed to all the Exit Level Outcomes, Specific Outcomes and Assessment Criteria per selected vocational skill, acknowledging that not all learners will be successful in all of these. The certificate awarded in Year Four will indicate all Exit Level Outcomes and the learner's demonstrated level of competence.

It is envisaged that all learners in a School of Skills will exit the school with an appropriate Certificate of Attainment endorsed by the WCED. It is hoped that this certificate will enable them to access further or higher education or to be part of the world of work.

ACKNOWLEDGEMENT

A special word of appreciation and thanks go to all in the Western Cape Education Department and to the teaching staff in the Schools of Skills whose efforts made this document possible.

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SECTION 1

INTRODUCTION TO THE ADAPTED CURRICULUM AND ASSESSMENT POLICY STATEMENT

1.1 Overview

General aims of the South African Curriculum

- (a) The *National Curriculum Statement Grades R - 12* gives expression to the knowledge, skills and values worth learning in South African schools. This curriculum aims to ensure that children acquire and 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.
- (b) The National Curriculum Statement Grades R - 12 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;
 - o providing access to higher education;
 - o facilitating the transition of learners from education institutions to the workplace; and
 - o providing employers with a sufficient profile of a learner's competences.
- (c) The National Curriculum Statement Grades R - 12 is based on the following principles:
 - o 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;
 - o Active and critical learning: encouraging an active and critical approach to learning, rather than rote and uncritical learning of given truths;
 - o 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;
 - o Progression: content and context of each grade shows progression from simple to complex;
 - o Human rights, inclusivity, environmental and social justice: infusing the principles and practices of social and environmental justice and human rights as defined in the Constitution of the Republic of South Africa. The National Curriculum Statement Grades R – 12 is sensitive to issues of diversity such as poverty, inequality, race, gender, language, age, disability and other factors;
 - o 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
 - o Credibility, quality and efficiency: providing an education that is comparable in quality, breadth and depth to those of other countries.

- (d) The National Curriculum Statement Grades R - 12 aims to produce learners that are able to:
- identify and solve problems and make decisions using critical and creative thinking;
 - work effectively as individuals and with others as members of a team;
 - organise and manage themselves and their activities responsibly and effectively;
 - collect, analyse, organise and critically evaluate information;
 - communicate effectively using visual, symbolic and/or language skills in various modes;
 - use science and technology effectively and critically showing responsibility towards the environment and the health of others; and
 - demonstrate an understanding of the world as a set of related systems by recognising that problem solving contexts do not exist in isolation.

(e) Inclusion and the National Curriculum Statement

Education White Paper 6 - Special Needs Education: Building an Inclusive Education and Training System commits the state to the achievement of equality, non-discrimination and the maximum participation of all learners in the education system as a whole. Education White Paper 6 makes it an imperative that the education and training system must change to accommodate the full range of learning needs, with particular attention to strategies for instructional and curriculum transformation (Department of Education, 2001 p. 11). These principles also underlie the new Curriculum and Assessment Policy Statement (CAPS). One of the most significant barriers to learning is the school curriculum. Barriers to learning arise from the different aspects of the curriculum such as the content, the language, classroom organisation, teaching methodologies, pace of teaching and time available to complete the curriculum, teaching and learning support materials and assessment (Department of Education, 2001, p.19). In responding to the diversity of learner needs in the classroom, it is imperative to ensure differentiation in curriculum delivery to enable access to learning for all learners. All schools are required to offer variations in mode of delivery and assessment processes to accommodate all learners. Respecting diversity implies a belief that all learners have the potential to learn.

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, Institutional-Level 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 Inclusive Teaching and Learning* (2010).

1.2 Background to curriculum adaptation and differentiation

The right of every child to access quality education is enshrined in South Africa's Constitution. In 2001, the Minister of Education launched Education White Paper 6, the Policy on Inclusion, which spells out how barriers to learning should be removed from, and how inclusive education should be gradually introduced into the entire education system.

Learners who experience barriers to learning need to be able to exit school with an appropriate certificate of attainment, which would enable them to access further or higher education or to be part of the world of work.

The profile of a learner placed in a Special School: School of Skills, which offers an adapted curriculum programme may be identified by the following characteristics:

The learner

- is 14 or 15 years old
- has received extensive, documented support in the mainstream school
- experiences moderate cognitive barriers to learning which cause very poor scholastic progress. The learner's lack of progress may be so severe that he/she will only be able cope on a Foundation Phase level
- is not severely or profoundly intellectually disabled
- does not experience serious behavioural learning barriers
- may experience a short attention span
- may have a very poor reading ability
- attends school regularly, but does not reap the benefits of the curriculum in spite of support efforts
- may have spent more time in both Foundation and Intermediate Phase, without showing significant improvement
- is usually functioning 2 years and more below his/her age cohort and is seriously at risk of leaving school early, without attaining skills to enter the world of work successfully
- will benefit by a vocational / practical approach to the curriculum
- will develop skills in order to be able to enter the job market.

These learners have the right to follow an adapted and differentiated curriculum to achieve their academic goals. The academic curriculum content must not be seen as a "watered down" version of the mainstream curriculum, but an accurate as possible reflection of the learner's functioning level. Therefore each learner should have access to the standard of assessment best suited to his/her needs. The curriculum should be offered in flexible groups to allow straddling to take place. Each learner should be respected as an individual with unique strengths and barriers to learning. These learners must further be afforded the opportunity to achieve in areas where they can be successful, such as learning a skill. In the majority of cases it has been found that learners, who do not achieve academically, often benefit and excel through learning a skill. Thus teachers have an important responsibility to make

sure that all learners from whatever background are appropriately catered for in the learning environment.

In this instance teachers are therefore required to monitor their own beliefs, attitudes and behaviours when responding to learners. They should consider the unique needs of learners when designing and placing learners in appropriate learning programmes. It is expected that teachers together with the parents must ensure that learners participate in academic and skills programmes that helps them achieve to the best of their abilities.

1.3 The introduction of the Skills Qualification

This is a new way of thinking to provide for learners who are not able to reach their full potential in mainstream schooling. The proposed Skills Qualification aims to offer learners with special needs an alternative learning pathway that:

- Is standardised across the schools offering skills curricula
- Is aligned with curriculum policies and relevant skills
- addresses the learner's need to experience success by building on the strengths of the learner rather than focusing on deficits
- determines the appropriate placement of the learner in a specific pathway of learning
- provide the learner with a qualification in a chosen field of work and
- provide the employer with appropriate information.

The purpose of this skills qualification is to provide an adapted curriculum which may lead to a further qualification at a later stage. Alternate methods of teaching and assessments based on alternate attainment of knowledge (content, concepts and skills), for learners who experience moderate cognitive learning barriers forms part of the skills qualification. It must allow learners to acquire knowledge and skills that are aligned to the world of work. Each skills course is based on defined concepts and skills to provide learners with a passport to life-long work and citizenship. The adapted skills curriculum is aligned to existing SAQA qualifications so that it can be recognised in the workplace, for Recognition of Prior Learning (RPL).

1.4 Time Allocation

Teaching and learning within a five day cycle is 27½ hours. It is envisaged that 50% of the notational time be allocated to skills training with sufficient learning and practice time to develop skilled routine work competence.

The table below proposes the possible instruction time and credits allocated per subject in an academic year for a learner to be considered for a skills qualification.

| Subject | Time allocation per week Example: (periods in minutes per week) | Credits ¹ |
|---|--|-----------------------------------|
| Fundamentals:² | | |
| 1. Home Language (Level 1, 2, or 3) | 5x45min (Could be 4 periods in Y 2.3.4) | 14 Credits |
| 2. First Additional Language | 2x45min (Could be 3 periods in Y 2.3.4) | 12 Credits |
| 3. Mathematics (Level 1, 2 or 3) | 4x45min | 14 Credits |
| Core:³ | | |
| 1. Life Skills (EMS and SS) | 4x45min | 14 Credits |
| 2. Natural Sciences and Technology (<i>Not in year 1</i>) | 1x45min | 2 Credits |
| 3. Creative Arts | 1x45min | 2 Credits |
| 4. Physical Education / Sport | 1x45min | 2 Credits |
| Electives: | | |
| 1. Skills: | 18x45min | 60 Credits |
| List of 19 electives | | |
| Developed in 2011 | | Developed in 2012 |
| Ancillary Health Care | | Automotive Repair and Maintenance |
| Art and Crafts | | Automotive Spray Painting |
| Hairdressing | | Beauty and Nail Technology |
| Automotive Body Repair | | Maintenance |
| Bricklaying and Plastering | | Housekeeping |
| Basic Welding and Metal Work | | Needlework and Clothing |
| Mixed Farming | | Basic Sheet Metal Work |
| Hospitality Studies | | Upholstery |
| Early Childhood Development | | Woodworking |
| Office Administration | | |

1.5 A Learning Programme

The *National Strategy on Screening, Identification, Assessment and Support (SAIS)* will be used to determine whether a learner is eligible to follow an **adapted curriculum and assessment programme** in a special school. Learners will complete a four year learning programme

- o YEAR 1: A bridging year to support learners in the academic programme based on pre-testing and post- testing. Learners will be exposed to a minimum of two different skills to determine their strengths as well as their interests. Natural Sciences and Technology will not be offered in year 1. Formal recorded assessment only for Languages and Mathematics in year 1.

¹ A credits is based on 10 hours of notional time calculated on 32 weeks per academic year

² The curriculum will focus on the full band within the GET curriculum CAPS

³ The curriculum will focus on the full band within the GET curriculum CAPS

- YEAR 2: Teaching and learning is based on needs identified in post testing, and learner's selected skill from orientation year.
- YEAR 3: Teaching and learning is based on learners' needs, and learners continue with selected skill.
- YEAR 4: Teaching and learning is based on learners' needs, and learners continue with selected skill.

| A LEVEL 1 QUALIFICATION (120 credits ⁴ per year) (A four year learning programme) | | | | | | | |
|---|--------------------------------------|--------------------------------|---|--|----------------------|---|--|
| ACADEMIC CAPS (adapted Grade R-9) 50% of contact time | | | | | | | SKILLS SAQA ALIGNED 50% of contact time |
| APPLIED KNOWLEDGE | | | | | | | |
| FUNDAMENTAL 40 Credits | | | CORE 20 Credits | | | | ELECTIVE 60 Credits |
| Language: Home level 1 | Language: First Add | MATHS level 1 | Life Skills / LO With (SS & EMS) | Natural Sciences & Technology | Creative Arts | Physical Education / Sport | Year 1: 2+ skills |
| Or level 2 | | Or level 2 | | | | | Year 2: 1 skill |
| Or level 3 | | Or level 3 | | | | | Year 3: 1 skill Year 4: 1 skill |
| 14 credits | 12 credits | 14 credits | 14 credits | 2 credits | 2 credits | 2 credits | 60 credits |

⁴ One (1) credit equals 10 hours of notional time

SECTION 2

INTRODUCTION TO BASIC AUTOMOTIVE REPAIRS AND MAINTANANCE

2.1 Definition

Automotive Repair and Maintenance introduces students to the fundamentals of vehicle technology and equips them with the necessary confidence to perform tasks related to, for example, vehicle components, engines, gearboxes, fuel systems, body components and electronics. The tasks are limited to removal, cleaning, servicing (replenishing of fluid) and fitting.

2.2 Purpose

With the necessary knowledge, students will be able to perform tasks and meet requirements set by the industries. Automotive Repair and Maintenance enables students to be more self-reliant and marketable. The subject allows the progression to further qualification and help students understand terms used in manufacturing and assembly.

2.3 Unique Features and Scope:

In Automotive Repair and Maintenance, students will identify faults and solve the problems relating to the automotive field. Students will have to work effectively individually or in teams. As students will need to record the requirements to fix faults, they will need communication and writing skills in Automotive Repair and Maintenance.

Automotive Repair and Maintenance also covers two of the Development Outcomes:

Explore strategies to learn more effectively.
Explore education and career opportunities.

Students interested in Automotive Repair and Maintenance will benefit because it enables them to work on vehicle basics with related knowledge and use terminology for Automotive Repair and Maintenance correctly.

2.4 Exit Level Outcomes (ELO)

The Automotive repair and Maintenance qualification has the following 15 Exit Level Outcomes. These ELO are based on the learner's ability to use and apply Automotive Repair and Maintenance, techniques, processes and skills, as applied in the Automotive Repair and Maintenance, using appropriate tools and measuring equipment.

The Automotive Repair and Maintenance Exit Level Outcomes

The learner is able to:

Exit Level Outcome 1

Keep the work area safe and productive

Exit Level Outcome 2

Select, use and care for engineering hand tools

Exit Level Outcome 3

Understand and deal with HIV / AIDS

Exit Level Outcome 4

Select, use and care for engineering measuring equipment

Exit Level Outcome 5

Select, use and care for engineering power tools

Exit Level Outcome 6

Select and use vehicle lifting equipment

Exit Level Outcome 7

Service automobile batteries

Exit Level Outcome 8

Demonstrate knowledge of lubrication

Exit Level Outcome 9

Understand the fundamentals of engine technology

Exit Level Outcome 10

Remove and fit automobile components

Exit Level Outcome 11

Assemble mechanical components

Exit Level Outcome 12

Carry out an automotive service.

Exit Level Outcome 13

Inspect and lubricate an automotive system.

Exit Level Outcome 14

Demonstrate basic knowledge of hydraulic components

Exit Level Outcome 15

Perform basic welding/joining of metals.

2.5 Critical Cross-field Outcomes

This qualification addresses the following critical cross-field outcomes:

1. identify and solve basic problems and make decisions using critical and creative thinking
2. work effectively with others as members of a team, group, organization and community;
3. organize and manage themselves and their activities responsibly and effectively;
4. collect, analyse, organise and critically evaluate information;
5. communicate effectively using visual, symbolic and /or language skills in various mode;
6. use science and technology effectively and critically, showing responsibility towards the environment and the health of others;
7. demonstrate an understanding of the world as a set of related systems by recognizing that problem solving contexts do not exist in isolation.
8. reflect on and explore a variety of strategies to learn more effectively;
9. participate as responsible citizens in the life of local, national and global communities;
10. be culturally and aesthetically sensitive across a range of social contexts;
11. explore education and career opportunities; and
12. develop entrepreneurial opportunities.

2.6 Overview of Teaching and Learning per year

| EXIT LEVEL OUTCOMES | | US ID | YEAR 1 | YEAR 2 | YEAR 3 | YEAR 4 |
|---------------------|--|--------|--------|--------|--------|--------|
| 1. | Keep the work area safe and productive | 13220 | √ | √ | √ | √ |
| 2. | Select, use and care for engineering hand tools | 119744 | √ | √ | √ | √ |
| 3 | Understand and deal with HIV / AIDS | 12463 | √ | √ | | |
| 4. | Select, use and care for engineering measuring equipment | 12476 | √ | √ | √ | √ |
| 5. | Select, use and care for engineering power tools | 12219 | √ | √ | √ | √ |
| 6. | Select and use vehicle lifting equipment | 15123 | √ | √ | | |
| 7. | Service automobile batteries | 260638 | √ | √ | √ | √ |
| 8. | Demonstrate knowledge of lubrication | 243769 | √ | √ | √ | √ |
| 9. | Understand the fundamentals of engine technology | 244056 | √ | √ | √ | √ |
| 10. | Remove and fit automobile components | 260717 | | | √ | √ |
| 11. | Assemble mechanical components | 253440 | | | √ | √ |
| 12. | Carry out an automotive service. | 260719 | | √ | √ | √ |
| 13. | Inspect and lubricate an automotive system. | 119750 | | √ | √ | √ |
| 14. | Demonstrate basic knowledge of hydraulic components | 244690 | | | √ | √ |
| 15. | Perform basic welding/joining of metals | 119753 | | | √ | √ |

2.7 Resources

The following resources are needed to teach this subject.

- Battery charger
- Battery models
- Bearings
- Compression tester- KPA/bar
- Drip feed lubricator
- Dial gauges-mm
- Engine and gearbox dano's
- Engine models
- Feeler gauge- mm
- Fender covers
- Fluids
- Grease gun
- Gauges
- Hydrometer
- Hydrometer- spes.grovity (colours)
- Inflater
- Jumper cables
- Lift and trolley jacks
- Load tester
- Lubricants
- Measuring tape
- Micrometer
- Multi- meter- amp/voltage
- Multi-tester
- Oil and grease pumps
- Oil can
- Overalls
- Posters
- Protective equipment
- Ruler – mm/cm/m
- Scale
- Tape measure
- Textbooks
- Thermometer
- Tongue wrench- nm/ft lbs
- Vernier
- Vernier calipers
- Welding equipment

SECTION 3

UNPACKING THE EXIT LEVEL OUTCOMES

| | | |
|--|---|---|
| <p>EXIT LEVEL OUTCOME 1</p> <p>KEEP THE WORK AREA SAFE AND PRODUCTIVE.</p> <p>US ID 13220</p> | <p>Specific Outcome 1 Discuss and explain the purpose of safety equipment and procedures.</p> | <p>Assessment Criterion 1 Demonstrate an understanding of safety issues at work.</p> |
| | | <p>Assessment Criterion 2 Undertake work in a safe manner according to established procedures.</p> |
| | | <p>Assessment Criterion 3 Keep work area in a neat and tidy condition.</p> |
| | | <p>Assessment Criterion 4 Report safety issues as required.</p> |
| | <p>Specific Outcome 2 Identify and explain the purpose of demarcated areas, emergency stops, exits and first aid stations.</p> | <p>Assessment Criterion 1 Demonstrate an understanding of safety issues at work.</p> |
| | | <p>Assessment Criterion 2 Undertake all work in a safe manner according to established procedures.</p> |
| | | <p>Assessment Criterion 3 Keep work area in a neat and tidy condition.</p> |
| | | <p>Assessment Criterion 4 Report on safety issues as required.</p> |
| | <p>Specific Outcome 3 Use personal protective equipment.</p> | <p>Assessment Criterion 1 Demonstrate an understanding of safety issues at work.</p> |
| | | <p>Assessment Criterion 2 Undertake all work in a safe manner according to established procedures.</p> |
| | | <p>Assessment Criterion 3 Ensure work area is in a neat and tidy condition.</p> |
| | | <p>Assessment Criterion 4 Report on safety issues as required.</p> |
| | <p>Specific Outcome 4 Perform housekeeping duties in work area.</p> | <p>Assessment Criterion 1 Demonstrate an understanding of safety issues at work.</p> |
| | | <p>Assessment Criterion 2 Undertake all work in a safe manner according to established procedures.</p> |
| | | <p>Assessment Criterion 3 Keep work area in a neat and tidy condition.</p> |
| | | <p>Assessment Criterion 4 Report on safety issues as required.</p> |
| | <p>Specific Outcome 5 Identify and respond to unsafe or potentially unsafe conditions, incidents, or acts that may occur.</p> | <p>Assessment Criterion 1 Demonstrate an understanding of safety issues at work.</p> |
| | | <p>Assessment Criterion 2 Undertake all work in a safe manner according to established procedures</p> |
| | | <p>Assessment Criterion 3 Keep work area in a neat and tidy condition.</p> |
| | | <p>Assessment Criterion 4 Report on safety issues as required.</p> |

| | | |
|--|--|---|
| | <p>Specific Outcome 6 Identify and apply relevant policies and procedures for dealing with HIV/AIDS in the workplace</p> | <p>Assessment Criterion 1 Demonstrate an understanding of HIV/AIDS issues affecting learners personally and in the workplace.</p> |
| <p>EXIT LEVEL OUTCOME 2</p> <p>SELECT, USE AND CARE FOR ENGINEERING HAND TOOLS.</p> <p>US ID 119744</p> | <p>Specific Outcome 1 Select and use Engineering hand tools.</p> | <p>Assessment Criterion 1 Identify all the engineering hand tools and explain their uses.</p> |
| | | <p>Assessment Criterion 2 Give clear explanation and appropriate examples.</p> |
| | | <p>Assessment Criterion 3 Refer to appropriate literature when explanations are given.</p> |
| | | <p>Assessment Criterion 4 Demonstrate the ability to apply the various engineering hand tools in their different applications.</p> |
| | <p>Specific Outcome 2 Care for and maintain engineering hand tools.</p> | <p>Assessment Criterion 1 Maintain engineering hand tools.in accordance with the applicable requirements and workplace procedures.</p> |
| | | <p>Assessment Criterion 2 Confirm the understanding of the maintenance process by responding accurately to task related questions.</p> |
| | | <p>Assessment Criterion 3 Recognize and report problems, changes and/ or malfunctions while working with engineering hand tools.</p> |
| | <p>Specific Outcome 3 Work safely with due care for self, fellow workers, equipment, materials and environment.</p> | <p>Assessment Criterion 1 Explain and demonstrate safe working practises.</p> |
| | | <p>Assessment Criterion 2 Demonstrate an understanding of SHE procedures.</p> |
| <p>EXIT LEVEL OUTCOME 3</p> <p>UNDERSTAND AND DEAL WITH HIV/AIDS</p> <p>US ID 12463</p> | <p>Specific Outcome 1 Explain the rights and responsibilities of employees in the workplace with regard to HIV / AIDS</p> | <p>Assessment Criterion 1 Demonstrate an understanding of HIV / AIDS issues affecting employees personally and in the workshop.</p> |

| | | |
|---|---|---|
| <p>EXIT LEVEL OUTCOME 4</p> <p>SELECT, USE AND CARE FOR ENGINEERING MEASURING EQUIPMENT</p> <p>US ID 12476 The US provides detailed indicators and notes</p> | <p>Specific Outcome 1 Explain and discuss basic units of measure and symbols</p> <p>Range: <i>Basic units of measure include length, mass, temperature, angle, pressure</i></p> | <p>Assessment Criterion 1 Explain and discuss basic units of measure, symbols and derived units of measure.</p> |
| | <p>Specific Outcome 2 Select and use engineering measuring equipment</p> <p>Range: <i>Measuring equipment includes verniers, callipers, tapes, rules, combination set, spirit level, plumb bob, micrometers, dial gauges, feeler gauges, thermometers, scales, go/no go gauges, thread gauges, pressure gauges.</i></p> | <p>Assessment Criterion 1 Use measuring equipment as recommended by the manufacture to meet job/task requirements.</p> |
| | | <p>Assessment Criterion 2 Take and record measurements.</p> |
| | <p>Specific Outcome 3 Care for and maintain measuring equipment</p> | <p>Assessment Criterion 1 Clean, service, maintain and store measuring equipment.</p> |
| | <p>Specific Outcome 4 Recognise and report problems changes and/or malfunctions while working</p> | <p>Assessment Criterion 1 Identify unsafe or faulty measuring equipment and take corrective action.</p> |
| | <p>Specific Outcome 5 Work safely with due care for self, fellow workers, equipment, materials and the environment</p> | <p>Assessment Criterion 1 Explain and demonstrate safe working practises.</p> |
| <p>Assessment Criterion 2 Demonstrate an understanding of SHE procedures.</p> | | |

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| EXIT LEVEL OUTCOME 5 SELECT, USE AND CARE FOR ENGINEERING POWER TOOLS US ID 12219 | Specific Outcome 1 Select and use engineering power tools | Assessment Criterion 1 Select and use appropriate power tools and attachments for required application <i>Engineering power tools include drills (including pedestal drilling machines), grinders (including pedestal grinders), sanders, brushes, buffs, wrenches (including impact type), jacks, and nibblers, saws (including power and band saws).</i> |
| | Specific Outcome 2 Care for and maintain engineering power tools | Assessment Criterion 1 Clean and store tools |
| | | Assessment Criterion 2 Maintain power tools e.g. replace wearing parts, lubricate, etc. |
| | Specific Outcome 3 Check on power supply connections to equipment | Assessment Criterion 1 Check on power supply connections to equipment. <i>Power sources include electricity, compressed air, hydraulic power</i> |
| | Specific Outcome 4 Recognise and report problems, changes and/or malfunctions while working | Assessment Criterion 1 Identify the unsafe/faulty power tools and take corrective action. |
| Specific Outcome 5 Work safely with due care for self, fellow workers, machines, equipment, materials and environment | Assessment Criterion 1 Identify safe working practices including the use of appropriate personal protective equipment. | |
| | Assessment Criterion 2 Identify safety hazards including bad connections, damaged air and hydraulic hoses, damaged electrical cables, cracked discs and worn or damaged blades. | |
| EXIT LEVEL OUTCOME 6 SELECT AND USE VEHICLE LIFTING EQUIPMENT US ID 15123 | Specific Outcome 1 Discuss the basic operation of automobile lifting equipment | Assessment Criterion 1 Discuss the basic operation of: <ul style="list-style-type: none"> • Hoist • Jack • Creepers |
| | Specific Outcome 2 Identify and explain the function of various components related to hoists | Assessment Criterion 1 Identify the components related to hoists. <i>Components include electronic motor, support posts, control mechanism, platform, stopping plates and safety mechanism.</i> |
| | | Assessment Criterion 2 Explain the function of various components related to hoists. <i>Components include electronic motor, support posts, control mechanism, platform, stopping plates and safety mechanism.</i> |
| Specific Outcome 3 Carry out pre-cautionary measures before operating a hoist | Assessment Criterion 1 Explain the precautionary measures including: loading in accordance to hoist specifications, hoist in a safe working condition, area is clear, vehicle correctly positioned on hoist. | |

| | | |
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| EXIT LEVEL OUTCOME 7 SERVICE AUTOMOBILE BATTERIES US ID 260638 | Specific Outcome 1 Remove and fit an automotive battery. | Assessment Criterion 1 Check the battery for safety and condition prior to removal. |
| | | Assessment Criterion 2 Use personal protective equipment as in handling batteries. |
| | | Assessment Criterion 3 Identify and use relevant equipment to protect the vehicle when removing and fitting batteries. |
| | | Assessment Criterion 4 Range: <i>Differences include size, amp hour rating, cold cranking amps and voltage.</i> Explain uses of different batteries in terms of manufacturer specifications. |
| | | Assessment Criterion 5 Secure batteries in accordance with manufacturer specifications. |
| | | Assessment Criterion 6 Remove and fit batteries according to the specified procedures in terms of costs, durability and safety. |
| | Specific Outcome 2 Test batteries. Range: <ul style="list-style-type: none"> • Tests include surface discharge, hydrometer test, sulphation test, load test • Test equipment includes multimeter, hydrometer, spectrometer, thermometer, battery charger, load tester, jumper cables | Assessment Criterion 1 Conduct the test in accordance with workplace procedures and manufacturers recommendations. |
| | | Assessment Criterion 2 Test batteries in terms of manufacturer warranty and reliability. |
| | | Assessment Criterion 3 Interpret test results to determine the status of a battery. |
| | | Assessment Criterion 4 Use tools and test equipment in accordance with workshop procedures. |
| | Specific Outcome 3 Service batteries | Assessment Criterion 1 Check the state of charge of the battery and confirm it to be in accordance with the manufacturer specifications. |
| | | Assessment Criterion 2 Charge the battery in accordance with the workplace and manufacturer requirements. |
| | | Assessment Criterion 3 Explain the reason for charging a battery in terms of battery life and durability. |
| | | Assessment Criterion 4 Explain the reason for operating a battery in terms of the process of converting chemical energy into electrical energy. |
| | | Assessment Criterion 5 Clean batteries in accordance with workplace procedures and manufacturers specifications. |

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| | | <p>Assessment Criterion 6 Explain and use methods for working with solvents and acids in accordance with relevant health and safety procedures and legislation.</p> <p>Assessment Criterion 7 Work with consequences of not working safely in terms of potential injury to personnel and damage to equipment.</p> |
| | <p>Specific Outcome 4 Remove and replace battery terminals and cables.</p> | <p>Assessment Criterion 1 Remove and replace terminals according to the manufacturer specifications.</p> <p>Assessment Criterion 2 Select battery terminals according to the size specified by the manufacturer.</p> <p>Assessment Criterion 3 Select cables according to appropriate current ratings as specified by the battery manufacturer.</p> <p>Assessment Criterion 4 Adhere to the applicable SHE procedures during the process.</p> <p>Assessment Criterion 5 Use all tools and equipment according to their design and workplace procedures.</p> |
| | <p>Specific Outcome 5 Restore work area, complete and process documentation.</p> <p>Range:</p> <ul style="list-style-type: none"> • Includes disposal of hazardous waste materials, packing away tools and equipment, cleaning the work area • Documentation includes job cards, check lists and reports | <p>Assessment Criterion 1 Clean the work area in accordance with the workplace and SHE requirements.</p> <p>Assessment Criterion 2 Clean and store tools and equipment in accordance with workplace and SHE requirements.</p> <p>Assessment Criterion 3 Explain the importance of restoring the workplace in terms of safety hazards and production and its importance.</p> <p>Assessment Criterion 4 Complete documentation and process it in accordance with workplace procedures.</p> <p>Assessment Criterion 5 Explain documentation in terms of their main functions.</p> |

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| EXIT LEVEL OUTCOME 8 DEMONSTRATE KNOWLEDGE OF LUBRICATION US ID 243769 | Specific Outcome 1 Demonstrate knowledge of lubrication | Assessment Criterion 1 Range for the explanation: <ul style="list-style-type: none"> • To reduce friction, wear • To dampen shock • To cool moving parts • To prevent corrosion <p>Explain the purpose of lubrication in accordance with specified requirements</p> |
| | | Assessment Criterion 2 <i>Range for the characteristics:</i> <ul style="list-style-type: none"> • Viscosity (high and low temperatures) • Leaves no carbon deposits • Deposits no wax at low temperatures • Contains no corrosive acids • Stable in the presence of oxygen • Contains no moisture <p>Explain the characteristics of lubrication in accordance with specified requirements</p> |
| | | Assessment Criterion 3 Explain the importance of identification of lubricant types in accordance with specified requirements. |
| | | Assessment Criterion 4 Explain the importance of using the recommended lubricant for different components in accordance with the specified requirements. |
| | | Assessment Criterion 5 Explain the importance of lubrication frequency in accordance with the specified requirements. |
| | Specific Outcome 2 Lubricate machines and equipment | Assessment Criterion 1 Select, examine and use the required personal protective equipment in a manner that protects the individual in accordance with specified requirements. |
| | | Assessment Criterion 2 Select and examine tools, material and equipment required in accordance with specified requirements. |
| | | Assessment Criterion 3 <i>Range of methods:</i> <ul style="list-style-type: none"> • Manual (grease gun, oil can) • Gravity (drip feed lubricator) • Natural (splash, bath, ring) • Pressure (oil and grease pumps) <p>Identify the various lubrication methods in accordance with specified requirements.</p> |

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| | | <p>Assessment Criterion 4 Range must include:</p> <ul style="list-style-type: none"> • packing bearings • use of manual greasing equipment • filling of manual and automatic lubrication equipment <p>Demonstrate the ability to lubricate equipment or components in terms of specified requirements.</p> |
| | | <p>Assessment Criterion 5 Keep absolute cleanliness when working with lubricants in terms of specified requirements.</p> |
| | <p>Specific Outcome 3 Demonstrate knowledge of the importance of the correct handling and storage of lubricants</p> | <p>Assessment Criterion 1 Range of contamination must include water, other lubricant types, dirt, dilutants</p> <p>Demonstrate understanding about non-contamination of lubricants in accordance with specified requirements.</p> |
| | | <p>Assessment Criterion 2 Treat spillage incidents in accordance with specified requirements</p> |
| | | <p>Assessment Criterion 3 Decant oil from drums in accordance with specified requirements</p> |
| | | <p>Assessment Criterion 4 Deal with reclaimed lubricant in accordance with specified requirements</p> |

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| <p>EXIT LEVEL OUTCOME 9</p> <p>UNDERSTAND THE FUNDAMENTALS OF ENGINE TECHNOLOGY</p> <p>US ID 244056</p> | <p>Specific Outcome 1 Identify the various types of automotive engines and engine operation.</p> | <p>Assessment Criterion 1 Identify the types of engines in terms of their key differences in operation</p> |
| | | <p>Assessment Criterion 2 Identify the main advantages of each type of engine in relation to their designed use.</p> |
| | | <p>Assessment Criterion 3 Identify the fuel combustion processes in accordance with the applicable engine technology.</p> |
| | <p>Specific Outcome 2 Identify the function of the major parts of an automotive engine</p> | <p>Assessment Criterion 1 Identify the major parts and explain their function in accordance with design criteria</p> |
| | | <p>Assessment Criterion 2 Identify the differences in major parts in relation to the type of engine</p> |
| | | <p>Assessment Criterion 3 Identify the reasons for using specific major parts in relation to engine design.</p> |
| | <p>Specific Outcome 3 Explain engine design classifications</p> | <p>Assessment Criterion 1 Explain the classification of engines in terms of their design differences</p> |
| | | <p>Assessment Criterion 2 Explain the differences in engine design in relation to the type of engine and its use</p> |
| | | <p>Assessment Criterion 3 Explain the reasons for using specific engine systems in relation to engine design</p> |

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| | Specific Outcome 4 Explain the various automotive engine systems, their functions and associated components | Assessment Criterion 1 Identify the engine systems and their function in accordance with design criteria |
| | | Assessment Criterion 2 Explain the differences in engine systems in relation to the type of engine |
| | | Assessment Criterion 3 Explain the reasons for using specific engine systems in relation to engine design |
| | Specific Outcome 5 Explain safe working practises related to automotive engines | Assessment Criterion 1 Explain workplace safety procedures |
| | | Assessment Criterion 2 Identify personal protective equipment and explain its method of use |
| | | Assessment Criterion 3 Explain the use of lifting equipment in accordance with safety legislation |
| | | Assessment Criterion 4 Explain the consequences of not working safely in terms of risk of injury and loss of production |
| | Specific Outcome 6 Interact with others in the workplace | Assessment Criterion 1 Explain the benefits of teamwork |
| | | Assessment Criterion 2 Identify potential difficulties of working as a team member |
| | | Assessment Criterion 3 Demonstrate the ability to communicate clearly |
| | | Assessment Criterion 4 Promote teamwork through interaction |

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| EXIT LEVEL OUTCOME 10 REMOVE AND FIT AUTOMOBILE COMPONENTS. US ID 260717 | Specific Outcome 1 Prepare to remove or fit automobile components <i>Range:</i> <i>Automobile components include any contraption, consisting of more than one part working together, and forms part of any one or more of the following systems:</i> <ul style="list-style-type: none"> ● <i>Electrical.</i> ● <i>Engine.</i> ● <i>Drive train.</i> ● <i>Brakes.</i> ● <i>Hydraulics.</i> ● <i>Pneumatics</i> | Assessment Criterion 1 Range <i>Documentation includes job cards, customer requests and manufacturer service schedules</i> Identify the component to be removed or fitted from given documentation and workplace instructions. |
| | | Assessment Criterion 2 Check all tools and equipment required to perform the task and prepare for use prior to commencing with job. |
| | | Assessment Criterion 3 Confirm replacement parts or components required to be available prior to commencing with the job. |
| | | Assessment Criterion 4 Explain the consequences of continuing with the task when all requirements are not available in terms of productivity and utilisation of workshop space. |
| | | Assessment Criterion 5 Make the vehicle safe to work on in accordance with vehicle manufacturer specifications. |

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| | | <p>Assessment Criterion 6 How to note any faults and deal with in accordance with workshop procedures.</p> |
| | | <p>Assessment Criterion 7 How to conduct work in accordance with workplace and legislative health and safety requirements.</p> |
| | <p>Specific Outcome 2 Remove and fit components</p> <p>Range: <i>Removal and fitting includes the relevant trim, connectors, associated feed lines and any product specific procedures.</i></p> | <p>Assessment Criterion 1 Remove or fit the component in accordance with workplace requirements and manufacturer recommendations.</p> |
| | | <p>Assessment Criterion 2 Explain differences in major parts in relation to the type of engine.</p> |
| | | <p>Assessment Criterion 3 Explain the purpose of closing off openings in terms of contamination and equipment reliability.</p> |
| | | <p>Assessment Criterion 4 Connect components in accordance with manufacturer specifications.</p> |
| | | <p>Assessment Criterion 5 Drain or fill fluids according to workshop manual procedures.</p> |
| | | <p>Assessment Criterion 6 Use tools and equipment in accordance with workshop procedures</p> |
| | | <p>Assessment Criterion 7 Range: <i>Faults include worn, damaged, faulty or leaking parts. Workshop procedures may include repairing, replacing or reporting</i></p> <p>Note any faults and deal with these in accordance with workshop procedures.</p> |
| | | <p>Assessment Criterion 8 Conduct work in accordance with workplace and legislative health and safety requirements.</p> |
| | <p>Specific Outcome 3 Inspect and test fitted components.</p> | <p>Assessment Criterion 1 Inspect visually the component for leaks and perform post operational checks according to workshop procedures.</p> |
| | | <p>Assessment Criterion 2 Inspect and confirm all fluid levels to be in with manufacturer specifications.</p> |
| | | <p>Assessment Criterion 3 Test the component for functionality in accordance with the workplace requirements.</p> |
| | | <p>Assessment Criterion 4 Ensure the component for functionality in accordance with workplace requirements.</p> |

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| | <p>Specific Outcome 4 Apply safety procedures during the removal and fitting process.</p> <p>Range:</p> <ul style="list-style-type: none"> • <i>Safety includes using personal protective equipment, adhering to workshop manual warnings and dispose of hazardous materials.</i> • <i>Hazardous materials include oils, coolant, fuels and cleaning agents.</i> | <p>Assessment Criterion 1 Complete the work task without incident, accident or injury according to safety procedures.</p> |
| | | <p>Assessment Criterion 2 Ensure there is no damage to any component, vehicle, equipment or tools.</p> |
| | | <p>Assessment Criterion 3 Adhere to all workshop manual safety warnings and required actions before, during and after component removal and fitting.</p> |
| | <p>Specific Outcome 5 Restore work area, complete and process documentation.</p> <p>Range:</p> <ul style="list-style-type: none"> • <i>Restoring work area includes disposal of hazardous materials, tools and equipment packed away, work area cleaned.</i> • <i>Documentation includes completing job cards, check lists and reports.</i> | <p>Assessment Criterion 1 Clean the work area in accordance with workplace and SHE requirements.</p> |
| | | <p>Assessment Criterion 2 Clean and store equipment in accordance with the workplace and SHE requirements.</p> |
| | | <p>Assessment Criterion 3 Restore the workplace in terms of safety hazards and production and the importance of restoring it.</p> |

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| EXIT LEVEL OUTCOME 11 ASSEMBLE MECHANICAL COMPONENTS. US ID 253440 | Specific Outcome 1 Identify, discuss and demonstrate mechanical assembly methods and techniques | Assessment Criterion 1 Discuss fundamental technologies, concepts and principles of mechanical assembly. |
| | | Assessment Criterion 2 Identify basic and specialised mechanical assembly tools and equipment and discuss their application. |
| | | Assessment Criterion 3 Discuss and explain hazards and safety risks related to the mechanical assembly procedures in terms of legislation, regularity requirements and safety standards. |
| | | Assessment Criterion 4 Discuss and explain assembly procedures in terms worksite practices and manufacturers' specifications. |
| | | Assessment Criterion 5 Use the terminology when explaining and discussing mechanical assembly, in keeping with the manufacturers' and worksite practices. |
| | Specific Outcome 2 Plan and prepare to perform a mechanical assembly | Assessment Criterion 1 Inspect and assess the mechanical assemblies for its work requirements in terms of strip-down procedures, removal and assembly. |
| | | Assessment Criterion 2 Plan and prepare for isolation, disassembly, maintenance, repair and assembly of the machine and/or sub-assembly in accordance with work instructions. |
| | | Assessment Criterion 3 Prepare site and equipment for mechanical assembly process. |
| | | Assessment Criterion 4 Ensure tools, equipment and resources are correct for the task, available on site by the agreed time and checked for serviceability in accordance with regulatory and worksite practices. |
| | | Assessment Criterion 5 Clear, where required, handling space, remove potential obstructions and notify personnel prior to the maintenance, repair and/or removal task. |
| | Assessment Criterion 6 Carry out pre- operational check on removal and securing equipment, in accordance with work instructions. | |

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| | Specific Outcome 3 Assemble mechanical components. | Assessment Criterion 1 Perform mechanical assembly and comply with task instructions. |
| | | Assessment Criterion 2 Identify faulty components and take corrective action according to the standard operating procedures. |
| | | Assessment Criterion 3 Perform all work safely with due care for self, fellow workers, machines, equipment, materials and environment. |
| | | Assessment Criterion 4 Test the assembly (where possible) for functionality in terms of operational requirements and in accordance with quality assurance procedures. |
| | | Assessment Criterion 5 Confirm, restore and report the operation, running condition or exactness of assembly after the assembly process, according to work-site practice and/or manufacturer's specifications. |
| | | Assessment Criterion 6 Restore work area to safe and serviceable condition. |
| | Specific Outcome 4 Maintain and care for equipment and tools | Assessment Criterion 1 Demonstrate care and storage procedure for tools and equipment in accordance with work site practice. |
| | | Assessment Criterion 2 Restore work area to safe and serviceable condition. |
| | | Assessment Criterion 3 Store tools and equipment in accordance with the manufacturer's specification and requirements. |
| | | Assessment Criterion 4 Report defective tools and equipment and take corrective action according to accepted worksite practice. |
| | Specific Outcome 5 Restore work area, complete and process documentation | Assessment Criterion 1 Demonstrate care and storage procedure for tools and equipment in accordance with work site practice. |
| | | Assessment Criterion 2 Restore work area to safe and serviceable condition. |
| | | Assessment Criterion 3 Store tools and equipment in accordance with the manufacturer's specification and requirements. |

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| <p>EXIT LEVEL OUTCOME 12</p> <p>CARRY OUT AN AUTOMOTIVE SERVICE</p> <p>US ID 260719</p> <p><i>This unit standard may be used in the context of one or more of the following areas of specialisation:</i></p> <ul style="list-style-type: none"> • Passenger vehicle. • Commercial vehicle. • Earthmoving equipment. • Lift truck. • Motor cycle. • Engine fitter. | <p>Specific Outcome 1 Plan and prepare for servicing a vehicle</p> <p>Range:</p> <ul style="list-style-type: none"> • Planning includes obtaining service data, tools, equipment, parts and fluids. • Preparing includes cleaning of automotive system/s. | <p>Assessment Criterion 1 Range: <i>Documentation includes job cards, customer requests and manufacturer service schedules.</i></p> <p>Identify the service to be conducted from given documentation and manufacturer recommendations.</p> |
| | | <p>Assessment Criterion 2 Avail all tools and equipment required to perform the service for use prior to commencing with the service.</p> |
| | | <p>Assessment Criterion 3 Identify service replacement parts and confirmed to be available prior to commencing with the service.</p> |
| | | <p>Assessment Criterion 4 Confirm reported faults by means of pre-operational check</p> |
| | | <p>Assessment Criterion 5 Describe consequences of continuing with the service when all requirements are not available in terms of productivity and utilization of workshop space</p> |
| | <p>Specific Outcome 2 Perform the service on the vehicle</p> <p>Range: <i>Servicing includes pre-delivery, daily inspections and routine services.</i></p> | <p>Assessment Criterion 1 Conduct the service in accordance with service schedule manufacture's recommendations</p> |
| | | <p>Assessment Criterion 2 Describe the purpose of conducting a routine service in terms of manufactures warranty and vehicle reliability</p> |
| | | <p>Assessment Criterion 3 Drain or refill fluids according to workshop manual procedures.</p> |
| | | <p>Assessment Criterion 4 Examine fluids for contamination according to workshop manual procedures may include laboratory analysis</p> |
| | | <p>Assessment Criterion 5 Use tools and equipment in accordance with workshop procedures.</p> |
| | <p>Assessment Criterion 6 Range: Faults include worn, damaged, faulty or leaking parts. Workshop procedures may include repairing, replacing or reporting.</p> <p>Note any faults and deal with it in accordance with workshop procedures.</p> | |

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| | <p>Specific Outcome 3</p> <p>Apply quality checks on completed service</p> <p>Range:</p> <ul style="list-style-type: none"> • Quality checks include confirmation of conformance to the service schedule. • Confirmation includes visual inspection for system leaks and operational performance. | <p>Assessment Criterion 1</p> <p>Inspect the vehicle visually for leaks and carry out a post operational check according to workshop procedures</p> |
| | | <p>Assessment Criterion 2</p> <p>Inspect all fluid levels & confirm it to be in accordance with manufacturer specifications</p> |
| | | <p>Assessment Criterion 3</p> <p>Explain the reasons for post service checks in terms of quality control & customer satisfaction</p> |
| | | <p>Assessment Criterion 4</p> <p>Identify quality checks on points in terms of their function and checking procedures</p> |
| | | <p>Assessment Criterion 5</p> <p>Confirm, restore and report the operation, running condition or exactness of assembly after the assembly process, according to worksite practice and/or manufacturer's specifications.</p> |
| | <p>Specific Outcome 4</p> <p>Apply safety procedures during the service</p> <p>Range:</p> <ul style="list-style-type: none"> • Safety includes using personal protective equipment, adhering to workshop manual warnings and dispose of hazardous materials. • Hazardous materials include oils, coolant, fuels and cleaning agents. | <p>Assessment Criterion 1</p> <p>Complete the service with the incident, accident or injury in accordance with SHE procedures and legislation.</p> |
| | | <p>Assessment Criterion 2</p> <p>Adhere to all safety warnings and required actions before, during and after servicing according to workshop safety manuals.</p> |
| | | <p>Assessment Criterion 3</p> <p>Follow applicable SHE procedures during the service.</p> |
| | <p>Specific Outcome 5</p> <p>Restore work area, complete and process documentation</p> <p>Range:</p> <ul style="list-style-type: none"> • Restoring work area includes disposal of hazardous materials, tools and equipment packed away, work area cleaned. • Documentation includes completing job cards, check lists and reports. | <p>Assessment Criterion 1</p> <p>Clean the work area in accordance with workplace and SHE requirements.</p> |
| | | <p>Assessment Criterion 2</p> <p>Clean and store equipment in accordance with the workplace and SHE requirements.</p> |
| | | <p>Assessment Criterion 3</p> <p>Restore the workplace in terms of safety hazards and production.</p> |
| | | <p>Assessment Criterion 4</p> <p>Complete documentation & process in accordance with workplace procedures.</p> |
| | | <p>Assessment Criterion 5</p> <p>Explain use of various documentation and their main functions.</p> |

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| <p>EXIT LEVEL OUTCOME 13</p> <p>INSPECT AND LUBRICATE AN AUTOMOTIVE SYSTEM.</p> <p>US ID 119750</p> | <p>Specific Outcome 1 Plan and prepare to inspect and lubricate an automotive system.</p> | <p>Assessment Criterion 1 Prepare work area and automotive system for inspection and lubrication.</p> |
| | | <p>Assessment Criterion 2 Obtain workshop manual and specifications appropriate to automotive system.</p> |
| | | <p>Assessment Criterion 3 Obtain specified lubricants and fluids.</p> |
| | | <p>Assessment Criterion 4 Select and obtain appropriate tools and equipment.</p> |
| | | <p>Assessment Criterion 5 Prepare work area and automotive system in accordance with SHE requirements.</p> |
| | | <p>Assessment Criterion 6 Explain the reason for selecting the appropriate workshop manual for the automotive system.</p> |
| | <p>Specific Outcome 2 Drain, refill or top up fluids and apply lubricants.</p> | <p>Assessment Criterion 1 Drain, refill or top up fluids and apply lubricants.</p> |
| | | <p>Assessment Criterion 2 Check fluid levels in accordance with workshop manual procedures.</p> |
| | | <p>Assessment Criterion 3 Normalize automotive system to operating temperature prior draining of fluids.</p> |
| | | <p>Assessment Criterion 4 Clean areas before and after draining fluids.</p> |
| | | <p>Assessment Criterion 5 Drain fluids in accordance with workshop procedures.</p> |
| | | <p>Assessment Criterion 6 Replace, drain and refill plugs in accordance with workshop manual procedures.</p> |
| | | <p>Assessment Criterion 7 Clean filler areas prior to filling/ topping up fluid compartment.</p> |
| | | <p>Assessment Criterion 8 Refill fluid compartments/ top up with specified fluid and quantity.</p> |
| | <p>Assessment Criterion 9 Clean lubrication points prior lubrication.</p> | |
| | <p>Assessment Criterion 10 Apply lubricants to lubrication points in accordance with workshop manual procedures.</p> | |
| | <p>Assessment Criterion 11 Explain why system/s need to be normalized prior to draining the oil.</p> | |
| | <p>Assessment Criterion 12 Ensure correct fluid levels.</p> | |

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| | Specific Outcome 3 Inspect and identify leaks and defects on automotive system. | Assessment Criterion 1 Inspect automotive system for leaks and defects. |
| | | Assessment Criterion 2 Inspect visually for leaks and defects while system is in a static condition, and record findings. |
| | | Assessment Criterion 3 Inspect automotive system for leaks under operational conditions and record findings. |
| | | Assessment Criterion 4 Test functionality of system. |
| | | Assessment Criterion 5 Explain why an automotive system needs to be inspected when static and operational. |
| | Specific Outcome 4 Restore work area, complete and process documentation. | Assessment Criterion 1 Restore work area, complete and process documentation. |
| | | Assessment Criterion 2 Clean and pack away tools and equipment in accordance with company procedures. |
| | | Assessment Criterion 3 Clean work area in accordance with good housekeeping requirements. |
| | | Assessment Criterion 4 Dispose of hazards materials in accordance with SHE requirements. |
| | | Assessment Criterion 5 Complete documentation and process in accordance with company procedures. |
| | Assessment Criterion 6 Recall company procedures relating to the cleaning and packing away of tools and equipment. | |
| | Assessment Criterion 7 Explain the impact of good housekeeping practices on productivity and a safe working environment. | |

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| EXIT LEVEL OUTCOME 14 DEMONSTRATE BASIC KNOWLEDGE OF HYDRAULIC COMPONENTS US ID 244690 | Specific Outcome 1 Demonstrate basic knowledge of hydraulic components and their application. | Assessment Criterion 1 Identify components by name and explain their uses. |
| | | Assessment Criterion 2 Explain the purpose of the component in relation to the hydraulic circuit. |
| | | Assessment Criterion 3 Identify differences in component types and explain in relation to the method of functioning. |
| | Specific Outcome 2 Describe safety aspects related to hydraulic systems. | Assessment Criterion 1 Explain the consequences of pressure in hydraulic system in relation to personal safety. |
| | | Assessment Criterion 2 Explain the effects of hydraulic fluids in term of safety, health environmental requirements. |

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| EXIT LEVEL OUTCOME 15 PERFORM BASIC WELDING/JOINING OF METALS US ID 119753 | Specific Outcome 1 Prepare for work activity. | Assessment Criterion 1 Prepare for work activity by reading job instructions to determine sequence of operations. |
| | | Assessment Criterion 2 Select the required heat related welding/joining equipment and consumables. |
| | | Assessment Criterion 3 Carry out the pre-operational checks on equipment correctly. |
| | | Assessment Criterion 4 Report on the unsafe or worn parts or defective equipment or potential hazards in the required format. |
| | | Assessment Criterion 5 Prepare materials for welding/joining. |
| | | Assessment Criterion 6 Use special personal protective equipment during the operation. |
| | Specific Outcome 2 Weld/join metals. | Assessment Criterion 1 Prepare the work area for welding/joining process. |
| | | Assessment Criterion 2 Secure the work area. |
| | | Assessment Criterion 3 Use an appropriate weld/join process. |
| | | Assessment Criterion 4 Weld/join the metal correctly to give a good quality finish. |
| | Specific Outcome 3 Apply quality checks on completed weld/joint. | Assessment Criterion 1 Clean the weld/join correctly. |
| | | Assessment Criterion 2 Conduct visual checks for quality finishes at the end of the process. |
| | Specific Outcome 4 Perform finishing activities. | Assessment Criterion 1 Dispose of scrap material according to organisational procedure. |
| | | Assessment Criterion 2 Store surplus materials according to organisational procedure. |
| | | Assessment Criterion 3 Clean and store equipment according to organisational procedure. |
| | Specific Outcome 5 Report out of compliance or unsafe conditions while working | Assessment Criterion 1 Report problems with materials and equipment. |
| | Specific Outcome 6 Work safely with due care for self, fellow workers, equipment, materials and the environment. | Assessment Criterion 1 Prepare materials and work area. |
| | | Assessment Criterion 2 Ensure sufficient safety materials are continuously available. |
| | | Assessment Criterion 3 Restore work area to a safe and serviceable condition after activity. |

Exit Level Outcome (ELO) coverage across years

Note: Where the Specific Outcome (SO) and / or the Assessment Criterion (AC) is repeated in each year, the teacher will need to ensure that both the content and context progresses from SIMPLE (Year 1 and 2) to COMPLEX (Year 4). Example:

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| Specific Outcome 1 Select and use engineering power tools | Assessment Criterion 1 Select and use appropriate power tool attachments for required application <i>Engineering power tools include drills (including pedestal drilling machines), grinders (including pedestal grinders), sanders, brushes, buffs, wrenches (including impact type), jacks, and nibblers, saws (including power and band saws).</i> | Year 1 | Start with the simple, basic power tools |
| | | Year 2 | Add more basic tools and some more complex ones |
| | | Year 3 | Complete the basic tools not covered; add more complex types of tools |
| | | Year 4 | All basic tools and the relevant more complex tools are covered |

| Exit Level Outcome | Year 1 | Year 2 | Year 3 | Year 4 |
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| ELO 1. KEEP THE WORK AREA SAFE AND PRODUCTIVE US ID 13220 | <ul style="list-style-type: none"> ○ SO 1 DISCUSS AND EXPLAIN THE PURPOSE OF SAFETY EQUIPMENT AND PROCEDURES ● AC 1 Demonstrate an understanding of safety issues at work ● AC 2 Undertake work in a safe manner according to established procedures. ● AC 3 Keep work area in a neat and tidy condition. ● AC 4 Report safety issues as required. | <ul style="list-style-type: none"> ○ SO 1 DISCUSS AND EXPLAIN THE PURPOSE OF SAFETY EQUIPMENT AND PROCEDURES ● AC 1 Demonstrate an understanding of safety issues at work ● AC 2 Undertake work in a safe manner according to established procedures. ● AC 3 Keep work area in a neat and tidy condition. ● AC 4 Report safety issues as | <ul style="list-style-type: none"> ○ SO 1 DISCUSS AND EXPLAIN THE PURPOSE OF SAFETY EQUIPMENT AND PROCEDURES ● AC 1 Demonstrate an understanding of safety issues at work ● AC 2 Undertake work in a safe manner according to established procedures. ● AC 3 Keep work area in a neat and tidy condition. ● AC 4 Report safety issues as | <ul style="list-style-type: none"> ○ SO 1 DISCUSS AND EXPLAIN THE PURPOSE OF SAFETY EQUIPMENT AND PROCEDURES ● AC 1 Demonstrate an understanding of safety issues at work ● AC 2 Undertake work in a safe manner according to established procedures. ● AC 3 Keep work area in a neat and tidy condition. ● AC 4 Report safety issues as |

| Exit Level Outcome | Year 1 | Year 2 | Year 3 | Year 4 |
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| | <ul style="list-style-type: none"> ○ SO 2 IDENTIFY AND EXPLAIN THE PURPOSE OF DEMARCATED AREAS, EMERGENCY STOPS, EXITS AND FIRST AID STATIONS • AC 1 Demonstrate an understanding of safety issues at work. • AC 2 Undertake all work in a safe manner according to established procedures. • AC 3 Keep work area in a neat and tidy condition. • AC 4 Report safety issues as required. | <ul style="list-style-type: none"> ○ SO 2 IDENTIFY AND EXPLAIN THE PURPOSE OF DEMARCATED AREAS, EMERGENCY STOPS, EXITS AND FIRST AID STATIONS • AC 1 Demonstrate an understanding of safety issues at work. • AC 2 Undertake all work in a safe manner according to established procedures. • AC 3 Keep work area in a neat and tidy condition. • AC 4 Report safety issues as required. | <ul style="list-style-type: none"> ○ SO 2 IDENTIFY AND EXPLAIN THE PURPOSE OF DEMARCATED AREAS, EMERGENCY STOPS, EXITS AND FIRST AID STATIONS • AC 1 Demonstrate an understanding of safety issues at work. • AC 2 Undertake all work in a safe manner according to established procedures. • AC 3 Keep work area in a neat and tidy condition. • AC 4 Report safety issues as required. | <ul style="list-style-type: none"> ○ SO 2 IDENTIFY AND EXPLAIN THE PURPOSE OF DEMARCATED AREAS, EMERGENCY STOPS, EXITS AND FIRST AID STATIONS • AC 1 Demonstrate an understanding of safety issues at work. • AC 2 Undertake all work in a safe manner according to established procedures. • AC 3 Keep work area in a neat and tidy condition. • AC 4 Report safety issues as required. |
| | <ul style="list-style-type: none"> ○ SO 3 USE PERSONAL PROTECTIVE EQUIPMENT • AC 1 Demonstrate an understanding of safety issues at work. • AC 2 Undertake all work in a safe manner according to established procedures. • AC 3 Ensure work area is in a neat and tidy condition • AC 4 Report on safety issues as required | <ul style="list-style-type: none"> ○ SO 3 USE PERSONAL PROTECTIVE EQUIPMENT • AC 1 Demonstrate an understanding of safety issues at work. • AC 2 Undertake all work in a safe manner according to established procedures. • AC 3 Ensure work area is in a neat and tidy condition • AC 4 Report on safety issues as required | <ul style="list-style-type: none"> ○ SO 3 USE PERSONAL PROTECTIVE EQUIPMENT • AC 1 Demonstrate an understanding of safety issues at work. • AC 2 Undertake all work in a safe manner according to established procedures. • AC 3 Ensure work area is in a neat and tidy condition • AC 4 Report on safety issues as required | <ul style="list-style-type: none"> ○ SO 3 USE PERSONAL PROTECTIVE EQUIPMENT • AC 1 Demonstrate an understanding of safety issues at work. • AC 2 Undertake all work in a safe manner according to established procedures. • AC 3 Ensure work area is in a neat and tidy condition • AC 4 Report on safety issues as required |

| Exit Level Outcome | Year 1 | Year 2 | Year 3 | Year 4 |
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| | <ul style="list-style-type: none"> ○ SO 4 PERFORM HOUSEKEEPING DUTIES IN WORK AREA • AC 1 Demonstrate an understanding of safety issues at work. • AC 2 Undertake all work in a safe manner according to established procedures. • AC 3 Keep work area in a neat and tidy condition • AC 4 Report on safety issues as required | <ul style="list-style-type: none"> ○ SO 4 PERFORM HOUSEKEEPING DUTIES IN WORK AREA • AC 1 Demonstrate an understanding of safety issues at work. • AC 2 Undertake all work in a safe manner according to established procedures. • AC 3 Keep work area in a neat and tidy condition • AC 4 Report on safety issues as required | <ul style="list-style-type: none"> ○ SO 4 PERFORM HOUSEKEEPING DUTIES IN WORK AREA • AC 1 Demonstrate an understanding of safety issues at work. • AC 2 Undertake all work in a safe manner according to established procedures. • AC 3 Keep work area in a neat and tidy condition • AC 4 Report on safety issues as required | <ul style="list-style-type: none"> ○ SO 4 PERFORM HOUSEKEEPING DUTIES IN WORK AREA • AC 1 Demonstrate an understanding of safety issues at work. • AC 2 Undertake all work in a safe manner according to established procedures. • AC 3 Keep work area in a neat and tidy condition • AC 4 Report on safety issues as required |
| | <ul style="list-style-type: none"> ○ SO 5 IDENTIFY AND RESPOND TO UNSAFE OR POTENTIALLY UNSAFE CONDITIONS, INCIDENTS OR ACTS THAT MAY OCCUR • AC 1 Demonstrate an understanding of safety issues at work • AC 2 Undertake all work in a safe manner according to established procedures • AC 3 Keep work area in a neat and tidy condition • AC 4 Report on safety issues as required | <ul style="list-style-type: none"> ○ SO 5 IDENTIFY AND RESPOND TO UNSAFE OR POTENTIALLY UNSAFE CONDITIONS, INCIDENTS OR ACTS THAT MAY OCCUR • AC 1 Demonstrate an understanding of safety issues at work • AC 2 Undertake all work in a safe manner according to established procedures • AC 3 Keep work area in a neat and tidy condition • AC 4 Report on safety issues as required | <ul style="list-style-type: none"> ○ SO 5 IDENTIFY AND RESPOND TO UNSAFE OR POTENTIALLY UNSAFE CONDITIONS, INCIDENTS OR ACTS THAT MAY OCCUR • AC 1 Demonstrate an understanding of safety issues at work • AC 2 Undertake all work in a safe manner according to established procedures • AC 3 Keep work area in a neat and tidy condition • AC 4 Report on safety issues as required | <ul style="list-style-type: none"> ○ SO 5 IDENTIFY AND RESPOND TO UNSAFE OR POTENTIALLY UNSAFE CONDITIONS, INCIDENTS OR ACTS THAT MAY OCCUR • AC 1 Demonstrate an understanding of safety issues at work • AC 2 Undertake all work in a safe manner according to established procedures • AC 3 Keep work area in a neat and tidy condition • AC 4 Report on safety issues as required |

| Exit Level Outcome | Year 1 | Year 2 | Year 3 | Year 4 |
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| ELO 2 SELECT AND USE ENGINEERING HAND TOOLS US ID 119744 | <ul style="list-style-type: none"> ○ SO 1 <p>SELECT AND USE ENGINEERING HAND TOOLS</p> <ul style="list-style-type: none"> • AC 1 Identify all the engineering hand tools and explain their uses. • AC 2 Give clear explanation and appropriate examples • AC 3 Refer to appropriate literature when explanations are given • AC 4 Demonstrate the ability to apply the various engineering hand tools in their different applications | <ul style="list-style-type: none"> ○ SO 1 <p>SELECT AND USE ENGINEERING HAND TOOLS</p> <ul style="list-style-type: none"> • AC 1 Identify all the engineering hand tools and explain their uses. • AC 2 Give clear explanation and appropriate examples • AC 3 Refer to appropriate literature when explanations are given • AC 4 Demonstrate the ability to apply the various engineering hand tools in their different applications | <ul style="list-style-type: none"> ○ SO 1 <p>SELECT AND USE ENGINEERING HAND TOOLS</p> <ul style="list-style-type: none"> • AC 1 Identify all the engineering hand tools and explain their uses. • AC 2 Give clear explanation and appropriate examples • AC 3 Refer to appropriate literature when explanations are given • AC 4 Demonstrate the ability to apply the various engineering hand tools in their different applications | <ul style="list-style-type: none"> ○ SO 1 <p>SELECT AND USE ENGINEERING HAND TOOLS</p> <ul style="list-style-type: none"> • AC 1 Identify all the engineering hand tools and explain their uses. • AC 2 Give clear explanation and appropriate examples • AC 3 Refer to appropriate literature when explanations are given • AC 4 Demonstrate the ability to apply the various engineering hand tools in their different applications |
| | <ul style="list-style-type: none"> ○ SO 2 <p>CARE FOR AND MAINTAIN ENGINEERING HAND TOOLS</p> <ul style="list-style-type: none"> • AC 1 Maintain engineering hand tools in accordance with the applicable requirements and workplace procedures • AC 2 Confirm the understanding of the maintenance process by responding accurately to task related questions. • AC 3 | <ul style="list-style-type: none"> ○ SO 2 <p>CARE FOR AND MAINTAIN ENGINEERING HAND TOOLS</p> <ul style="list-style-type: none"> • AC 1 Maintain engineering hand tools in accordance with the applicable requirements and workplace procedures • AC 2 Confirm the understanding of the maintenance process by responding accurately to task related questions. • AC 3 | <ul style="list-style-type: none"> ○ SO 2 <p>CARE FOR AND MAINTAIN ENGINEERING HAND TOOLS</p> <ul style="list-style-type: none"> • AC 1 Maintain engineering hand tools in accordance with the applicable requirements and workplace procedures • AC 2 Confirm the understanding of the maintenance process by responding accurately to task related questions. • AC 3 | <ul style="list-style-type: none"> ○ SO 2 <p>CARE FOR AND MAINTAIN ENGINEERING HAND TOOLS</p> <ul style="list-style-type: none"> • AC 1 Maintain engineering hand tools in accordance with the applicable requirements and workplace procedures • AC 2 Confirm the understanding of the maintenance process by responding accurately to task related questions. • AC 3 |

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| | Recognize and report problems, changes and/or malfunctions while working with engineering hand tools. | Recognize and report problems, changes and/or malfunctions while working with engineering hand tools. | Recognize and report problems, changes and/or malfunctions while working with engineering hand tools. | Recognize and report problems, changes and/or malfunctions while working with engineering hand tools. |
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| Exit Level Outcome | Year 1 | Year 2 | Year 3 | Year 4 |
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| | <ul style="list-style-type: none"> ○ SO 3 <p>WORK SAFELY WITH DUE CARE FOR SELF, FELLOW WORKERS, EQUIPMENT, MATERIALS AND ENVIRONMENT</p> <ul style="list-style-type: none"> ● AC 1 Explain and demonstrate safe working practices. ● AC 2 Demonstrate an understanding of SHE procedures. | <ul style="list-style-type: none"> ○ SO 3 <p>WORK SAFELY WITH DUE CARE FOR SELF, FELLOW WORKERS, EQUIPMENT, MATERIALS AND ENVIRONMENT</p> <ul style="list-style-type: none"> ● AC 1 Explain and demonstrate safe working practices. ● AC 2 Demonstrate an understanding of SHE procedures. | <ul style="list-style-type: none"> ○ SO 3 <p>WORK SAFELY WITH DUE CARE FOR SELF, FELLOW WORKERS, EQUIPMENT, MATERIALS AND ENVIRONMENT</p> <ul style="list-style-type: none"> ● AC 1 Explain and demonstrate safe working practices. ● AC 2 Demonstrate an understanding of SHE procedures. | <ul style="list-style-type: none"> ○ SO 3 <p>WORK SAFELY WITH DUE CARE FOR SELF, FELLOW WORKERS, EQUIPMENT, MATERIALS AND ENVIRONMENT</p> <ul style="list-style-type: none"> ● AC 1 Explain and demonstrate safe working practices. ● AC 2 Demonstrate an understanding of SHE procedures. |

| Exit Level Outcome | Year 1 | Year 2 | Year 3 | Year 4 |
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| <p>ELO 3</p> <p>UNDERSTAND AND DEAL WITH HIV/AIDS</p> <p>US ID 12463</p> | <ul style="list-style-type: none"> ○ SO 1 <p>EXPLAIN THE RIGHTS AND RESPONSIBILITIES OF EMPLOYEES IN THE WORKPLACE WITH REGARD TO HIV / AIDS</p> <ul style="list-style-type: none"> ○ AC 1 Demonstrate an understanding of HIV / AIDS issues affecting employees personally and in the workshop. | <ul style="list-style-type: none"> ○ SO 1 <p>EXPLAIN THE RIGHTS AND RESPONSIBILITIES OF EMPLOYEES IN THE WORKPLACE WITH REGARD TO HIV / AIDS</p> <ul style="list-style-type: none"> ○ AC 1 Demonstrate an understanding of HIV / AIDS issues affecting employees personally and in the workshop. | Not done | Not done |

| Exit Level Outcome | Year 1 | Year 2 | Year 3 | Year 4 |
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| <p>ELO 4.</p> <p>SELECT, USE AND CARE FOR ENGINEERING MEASURING EQUIPMENT</p> <p>US ID 12476</p> | <ul style="list-style-type: none"> ○ SO 1 <p>EXPLAIN AND DISCUSS BASIC UNITS OF MEASURE</p> <ul style="list-style-type: none"> ● AC 1 Explain and discuss basic units of measure, symbols and derived units of measure. | <ul style="list-style-type: none"> ○ SO 1 <p>EXPLAIN AND DISCUSS BASIC UNITS OF MEASURE</p> <ul style="list-style-type: none"> ● AC 1 Explain and discuss basic units of measure, symbols and derived units of measure. | <ul style="list-style-type: none"> ○ SO 1 <p>EXPLAIN AND DISCUSS BASIC UNITS OF MEASURE</p> <ul style="list-style-type: none"> ● AC 1 Explain and discuss basic units of measure, symbols and derived units of measure. | <ul style="list-style-type: none"> ○ SO 1 <p>EXPLAIN AND DISCUSS BASIC UNITS OF MEASURE</p> <ul style="list-style-type: none"> ● AC 1 Explain and discuss basic units of measure, symbols and derived units of measure. |

| Exit Level Outcome | Year 1 | Year 2 | Year 3 | Year 4 |
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| | <ul style="list-style-type: none"> ○ SO 2 <p>SELECT AND USE ENGINEERING MEASURING EQUIPMENT</p> <ul style="list-style-type: none"> ● AC 2 Use measuring equipment as recommended by the manufacture to meet job/task requirements. ● AC 3 Take and record measurements. | <ul style="list-style-type: none"> ○ SO 2 <p>SELECT AND USE ENGINEERING MEASURING EQUIPMENT</p> <ul style="list-style-type: none"> ● AC 2 Use measuring equipment as recommended by the manufacture to meet job/task requirements. ● AC 3 Take and record measurements. | <ul style="list-style-type: none"> ○ SO 2 <p>SELECT AND USE ENGINEERING MEASURING EQUIPMENT</p> <ul style="list-style-type: none"> ● AC 2 Use measuring equipment as recommended by the manufacture to meet job/task requirements. ● AC 3 Take and record measurements. | <ul style="list-style-type: none"> ○ SO 2 <p>SELECT AND USE ENGINEERING MEASURING EQUIPMENT</p> <ul style="list-style-type: none"> ● AC 2 Use measuring equipment as recommended by the manufacture to meet job/task requirements. ● AC 3 Take and record measurements. |
| | <ul style="list-style-type: none"> ○ SO 3 <p>CARE FOR AND MAINTAIN MEASURING EQUIPMENT</p> <ul style="list-style-type: none"> ○ AC 5 Clean, service, maintain and store measuring equipment | <ul style="list-style-type: none"> ○ SO 3 <p>CARE FOR AND MAINTAIN MEASURING EQUIPMENT</p> <ul style="list-style-type: none"> ○ AC 5 Clean, service, maintain and store measuring equipment | <ul style="list-style-type: none"> ○ SO 3 <p>CARE FOR AND MAINTAIN MEASURING EQUIPMENT</p> <ul style="list-style-type: none"> ○ AC 5 Clean, service, maintain and store measuring equipment | <ul style="list-style-type: none"> ○ SO 3 <p>CARE FOR AND MAINTAIN MEASURING EQUIPMENT</p> <ul style="list-style-type: none"> ○ AC 5 Clean, service, maintain and store measuring equipment |
| | <ul style="list-style-type: none"> ○ SO 4 <p>RECOGNISE AND REPORT PROBLEMS CHANGES AND/OR MALFUNCTIONS WHILE WORKING</p> <ul style="list-style-type: none"> ● AC 4 Identify unsafe of faulty measuring equipment and take corrective action. | <ul style="list-style-type: none"> ○ SO 4 <p>RECOGNISE AND REPORT PROBLEMS CHANGES AND/OR MALFUNCTIONS WHILE WORKING</p> <ul style="list-style-type: none"> ● AC 4 Identify unsafe of faulty measuring equipment and take corrective action. | <ul style="list-style-type: none"> ○ SO 4 <p>RECOGNISE AND REPORT PROBLEMS CHANGES AND/OR MALFUNCTIONS WHILE WORKING</p> <ul style="list-style-type: none"> ● AC 4 Identify unsafe of faulty measuring equipment and take corrective action. | <ul style="list-style-type: none"> ○ SO 4 <p>RECOGNISE AND REPORT PROBLEMS CHANGES AND/OR MALFUNCTIONS WHILE WORKING</p> <ul style="list-style-type: none"> ● AC 4 Identify unsafe of faulty measuring equipment and take corrective action. |

| Exit Level Outcome | Year 1 | Year 2 | Year 3 | Year 4 |
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| | <ul style="list-style-type: none"> ○ SO 5 <p>WORK SAFELY WITH DUE CARE FOR SELF, FELLOW WORKERS, MACHINES, EQUIPMENT, MATERIALS AND ENVIRONMENT</p> <ul style="list-style-type: none"> ● AC 1 Explain and demonstrate safe working practices. ● AC 2 Demonstrate an understanding of SHE procedures. | <ul style="list-style-type: none"> ○ SO 5 <p>WORK SAFELY WITH DUE CARE FOR SELF, FELLOW WORKERS, MACHINES, EQUIPMENT, MATERIALS AND ENVIRONMENT</p> <ul style="list-style-type: none"> ● AC 1 Explain and demonstrate safe working practices. ● AC 2 Demonstrate an understanding of SHE procedures. | <ul style="list-style-type: none"> ○ SO 5 <p>WORK SAFELY WITH DUE CARE FOR SELF, FELLOW WORKERS, MACHINES, EQUIPMENT, MATERIALS AND ENVIRONMENT</p> <ul style="list-style-type: none"> ● AC 1 Explain and demonstrate safe working practices. ● AC 2 Demonstrate an understanding of SHE procedures. | <ul style="list-style-type: none"> ○ SO 5 <p>WORK SAFELY WITH DUE CARE FOR SELF, FELLOW WORKERS, MACHINES, EQUIPMENT, MATERIALS AND ENVIRONMENT</p> <ul style="list-style-type: none"> ● AC 1 Explain and demonstrate safe working practices. ● AC 2 Demonstrate an understanding of SHE procedures. |

| Exit Level Outcome | Year 1 | Year 2 | Year 3 | Year 4 |
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| <p>ELO 5.</p> <p>SELECT, USE AND CARE FOR ENGINEERING POWER TOOLS</p> <p>US ID 12219</p> | <ul style="list-style-type: none"> ○ SO 1 <p>SELECT AND USE ENGINEERING POWER TOOLS</p> <ul style="list-style-type: none"> ● AC 1 Select appropriate power tool attachments for required application <p><i>Engineering power tools include drills (including pedestal drilling machines), grinders (including pedestal grinders), sanders, brushes, buffs, wrenches (including impact type), jacks, and nibblers, saws (including power and band saws).</i></p> | <ul style="list-style-type: none"> ○ SO 1 <p>SELECT AND USE ENGINEERING POWER TOOLS</p> <ul style="list-style-type: none"> ● AC 1 Select appropriate power tool attachments for required application <p><i>Engineering power tools include drills (including pedestal drilling machines), grinders (including pedestal grinders), sanders, brushes, buffs, wrenches (including impact type), jacks, and nibblers, saws (including power and band saws).</i></p> | <ul style="list-style-type: none"> ○ SO 1 <p>SELECT AND USE ENGINEERING POWER TOOLS</p> <ul style="list-style-type: none"> ● AC 1 Select appropriate power tool attachments for required application <p><i>Engineering power tools include drills (including pedestal drilling machines), grinders (including pedestal grinders), sanders, brushes, buffs, wrenches (including impact type), jacks, and nibblers, saws (including power and band saws).</i></p> | <ul style="list-style-type: none"> ○ SO 1 <p>SELECT AND USE ENGINEERING POWER TOOLS</p> <ul style="list-style-type: none"> ● AC 1 Select appropriate power tool attachments for required application <p><i>Engineering power tools include drills (including pedestal drilling machines), grinders (including pedestal grinders), sanders, brushes, buffs, wrenches (including impact type), jacks, and nibblers, saws (including power and band saws).</i></p> |

| Exit Level Outcome | Year 1 | Year 2 | Year 3 | Year 4 |
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| | <ul style="list-style-type: none"> ○ SO 2 CARE FOR AND MAINTAIN ENGINEERING POWER TOOLS ● AC 1 Clean and maintain and store tools ○ AC 2 Maintain power tools e.g. replace wearing parts, lubricate, etc | <ul style="list-style-type: none"> ○ SO 2 CARE FOR AND MAINTAIN ENGINEERING POWER TOOLS ● AC 1 Clean and maintain and store tools ○ AC 2 Maintain power tools e.g. replace wearing parts, lubricate, etc | <ul style="list-style-type: none"> ○ SO 2 CARE FOR AND MAINTAIN ENGINEERING POWER TOOLS ● AC 1 Clean and maintain and store tools ○ AC 2 Maintain power tools e.g. replace wearing parts, lubricate, etc | <ul style="list-style-type: none"> ○ SO 2 CARE FOR AND MAINTAIN ENGINEERING POWER TOOLS ● AC 1 Clean and maintain and store tools ○ AC 2 Maintain power tools e.g. replace wearing parts, lubricate, etc |
| | <ul style="list-style-type: none"> ○ SO 3 CHECK ON POWER SUPPLY CONNECTIONS TO EQUIPMENT ● AC 1 Check on power supply tools connections to equipment. <p><i>Power sources include electricity, compressed air, hydraulic power</i></p> | <ul style="list-style-type: none"> ○ SO 3 CHECK ON POWER SUPPLY CONNECTIONS TO EQUIPMENT ● AC 1 Check on power supply tools connections to equipment. <p><i>Power sources include electricity, compressed air, hydraulic power</i></p> | <ul style="list-style-type: none"> ○ SO 3 CHECK ON POWER SUPPLY CONNECTIONS TO EQUIPMENT ● AC 1 Check on power supply tools connections to equipment. <p><i>Power sources include electricity, compressed air, hydraulic power</i></p> | <ul style="list-style-type: none"> ○ SO 3 CHECK ON POWER SUPPLY CONNECTIONS TO EQUIPMENT ● AC 1 Check on power supply tools connections to equipment. <p><i>Power sources include electricity, compressed air, hydraulic power</i></p> |
| | <ul style="list-style-type: none"> ○ SO 4 RECOGNISE AND REPORT PROBLEMS, CHANGES AND/OR MALFUNCTIONS WHILE WORKING ● AC 1 Identify the unsafe/faulty power tools and take corrective action. | <ul style="list-style-type: none"> ○ SO 4 RECOGNISE AND REPORT PROBLEMS, CHANGES AND/OR MALFUNCTIONS WHILE WORKING ● AC 1 Identify the unsafe/faulty power tools and take corrective action. | <ul style="list-style-type: none"> ○ SO 4 RECOGNISE AND REPORT PROBLEMS, CHANGES AND/OR MALFUNCTIONS WHILE WORKING ● AC 1 Identify the unsafe/faulty power tools and take corrective action. | <ul style="list-style-type: none"> ○ SO 4 RECOGNISE AND REPORT PROBLEMS, CHANGES AND/OR MALFUNCTIONS WHILE WORKING ● AC 1 Identify the unsafe/faulty power tools and take corrective action. |

| Exit Level Outcome | Year 1 | Year 2 | Year 3 | Year 4 |
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| | <ul style="list-style-type: none"> ○ SO 5 <p>WORK SAFELY WITH DUE CARE FOR SELF, FELLOW WORKERS, MACHINES, EQUIPMENT, MATERIALS AND ENVIRONMENT</p> <ul style="list-style-type: none"> ● AC 1 Identify safe working practices including the use of appropriate personal protective equipment. <ul style="list-style-type: none"> ○ AC 2 Identify safety hazards including bad connections, damaged air and hydraulic hoses, damaged electrical cables, cracked discs and worn or damaged blades. | <ul style="list-style-type: none"> ○ SO 5 <p>WORK SAFELY WITH DUE CARE FOR SELF, FELLOW WORKERS, MACHINES, EQUIPMENT, MATERIALS AND ENVIRONMENT</p> <ul style="list-style-type: none"> ● AC 1 Identify safe working practices including the use of appropriate personal protective equipment. <ul style="list-style-type: none"> ○ AC 2 Identify safety hazards including bad connections, damaged air and hydraulic hoses, damaged electrical cables, cracked discs and worn or damaged blades. | <ul style="list-style-type: none"> ○ SO 5 <p>WORK SAFELY WITH DUE CARE FOR SELF, FELLOW WORKERS, MACHINES, EQUIPMENT, MATERIALS AND ENVIRONMENT</p> <ul style="list-style-type: none"> ● AC 1 Identify safe working practices including the use of appropriate personal protective equipment. <ul style="list-style-type: none"> ○ AC 2 Identify safety hazards including bad connections, damaged air and hydraulic hoses, damaged electrical cables, cracked discs and worn or damaged blades. | <ul style="list-style-type: none"> ○ SO 5 <p>WORK SAFELY WITH DUE CARE FOR SELF, FELLOW WORKERS, MACHINES, EQUIPMENT, MATERIALS AND ENVIRONMENT</p> <ul style="list-style-type: none"> ● AC 1 Identify safe working practices including the use of appropriate personal protective equipment. <ul style="list-style-type: none"> ○ AC 2 Identify safety hazards including bad connections, damaged air and hydraulic hoses, damaged electrical cables, cracked discs and worn or damaged blades. |

| Exit Level Outcome | Year 1 | Year 2 | Year 3 | Year 4 |
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| ELO 6 SELECT AND USE VEHICLE EQUIPMENT US I30D 15123 | <p style="text-align: center;">○ SO 1</p> <p style="text-align: center;">DISCUSS THE BASIC OPERATION OF AUTOMOBILE LIFTING EQUIPMENT</p> <ul style="list-style-type: none"> ● AC 1 <p>Discuss the basic operation of:</p> <ul style="list-style-type: none"> ● Hoist ● Jack ● Creepers | <p style="text-align: center;">○ SO 1</p> <p style="text-align: center;">DISCUSS THE BASIC OPERATION OF AUTOMOBILE LIFTING EQUIPMENT</p> <ul style="list-style-type: none"> ● AC 1 <p>Discuss the basic operation of:</p> <ul style="list-style-type: none"> ● Hoist ● Jack ● Creepers | Not done | Not done |
| | <p style="text-align: center;">○ SO 2</p> <p style="text-align: center;">IDENTIFY AND EXPLAIN THE FUNCTION OF VARIOUS COMPONENTS RELATED TO HOISTS</p> <ul style="list-style-type: none"> ● AC 1 <p>Identify the components related to hoists.</p> <p>Components include electronic motor, support posts, control mechanism, platform, slopping plates and safety mechanism.</p> <p style="text-align: center;">○ AC 2</p> <p>Explain the function of various components related to hoists.</p> <p>Components include electronic motor, support posts, control mechanism, platform, slopping plates and safety mechanism.</p> | <p style="text-align: center;">○ SO 2</p> <p style="text-align: center;">IDENTIFY AND EXPLAIN THE FUNCTION OF VARIOUS COMPONENTS RELATED TO HOISTS</p> <ul style="list-style-type: none"> ● AC 1 <p>Identify the components related to hoists.</p> <p>Components include electronic motor, support posts, control mechanism, platform, slopping plates and safety mechanism.</p> <p style="text-align: center;">○ AC 2</p> <p>Explain the function of various components related to hoists.</p> <p>Components include electronic motor, support posts, control mechanism, platform, slopping plates and safety mechanism.</p> | Not done | Not done |
| | <p style="text-align: center;">○ SO 3</p> <p style="text-align: center;">CARRY OUT PRE-CAUTIONARY MEASURES BEFORE OPERATING A HOIST</p> <ul style="list-style-type: none"> ● AC 1 <p>Explain the precautionary measures including: loading in accordance to hoist specifications, hoist in a safe working condition, area is clear, vehicle correctly positioned on hoist.</p> | <p style="text-align: center;">○ SO 3</p> <p style="text-align: center;">CARRY OUT PRE-CAUTIONARY MEASURES BEFORE OPERATING A HOIST</p> <ul style="list-style-type: none"> ● AC 1 <p>Explain the precautionary measures including: loading in accordance to hoist specifications, hoist in a safe working condition, area is clear, vehicle correctly positioned on hoist.</p> | Not done | Not done |

| Exit Level Outcome | Year 1 | Year 2 | Year 3 | Year 4 |
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| ELO 7 SERVICE AUTOMOBILE BATTERIES US ID 260638 | <ul style="list-style-type: none"> ○ SO 1 <p>REMOVE AND FIT AN AUTOMOTIVE BATTERY</p> <ul style="list-style-type: none"> ● AC 1 Check the battery for safety and condition prior to removal. ● AC 2 Use personal protective equipment when handling batteries. ● AC 3 Identify and use relevant equipment to protect the vehicle when removing and fitting batteries. ● AC 4 Explain and use different batteries in terms of manufacturer specifications. ● AC 5 Secure batteries in accordance with manufacturer specifications ● AC 6 Remove and fit batteries according to the specified procedures in terms of costs, durability and safety. | <ul style="list-style-type: none"> ○ SO 1 <p>REMOVE AND FIT AN AUTOMOTIVE BATTERY</p> <ul style="list-style-type: none"> ● AC 1 Check the battery for safety and condition prior to removal. ● AC 2 Use personal protective equipment when handling batteries. ● AC 3 Identify and use relevant equipment to protect the vehicle when removing and fitting batteries. ● AC 4 Explain and use different batteries in terms of manufacturer specifications. ● AC 5 Secure batteries in accordance with manufacturer specifications ● AC 6 Remove and fit batteries according to the specified procedures in terms of costs, durability and safety. | <ul style="list-style-type: none"> ○ SO 1 <p>REMOVE AND FIT AN AUTOMOTIVE BATTERY</p> <ul style="list-style-type: none"> ● AC 1 Check the battery for safety and condition prior to removal. ● AC 2 Use personal protective equipment when handling batteries. ● AC 3 Identify and use relevant equipment to protect the vehicle when removing and fitting batteries. ● AC 4 Explain and use different batteries in terms of manufacturer specifications. ● AC 5 Secure batteries in accordance with manufacturer specifications ● AC 6 Remove and fit batteries according to the specified procedures in terms of costs, durability and safety. | <ul style="list-style-type: none"> ○ SO 1 <p>REMOVE AND FIT AN AUTOMOTIVE BATTERY</p> <ul style="list-style-type: none"> ● AC 1 Check the battery for safety and condition prior to removal. ● AC 2 Use personal protective equipment when handling batteries. ● AC 3 Identify and use relevant equipment to protect the vehicle when removing and fitting batteries. ● AC 4 Explain and use different batteries in terms of manufacturer specifications. ● AC 5 Secure batteries in accordance with manufacturer specifications ● AC 6 Remove and fit batteries according to the specified procedures in terms of costs, durability and safety. |

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| | <ul style="list-style-type: none"> ○ SO 2 <p>TEST BATTERIES</p> <ul style="list-style-type: none"> ● AC 1 Conduct the test in accordance with workplace procedures and manufacturers recommendations. ● AC 2 Test batteries in terms of manufacturer warranty and reliability. ● AC 3 Interpret test results to determine the status of a battery. ● AC 4 Use tools and test equipment in accordance with workshop procedures. | <ul style="list-style-type: none"> ○ SO 2 <p>TEST BATTERIES</p> <ul style="list-style-type: none"> ● AC 1 Conduct the test in accordance with workplace procedures and manufacturers recommendations. ● AC 2 Test batteries in terms of manufacturer warranty and reliability. ● AC 3 Interpret test results to determine the status of a battery. ● AC 4 Use tools and test equipment in accordance with workshop procedures. | <ul style="list-style-type: none"> ○ SO 2 <p>TEST BATTERIES</p> <ul style="list-style-type: none"> ● AC 1 Conduct the test in accordance with workplace procedures and manufacturers recommendations. ● AC 2 Test batteries in terms of manufacturer warranty and reliability. ● AC 3 Interpret test results to determine the status of a battery. ● AC 4 Use tools and test equipment in accordance with workshop procedures. | <ul style="list-style-type: none"> ○ SO 2 <p>TEST BATTERIES</p> <ul style="list-style-type: none"> ● AC 1 Conduct the test in accordance with workplace procedures and manufacturers recommendations. ● AC 2 Test batteries in terms of manufacturer warranty and reliability. ● AC 3 Interpret test results to determine the status of a battery. ● AC 4 Use tools and test equipment in accordance with workshop procedures. |
| | <ul style="list-style-type: none"> ○ SO 3 <p>SERVICE BATTERIES</p> <ul style="list-style-type: none"> ● AC 1 Check the state of charge of the battery and confirm it to be in accordance with the manufacturers specifications. ● AC 2 Charge the battery in accordance with the workplace and manufacturer requirements. ○ AC 3 Explain reason for charging a battery in terms of battery life and durability. | <ul style="list-style-type: none"> ○ SO 3 <p>SERVICE BATTERIES</p> <ul style="list-style-type: none"> ● AC 1 Check the state of charge of the battery and confirm it to be in accordance with the manufacturers specifications. ● AC 2 Charge the battery in accordance with the workplace and manufacturer requirements. ○ AC 3 Explain reason for charging a battery in terms of battery life and durability. | <ul style="list-style-type: none"> ○ SO 3 <p>SERVICE BATTERIES</p> <ul style="list-style-type: none"> ● AC 1 Check the state of charge of the battery and confirm it to be in accordance with the manufacturers specifications. ● AC 2 Charge the battery in accordance with the workplace and manufacturer requirements. ○ AC 3 Explain reason for charging a battery in terms of battery life and durability. | <ul style="list-style-type: none"> ○ SO 3 <p>SERVICE BATTERIES</p> <ul style="list-style-type: none"> ● AC 1 Check the state of charge of the battery and confirm it to be in accordance with the manufacturers specifications. ● AC 2 Charge the battery in accordance with the workplace and manufacturer requirements. ○ AC 3 Explain reason for charging a battery in terms of battery life and durability. |

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| | <ul style="list-style-type: none"> • AC 4 Explain the operation of a battery in terms of the process of converting chemical energy into electrical energy. • AC 5 Clean batteries in accordance with workplace procedures and manufacturers specifications. • AC 6 Explain and use methods for working with solvents and acids in accordance with relevant health and safety procedures and legislation. • AC 7 Explain consequences of not working safely in terms of potential injury to personnel and damage to equipment. | <ul style="list-style-type: none"> • AC 4 Explain the operation of a battery in terms of the process of converting chemical energy into electrical energy. • AC 5 Clean batteries in accordance with workplace procedures and manufacturers specifications. • AC 6 Explain and use methods for working with solvents and acids in accordance with relevant health and safety procedures and legislation. • AC 7 Explain consequences of not working safely in terms of potential injury to personnel and damage to equipment. | <ul style="list-style-type: none"> • AC 4 Explain the operation of a battery in terms of the process of converting chemical energy into electrical energy. • AC 5 Clean batteries in accordance with workplace procedures and manufacturers specifications. • AC 6 Explain and use methods for working with solvents and acids in accordance with relevant health and safety procedures and legislation. • AC 7 Explain consequences of not working safely in terms of potential injury to personnel and damage to equipment. | <ul style="list-style-type: none"> • AC 4 Explain the operation of a battery in terms of the process of converting chemical energy into electrical energy. • AC 5 Clean batteries in accordance with workplace procedures and manufacturers specifications. • AC 6 Explain and use methods for working with solvents and acids in accordance with relevant health and safety procedures and legislation. • AC 7 Explain consequences of not working safely in terms of potential injury to personnel and damage to equipment. |

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| | <p>○ SO 4</p> <p>REMOVE AND REPLACE BATTERY TERMINALS AND CABLES</p> <ul style="list-style-type: none"> ● AC 1 Remove and replace terminals according to the manufacturer specifications. ● AC 2 Select battery terminals according to the size specified by the manufacturer. ● AC 3 Select cables according to appropriate current ratings as specified by the battery manufacturer. ● AC 4 Adhere to the applicable SHE procedures during the process. ● AC 5 Use all tools and equipment according to their design and workplace procedures. | <p>○ SO 4</p> <p>REMOVE AND REPLACE BATTERY TERMINALS AND CABLES</p> <ul style="list-style-type: none"> ● AC 1 Remove and replace terminals according to the manufacturer specifications. ● AC 2 Select battery terminals according to the size specified by the manufacturer. ● AC 3 Select cables according to appropriate current ratings as specified by the battery manufacturer. ● AC 4 Adhere to the applicable SHE procedures during the process. ● AC 5 Use all tools and equipment according to their design and workplace procedures. | <p>○ SO 4</p> <p>REMOVE AND REPLACE BATTERY TERMINALS AND CABLES</p> <ul style="list-style-type: none"> ● AC 1 Remove and replace terminals according to the manufacturer specifications. ● AC 2 Select battery terminals according to the size specified by the manufacturer. ● AC 3 Select cables according to appropriate current ratings as specified by the battery manufacturer. ● AC 4 Adhere to the applicable SHE procedures during the process. ● AC 5 Use all tools and equipment according to their design and workplace procedures. | <p>○ SO 4</p> <p>REMOVE AND REPLACE BATTERY TERMINALS AND CABLES</p> <ul style="list-style-type: none"> ● AC 1 Remove and replace terminals according to the manufacturer specifications. ● AC 2 Select battery terminals according to the size specified by the manufacturer. ● AC 3 Select cables according to appropriate current ratings as specified by the battery manufacturer. ● AC 4 Adhere to the applicable SHE procedures during the process. ● AC 5 Use all tools and equipment according to their design and workplace procedures. |

| Exit Level Outcome | Year 1 | Year 2 | Year 3 | Year 4 |
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| | <p>○ SO 5</p> <p>RESTORE WORK AREA, COMPLETE AND PROCESS DOCUMENTATION</p> <ul style="list-style-type: none"> ● AC 1 Clean the work area in accordance with the workplace and SHE requirements. ● AC 2 Clean and store tools and equipment in accordance with workplace and SHW requirements. ● AC 3 Explain the importance of restoring the workplace in terms of safety hazards and production. ● AC 4 Complete documentation and process it in accordance with workplace procedures. ● AC 5 Explain documentation in terms of their main functions. | <p>○ SO 5</p> <p>RESTORE WORK AREA, COMPLETE AND PROCESS DOCUMENTATION</p> <ul style="list-style-type: none"> ● AC 1 Clean the work area in accordance with the workplace and SHE requirements. ● AC 2 Clean and store tools and equipment in accordance with workplace and SHW requirements. ● AC 3 Explain the importance of restoring the workplace in terms of safety hazards and production. ● AC 4 Complete documentation and process it in accordance with workplace procedures. ● AC 5 Explain documentation in terms of their main functions. | <p>○ SO 5</p> <p>RESTORE WORK AREA, COMPLETE AND PROCESS DOCUMENTATION</p> <ul style="list-style-type: none"> ● AC 1 Clean the work area in accordance with the workplace and SHE requirements. ● AC 2 Clean and store tools and equipment in accordance with workplace and SHW requirements. ● AC 3 Explain the importance of restoring the workplace in terms of safety hazards and production. ● AC 4 Complete documentation and process it in accordance with workplace procedures. ● AC 5 Explain documentation in terms of their main functions. | <p>○ SO 5</p> <p>RESTORE WORK AREA, COMPLETE AND PROCESS DOCUMENTATION</p> <ul style="list-style-type: none"> ● AC 1 Clean the work area in accordance with the workplace and SHE requirements. ● AC 2 Clean and store tools and equipment in accordance with workplace and SHW requirements. ● AC 3 Explain the importance of restoring the workplace in terms of safety hazards and production. ● AC 4 Complete documentation and process it in accordance with workplace procedures. ● AC 5 Explain documentation in terms of their main functions. |

| Exit Level Outcome | Year 1 | Year 2 | Year 3 | Year 4 |
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| <p>ELO 8.</p> <p>DEMONSTRATE KNOWLEDGE OF LUBRICATION</p> <p>US I30D 243769</p> | <p>○ SO 1 DEMONSTRATE KNOWLEDGE OF LUBRICATION</p> <ul style="list-style-type: none"> ● AC 1 Explain the purpose of lubrication in accordance with specified requirements ● AC 2 Explain the characteristics of lubrication in accordance with specified requirements ● AC 3 Explain the importance of identification of lubricant types in accordance with specified requirements. ● AC 4 Explain the importance of using the recommended lubricant for different components in accordance with the specified requirements. ● AC 5 Explain the importance of lubrication frequency in accordance with specified requirements. | <p>○ SO 1 DEMONSTRATE KNOWLEDGE OF LUBRICATION</p> <ul style="list-style-type: none"> ● AC 1 Explain the purpose of lubrication in accordance with specified requirements ● AC 2 Explain the characteristics of lubrication in accordance with specified requirements ● AC 3 Explain the importance of identification of lubricant types in accordance with specified requirements. ● AC 4 Explain the importance of using the recommended lubricant for different components in accordance with the specified requirements. ● AC 5 Explain the importance of lubrication frequency in accordance with specified requirements. | <p>○ SO 1 DEMONSTRATE KNOWLEDGE OF LUBRICATION</p> <ul style="list-style-type: none"> ● AC 1 Explain the purpose of lubrication in accordance with specified requirements ● AC 2 Explain the characteristics of lubrication in accordance with specified requirements ● AC 3 Explain the importance of identification of lubricant types in accordance with specified requirements. ● AC 4 Explain the importance of using the recommended lubricant for different components in accordance with the specified requirements. ● AC 5 Explain the importance of lubrication frequency in accordance with specified requirements. | <p>○ SO 1 DEMONSTRATE KNOWLEDGE OF LUBRICATION</p> <ul style="list-style-type: none"> ● AC 1 Explain the purpose of lubrication in accordance with specified requirements ● AC 2 Explain the characteristics of lubrication in accordance with specified requirements ● AC 3 Explain the importance of identification of lubricant types in accordance with specified requirements. ● AC 4 Explain the importance of using the recommended lubricant for different components in accordance with the specified requirements. ● AC 5 Explain the importance of lubrication frequency in accordance with specified requirements. |

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| | <p>○ SO 2</p> <p>LUBRICATE MACHINES AND EQUIPMENT</p> <ul style="list-style-type: none"> ● AC 1 Select, examine and use the required personal protective equipment in a manner that protects the individual in accordance with specified requirements. ● AC 2 Select and examine tools, material and equipment required in accordance with specified requirements. ● AC 3 Identify the various lubrication methods in accordance with specified requirements. ● AC 4 Demonstrate the ability to lubricate equipment or components in terms of specified requirements. ● AC 5 Explain the importance of absolute cleanliness when working with lubricants in terms of specified requirements. | <p>○ SO 2</p> <p>LUBRICATE MACHINES AND EQUIPMENT</p> <ul style="list-style-type: none"> ● AC 1 Select, examine and use the required personal protective equipment in a manner that protects the individual in accordance with specified requirements. ● AC 2 Select and examine tools, material and equipment required in accordance with specified requirements. ● AC 3 Identify the various lubrication methods in accordance with specified requirements. ● AC 4 Demonstrate the ability to lubricate equipment or components in terms of specified requirements. ● AC 5 Explain the importance of absolute cleanliness when working with lubricants in terms of specified requirements. | <p>○ SO 2</p> <p>LUBRICATE MACHINES AND EQUIPMENT</p> <ul style="list-style-type: none"> ● AC 1 Select, examine and use the required personal protective equipment in a manner that protects the individual in accordance with specified requirements. ● AC 2 Select and examine tools, material and equipment required in accordance with specified requirements. ● AC 3 Identify the various lubrication methods in accordance with specified requirements. ● AC 4 Demonstrate the ability to lubricate equipment or components in terms of specified requirements. ● AC 5 Explain the importance of absolute cleanliness when working with lubricants in terms of specified requirements. | <p>○ SO 2</p> <p>LUBRICATE MACHINES AND EQUIPMENT</p> <ul style="list-style-type: none"> ● AC 1 Select, examine and use the required personal protective equipment in a manner that protects the individual in accordance with specified requirements. ● AC 2 Select and examine tools, material and equipment required in accordance with specified requirements. ● AC 3 Identify the various lubrication methods in accordance with specified requirements. ● AC 4 Demonstrate the ability to lubricate equipment or components in terms of specified requirements. ● AC 5 Explain the importance of absolute cleanliness when working with lubricants in terms of specified requirements. |

| Exit Level Outcome | Year 1 | Year 2 | Year 3 | Year 4 |
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| | <ul style="list-style-type: none"> ○ SO 3 <p>DEMONSTRATE KNOWLEDGE OF THE IMPORTANCE OF THE CORRECT HANDLING AND STORAGE OF LUBRICANTS</p> <ul style="list-style-type: none"> ● AC 1 Demonstrate understanding about non-contamination of lubricants in accordance with specified requirements. ○ AC 2 Treat spillage incidents in accordance with specified requirements ○ AC 3 Decant oil from drums in accordance with specified requirements ○ AC 4 Deal with reclaimed lubricants in accordance with specified requirements | <ul style="list-style-type: none"> ○ SO 3 <p>DEMONSTRATE KNOWLEDGE OF THE IMPORTANCE OF THE CORRECT HANDLING AND STORAGE OF LUBRICANTS</p> <ul style="list-style-type: none"> ● AC 1 Demonstrate understanding about non-contamination of lubricants in accordance with specified requirements. ○ AC 2 Treat spillage incidents in accordance with specified requirements ○ AC 3 Decant oil from drums in accordance with specified requirements ○ AC 4 Deal with reclaimed lubricants in accordance with specified requirements | <ul style="list-style-type: none"> ○ SO 3 <p>DEMONSTRATE KNOWLEDGE OF THE IMPORTANCE OF THE CORRECT HANDLING AND STORAGE OF LUBRICANTS</p> <ul style="list-style-type: none"> ● AC 1 Demonstrate understanding about non-contamination of lubricants in accordance with specified requirements. ○ AC 2 Treat spillage incidents in accordance with specified requirements ○ AC 3 Decant oil from drums in accordance with specified requirements ○ AC 4 Deal with reclaimed lubricants in accordance with specified requirements | <ul style="list-style-type: none"> ○ SO 3 <p>DEMONSTRATE KNOWLEDGE OF THE IMPORTANCE OF THE CORRECT HANDLING AND STORAGE OF LUBRICANTS</p> <ul style="list-style-type: none"> ● AC 1 Demonstrate understanding about non-contamination of lubricants in accordance with specified requirements. ○ AC 2 Treat spillage incidents in accordance with specified requirements ○ AC 3 Decant oil from drums in accordance with specified requirements ○ AC 4 Deal with reclaimed lubricants in accordance with specified requirements |

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| ELO 9 UNDERSTAND THE FUNDAMENTALS OF ENGINE TECHNOLOGY US 130D 244056 | <ul style="list-style-type: none"> ○ SO 1 <p>IDENTIFY THE VARIOUS TYPES OF AUTOMOTIVE ENGINES AND ENGINE OPERATION.</p> <ul style="list-style-type: none"> • AC 1 Identify the types of engines in terms of their key differences in operation • AC 2 Identify the main advantages of each type of engine in relation to their designed use. • AC 3 Identify the fuel combustion processes in accordance with the applicable engine technology | <ul style="list-style-type: none"> ○ SO 1 <p>IDENTIFY THE VARIOUS TYPES OF AUTOMOTIVE ENGINES AND ENGINE OPERATION.</p> <ul style="list-style-type: none"> • AC 1 Identify the types of engines in terms of their key differences in operation • AC 2 Identify the main advantages of each type of engine in relation to their designed use. • AC 3 Identify the fuel combustion processes in accordance with the applicable engine technology. | <ul style="list-style-type: none"> ○ SO 1 <p>IDENTIFY THE VARIOUS TYPES OF AUTOMOTIVE ENGINES AND ENGINE OPERATION.</p> <ul style="list-style-type: none"> • AC 1 Identify the types of engines in terms of their key differences in operation • AC 2 Identify the main advantages of each type of engine in relation to their designed use. • AC 3 Identify the fuel combustion processes in accordance with the applicable engine technology. | <ul style="list-style-type: none"> ○ SO 1 <p>IDENTIFY THE VARIOUS TYPES OF AUTOMOTIVE ENGINES AND ENGINE OPERATION.</p> <ul style="list-style-type: none"> • AC 1 Identify the types of engines in terms of their key differences in operation • AC 2 Identify the main advantages of each type of engine in relation to their designed use. • AC 3 Identify the fuel combustion processes in accordance with the applicable engine technology. |
| | <ul style="list-style-type: none"> ○ SO 2 <p>IDENTIFY THE FUNCTION OF THE MAJOR PARTS OF AN AUTOMOTIVE ENGINE</p> <ul style="list-style-type: none"> • AC 1 Identify the major parts and explain their function in accordance with design criteria • AC 2 Identify the differences in major parts in relation to the type of engine • AC 3 Identify reasons for using specific major parts in relation to engine design | <ul style="list-style-type: none"> ○ SO 2 <p>IDENTIFY THE FUNCTION OF THE MAJOR PARTS OF AN AUTOMOTIVE ENGINE</p> <ul style="list-style-type: none"> • AC 1 Identify the major parts and explain their function in accordance with design criteria • AC 2 Identify the differences in major parts in relation to the type of engine • AC 3 Identify reasons for using specific major parts in relation to engine design. | <ul style="list-style-type: none"> ○ SO 2 <p>IDENTIFY THE FUNCTION OF THE MAJOR PARTS OF AN AUTOMOTIVE ENGINE</p> <ul style="list-style-type: none"> • AC 1 Identify the major parts and explain their function in accordance with design criteria • AC 2 Identify the differences in major parts in relation to the type of engine • AC 3 Identify reasons for using specific major parts in relation to engine design. | <ul style="list-style-type: none"> ○ SO 2 <p>IDENTIFY THE FUNCTION OF THE MAJOR PARTS OF AN AUTOMOTIVE ENGINE</p> <ul style="list-style-type: none"> • AC 1 Identify the major parts and explain their function in accordance with design criteria • AC 2 Identify the differences in major parts in relation to the type of engine • AC 3 Identify reasons for using specific major parts in relation to engine design. |

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| | <p>○ SO 3</p> <p>EXPLAIN ENGINE DESIGN CLASSIFICATIONS</p> <ul style="list-style-type: none"> • AC 1 Explain the classification of engines in terms of their design differences • AC 2 Explain differences in engine design in relation to the type of engine and its use • AC 3 Explain reasons for using specific engine systems in relation to engine design | <p>○ SO 3</p> <p>EXPLAIN ENGINE DESIGN CLASSIFICATIONS</p> <ul style="list-style-type: none"> • AC 1 Explain the classification of engines in terms of their design differences • AC 2 Explain differences in engine design in relation to the type of engine and its use • AC 3 Explain reasons for using specific engine systems in relation to engine design | <p>○ SO 3</p> <p>EXPLAIN ENGINE DESIGN CLASSIFICATIONS</p> <ul style="list-style-type: none"> • AC 1 Explain the classification of engines in terms of their design differences • AC 2 Explain differences in engine design in relation to the type of engine and its use • AC 3 Explain reasons for using specific engine systems in relation to engine design | <p>○ SO 3</p> <p>EXPLAIN ENGINE DESIGN CLASSIFICATIONS</p> <ul style="list-style-type: none"> • AC 1 Explain the classification of engines in terms of their design differences • AC 2 Explain differences in engine design in relation to the type of engine and its use • AC 3 Explain reasons for using specific engine systems in relation to engine design |
| | <p>○ SO 4</p> <p>EXPLAIN THE VARIOUS AUTOMOTIVE ENGINE SYSTEMS, THEIR FUNCTIONS AND ASSOCIATED COMPONENTS</p> <ul style="list-style-type: none"> • AC 1 Identify the engine systems and their function in accordance with design criteria • AC 2 Explain the differences in engine systems in relation to the type of engine • AC 3 Explain the reasons for using specific engine systems in relation to engine design | <p>○ SO 4</p> <p>EXPLAIN THE VARIOUS AUTOMOTIVE ENGINE SYSTEMS, THEIR FUNCTIONS AND ASSOCIATED COMPONENTS</p> <ul style="list-style-type: none"> • AC 1 Identify the engine systems and their function in accordance with design criteria • AC 2 Explain the differences in engine systems in relation to the type of engine • AC 3 Explain the reasons for using specific engine systems in relation to engine design | <p>○ SO 4</p> <p>EXPLAIN THE VARIOUS AUTOMOTIVE ENGINE SYSTEMS, THEIR FUNCTIONS AND ASSOCIATED COMPONENTS</p> <ul style="list-style-type: none"> • AC 1 Identify the engine systems and their function in accordance with design criteria • AC 2 Explain the differences in engine systems in relation to the type of engine • AC 3 Explain the reasons for using specific engine systems in relation to engine design | <p>○ SO 4</p> <p>EXPLAIN THE VARIOUS AUTOMOTIVE ENGINE SYSTEMS, THEIR FUNCTIONS AND ASSOCIATED COMPONENTS</p> <ul style="list-style-type: none"> • AC 1 Identify the engine systems and their function in accordance with design criteria • AC 2 Explain the differences in engine systems in relation to the type of engine • AC 3 Explain the reasons for using specific engine systems in relation to engine design |

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| | <p>○ SO 5</p> <p>EXPLAIN SAFE WORKING PRACTISES RELATED TO AUTOMOTIVE ENGINES</p> <ul style="list-style-type: none"> • AC 1 Explain workplace safety procedures • AC 2 Identify personal protective equipment how to use it • AC 3 Explain the use of lifting equipment in accordance with safety legislation • AC 4 Explain the consequences of not working safely in terms of risk of injury and loss of production | <p>○ SO 5</p> <p>EXPLAIN SAFE WORKING PRACTISES RELATED TO AUTOMOTIVE ENGINES</p> <ul style="list-style-type: none"> • AC 1 Explain workplace safety procedures • AC 2 Identify personal protective equipment how to use it • AC 3 Explain the use of lifting equipment in accordance with safety legislation • AC 4 Explain the consequences of not working safely in terms of risk of injury and loss of production | <p>○ SO 5</p> <p>EXPLAIN SAFE WORKING PRACTISES RELATED TO AUTOMOTIVE ENGINES</p> <ul style="list-style-type: none"> • AC 1 Explain workplace safety procedures • AC 2 Identify personal protective equipment how to use it • AC 3 Explain the use of lifting equipment in accordance with safety legislation • AC 4 Explain the consequences of not working safely in terms of risk of injury and loss of production | <p>○ SO 5</p> <p>EXPLAIN SAFE WORKING PRACTISES RELATED TO AUTOMOTIVE ENGINES</p> <ul style="list-style-type: none"> • AC 1 Explain workplace safety procedures • AC 2 Identify personal protective equipment how to use it • AC 3 Explain the use of lifting equipment in accordance with safety legislation • AC 4 Explain the consequences of not working safely in terms of risk of injury and loss of production |
| | <p>○ SO 6</p> <p>INTERACT WITH OTHERS IN THE WORKPLACE</p> <ul style="list-style-type: none"> • AC 1 Explain the benefits of teamwork • AC 2 Identify potential difficulties of working as a team member • AC 3 Demonstrate the ability to communicate clearly • AC 4 Promote teamwork through interaction | <p>○ SO 6</p> <p>INTERACT WITH OTHERS IN THE WORKPLACE</p> <ul style="list-style-type: none"> • AC 1 Explain the benefits of teamwork • AC 2 Identify potential difficulties of working as a team member • AC 3 Demonstrate the ability to communicate clearly • AC 4 Promote teamwork through interaction | <p>○ SO 6</p> <p>INTERACT WITH OTHERS IN THE WORKPLACE</p> <ul style="list-style-type: none"> • AC 1 Explain the benefits of teamwork • AC 2 Identify potential difficulties of working as a team member • AC 3 Demonstrate the ability to communicate clearly • AC 4 Promote teamwork through interaction | <p>○ SO 6</p> <p>INTERACT WITH OTHERS IN THE WORKPLACE</p> <ul style="list-style-type: none"> • AC 1 Explain the benefits of teamwork • AC 2 Identify potential difficulties of working as a team member • AC 3 Demonstrate the ability to communicate clearly • AC 4 Promote teamwork through interaction |

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| ELO 10 REMOVE AND FIT AUTO-MOTIVE COMPONENTS US ID 260717 | Not done | Not done | <p style="text-align: center;">○ SO 1</p> <p style="text-align: center;">PREPARE TO REMOVE OR FIT AUTOMOTIVE COMPONENTS</p> <ul style="list-style-type: none"> ● AC 1 Identify the components to be removed or fitted from given documentation and workplace instructions ● AC 2 Check all tools and equipment required to perform the task and prepare for use prior to commencing with job. ● AC 3 Confirm replacement parts or components required to be available prior to commencing with the job ● AC 4 Explain the consequences of continuing with the task when all requirement are not available in terms of productivity and utilization of workshop space ● AC 5 Make the vehicle safe to work on in accordance with vehicle manufacturer specifications. | <p style="text-align: center;">○ SO 1</p> <p style="text-align: center;">PREPARE TO REMOVE OR FIT AUTOMOTIVE COMPONENTS</p> <ul style="list-style-type: none"> ● AC 1 Identify the components to be removed or fitted from given documentation and workplace instructions ● AC 2 Check all tools and equipment required to perform the task and prepare for use prior to commencing with job. ● AC 3 Confirm replacement parts or components required to be available prior to commencing with the job ● AC 4 Explain the consequences of continuing with the task when all requirement are not available in terms of productivity and utilization of workshop space ● AC 5 Make the vehicle safe to work on in accordance with vehicle manufacturer specifications. |
| | Not done | Not done | <p style="text-align: center;">○ SO 2</p> <p style="text-align: center;">REMOVE AND FIT COMPONENTS.</p> <ul style="list-style-type: none"> ● AC 1 Remove or fit the component in accordance with workplace requirements and manufacturer recommendations ● AC 2 Explain differences in major parts in relation to the type of engine | <p style="text-align: center;">○ SO 2</p> <p style="text-align: center;">REMOVE AND FIT COMPONENTS.</p> <ul style="list-style-type: none"> ● AC 1 Remove or fit the component in accordance with workplace requirements and manufacturer recommendations ● AC 2 Explain differences in major parts in relation to the type of engine |

| Exit Level Outcome | Year 1 | Year 2 | Year 3 | Year 3 |
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| | | | <ul style="list-style-type: none"> • AC 3 Explain the purpose of closing off openings in terms of contamination and equipment reliability • AC 4 Connect components in accordance with manufacturer specifications • AC 5 Drain or fill fluids according to workshop manual procedures • AC 6 Use tools and equipment in accordance with workshop procedures • AC 7 Note any faults and deal with in accordance with workshop procedures- • AC 8 Conduct work in accordance with workplace and legislative health and safety requirements | <ul style="list-style-type: none"> • AC 3 Explain the purpose of closing off openings in terms of contamination and equipment reliability • AC 4 Connect components in accordance with manufacturer specifications • AC 5 Drain or fill fluids according to workshop manual procedures • AC 6 Use tools and equipment in accordance with workshop procedures • AC 7 Note any faults and deal with in accordance with workshop procedures- • AC 8 Conduct work in accordance with workplace and legislative health and safety requirements |
| | Not done | Not done | <p style="text-align: center;">○ SO 3</p> <p style="text-align: center;">INSPECT AND TEST FITTED COMPONENTS</p> <ul style="list-style-type: none"> • AC 1 Inspect visually the component for leaks and perform post operational checks according to workshop procedures • AC 2 Inspect and confirm all fluid levels to be in with manufacturer specifications • AC 3 Test the component for functionality in accordance with the workplace requirements. • AC 4 Ensure the component for functionality in accordance with workplace requirements. | <p style="text-align: center;">○ SO 3</p> <p style="text-align: center;">INSPECT AND TEST FITTED COMPONENTS</p> <ul style="list-style-type: none"> • AC 1 Inspect visually the component for leaks and perform post operational checks according to workshop procedures • AC 2 Inspect and confirm all fluid levels to be in with manufacturer specifications • AC 3 Test the component for functionality in accordance with the workplace requirements. • AC 4 Ensure the component for functionality in accordance with workplace requirements. |

| Exit Level Outcome | Year 1 | Year 2 | Year 3 | Year 3 |
|--------------------|----------|----------|---|---|
| | Not done | Not done | <p style="text-align: center;">○ SO 4</p> <p style="text-align: center;">APPLY SAFETY PROCEDURES DURING THE REMOVAL AND FITTING PROCESS</p> <ul style="list-style-type: none"> ● AC 1 Complete the work task without incident, accident of injury according to safety procedures. ● AC 2 Ensure there is no damage to any component, vehicle, equipment of tools ● AC 3 Adhere to all workshop manual safety warnings and required actions before, during and after component removal and fitting | <p style="text-align: center;">○ SO 4</p> <p style="text-align: center;">APPLY SAFETY PROCEDURES DURING THE REMOVAL AND FITTING PROCESS</p> <ul style="list-style-type: none"> ● AC 1 Complete the work task without incident, accident of injury according to safety procedures. ● AC 2 Ensure there is no damage to any component, vehicle, equipment of tools ● AC 3 Adhere to all workshop manual safety warnings and required actions before, during and after component removal and fitting |
| | Not done | Not done | <p style="text-align: center;">○ SO 5</p> <p style="text-align: center;">RESTORE WORK AREA, COMPLETE AND PROCESS DOCUMENTATION</p> <ul style="list-style-type: none"> ● AC 1 Clean the work area in accordance with workplace and SHE requirements ● AC 2 Clean and store equipment in accordance with the workplace and SHE requirements ● AC 3 Restore the workplace in terms of safety hazards and production | <p style="text-align: center;">○ SO 5</p> <p style="text-align: center;">RESTORE WORK AREA, COMPLETE AND PROCESS DOCUMENTATION</p> <ul style="list-style-type: none"> ● AC 1 Clean the work area in accordance with workplace and SHE requirements ● AC 2 Clean and store equipment in accordance with the workplace and SHE requirements ● AC 3 Restore the workplace in terms of safety hazards and production |

| Exit Level Outcome | Year 1 | Year 2 | Year 3 | Year 4 |
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| ELO 11 ASSEMBLE MECHANICAL COMPONENTS US ID 253440 | Not done | Not done | <p style="text-align: center;">○ SO 1</p> <p style="text-align: center;">IDENTIFY, DISCUSS AND DEMONSTRATE MECHANICAL ASSEMBLY METHODS AND TECHNIQUES</p> <ul style="list-style-type: none"> ● AC 1 Explain the fundamental technologies, concepts and principles of mechanical assembly ● AC 2 Identify basic and specialized mechanical assembly tools and equipment and discuss their application ● AC 3 Discuss and explain hazards and safety risks related to the mechanical assembly procedures in terms of legislation, regularity requirements and safety standards ● AC 4 Discuss and explain assembly procedures in terms worksite practices and manufacturers' specifications ● AC 5 Use the terminology when explaining and discussing mechanical assembly, in keeping with the manufacturers' and worksite practices. | <p style="text-align: center;">○ SO 1</p> <p style="text-align: center;">IDENTIFY, DISCUSS AND DEMONSTRATE MECHANICAL ASSEMBLY METHODS AND TECHNIQUES</p> <ul style="list-style-type: none"> ● AC 1 Explain the fundamental technologies, concepts and principles of mechanical assembly ● AC 2 Identify basic and specialized mechanical assembly tools and equipment and discuss their application ● AC 3 Discuss and explain hazards and safety risks related to the mechanical assembly procedures in terms of legislation, regularity requirements and safety standards ● AC 4 Discuss and explain assembly procedures in terms worksite practices and manufacturers' specifications ● AC 5 Use the terminology when explaining and discussing mechanical assembly, in keeping with the manufacturers' and worksite practices. |
| | Not done | Not done | <p style="text-align: center;">○ SO 2</p> <p style="text-align: center;">PLAN AND PREPARE TO PERFORM A MECHANICAL ASSEMBLY</p> <ul style="list-style-type: none"> ● AC 1 Inspect and assess the mechanical assemblies for its work requirements in terms of strip-down procedures, removal and assembly | <p style="text-align: center;">○ SO 2</p> <p style="text-align: center;">PLAN AND PREPARE TO PERFORM A MECHANICAL ASSEMBLY</p> <ul style="list-style-type: none"> ● AC 1 Inspect and assess the mechanical assemblies for its work requirements in terms of strip-down procedures, removal and assembly |

| Exit Level Outcome | Year 1 | Year 2 | Year 3 | Year 3 |
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| | | | <ul style="list-style-type: none"> • AC 2 Plan and prepare for isolation, disassembly, maintenance, repair and assembly of the machine and/or sub-assembly in accordance with work instructions. • AC 3 Prepare site and equipment for mechanical assembly process • AC 4 Ensure tools, equipment and resources are correct for the task, available on site by the agreed time and checked for serviceability in accordance with regulatory and worksite practices • AC 5 Clear where required, handling space, remove potential obstructions and notify personnel prior to the maintenance, repair and/or removal task. • AC 6 Carry out pre-operational check on removal and securing equipment in accordance with work instructions. | <ul style="list-style-type: none"> • AC 2 Plan and prepare for isolation, disassembly, maintenance, repair and assembly of the machine and/or sub-assembly in accordance with work instructions. • AC 3 Prepare site and equipment for mechanical assembly process • AC 4 Ensure tools, equipment and resources are correct for the task, available on site by the agreed time and checked for serviceability in accordance with regulatory and worksite practices • AC 5 Clear where required, handling space, remove potential obstructions and notify personnel prior to the maintenance, repair and/or removal task. • AC 6 Carry out pre-operational check on removal and securing equipment in accordance with work instructions. |
| | Not done | Not done | <p style="text-align: center;">○ SO 3</p> <p style="text-align: center;">ASSEMBLE MECHANICAL COMPONENTS</p> <ul style="list-style-type: none"> • AC 1 Perform mechanical assembly and comply with task instructions • AC 2 Identify faulty components and take corrective action according to the standard operating procedures. | <p style="text-align: center;">○ SO 3</p> <p style="text-align: center;">ASSEMBLE MECHANICAL COMPONENTS</p> <ul style="list-style-type: none"> • AC 1 Perform mechanical assembly and comply with task instructions • AC 2 Identify faulty components and take corrective action according to the standard operating procedures. |

| Exit Level Outcome | Year 1 | Year 2 | Year 3 | Year 3 |
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| | | | <ul style="list-style-type: none"> • AC 3 Perform all work safety with due care for self, fellow workers, machines, equipment, materials and environment • AC 4 Test the assembly (where possible) for functionality in terms of operational requirements and in accordance with quality assurance procedures • AC 5 Confirm, restore and report the operation, running condition or exactness of assembly after the assembly process, according to worksite practice and/or manufacturer's specifications. • AC 6 Restore work area to safe and serviceable condition. | <ul style="list-style-type: none"> • AC 3 Perform all work safety with due care for self, fellow workers, machines, equipment, materials and environment • AC 4 Test the assembly (where possible) for functionality in terms of operational requirements and in accordance with quality assurance procedures • AC 5 Confirm, restore and report the operation, running condition or exactness of assembly after the assembly process, according to worksite practice and/or manufacturer's specifications. • AC 6 Restore work area to safe and serviceable condition. |
| | Not done | Not done | <p style="text-align: center;">○ SO 4</p> <p style="text-align: center;">MAINTAIN AND CARE FOR TOOLS AND EQUIPMENT</p> <ul style="list-style-type: none"> • AC 1 Demonstrate the proper care and storage procedure for tools and equipment in accordance with work site practice. • AC 2 Restore work area to safe and serviceable condition. • AC 3 Store tools and equipment in accordance with the manufacturer's specification and requirements. • AC 4 Report defective tools and equipment and take corrective action according to accepted worksite practice | <p style="text-align: center;">○ SO 4</p> <p style="text-align: center;">MAINTAIN AND CARE FOR TOOLS AND EQUIPMENT</p> <ul style="list-style-type: none"> • AC 1 Demonstrate the proper care and storage procedure for tools and equipment in accordance with work site practice. • AC 2 Restore work area to safe and serviceable condition. • AC 3 Store tools and equipment in accordance with the manufacturer's specification and requirements. • AC 4 Report defective tools and equipment and take corrective action according to accepted worksite practice |

| Exit Level Outcome | Year 1 | Year 2 | Year 3 | Year 3 |
|--------------------|----------|----------|---|---|
| | Not done | Not done | <ul style="list-style-type: none"> ○ SO 5 RESTORE WORK AREA, COMPLETE AND PROCESS DOCUMENTATION ● AC 1 Clean the work area in accordance with workplace and SHE requirements. ● AC 2 Clean and store equipment in accordance with the workplace and SHE requirements ● AC 3 Explain the importance of restoring the workplace in terms of safety hazards and production | <ul style="list-style-type: none"> ○ SO 5 RESTORE WORK AREA, COMPLETE AND PROCESS DOCUMENTATION ● AC 1 Clean the work area in accordance with workplace and SHE requirements. ● AC 2 Clean and store equipment in accordance with the workplace and SHE requirements ● AC 3 Explain the importance of restoring the workplace in terms of safety hazards and production |

| Exit Level Outcome | Year 1 | Year 2 | Year 3 | Year 4 |
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| ELO 12 CARRY OUT AN AUTOMOTIVE SERVICE US ID 260719 | Not done | <ul style="list-style-type: none"> ○ SO 1 PLAN AND PREPARE FOR SERVICING A VEHICLE ● AC 1 Identify the service to be conducted from given documentation and manufacturer recommendations. ● AC 2 Avail all tools and equipment required to perform the service for use prior to commencing with the service. ● AC 3 Identify service replacement parts and confirmed to be available prior to commencing with the service. ● AC 4 Confirm reported faults by means of pre-operational check | <ul style="list-style-type: none"> ○ SO 1 PLAN AND PREPARE FOR SERVICING A VEHICLE ● AC 1 Identify the service to be conducted from given documentation and manufacturer recommendations. ● AC 2 Avail all tools and equipment required to perform the service for use prior to commencing with the service. ● AC 3 Identify service replacement parts and confirmed to be available prior to commencing with the service. ● AC 4 Confirm reported faults by means of pre-operational check | <ul style="list-style-type: none"> ○ SO 1 PLAN AND PREPARE FOR SERVICING A VEHICLE ● AC 1 Identify the service to be conducted from given documentation and manufacturer recommendations. ● AC 2 Avail all tools and equipment required to perform the service for use prior to commencing with the service. ● AC 3 Identify service replacement parts and confirmed to be available prior to commencing with the service. ● AC 4 Confirm reported faults by means of pre-operational check |

| Exit Level Outcome | Year 1 | Year 2 | Year 3 | Year 4 |
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| | | <ul style="list-style-type: none"> • AC 5 Describe consequences of continuing with the service when all requirements are not available in terms of productivity and utilization of workshop space | <ul style="list-style-type: none"> • AC 5 Describe consequences of continuing with the service when all requirements are not available in terms of productivity and utilization of workshop space | <ul style="list-style-type: none"> • AC 5 Describe consequences of continuing with the service when all requirements are not available in terms of productivity and utilization of workshop space |
| | Not done | <ul style="list-style-type: none"> ○ SO 2 <p>PERFORM THE SERVICE ON THE VEHICLE</p> <ul style="list-style-type: none"> • AC 1 Conduct the service in accordance with service schedule manufacture's recommendations • AC 2 Describe the purpose of conducting a routine service in terms of manufactures warranty and vehicle reliability • AC 3 Drain or refill fluids according to workshop manual procedures. • AC 4 Examine fluids for contamination according to workshop manual procedures may include laboratory analysis • AC 5 Use tools and equipment in accordance with workshop procedures. • AC 6 Note any faults and deal with it in accordance with workshop procedures. | <ul style="list-style-type: none"> ○ SO 2 <p>PERFORM THE SERVICE ON THE VEHICLE</p> <ul style="list-style-type: none"> • AC 1 Conduct the service in accordance with service schedule manufacture's recommendations • AC 2 Describe the purpose of conducting a routine service in terms of manufactures warranty and vehicle reliability • AC 3 Drain or refill fluids according to workshop manual procedures. • AC 4 Examine fluids for contamination according to workshop manual procedures may include laboratory analysis • AC 5 Use tools and equipment in accordance with workshop procedures. • AC 6 Note any faults and deal with it in accordance with workshop procedures. | <ul style="list-style-type: none"> ○ SO 2 <p>PERFORM THE SERVICE ON THE VEHICLE</p> <ul style="list-style-type: none"> • AC 1 Conduct the service in accordance with service schedule manufacture's recommendations • AC 2 Describe the purpose of conducting a routine service in terms of manufactures warranty and vehicle reliability • AC 3 Drain or refill fluids according to workshop manual procedures. • AC 4 Examine fluids for contamination according to workshop manual procedures may include laboratory analysis • AC 5 Use tools and equipment in accordance with workshop procedures. • AC 6 Note any faults and deal with it in accordance with workshop procedures. |

| Exit Level Outcome | Year 1 | Year 2 | Year 3 | Year 4 |
|--------------------|----------|--|--|--|
| | Not done | <p>○ SO 3</p> <p>APPLY QUALITY CHECKS ON COMPLETED SERVICE</p> <ul style="list-style-type: none"> ● AC 1 Inspect the vehicle visually for leaks and carry out a post operational check according to workshop procedures ● AC 2 Inspect all fluid levels & confirm it to be in accordance with manufacturer specifications ● AC 3 Explain reasons for post service checks in terms of quality control & customer satisfaction ● AC 4 Identify quality checks on points in terms of their function and checking procedures ● AC 5 Confirm, restore and report the operation, running condition or exactness of assembly after the assembly process, according to worksite practice and/or manufacturer's specifications. | <p>○ SO 3</p> <p>APPLY QUALITY CHECKS ON COMPLETED SERVICE</p> <ul style="list-style-type: none"> ● AC 1 Inspect the vehicle visually for leaks and carry out a post operational check according to workshop procedures ● AC 2 Inspect all fluid levels & confirm it to be in accordance with manufacturer specifications ● AC 3 Explain reasons for post service checks in terms of quality control & customer satisfaction ● AC 4 Identify quality checks on points in terms of their function and checking procedures ● AC 5 Confirm, restore and report the operation, running condition or exactness of assembly after the assembly process, according to worksite practice and/or manufacturer's specifications. | <p>○ SO 3</p> <p>APPLY QUALITY CHECKS ON COMPLETED SERVICE</p> <ul style="list-style-type: none"> ● AC 1 Inspect the vehicle visually for leaks and carry out a post operational check according to workshop procedures ● AC 2 Inspect all fluid levels & confirm it to be in accordance with manufacturer specifications ● AC 3 Explain reasons for post service checks in terms of quality control & customer satisfaction ● AC 4 Identify quality checks on points in terms of their function and checking procedures ● AC 5 Confirm, restore and report the operation, running condition or exactness of assembly after the assembly process, according to worksite practice and/or manufacturer's specifications. |

| Exit Level Outcome | Year 1 | Year 2 | Year 3 | Year 4 |
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| | Not done | <p>○ SO 4</p> <p>APPLY SAFETY PROCEDURES DURING THE SERVICE</p> <ul style="list-style-type: none"> • AC 1 Complete the service with the incident, accident or injury in accordance with SHE procedures and legislation • AC 2 Adhere to all safety warnings and required actions before, during and after servicing according to workshop safety manuals. • AC 3 Follow applicable SHE procedures during the service. | <p>○ SO 4</p> <p>APPLY SAFETY PROCEDURES DURING THE SERVICE</p> <ul style="list-style-type: none"> • AC 1 Complete the service with the incident, accident or injury in accordance with SHE procedures and legislation • AC 2 Adhere to all safety warnings and required actions before, during and after servicing according to workshop safety manuals. • AC 3 Follow applicable SHE procedures during the service. | <p>○ SO 4</p> <p>APPLY SAFETY PROCEDURES DURING THE SERVICE</p> <ul style="list-style-type: none"> • AC 1 Complete the service with the incident, accident or injury in accordance with SHE procedures and legislation • AC 2 Adhere to all safety warnings and required actions before, during and after servicing according to workshop safety manuals. • AC 3 Follow applicable SHE procedures during the service. |
| | Not done | <p>○ SO 5</p> <p>RESTORE WORK AREA, COMPLETE AND PROCESS DOCUMENTATION</p> <ul style="list-style-type: none"> • AC 1 Clean the work area in accordance with workplace and SHE requirements. • AC 2 Clean and store equipment in accordance with the workplace and SHE requirements. • AC 3 Restore the workplace in terms of safety hazards and production. | <p>○ SO 5</p> <p>RESTORE WORK AREA, COMPLETE AND PROCESS DOCUMENTATION</p> <ul style="list-style-type: none"> • AC 1 Clean the work area in accordance with workplace and SHE requirements. • AC 2 Clean and store equipment in accordance with the workplace and SHE requirements. • AC 3 Restore the workplace in terms of safety hazards and production. | <p>○ SO 5</p> <p>RESTORE WORK AREA, COMPLETE AND PROCESS DOCUMENTATION</p> <ul style="list-style-type: none"> • AC 1 Clean the work area in accordance with workplace and SHE requirements. • AC 2 Clean and store equipment in accordance with the workplace and SHE requirements. • AC 3 Restore the workplace in terms of safety hazards and production. |

| Exit Level Outcome | Year 1 | Year 2 | Year 3 | Year 4 |
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| | | <ul style="list-style-type: none"> • AC 4 Complete documentation & process in accordance with workplace procedures. • AC 5 Explain use of various documentation and their main functions. | <ul style="list-style-type: none"> • AC 4 Complete documentation & process in accordance with workplace procedures. • AC 5 Explain use of various documentation and their main functions. | <ul style="list-style-type: none"> • AC 4 Complete documentation & process in accordance with workplace procedures. • AC 5 Explain use of various documentation and their main functions. |

| Exit Level Outcome | Year 1 | Year 2 | Year 3 | Year 4 |
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| ELO 13 INSPECT AND LUBRICATE AN AUTOMOTIVE SYSTEM US ID 119750 | Not done | <p>○ SO 1</p> <p>PLAN AND PREPARE TO INSPECT AND LUBRICATE AN AUTOMOTIVE SYSTEM</p> <ul style="list-style-type: none"> • AC 1 Prepare work area an automotive system for inspection and lubrication • AC 2 Obtain workshop manual and specifications appropriate to automotive system • AC 3 Obtain specified lubricants and fluids. • AC 4 Select and obtain appropriate tools and equipment • AC 5 Prepare work area and automotive system in accordance with SHE requirements. • AC 6 Explain the reason for selecting the appropriate workshop manual for the automotive | <p>○ SO 1</p> <p>PLAN AND PREPARE TO INSPECT AND LUBRICATE AN AUTOMOTIVE SYSTEM</p> <ul style="list-style-type: none"> • AC 1 Prepare work area an automotive system for inspection and lubrication • AC 2 Obtain workshop manual and specifications appropriate to automotive system • AC 3 Obtain specified lubricants and fluids. • AC 4 Select and obtain appropriate tools and equipment • AC 5 Prepare work area and automotive system in accordance with SHE requirements. • AC 6 Explain the reason for selecting the appropriate workshop manual for the automotive | <p>○ SO 1</p> <p>PLAN AND PREPARE TO INSPECT AND LUBRICATE AN AUTOMOTIVE SYSTEM</p> <ul style="list-style-type: none"> • AC 1 Prepare work area an automotive system for inspection and lubrication • AC 2 Obtain workshop manual and specifications appropriate to automotive system • AC 3 Obtain specified lubricants and fluids. • AC 4 Select and obtain appropriate tools and equipment • AC 5 Prepare work area and automotive system in accordance with SHE requirements. • AC 6 Explain the reason for selecting the appropriate workshop manual for the automotive |

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| | | system | system | system |
| | | <ul style="list-style-type: none"> ○ SO 2 | <ul style="list-style-type: none"> ○ SO 2 | <ul style="list-style-type: none"> ○ SO 2 |
| Not done | | <p>DRAIN, REFILL OR TOP UP FLUIDS AND APPLY LUBRICANTS</p> <ul style="list-style-type: none"> • AC 1 Drain, refill or top up fluids and apply lubricants • AC 2 Check fluid levels in accordance with workshop manual procedures • AC 3 Normalize automotive system to operating temperature prior draining of fluids • AC 4 Clean areas before and after draining fluids. • AC 5 Drain fluids in accordance with workshop procedures • AC 6 Replace, drain and refill plugs in accordance with workshop manual procedures • AC 7 Clean filler areas prior to filling/topping up fluid compartment • AC 8 Refill fluid compartments/ top up with specified fluid and quantity • AC 9 Clean lubrication points prior lubrication | <p>DRAIN, REFILL OR TOP UP FLUIDS AND APPLY LUBRICANTS</p> <ul style="list-style-type: none"> • AC 1 Drain, refill or top up fluids and apply lubricants • AC 2 Check fluid levels in accordance with workshop manual procedures • AC 3 Normalize automotive system to operating temperature prior draining of fluids • AC 4 Clean areas before and after draining fluids. • AC 5 Drain fluids in accordance with workshop procedures • AC 6 Replace, drain and refill plugs in accordance with workshop manual procedures • AC 7 Clean filler areas prior to filling/topping up fluid compartment • AC 8 Refill fluid compartments/ top up with specified fluid and quantity • AC 9 Clean lubrication points prior lubrication | <p>DRAIN, REFILL OR TOP UP FLUIDS AND APPLY LUBRICANTS</p> <ul style="list-style-type: none"> • AC 1 Drain, refill or top up fluids and apply lubricants • AC 2 Check fluid levels in accordance with workshop manual procedures • AC 3 Normalize automotive system to operating temperature prior draining of fluids • AC 4 Clean areas before and after draining fluids. • AC 5 Drain fluids in accordance with workshop procedures • AC 6 Replace, drain and refill plugs in accordance with workshop manual procedures • AC 7 Clean filler areas prior to filling/topping up fluid compartment • AC 8 Refill fluid compartments/ top up with specified fluid and quantity • AC 9 Clean lubrication points prior lubrication |

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| | | <ul style="list-style-type: none"> • AC 10 Apply lubricants to lubrication points in accordance with workshop manual procedures. • AC 11 Explain why system/s needs to be normalized prior to draining the oil. • AC 12 Ensure correct fluid levels. | <ul style="list-style-type: none"> • AC 10 Apply lubricants to lubrication points in accordance with workshop manual procedures. • AC 11 Explain why system/s needs to be normalized prior to draining the oil. • AC 12 Ensure correct fluid levels. | <ul style="list-style-type: none"> • AC 10 Apply lubricants to lubrication points in accordance with workshop manual procedures. • AC 11 Explain why system/s needs to be normalized prior to draining the oil. • AC 12 Ensure correct fluid levels. |
| Not done | <ul style="list-style-type: none"> ○ SO 3 <p>INSPECT AND IDENTIFY LEAKS AND DEFECTS ON AUTOMOTIVE SYSTEM</p> <ul style="list-style-type: none"> • AC 1 Inspect automotive system for leaks and defects. • AC 2 Inspect visually for leaks and defects while system is in a static condition, and record findings. • AC 3 Inspect automotive system for leaks under operational conditions and record findings. • AC 4 Test functionality of system • AC 5 Explain why an automotive system needs to be inspected when static and operational. | <ul style="list-style-type: none"> ○ SO 3 <p>INSPECT AND IDENTIFY LEAKS AND DEFECTS ON AUTOMOTIVE SYSTEM</p> <ul style="list-style-type: none"> • AC 1 Inspect automotive system for leaks and defects. • AC 2 Inspect visually for leaks and defects while system is in a static condition, and record findings. • AC 3 Inspect automotive system for leaks under operational conditions and record findings. • AC 4 Test functionality of system • AC 5 Explain why an automotive system needs to be inspected when static and operational. | <ul style="list-style-type: none"> ○ SO 3 <p>INSPECT AND IDENTIFY LEAKS AND DEFECTS ON AUTOMOTIVE SYSTEM</p> <ul style="list-style-type: none"> • AC 1 Inspect automotive system for leaks and defects. • AC 2 Inspect visually for leaks and defects while system is in a static condition, and record findings. • AC 3 Inspect automotive system for leaks under operational conditions and record findings. • AC 4 Test functionality of system • AC 5 Explain why an automotive system needs to be inspected when static and operational. | |
| Not done | <ul style="list-style-type: none"> ○ SO 4 <p>RESTORE WORK</p> | <ul style="list-style-type: none"> ○ SO 4 <p>RESTORE WORK</p> | <ul style="list-style-type: none"> ○ SO 4 <p>RESTORE WORK</p> | |

| | | <p style="text-align: center;">AREAS, COMPLETE AND PROCESS DOCUMENTATION</p> <ul style="list-style-type: none"> • AC 1 Restore work area, complete and process documentation. • AC 2 Clean and pack away tools and equipment in accordance with company procedures • AC 3 Clean work area in accordance with good housekeeping requirements • AC 4 Dispose of hazards materials in accordance with SHE requirements • AC 5 Complete documentation and process in accordance with company procedures. • AC 6 Recall company procedures relating to the cleaning and packing away of tools and equipment • AC 7 Explain the impact of good housekeeping practices on productivity and a safe working environment | <p style="text-align: center;">AREAS, COMPLETE AND PROCESS DOCUMENTATION</p> <ul style="list-style-type: none"> • AC 1 Restore work area, complete and process documentation. • AC 2 Clean and pack away tools and equipment in accordance with company procedures • AC 3 Clean work area in accordance with good housekeeping requirements • AC 4 Dispose of hazards materials in accordance with SHE requirements • AC 5 Complete documentation and process in accordance with company procedures. • AC 6 Recall company procedures relating to the cleaning and packing away of tools and equipment • AC 7 Explain the impact of good housekeeping practices on productivity and a safe working environment | <p style="text-align: center;">AREAS, COMPLETE AND PROCESS DOCUMENTATION</p> <ul style="list-style-type: none"> • AC 1 Restore work area, complete and process documentation. • AC 2 Clean and pack away tools and equipment in accordance with company procedures • AC 3 Clean work area in accordance with good housekeeping requirements • AC 4 Dispose of hazards materials in accordance with SHE requirements • AC 5 Complete documentation and process in accordance with company procedures. • AC 6 Recall company procedures relating to the cleaning and packing away of tools and equipment • AC 7 Explain the impact of good housekeeping practices on productivity and a safe working environment |
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| Exit Level Outcome | Year 1 | Year 2 | Year 3 | Year 4 |
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| ELO 14 DEMONSTRATE BASIC KNOWLEDGE OF HYDRAULIC COMPONENTS US ID 244690 | Not done | Not done | <p style="text-align: center;">○ SO 1</p> <p style="text-align: center;">DEMONSTRATE BASIC KNOWLEDGE OF HYDRAULIC COMPONENTS AND THEIR APPLICATION.</p> <ul style="list-style-type: none"> ● AC 1 Identify components by name and explain their uses. ● AC 2 Explain the purpose of the components in relation to the hydraulic circuit. ● AC 3 Identify differences in component types and explain in relation to the method of functioning. | <p style="text-align: center;">○ SO 1</p> <p style="text-align: center;">DEMONSTRATE BASIC KNOWLEDGE OF HYDRAULIC COMPONENTS AND THEIR APPLICATION.</p> <ul style="list-style-type: none"> ● AC 1 Identify components by name and explain their uses. ● AC 2 Explain the purpose of the components in relation to the hydraulic circuit. ● AC 3 Identify differences in component types and explain in relation to the method of functioning. |
| | Not done | Not done | <p style="text-align: center;">○ SO 2</p> <p style="text-align: center;">DESCRIBE SAFETY ASPECTS RELATED TO HYDRAULIC SYSTEMS</p> <ul style="list-style-type: none"> ● AC 1 Explain consequences of pressure in hydraulic system in relation to personal safety. ● AC 2 Explain the effects of hydraulic fluids in terms of safety, health and environmental requirements. | <p style="text-align: center;">○ SO 2</p> <p style="text-align: center;">DESCRIBE SAFETY ASPECTS RELATED TO HYDRAULIC SYSTEMS</p> <ul style="list-style-type: none"> ● AC 1 Explain consequences of pressure in hydraulic system in relation to personal safety. ● AC 2 Explain the effects of hydraulic fluids in terms of safety, health and environmental requirements. |

| Exit Level Outcome | Year 1 | Year 2 | Year 3 | Year 3 |
|---|-----------------|-----------------|--|--|
| ELO 15 Perform basic welding/joining of metals US ID 119753 | Not done | Not done | ○ SO 1 PREPARE FOR WORK ACTIVITY. <ul style="list-style-type: none"> ● AC 1 Prepare for work activity by reading job instructions to determine sequence of operations. ● AC 2 Select the required heat related welding/joining equipment and consumables. ● AC 3 Carry out the pre-operational checks on equipment correctly. ● AC 4 Report on the unsafe or worn parts or defective equipment or potential hazards in the required format. ● AC 5 Prepare materials for welding/joining. ● AC 6 Use special personal protective equipment during the operation. | ○ SO 1 PREPARE FOR WORK ACTIVITY. <ul style="list-style-type: none"> ● AC 1 Prepare for work activity by reading job instructions to determine sequence of operations. ● AC 2 Select the required heat related welding/joining equipment and consumables. ● AC 3 Carry out the pre-operational checks on equipment correctly. ● AC 4 Report on the unsafe or worn parts or defective equipment or potential hazards in the required format. ● AC 5 Prepare materials for welding/joining. ● AC 6 Use special personal protective equipment during the operation. |
| | Not done | Not done | ○ SO 2 WELD/JOIN METALS <ul style="list-style-type: none"> ● AC 1 Prepare the work area for welding/joining process. ● AC 2 Secure the work area. ● AC 3 Use an appropriate weld/join process. ● AC 4 Weld/join the metal correctly to give a good quality finish. | ○ SO 2 WELD/JOIN METALS <ul style="list-style-type: none"> ● AC 1 Prepare the work area for welding/joining process. ● AC 2 Secure the work area. ● AC 3 Use an appropriate weld/join process. ● AC 4 Weld/join the metal correctly to give a good quality finish. |

| Exit Level Outcome | Year 1 | Year 2 | Year 3 | Year 4 |
|--------------------|----------|----------|--|--|
| | Not done | Not done | <p>○ SO 3</p> <p>APPLY QUALITY CHECKS ON COMPLETED WELD/JOINT</p> <ul style="list-style-type: none"> ● AC 1 Clean the weld/joint correctly. ● AC 2 Conduct visual checks for quality finishes at the end of the process. | <p>○ SO 3</p> <p>APPLY QUALITY CHECKS ON COMPLETED WELD/JOINT</p> <ul style="list-style-type: none"> ● AC 1 Clean the weld/joint correctly. ● AC 2 Conduct visual checks for quality finishes at the end of the process. |
| | Not done | Not done | <p>○ SO 4</p> <p>PERFORM FINISHING ACTIVITIES</p> <ul style="list-style-type: none"> ● AC 1 Dispose of scrap material according to organisational procedure. ● AC 2 Store surplus materials according to organisational procedure. ● AC 3 Clean and store equipment according to organisational procedure. | <p>○ SO 4</p> <p>PERFORM FINISHING ACTIVITIES</p> <ul style="list-style-type: none"> ● AC 1 Dispose of scrap material according to organisational procedure. ● AC 2 Store surplus materials according to organisational procedure. ● AC 3 Clean and store equipment according to organisational procedure. |
| | Not done | Not done | <p>○ SO 5</p> <p>REPORT OUT OF COMPLIANCE OR UNSAFE CONDITIONS WHILE WORKING</p> <ul style="list-style-type: none"> ● AC 1 Report problems with materials and equipment. | <p>○ SO 5</p> <p>REPORT OUT OF COMPLIANCE OR UNSAFE CONDITIONS WHILE WORKING</p> <ul style="list-style-type: none"> ● AC 1 Report problems with materials and equipment. |

| Exit Level Outcome | Year 1 | Year 2 | Year 3 | Year 4 |
|--------------------|----------|----------|---|---|
| | Not done | Not done | <p style="text-align: center;">○ SO 6</p> <p style="text-align: center;">WORK SAFELY WITH DUE CARE FOR SELF, FELLOW WORKERS, EQUIPMENT, MATERIALS AND THE ENVIRONMENT</p> <ul style="list-style-type: none"> ● AC 1 Prepare materials and work area. ● AC 2 Ensure sufficient safety materials are continuously available. ● AC 3 Restore work area to a safe and serviceable condition after activity. | <p style="text-align: center;">○ SO 6</p> <p style="text-align: center;">WORK SAFELY WITH DUE CARE FOR SELF, FELLOW WORKERS, EQUIPMENT, MATERIALS AND THE ENVIRONMENT</p> <ul style="list-style-type: none"> ● AC 1 Prepare materials and work area. ● AC 2 Ensure sufficient safety materials are continuously available. ● AC 3 Restore work area to a safe and serviceable condition after activity. |

SECTION 4

ASSESSMENT

4.1 Introduction

This section on assessment *standardises* the recording and reporting processes for Year 1-4 learners within the framework of the adapted skills curriculum in Special Schools that offer a skills programme. It also provides a policy framework for the management of school based assessment and school assessment records.

It is still required of teachers to offer a differentiated form of assessment as learners following an adapted curriculum with a skills focus have specific barriers to learning. Since a learner or learners may be functioning on different grades or levels (straddling), the assessment / recording / reporting system must make provision to reflect the *functioning* level(s) of each learner. Each learner, regardless of his/her number of years in the School of Skills, 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 the individual learner.

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.
- 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 assessment criterion specified in the curriculum. In both informal and formal assessments it is important to ensure that in the course of a school year:

- all of the content is covered.

- the full range of skills is included.
- 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 mark these assessment 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, ongoing 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 instruction 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. 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, demonstrations, performances, tests, examinations, practical demonstrations, etc. The forms of assessment used should be appropriate to the age and the developmental level of the learners. The assessment tasks should be carefully designed to cover the 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.

4.3 Managing Assessment

4.3.1 People Involved in Assessment

The school and the teachers have overall responsibility for the assessment of learners. Teachers are expected to create a valid, reliable and credible assessment process.

4.3.2 School Assessment Programme

4.3.2.1 Skills Curriculum

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

The table below gives a guideline for the composition of formal assessment per skill used for progression / promotion result: For promotion purposes, the year mark (School-Based Assessment – SBA) is added to the end-of-year assessment mark.

| Year X | Formal School-Based Assessments | | | Final End-of-Year Assessments |
|-------------|---------------------------------|----------------------------------|-----------------|-------------------------------|
| | Term 1 | Term 2 | Term 3 | Term 4 |
| | Practical 75% * | Practical 75% * | Practical 75% * | o Practical Demonstration 75% |
| | Theory 25% | Theory 25% Pen and paper Test | Theory 25% | |
| | Dates: | Dates: | Dates: | o Pen and Paper Test 25% |
| Term Report | 100% | 100% | 100% | |
| End of Year | CASS 75% | | | 25% |

*These may consist of one or a number of smaller activities.

FORMAL ASSESSMENT: YEAR 1

Assessment activities are to be developed from the content taught in the term.

Not all the content that is taught needs to be assessed formally.

Select and match content with an appropriate form of assessment.

| Year & Term | Content / concept / skill | Activities | Form of assessment | % | Formal Assessment |
|------------------------------|--------------------------------------|------------------------------------|--------------------------------------|-----|--|
| Y1 – Term 1 | ELO 1: SO 1-5 Work area | Activity 1 Demonstration | Demonstration | 25% | FAT 1 Practical Oral Written test |
| | ELO 2: SO 1-3 Hand tools | | | | |
| | ELO 3: SO 3 HIV/AIDS | Activity 2 Model | Practical exam | 50% | |
| | ELO 4: SO 1-5 Measuring equipment | Activity 3 Respond to questions | Pen and paper test (Oral or written) | 25% | |
| ELO 5: SO 1-5 Power tools | | | | | |

| Year & Term | Content / concept / skill | Activities | Form of assessment | % | Formal Assessment |
|----------------------------|------------------------------------|------------------------------------|--------------------------------------|-----|--|
| Year & Term Y1 – Term 2 | ELO 6: SO 1-3 Lifting equipment | Activity 1 Demonstration | Demonstration | 25% | FAT 1 Practical Oral Written test |
| | ELO 7: SO 1-5 Batteries | Activity 2 Model | Practical exam | 50% | |
| | ELO 8: SO 1-3 Lubrication | | | | |
| | ELO 9: SO 1-6 Engine technology | Activity 3 Respond to questions | Pen and paper test (Oral or written) | 25% | |

FORMAL ASSESSMENT: YEAR 2

Assessment activities are to be developed from the content taught in the term. Not all the content that is taught needs to be assessed formally.

Select and match content with an appropriate form of assessment.

| Year & Term | Content / concept / skill | Activities | Form of assessment | % | Formal Assessment |
|-------------|-----------------------------|------------------------------------|--------------------------------------|-----|--|
| Y2 – Term 1 | ELO 1: SO 1-5 Work area | Activity 1 Demonstration | Demonstration | 25% | FAT 1 Practical Oral Written test |
| | ELO 2: SO 1-3 Hand tools | Activity 2 Model | Practical exam | 50% | |
| | ELO 3: SO 3 HIV/AIDS | Activity 3 Respond to questions | Pen and paper test (Oral or written) | 25% | |

| Year & Term | Content / concept / skill | Activities | Form of assessment | % | Formal Assessment |
|-------------|--------------------------------------|------------------------------------|--------------------------------------|-----|--|
| Y2 – Term 2 | ELO 4: SO 1-5 Measuring equipment | Activity 1 Demonstration | Demonstration | 25% | FAT 1 Practical Oral Written test |
| | ELO 5: SO 1-5 Power tools | Activity 2 Model | Practical exam | 50% | |
| | ELO 6: SO 1-3 Lifting equipment | Activity 3 Respond to questions | Pen and paper test (Oral or written) | 25% | |

| Year & Term | Content / concept / skill | Activities | Form of assessment | % | Formal Assessment |
|-------------|------------------------------------|------------------------------------|--------------------------------------|-----|--|
| Y2 – Term 3 | ELO 7: SO 1-5 Batteries | Activity 1 Demonstration | Demonstration | 25% | FAT 1 Practical Oral Written test |
| | ELO 8: SO 1-3 Lubrication | Activity 2 Model | Practical exam | 50% | |
| | ELO 9: SO 1-6 Engine technology | Activity 3 Respond to questions | Pen and paper test (Oral or written) | 25% | |

| Year & Term | Content / concept / skill | Activities | Form of assessment | % | Formal Assessment |
|-------------|--|------------------------------------|--------------------------------------|-----|--|
| Y2 – Term 4 | ELO 12: SO 1-5 Servicing vehicles | Activity 1 Demonstration | Demonstration | 25% | FAT 1 Practical Oral Written test |
| | ELO 13: SO 1-4 Inspecting and lubricating automotive system | Activity 2 Model | Practical exam | 50% | |
| | | Activity 3 Respond to questions | Pen and paper test (Oral or written) | 25% | |

FORMAL ASSESSMENT: YEAR 3

| Year & Term | Content / concept / skill | Activities | Form of assessment | % | Formal Assessment |
|-------------|--|------------------------------------|--------------------------------------|-----|--|
| Y3 – Term 1 | ELO 1: SO 1-5 Work area | Activity 1 Demonstration | Demonstration | 25% | FAT 1 Practical Oral Written test |
| | ELO 2: SO 1-3 Hand tools | Activity 2 Model | Practical exam | 50% | |
| | ELO 4: SO 1-5 Measuring equipment | Activity 3 Respond to questions | Pen and paper test (Oral or written) | 25% | |
| | ELO 5: SO 1-5 Power tools | | | | |
| Year & Term | Content / concept / skill | Activities | Form of assessment | % | Formal Assessment |
| Y3 – Term 2 | ELO 7: SO 1-5 Batteries | Activity 1 Demonstration | Demonstration | 25% | FAT 1 Practical Oral Written test |
| | ELO 8: SO 1-3 Lubrication | Activity 2 Model | Practical exam | 50% | |
| | ELO 9: SO 1-6 Engine technology | Activity 3 Respond to questions | Pen and paper test (Oral or written) | 25% | |
| Year & Term | Content / concept / skill | Activities | Form of assessment | % | Formal Assessment |
| Y3 – Term 3 | ELO 10: SO 1-5 Automobile components | Activity 1 Demonstration | Demonstration | 25% | FAT 1 Practical Oral Written test |
| | ELO 11: SO 1-5 Assembling mechanical components | Activity 2 Model | Practical exam | 50% | |
| | ELO 12: SO 1-5 Servicing vehicles | Activity 3 Respond to questions | Pen and paper test (Oral or written) | 25% | |
| | | | | | |
| Year & Term | Content / concept / skill | Activities | Form of assessment | % | Formal Assessment |
| Y3 – Term 4 | ELO 13: SO 1-4 Inspecting and lubricating automotive system | Activity 1 Demonstration | Demonstration | 25% | FAT 1 Practical Oral Written test |
| | ELO 14: SO 1-2 Hydraulic components | Activity 2 Model | Practical exam | 50% | |
| | ELO 15: SO 1-6 Welding of metals | Activity 3 Respond to questions | Pen and paper test (Oral or written) | 25% | |
| | | | | | |

FORMAL ASSESSMENT: YEAR 3

| Year & Term | Content / concept / skill | Activities | Form of assessment | % | Formal Assessment |
|-------------|--|------------------------------------|--------------------------------------|-----|--|
| Y4 – Term 1 | ELO 1: SO 1-5 Work area | Activity 1 Demonstration | Demonstration | 25% | FAT 1 Practical Oral Written test |
| | ELO 2: SO 1-3 Hand tools | Activity 2 Model | Practical exam | 50% | |
| | ELO 4: SO 1-5 Measuring equipment | Activity 3 Respond to questions | Pen and paper test (Oral or written) | 25% | |
| | ELO 5: SO 1-5 Power tools | | | | |
| Year & Term | Content / concept / skill | Activities | Form of assessment | % | Formal Assessment |
| Y4 – Term 2 | ELO 7: SO 1-5 Batteries | Activity 1 Demonstration | Demonstration | 25% | FAT 1 Practical Oral Written test |
| | ELO 8: SO 1-3 Lubrication | Activity 2 Model | Practical exam | 50% | |
| | ELO 9: SO 1-6 Engine technology | Activity 3 Respond to questions | Pen and paper test (Oral or written) | 25% | |
| Year & Term | Content / concept / skill | Activities | Form of assessment | % | Formal Assessment |
| Y4 – Term 3 | ELO 10: SO 1-5 Automobile components | Activity 1 Demonstration | Demonstration | 25% | FAT 1 Practical Oral Written test |
| | ELO 11: SO 1-5 Assembling mechanical components | Activity 2 Model | Practical exam | 50% | |
| | ELO 12: SO 1-5 Servicing vehicles | Activity 3 Respond to questions | Pen and paper test (Oral or written) | 25% | |
| Year & Term | Content / concept / skill | Activities | Form of assessment | % | Formal Assessment |
| Y4 – Term 4 | ELO 13: SO 1-4 Inspecting and lubricating automotive system | Activity 1 Demonstration | Demonstration | 25% | FAT 1 Practical Oral Written test |
| | ELO 14: SO 1-2 Hydraulic components | Activity 2 Model | Practical exam | 50% | |
| | ELO 15: SO 1-6 Welding of metals | Activity 3 Respond to questions | Pen and paper test (Oral or written) | 25% | |

4.3.3 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;
- 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 in Grades R – 12

| Rating code | Description of competence | Percentage |
|--------------------|----------------------------------|-------------------|
| 7 | Outstanding achievement | 80 – 100 |
| 6 | Meritorious achievement | 70 – 79 |
| 5 | Substantial achievement | 60 – 69 |
| 4 | Adequate achievement | 50 – 59 |
| 3 | Moderate achievement | 40 – 49 |
| 2 | Elementary achievement | 30 – 39 |
| 1 | Not achieved | 0 – 29 |

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.

4.4 Moderation of Assessment

Moderation refers to the process that ensures that the assessment tasks are fair, valid and reliable. Moderation should be implemented at school, district, and provincial levels if necessary. 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 should be moderated by the relevant subject specialists at the district and, if necessary, 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.

Moderation is therefore an ongoing 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)
- The policy document; *National Protocol for Assessment Grades R – 12. (NPA) (2011)*

- Responding to Diversity through Curriculum and Assessment Policy Statements (2011)
- Guidelines to Ensure Quality Education and Support in Special Schools and Special School Resource Centres (2007)
- Operational manual to the National strategy on Screening, identification, Assessment and support (2008)
- Guidelines for full-service/inclusive schools (2010)

SECTION 5

REFERENCE

The curriculum for Automotive Repair and Maintenance is based on the following SAQA Qualification and Unit Standards:

| SAQA Qualification ID | Qualification Title |
|------------------------------|---|
| 49689 | National Certificate: Automotive Repair and Maintenance |

| SAQA: Unit Standard Number | Title |
|-----------------------------------|--|
| 13220 | Keep the work area safe and productive |
| 12463 | Understand and deal with HIV / AIDS |
| 119744 | Select, use and care for engineering hand tools |
| 12476 | Select, use and care for engineering measuring equipment |
| 12219 | Select, use and care for engineering power tools |
| 15123 | Select and use vehicle lifting equipment |
| 260638 | Service automobile batteries |
| 243769 | Demonstrate knowledge of lubrication |
| 244056 | Understand the fundamentals of engine technology |
| 260717 | Remove and fit automobile components |
| 253440 | Assemble mechanical components |
| 260719 | Carry out an automotive service. |
| 119750 | Inspect and lubricate an automotive system. |
| 244690 | Demonstrate basic knowledge of hydraulic components |
| 119753 | Perform basic welding/joining of metals |