



basic education

Department:
Basic Education
REPUBLIC OF SOUTH AFRICA

Curriculum and Assessment Policy Statement: Technical Occupational Year 1 – 4

MECHANICAL TECHNOLOGY:

BODY WORKS

(Panel Beating and / or Spray Painting)

PUBLIC COMMENT

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PUBLIC COMMENT

SECTION 1:

INTRODUCTION TO THE CURRICULUM AND ASSESSMENT POLICY STATEMENT: TECHNICAL OCCUPATIONAL

1.1 Background

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

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

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

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

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

1.2 Overview

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

The following legal framework will be adhered to:

- (i) National Curriculum Statement, Grades R to 12 (2011) together with the National Protocol for Assessment and the National Policy pertaining to the Programme and Promotion Requirements of the National Curriculum Statement, Grades R to 12;
- (ii) Draft Technical Vocational Subject Statements listed in the Draft General Certificate of Education: Technical Occupational, a Qualification at Level 1 on the National Qualification Framework;
- (iii) General and Further Education and Training Quality Assurance Act, 2001 (Act No.58 of 2001); the General and Further Education and Training Amendment Act, 2008 (Act No 50 of 2008); the NQF Act, 2008 (Act no 67 of 2008) and the Continuing Education and Training Act, 2006 as amended by Act No 3 of 2012 and Act No 1 of 2013;
- (iv) The General and Further Education and Training Qualifications Sub- Framework (August 2013);
- (v) Standards and quality assurance for General and Further Education and Training (June 2008, Revised April 2013);
- (vi) Policy and regulations pertaining to the conduct, administration and management of assessment for the General Education and Training Certificate in Skills and Vocational Training: A qualification at Level 1 on the National Qualification Framework (NQF);
- (vii) Education White Paper 6 on Special Needs Education: Building an Inclusive Education and Training System (2001);

- (viii) The United Nations Convention on the Rights of Persons with Disabilities adopted by the United Nations General Assembly on 13 December 2006 and ratified by the South African parliament on 5 June 2007;
- (ix) The White Paper on the Rights of Persons with Disabilities, 2015;
- (x) Section 11 of the Children's Act (2007);
- (xi) Chapter 5, section 76 of the Children's Act as amended (2007);
- (xii) Umalusi's Quality Assurance of Assessment: Directives, Guidelines and Requirements;
- (xiii) Skills Development Act, 1998 (Act 97 of 1998); and
- (xiv) Assessment Policy for Qualifications and Part Qualifications on the Occupational Qualifications Sub-Framework (OQSF), 2014 of the QCTO.

1.3. General Aims of the Technical Occupational Curriculum

- (a) The National Curriculum Statement, Grades R to 9 gives expression to the knowledge, skills and values worth learning in South African schools. The Technical Occupational Curriculum aims to ensure that learners, irrespective of their abilities, have the opportunity to develop competences for meeting challenges and taking up opportunities in the fast changing 21st century and are also guided to apply knowledge and skills in ways that are meaningful to their own lives. In this regard, the curriculum promotes knowledge in local contexts, while being sensitive to global imperatives, including the demands of the fourth industrial revolution. Sustaining development-relevance in the face of constant and rapid change requires curricula to be lifelong learning systems in their own right, capable of constant self-renewal and innovation.
- (b) The curriculum serves the purposes of:
 - Equipping learners, irrespective of their socio-economic background, race, gender, physical ability or intellectual ability, with the knowledge, skills and values necessary for self-fulfilment, and meaningful participation in society as citizens of a free country;
 - Promoting critical thinking, creativity and innovation, communication, collaboration, information, media and ICT literacies, flexibility and adaptability, initiative and self-direction, social and cross-cultural, productivity and accountability, leadership and responsibility and life-long learning;
 - Facilitating the transition of learners from education institutions to the workplace;

- Providing employers with a sufficient profile of a learner's competences.
 - Being sensitive to issues of diversity such as poverty, inequality, race, gender, language, age, and other factors;
 - Valuing indigenous knowledge systems: acknowledging the rich history and heritage of this country as important contributors to nurturing the values contained in the Constitution; and
 - Credibility, quality and efficiency: providing an education that is comparable in quality, breadth and depth to those of other countries.
- (c) The curriculum is based on the following principles:
- Social transformation: ensuring that the educational imbalances of the past are redressed, and that equal educational opportunities are provided for all sections of the population;
 - Active and critical learning: encouraging an active and critical approach to learning, rather than rote and uncritical learning of given truths;
 - High knowledge and high skills: the minimum standards of knowledge and skills to be achieved at each grade are specified and set high, achievable standards in all subjects;
 - Progression: content and context of each grade shows progression from simple to complex; and
 - Human rights, inclusivity, environmental, gender and social justice and equality: infusing the principles and practices of social justice and human rights as defined in the Constitution of the Republic of South Africa as well as the greening of the economy.
- (d) Inclusivity should become a central part of the organisation, planning and teaching at each school. This can only happen if all teachers have a sound understanding of how to recognise and address barriers to learning, and how to plan for diversity. The key to managing inclusivity is ensuring that barriers are identified and addressed by all the relevant support structures within the school community, including teachers, District-Based Support Teams, School-based Support Teams, parents and Special Schools as Resource Centres. To address barriers in the classroom, teachers should use various curriculum differentiation strategies such as those included in the Department of Basic Education's Guidelines for Responding to Learner Diversity in the Classroom (2011), as well as the Standard Operating Procedures for Accommodations in Assessment (2016).

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

The specific aims of the qualification are to:

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

Learners successfully completing the qualification will be able to:

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

1.4. Subjects and Time Allocation

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

Subjects		Time	
General Education			
Languages (Home Language and First Additional Language)		3 Hours for Home Language	
All 11 official languages (Afrikaans, English, isiNdebele, isiXhosa, isiZulu, Siswati, Sesotho, Setswana, Sepedi, Tshivenda, Xitsonga)		2 hours for First Additional Language	
Mathematics		3 hours	
Life Skills	Personal and Social Well-being (including aspects of Life Orientation, Social Sciences and Economic and Management Sciences)	2½ hours	6 hours
	Physical Education	1 hour	
	Creative Arts	1 hour	
	Natural Sciences	1½ hours from year 2 onwards This time to be used in year 1 to support Languages and Mathematics	
Information Communication Technology ICT is a compulsory subject for all learners. It can be offered either as a stand-alone or integrated across various subjects. If offered as a stand-alone a school may use time allocated to the Technical Occupational programme. ICT does not count towards the qualification but is a necessary life-long skill. ICT is not to be confused with the Technical Occupational Subject “Office Administration” which is an elective.			

Subjects	Time
Technical Occupational: Electives	
Agricultural Studies Art and Crafts Civil Technology: Bricklaying and Plastering Civil Technology: Plumbing Civil Technology: Woodworking and Timber Consumer Studies: Food Production Consumer Studies: Sewing Early Childhood Development Electrical Technology: Electrical Hospitality Studies Mechanical Technology: Body Works: Panel Beating and or Spray Painting Mechanical Technology: Motor Mechanics Mechanical Technology: Sheet Metal Work Mechanical Technology: Welding Mechanical Technology: Maintenance Office Administration Personal Care: Ancillary Health Care Personal Care: Beauty and Nail Technology Personal Care: Hairdressing Service Technology: Upholstery Wholesale and Retail	13½ hours
Total: General and Occupational	27½

The table below proposes the learner progression across the years at a School of Skills.

Year 1 Minimum of 1 year of orientation	Year 2	Year 3	Year 4
<p>Base Line Assessment for Language and Mathematics</p> <p>➤ Intervention (ISP)</p> <p>General Education:</p> <ul style="list-style-type: none"> • Home Language • FAL • Mathematics • Life Skills: <ul style="list-style-type: none"> ✓ Personal Social Wellbeing ✓ Physical Education ✓ Creative Arts <p>➤ <u>ICT Enrichment</u></p> <p>Technical Occupational Minimum 2 x SKILLS Across the year</p> <p>Post Assessment</p> <ul style="list-style-type: none"> • Analyse results <p>Progress to Year 2 with appropriate support for Languages and Mathematics</p>	<p>General Education:</p> <ul style="list-style-type: none"> • Home Language • FAL • Mathematics • Life Skills: <ul style="list-style-type: none"> ✓ Personal Social Wellbeing ✓ Physical Education ✓ Creative Arts ✓ Natural Sciences <p>➤ <u>ICT Enrichment</u></p> <p>Technical Occupational Minimum of 1 Skill</p>	<p>General Education:</p> <ul style="list-style-type: none"> • Home Language • FAL • Mathematics • Life Skills: <ul style="list-style-type: none"> ✓ Personal Social Wellbeing ✓ Physical Education ✓ Creative Arts ✓ Natural Sciences <p>➤ <u>ICT Enrichment</u></p> <p>Technical Occupational Minimum of 1 Skill</p>	<p>General Education:</p> <ul style="list-style-type: none"> • Home Language • FAL • Mathematics • Life Skills: <ul style="list-style-type: none"> ✓ Personal Social Wellbeing ✓ Physical Education ✓ Creative Arts ✓ Natural Sciences <p>➤ <u>ICT Enrichment</u></p> <p>Technical Occupational Minimum of 1 Skill</p> <p>GCE: TO Qualification Or Certificate of Achievement</p> <p>(External exam- results verified / moderated)</p>

Note:

Year One is an orientation year and learners must be exposed to a minimum of two occupational skills so that they can select a skill with which they will continue from Year Two. 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. It is important that learners are exposed to all the Topics and Specific Aims per selected Occupational skill, acknowledging that not all learners will be successful in all of these.

SECTION 2:

INTRODUCTION TO MECHANICAL TECHNOLOGY: BODY WORKS (PANEL BEATING AND / OR SPRAY PAINTING)

2.1 What is: Body Works (Panel Beating and/or Spray Painting)?

The subject Body Works is the study of two related skills; Panel Beating and Spray Painting which is offered either as two separate skills or integrated as one subject.

Panel Beating is the repair and realignment of damaged and dented panels of the body of motor vehicles by straightening bent frames, removing dents and replacing damaged body panels.

Spray Painting is the ability to understand and apply the relevant theory of the different types of paint and primer compositions and materials that are used in the paint shop where high quality finishes need to be produced to ensure customer satisfaction and compliance to industry requirement.

2.2 Topics to be studied: in Body Works

PANEL BEATING	SPRAY PAINTING
<ol style="list-style-type: none">1. Safety2. Firefighting3. Hand Tools4. Power Tools5. Body Construction6. Surface Preparation7. Body Parts8. Lifting equipment9. Dent repair10. Welding11. Sealers12. Wheel alignment	<ol style="list-style-type: none">1. Safety2. Firefighting3. Hand Tools4. Power Tools5. Surface preparation6. Material (Primer / Paint)7. Masking8. Spray Painting Equipment9. Spray Painting10. Sealers11. Polishing12. Valet13. Colour Matching

2.3 Specific Aims:

Panel Beating

The learner is able to:

1. Keep the work area safe and productive
2. Apply firefighting techniques
3. Select, use and care for hand tools
4. Select, use and care for power tools
5. Understand the body construction and safety features of a vehicle
6. Perform surface preparation on a body panel
7. Remove, replace and align body parts
8. Select and use vehicle lifting equipment
9. Repair minor dents on ferrous body shell and parts
10. Perform basic welding/joining of metals
11. Apply sealers and cavity fillers on vehicles
12. Perform basic wheel alignment

Spray Painting

The learner is able to:

1. Keep the work area safe and productive
2. Apply firefighting techniques
3. Select, use and care for hand tools
4. Select, use and care for power tools
5. Perform surface preparation on a body panel
6. Identify the various types of paint, primers, material and their uses
7. Perform masking and de-masking on a vehicle
8. Maintain spray painting equipment
9. Perform basic spray painting
10. Apply sealers and cavity fillers on vehicles
11. Polish automotive painted panels
12. Wash and valet a vehicle
13. Colour Matching

2.4 Requirements for Body Works as a subject

2.4.1 Time Allocation

The total number of hours allocated for the subject in a five-day cycle is 13 ½ hours.

Sufficient time must be allocated in the school timetable for the practical work required to be done. Schools that choose to do Panel Beating and Spray Painting as one skill will have to adapt the curriculum in such a way to ensure that equal time is spent on both skills

2.4.2 Resources

Human resources

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

Body Work teachers are required to:

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

Learner Resources:

- Text / resource book
- Protective clothing

2.4.3 Infrastructure, equipment and finances

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

Infrastructure

- Body Works cannot be implemented in a school without an equipped workshop.
- The floor space should be sufficient for 3 to 4 cars with a designated compressor room.
- Electricity supply to the workshop is crucial, preferably a three phase, four-wire supply, but at least single phase with a high current circuit breaker.
- Lighting and ventilation is of extreme importance and a workshop should ideally have multiple exits with doors that open outward.
- Tools and equipment should have sufficient storage and well developed storage management system with an up to date inventory. Shelves should be clearly marked and storage areas defined.
- Good housekeeping principles require that all workshops be cleaned regularly. A suitable waste removal system should be in place to accommodate refuse, off-cut materials as well as chemical waste. The requirements of the Occupational Health and Safety (OHS) Act 85 of 1993 need to be complied with at all times.
- Machinery on stands should be permanently affixed to the floor, with isolation switches for the mains supply. All machines should have working machine guards.
- Electrical motors should ideally be painted bright orange. Specification plates should be clearly legible.
- The workshop must have a lockable mains distribution board. The workshop must be fitted with an emergency cut of switch/s which is/are easily accessible at all times. Emergency switch should preferably be lockable to prevent accidental re-connection with mains in the case of it being activated.
- Safety rules must be displayed on posters in the workshop.

Equipment

The following is the minimum requirement for.

PANEL BEATING	
Non-Consumables- Hand Tools	Consumables
10x Hand files, 10x spanners (ring/open), 2x socket sets, 2x Allen keys sets, 2x screwdriver sets, 2x pliers, 6x clamps, 5x tin snips, 10x hacksaws, 10x chisels, 10x hammers, 5x beating files, 10x dollies, 5x pullers, 5x spoons, 5x mallets, 2x bench stakes, 10x files, 5x scrapers, 2x anvils, 3x riveters, 2x jacks, 5x creepers, 10x safety stands, 2x drills, 3x grinders, 5x sanders, 6x wrenches, 4x fire extinguishers, 5x tape measures, 2x wheel spanners, 2x sealer guns, 2x tyre pumps, 10x vice grips, 1x blow guns, 5x air tools, 4x air hoses, 4x air regulators, 6x scrapers	File blades, mild steel plates, hacksaw blades, drill bits, grinding discs, body filler, sand paper, dust masks, gloves, safety boots, overalls, welding rods, rags, brushes, buckets, rivets, sanding blocks, glue, fibre glass, plastic repair kit,
Equipment 2x Lifting Equipment, Welding Machines, 2x Compressor, 4x Extractor Fans, 8x Work Benches	

SPRAY PAINTING	
Non-Consumables- Hand Tools	Consumables
5x Spray guns, 10x mixing sticks, 2x wheel spanners, 5x sealer guns, 2x tyre pumps, 5x air guns, 15x sanding blocks, 2x hammers, 3x pliers, 2x vice grips, 2x wrenches, 4x polish machines, 1x vacuum cleaners, 2x jacks, 5x creepers, 5x fire extinguishers, 2x socket sets, x2 sets screwdrivers, 8x safety stands, 5x air regulators, 1x compressor, 5x water traps, 5x buckets, 1x high pressure washer, 30 m of air hoses, 30 m of water pipes, 15x scrapers, 2x masking knives	Chamois, rags, towels, primers, paint, masking tape, thinners, brushes, paint strainer, sealer, sand paper, compound, polish, glue, masking paper and plastic, spray masks, gloves, overalls, water boots, car soap, tag rags, degreasing liquid

Equipment

Spray booth, lifting equipment, 2x heating lamps, extractor fans

Finances:

Budget and inventory

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

Resourcing could be sub divided into the following categories:

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

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

2.5 Career opportunities

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

- Assistant to a Spray Painter
- Assistant to a Panel Beater
- Any introductory level employment in a related automotive repair industry.

SECTION 3:

OVERVIEW OF TOPICS PER TERM AND ANNUAL TEACHING PLANS

3.1 Content overview **Panel Beating**

TOPIC	Year 1	Year 2	Year 3	Year 4
1. Safety	General safety rules in workshop	Emergency areas, exits and first aid stations	Personal protective equipment	Unsafe conditions or acts that may occur
2. Firefighting	Types of fires	Fire prevention	Firefighting equipment	Firefighting procedures
3. Hand Tools	Hand tools	Panel beating hand tools	Hand tools	Hand tool
4. Power Tools		Panel beating power tools	Maintain power tools	Safe use of power tools
5. Body Construction			Body construction and components	Safety features and mechanisms
6. Surface Preparation		Clean and prepare body panels	Clean and prepare body panels	Quality check of surface area
7. Body Parts		Remove body parts or panels	Replace and align body parts	Determine extent of repairs
8. Lifting Equipment		Operation of lifting equipment (Jack, safety stands)	Safety precautions and measures (Hoist)	
9. Dent Repair	Minor dent repairs	Dent repair process Ferrous / non-ferrous Mix and apply body fillers	Major dent repair process	Chassis straightening equipment
10. Welding		(Oxy-Acetylene / TIG Welding)	(MIG-Welding / brazing / Arc-welding)	Weld / Join metals
11. Sealers				Application of sealers
12. Wheel alignment				Wheel alignment

3.2 Content outline per term

Year 1 **PANEL BEATING**

WEEK	TOPIC	CONTENT The learner is able to:	Techniques, activities, resources and process notes
1 - 2	SAFETY	KEEP THE WORK AREA SAFE AND PRODUCTIVE NAME, DISCUSS AND EXPLAIN GENERAL SAFETY RULES - <ul style="list-style-type: none"> • Demonstrate an understanding of safety rules in the workshop. • Keep work area neat and tidy. 	<ul style="list-style-type: none"> • Oral discussions (10 Basic rules) • Posters and signs • Written presentations
3 - 4	FIREFIGHTING	APPLY FIREFIGHTING TECHNIQUES IDENTIFY DIFFERENT TYPES OF FIRES – <ul style="list-style-type: none"> • Identify the causes of fires in the workshop. • Explain the different types of fires that can occur in the workshop. 	<ul style="list-style-type: none"> • Oral discussions • Practical demonstration (small fire in a drum) • Written presentations • Research (4 basic Fires)
5 - 6	HAND TOOLS	SELECT, USE AND CARE FOR HAND TOOLS. SELECT AND USE HAND TOOLS- <ul style="list-style-type: none"> • Identify and name the basic hand tools to be used in the work shop. DEMONSTRATE AND EXPLAIN THE CORRECT USE OF	<ul style="list-style-type: none"> • Practical demonstration • Oral discussion on repairs (Hammers, dollies, files, sanding blocks)

		<p>BASIC HAND TOOLS-</p> <ul style="list-style-type: none"> • Identify and name the basic panel beating tools to be used in the work shop. • Demonstrate and explain the correct use of basic panel beating tools. • 	
7 - 8	DENT REPAIR	<p>REPAIR MINOR DENT ON FERROUS BODY SHELL AND PARTS</p> <p>DETERMINE THE REPAIR PROCESS OF THE DAMAGED PART –</p> <ul style="list-style-type: none"> • Identify all the tools and equipment to be used for repairs. <p>REPAIR THE DAMAGED PART WHILE MAINTAINING SAFE WORKING PRACTISES –</p> <ul style="list-style-type: none"> • Repair a small dent on a body panel / mild steel plate using basic panel beating procedures to test learners' skills. <p>DELIVER THE REPAIRS AND RESTORE THE WORK AREA –</p> <ul style="list-style-type: none"> • Clean the work area and clean and store the tools and equipment. 	<ul style="list-style-type: none"> • Oral discussion on repairs • Practical demonstration (Teacher / learners)

9 – 10	Formal Assessment	The weeks allocated for formal assessment are integrated across the weeks planned for teaching and learning. The assessment will consist of Practical Task/s with a 75% weighting and a Theory test with a 25% weighting.
<p>Activity 1 Demonstrate safe use of hand tools in an enabling task. 25%</p> <p>Activity 2 Use skills and knowledge to repair a dent. 50%</p> <p>Activity 3 Write a pen and paper assessment based on work completed in the term. 25%</p>		

Year 2 Term 1 **PANEL BEATING**

WEEK	TOPIC	CONTENT The learner is able to:	Techniques, activities, resources and process notes
1 - 2	SAFETY	<p>KEEP THE WORK AREA SAFE AND PRODUCTIVE.</p> <p>IDENTIFY AND EXPLAIN THE PURPOSE OF DEMARCATED AREAS, EMERGENCY STOPS, EXITS AND FIRST AID STATIONS –</p> <ul style="list-style-type: none"> • Demonstrate an understanding of safety rules in the workshop. • Undertake all work in a safe manner according to procedures. • Keep work area neat and tidy. • Report on safety issues. • Demonstrate an understanding of safety rules regarding HIV / AIDS and the prevention thereof. 	<ul style="list-style-type: none"> • Demonstrate an understanding of safety issues • Keep work area neat and tidy • Written presentation (Posters / signs)
3 - 4	FIREFIGHTING	<p>APPLY FIREFIGHTING TECHNIQUES</p> <p>EXPLAIN AND PRACTISE FIRE PREVENTION –</p> <ul style="list-style-type: none"> • Explain the prevention of fires in the workshop. • Explain fire prevention in relation to industry safe practices. • Explain the consequences of non-adherence to safe practices in relation to workshop procedures. 	<ul style="list-style-type: none"> • Discussion on fire prevention • Practical demonstration • Written presentation

5 - 8	HAND TOOLS	<p>SELECT, USE AND CARE FOR HAND TOOLS.</p> <p>SELECT AND USE HAND TOOLS –</p> <ul style="list-style-type: none"> Identify, select and use hand tools. Identify, select and use panel beating hand tools. <p>CARE FOR AND MAINTAIN HAND TOOLS –</p> <ul style="list-style-type: none"> Clean, maintain and store engineering and panel Panel beating hand tools in accordance with the applicable workshop requirements. <p>WORK SAFELY WITH DUE CARE FOR SELF, FELLOW WORKERS AND EQUIPMENT –</p> <ul style="list-style-type: none"> Identify and report unsafe or faulty tools. Explain and demonstrate safe working practises 	<ul style="list-style-type: none"> Oral discussion –Reference books Written presentation Practical demonstration Visual information
9 – 10	Formal Assessment	<p>The weeks allocated for formal assessment are integrated across the weeks planned for teaching and learning. The assessment will consist of Practical Task/s with a 75% weighting and a Theory test with a 25% weighting.</p> <p>Activity 1 Demonstrate safe use of hand tools in an enabling task. 25%</p> <p>Activity 2 Use skills and knowledge to practice fire prevention. 50%</p> <p>Activity 3 Write a pen and paper assessment based on work completed in the term. 25%</p>	

Year 2 Term 2 **PANEL BEATING**

WEEK	TOPIC	CONTENT The learner is able to:	Techniques, activities, resources and process notes
1 - 2	POWER TOOLS	SELECT, USE AND CARE FOR POWER TOOLS – SELECT AND USE POWER TOOLS- <ul style="list-style-type: none"> Identify power tools used for panel beating. Select and use appropriate power tools as recommended by the manufacturer. WORK SAFELY WITH DUE CARE FOR SELF, FELLOW WORKERS AND EQUIPMENT – <ul style="list-style-type: none"> Demonstrate the correct safety precautions while using power tools. 	<ul style="list-style-type: none"> Visual identification / Oral discussion Practical demonstration Written presentation (Reference books)
3 - 4	SURFACE PREPARATION	PERFORM SURFACE PREPARATION ON A BODY PANEL. READ AND INTERPRET ALL AVAILABLE INFORMATION- <ul style="list-style-type: none"> Identify and locate the body panel to be repaired. Identify the type of panel and name the material it is made from. Determine the repair process to be used. CLEAN THE BODY PANEL- <ul style="list-style-type: none"> Clean, de-wax and wash panels in accordance with the 	<ul style="list-style-type: none"> Visual identification / Oral discussion Practical demonstration (Loose panels) Written presentation (Reference books) Internet (Materials)

		<p>workshop procedures.</p> <p>PREPARE THE BODY PANEL SURFACE –</p> <ul style="list-style-type: none"> • Select the appropriate tools to be used in repair process. • Select all materials and abrasives in accordance with the job requirements. 	
5 - 8	DENT REPAIR	<p>REPAIR MINOR DENTS ON FERROUS BODY SHELL AND PARTS.</p> <p>DETERMINE THE REPAIR PROCESS OF THE DAMAGED PART –</p> <ul style="list-style-type: none"> • Identify all the tools and equipment to be used for the repairs. • Use and apply the tools and equipment correctly • Demonstrate hand sanding and feather edging operations. <p>REPAIR THE DAMAGED PART WHILE MAINTAINING SAFE WORKING PRACTISES –</p> <ul style="list-style-type: none"> • Repair the damaged part following the appropriate repair procedures. (Body filler) • Use the appropriate tools and equipment as required by the repair process. 	<ul style="list-style-type: none"> • Visual identification / oral discussion • Practical demonstration (Loose panels) • Written presentation • Internet (Repair methods)

		<ul style="list-style-type: none"> • Explain and demonstrate safe working practises <p>DELIVER THE REPAIRS AND RESTORE THE WORK AREA –</p> <ul style="list-style-type: none"> • Clean the work area and clean and store the tools and equipment. 	
9 – 10	Formal Assessment	<p>The weeks allocated for formal assessment are integrated across the weeks planned for teaching and learning. The assessment will consist of Practical Task/s with a 75% weighting and a Theory test with a 25% weighting.</p> <p>Activity 1 Demonstrate safe use of power tools in an enabling task . 25%</p> <p>Activity 2 Use skills and knowledge to practice surface preparation and dent repair. 50%</p> <p>Activity 3 Write a pen and paper assessment based on work completed in the terms. 25%</p>	

Year 2 Term 3 **PANEL BEATING**

WEEK	TOPIC	CONTENT The learner is able to:	Techniques, activities, resources and process notes
1 - 2	BODY PARTS	<p>REMOVE, REPLACE AND ALIGN BODY PARTS</p> <p>REMOVE PANEL OR BODY PARTS –</p> <ul style="list-style-type: none"> Identify damaged panel to be repaired. Select the correct tools to remove damaged panel. Remove and label the body parts, trim and accessories. Place the body parts, trim and accessories in a specified area. Removing, replacing and fixing of vehicle interior parts. <p>RESTORE THE WORK AREA –</p> <ul style="list-style-type: none"> Clean work area. Clean and store tools and equipment. 	<ul style="list-style-type: none"> Visual inspection / Oral discussion Practical demonstrations Written presentation (Reference books)
3 - 4	LIFTING EQUIPMENT	<p>SELECT AND USE VEHICLE LIFTING EQUIPMENT</p> <p>DISCUSS THE BASIC OPERATION OF AUTOMOBILE LIFTING EQUIPMENT –</p> <ul style="list-style-type: none"> Explain the purpose of lifting equipment. Describe the relationship of the lifting equipment and the mass of the vehicle. 	<ul style="list-style-type: none"> Oral discussion Written presentation (Reference books) Practical demonstration

		<p>USE A JACK –</p> <ul style="list-style-type: none"> Identify and discuss the basic operation of a jack. Inspect jack for safety before and during use. Determine load carrying capacity of a jack. Position and operate jack in accordance to prescribed procedures to eliminate risk of damage to vehicle and people. <p>USE SAFETY STANDS –</p> <ul style="list-style-type: none"> Explain the use of safety stands. Position and use safety stands correctly. <p>USE CREEPER –</p> <ul style="list-style-type: none"> Explain the use of creepers. Use creepers in a safe manner. 	
5 - 8	DENT REPAIR	<p>REPAIR MINOR DENTS ON NON-FERROUS BODY SHELL AND PARTS (FIBRE / PLASTICS).</p> <p>DETERMINE THE REPAIR PROCESS OF THE DAMAGED PART –</p> <ul style="list-style-type: none"> Determine and explain the repair process in accordance with the workshop procedures. Identify all the tools and equipment to be used for the repairs. Use and apply the tools and equipment correctly <p>REPAIR THE DAMAGED PART WHILE MAINTAINING SAFE</p>	<ul style="list-style-type: none"> Visual inspection / Oral discussion Practical demonstration (Vehicle) Internet (Repair methods)

		<p>WORKING PRACTISES –</p> <ul style="list-style-type: none"> • Repair the damaged part following the appropriate repair procedures; (cleaning, shaping, bonding, body filling and sanding). • Use the appropriate tools and equipment as required by the repair process. • Explain and demonstrate safe working practises <p>DELIVER THE REPAIRS AND RESTORE THE WORK AREA –</p> <ul style="list-style-type: none"> • Clean the work area. • Clean and store the tools and equipment. 	
9 – 10	Formal Assessment	<p>The weeks allocated for formal assessment are integrated across the weeks planned for teaching and learning. The assessment will consist of Practical Task/s with a 75% weighting and a Theory test with a 25% weighting.</p> <p>Activity 1 Demonstrate safe use of lifting equipment in an enabling task . 25%</p> <p>Activity 2 Use skills and knowledge to practice the removal of body parts and perform dent repair. 50%</p> <p>Activity 3 Write a pen and paper assessment based on work competed in the term. 25%</p>	

Year 2 Term 4 **PANEL BEATING**

WEEK	TOPIC	CONTENT The learner is able to:	Techniques, activities, resources and process notes
1 - 7	WELDING	<p>PERFORM BASIC WELDING / JOINING OF METALS (OXY-ACETYLENE WELD / BRAZE AND OR TIG WELDING).</p> <p>PREPARE FOR WORK ACTIVITY –</p> <ul style="list-style-type: none"> Identify the different heat related welding equipment used in the panel beating workshop. Select the required heat related welding equipment and consumables. Identify the different parts of the welding equipment Select and use personal protective equipment when welding. <p>WELD / JOIN METALS –</p> <ul style="list-style-type: none"> Prepare, clean and tidy work area for welding. Prepare materials for welding. Explain and demonstrate the correct and appropriate welding process. Weld the metal correctly to give a good quality finish. <p>APPLY QUALITY CHECKS ON WELD –</p> <ul style="list-style-type: none"> Clean weld correctly. Conduct visual checks for quality finishes at the end of the process. 	<ul style="list-style-type: none"> Visual inspection / Oral discussion Practical demonstration Written presentation Visit welding workshop

		<p>PERFORM FINISHING ACTIVITIES –</p> <ul style="list-style-type: none">• Clean and store equipment according to organisational procedures. <p>WORK SAFELY WITH DUE CARE FOR SELF, FELLOW WORKERS AND EQUIPMENT –</p> <ul style="list-style-type: none">• Carry-out pre-operational safety checks on equipment.• Restore work area to a safe and serviceable condition.	
8 – 10	Formal Assessment	The weeks allocated for formal assessment are integrated across the weeks planned for teaching and learning. The assessment will consist of Practical Task/s with a 75% weighting and a Theory test with a 25% weighting.	
<p>Activity 1 Perform basic welding / joining.of metals (Oxy-Acetylene welding / brazing / TIG welding) 75%</p> <p>Activity 2 Write a pen and paper assessment based on work competed in the terms. 25%</p>			

Year 3 Term 1 **PANEL BEATING**

WEEK	TOPIC	CONTENT The learner is able to:	Techniques, activities, resources and process notes
1 - 2	SAFETY	KEEP THE WORK AREA SAFE AND PRODUCTIVE USE PERSONAL PROTECTIVE EQUIPMENT – <ul style="list-style-type: none"> Identify and explain the use of personal protective equipment. Demonstrate the use of personal protective equipment. Demonstrate an understanding of safety precautions in the workshop. Undertake all work in a safe manner according to established procedures. Report on safety issues. 	<ul style="list-style-type: none"> Demonstrate an understanding of safety issues. Report on safety issues. Written presentation (Posters signs) Practical demonstration.
3 – 4	FIREFIGHTING	APPLY FIREFIGHTING TECHNIQUES OPERATE BASIC FIREFIGHTING EQUIPMENT – <ul style="list-style-type: none"> Identify the basic firefighting equipment as provided in the workshop. Demonstrate the operation of basic firefighting equipment in accordance with organizational procedures. Identify the type of firefighting equipment in relation to specific types of fires. 	<ul style="list-style-type: none"> Describe and rehearse procedures for responding to various types of fire. Written presentation. Practical demonstration.

5 - 6	POWER TOOLS	<p>SELECT, USE AND CARE FOR POWER TOOLS</p> <p>CARE FOR AND MAINTAINING POWER TOOLS –</p> <ul style="list-style-type: none"> • Clean, maintain and store power tools as per specifications. <p>CHECK ON POWER SUPPLY CONNECTIONS TO EQUIPMENT –</p> <ul style="list-style-type: none"> • Identify and take correct action with regards to unsafe and faulty power tools. <p>WORK SAFELY WITH DUE CARE FOR SELF, FELLOW WORKERS AND EQUIPMENT –</p> <ul style="list-style-type: none"> • Select and use personal protective equipment 	<ul style="list-style-type: none"> • Visual identification / oral discussion. • Practical demonstration. • Written presentation (Reference books)
7 – 8	LIFTING EQUIPMENT	<p>SELECT AND USE VEHICLE LIFTING EQUIPMENT</p> <p>OPERATE A HOIST –</p> <ul style="list-style-type: none"> • Identify and explain the function of two post / four post hoists. • Identify and name the components of the hoist. • Explain the function of the different components of the hoist. <p>CARRY OUT PRECAUTIONARY MEASURES BEFORE OPERATING A LIFTING DEVICE –</p> <ul style="list-style-type: none"> • Describe precautionary measures when using the hoist. 	<ul style="list-style-type: none"> • Oral discussions in pairs / groups. • Written information (Reference books). • Present information visually. • Practical demonstration. • Build model.

		<ul style="list-style-type: none">• Carry out pre-inspection of the hoist.• Determine load carrying capacity of the hoist. <ul style="list-style-type: none">• Position and operate hoist according to prescribed procedures. <p>Secure vehicle correctly when lifted and lowered on hoist.</p>	
9 – 10	Formal Assessment	The weeks allocated for formal assessment are integrated across the weeks planned for teaching and learning. The assessment will consist of Practical Task/s with a 75% weighting and a Theory test with a 25% weighting.	
Activity 1 Demonstrate the safe use of personal protective equipment when working with power tools . 25%			
Activity 2 Use skills and knowledge to operate basic lifting equipment.. 50%			
Activity 3 Write a pen and paper assessment based on work competed in the term. 25%			

Year 3 Term 2 **PANEL BEATING**

WEEK	TOPIC	CONTENT The learner is able to:	Techniques, activities, resources and process notes
1 – 3	BODY CONSTRUCTION	<p>UNDERSTANDING THE BODY CONSTRUCTION AND SAFETY FEATURES OF A VEHICLE.</p> <p>BODY CONSTRUCTIONS –</p> <ul style="list-style-type: none"> Identify and explain the different body construction of motor vehicles. <p>COMPILE A LIST OF BODY COMPONENTS –</p> <ul style="list-style-type: none"> Compile an accurate list of body components that include shell components, removable components, trim and accessories. <p>COMPILE A LIST OF MATERIALS USED IN BODY CONSTRUCTION –</p> <ul style="list-style-type: none"> Compile a list of materials used in the body construction that includes ferrous and non-ferrous metals, coated metal, treated metal, plastic, carbon fibre, synthetics, leather, glass, rubber and PVC 	<ul style="list-style-type: none"> Oral discussions in pairs / groups. Access information from reference books. Written presentation. Practical demonstration (second-hand panels can be used)

4 – 8	BODY PARTS	<p>REMOVE, REPLACE AND ALIGN BODY PARTS</p> <p>REPLACE AND ALIGN THE BODY PARTS, TRIM AND ACCESSORIES –</p> <ul style="list-style-type: none">• Fit and align body parts trim and accessories in accordance with the job requirement and specifications.• Discuss different methods of aligning body parts by using measuring equipment. <p>RESTORE THE WORK AREA –</p> <ul style="list-style-type: none">• Clean the work area• Clean and store tools and equipment.	<ul style="list-style-type: none">• Practical demonstration.• Visual inspection.• Written presentation.• Internet
9 – 10	Formal Assessment	The weeks allocated for formal assessment are integrated across the weeks planned for teaching and learning. The assessment will consist of Practical Task/s with a 75% weighting and a Theory test with a 25% weighting.	
<p>Activity 1 Identify body constructions and compile a list of body components. 25%</p> <p>Activity 2 Replace and align body parts , trim and accessories on vehicle... 50%</p> <p>Activity 3 Write a pen and paper assessment based on work competed in the terms. 25%</p>			

Year 3 Term 3 **PANEL BEATING**

WEEK	TOPIC	CONTENT The learner is able to:	Techniques, activities, resources and process notes
1 - 8	DENT REPAIR	<p>REPAIR MAJOR DENTS ON FERROUS BODY SHELL AND PARTS</p> <p>DETERMINE THE REPAIR PROCESS OF THE DAMAGED PART –</p> <ul style="list-style-type: none"> • Determine and explain the repair process in accordance with the workshop procedures. • Identify all the tools and equipment to be used for the repairs • Use and apply the tools correctly <p>REPAIR THE DAMAGED PART WHILE MAINTAINING SAFE WORKING PRACTICES –</p> <ul style="list-style-type: none"> • Repair the damaged part following the appropriate repair procedures, cleaning, shaping, assembling and finishing of the part in accordance with the job requirements. • Use the appropriate tools and equipment as required by the repair process. • Explain and demonstrate safe working practices that include the safe storage of removed parts. 	<ul style="list-style-type: none"> • Oral discussions on safety measures. • Practical demonstration. • Written presentation

		<p>PERFORM A QUALITY EVALUATION OF THE REPAIRED PART –</p> <ul style="list-style-type: none"> Evaluate the repaired part and identify defects on repairs. <p>DELIVER THE REPAIRS AND RESTORE THE WORK AREA –</p> <ul style="list-style-type: none"> Clean the work area and clean and store the tools and equipment. 	
9 – 10	Formal Assessment	The weeks allocated for formal assessment are integrated across the weeks planned for teaching and learning. The assessment will consist of Practical Task/s with a 75% weighting and a Theory test with a 25% weighting.	
<p>Activity 1 Prepare and apply fillers on a body panel . 25%</p> <p>Activity 2 .Determine the repair process and preform dent repair on the damaged area.. 50%</p> <p>Activity 3 Write a pen and paper assessment based on work competed in the term. 25%</p>			

Year 3 Term 4 **PANEL BEATING**

WEEK	TOPIC	CONTENT The learner is able to:	Techniques, activities, resources and process notes
1 - 7	WELDING	<p>PERFORM BASIC WELDING / JOINING OF METALS (MIG – WELDING / BRAZING AND OR ARC WELDING)</p> <p>PREPARE FOR WORK ACTIVITY –</p> <ul style="list-style-type: none"> Identify the different heat related welding / brazing equipment used in the panel beating workshop. Select the required heat related welding / brazing equipment and consumables. Identify the different parts of the welding / brazing equipment Select and use personal protective equipment when welding / brazing <p>WELD / JOIN METALS –</p> <ul style="list-style-type: none"> Prepare, clean and tidy work area for welding / brazing. Prepare materials for welding / brazing. Explain and demonstrate the correct and appropriate welding / brazing process. Weld / braze the metal correctly to give a good quality finish <p>APPLY QUALITY CHECKS ON WELD / BRAZE –</p>	<ul style="list-style-type: none"> Visual inspection / Oral discussion. Practical demonstration. Written presentation. Visit welding shop.

		<ul style="list-style-type: none">• Clean weld / braze correctly.• Conduct visual checks for quality finishes at the end of the process. <p>PERFORM FINISHING ACTIVITIES –</p> <ul style="list-style-type: none">• Clean and store equipment according to organisational procedures. <p>WORK SAFELY WITH DUE CARE FOR SELF, FELLOW WORKERS AND EQUIPMENT –</p> <ul style="list-style-type: none">• Carry out pre-operational safety checks on equipment.• Restore work area to a safe and serviceable condition.	
8 – 10	Formal Assessment	The weeks allocated for formal assessment are integrated across the weeks planned for teaching and learning. The assessment will consist of Practical Task/s with a 75% weighting and a Theory test with a 25% weighting.	
Activity 1 Preform basic welding / joining.of metals (Mig - welding) 75%			
Activity 2 Write a pen and paper assessment based on work competed in the terms. 25%			

Year 4 Term 1 **PANEL BEATING**

WEEK	TOPIC	CONTENT The learner is able to:	Techniques, activities, resources and process notes
1 – 2	SAFETY	KEEP THE WORK AREA SAFE AND PRODUCTIVE IDENTIFY AND RESPOND TO UNSAFE OR POTENTIALLY UNSAFE CONDITIONS, INCIDENTS OR ACTS THAT MAY OCCUR – <ul style="list-style-type: none"> • Demonstrate an understanding of safety issues in the workshop. • Undertake all work in a safe manner according to established procedures. • Report on safety issues. • Keep work area neat and tidy. 	<ul style="list-style-type: none"> • Demonstrate an understanding of safety issues. • Report on safety issues. • Written presentation (posters / signs) . • Practical demonstration • Oral discussion in groups.
3 – 4	FIREFIGHTING	APPLY FIREFIGHTING TECHNIQUES PERFORM BASIC FIREFIGHTING PROCEDURES – <ul style="list-style-type: none"> • Explain and demonstrate the steps to be taken when fighting fires in accordance with organizational procedures. • Explain the precautions to be taken when fighting fires according to organizational procedures. • Describe the steps to be taken when containing fires in accordance with organizational procedures. 	<ul style="list-style-type: none"> • Written presentation • Practical demonstration

5 – 6	POWER TOOLS	<p>SELECT, USE AND CARE FOR POWER TOOLS.</p> <p>SELECT AND USE POWER TOOLS –</p> <ul style="list-style-type: none"> Identify risks and hazards related to the various power supply sources. <p>RECOGNISE AND REPORT PROBLEMS, / CHANGES AND /OR MALFUNCTIONS WHILE WORKING –</p> <ul style="list-style-type: none"> Report problems timeously to appropriate personnel. Explain and discuss consequences of incorrectly using power tools e.g. Injuries. <p>WORK SAFELY WITH DUE CARE FOR SELF, FELLOW WORKERS AND EQUIPMENT –</p> <ul style="list-style-type: none"> Identify safety hazards associated with the use of power tools and take appropriate corrective action 	<ul style="list-style-type: none"> Oral discussions in pairs and in groups Access information from reference books Practical demonstration
7 – 8	SEALERS	<p>APPLY SEALERS AND CAVITY FILLERS ON VEHICLES</p> <p>DEMONSTRATE KNOWLEDGE OF APPLICATION OF SEALERS AND CAVITY FILLERS –</p> <ul style="list-style-type: none"> Explain the purpose of using sealers and cavity fillers in terms of the manufacturers design. Explain the methods of removing old sealer from panels. <p>PREPARE FOR APPLICATION OF SEALERS AND CAVITY FILLERS –</p>	<ul style="list-style-type: none"> Written presentation Present information visually Access information from internet Practical demonstration.

		<ul style="list-style-type: none">Remove the existing sealer in accordance with manufacturer specifications.Prepare the surfaces in accordance with manufacturers specifications. <p>APPLY SEALERS AND CAVITY FILLERS –</p> <ul style="list-style-type: none">Identify the different sealers and cavity fillers.Demonstrate different methods of applying sealer and cavity fillers. <p>APPLY SAFETY PROCEDURES DURING THE APPLICATION PROCESS –</p> <ul style="list-style-type: none">Adhere to all workplace safety warnings and required action before, during and after applying sealer.	
9 – 10	Formal Assessment	The weeks allocated for formal assessment are integrated across the weeks planned for teaching and learning. The assessment will consist of Practical Task/s with a 75% weighting and a Theory test with a 25% weighting.	
<p>Activity 1 Identify unsafe conditions when performing basic firefighting procedures and when handling power tools. 25%</p> <p>Activity 2 Demonstrate the knowledge of applying sealers and cavity fillers.. 50%</p> <p>Activity 3 Write a pen and paper assessment based on work completed in the term. 25%</p>			

Year 4 Term 2 **PANEL BEATING**

WEEK	TOPIC	CONTENT The learner is able to:	Techniques, activities, resources and process notes
1 – 3	BODY CONSTRUCTION	<p>UNDERSTAND THE BODY CONSTRUCTION AND SAFETY FEATURES OF A VEHICLE</p> <p>COMPILE A LIST OF SAFETY FEATURES IN A VEHICLE-</p> <ul style="list-style-type: none"> • Compile an accurate list of safety features used in the vehicle construction that include all supplementary restraint systems and crumple zones. <p>INTERACT WITH OTHERS TO IDENTIFY THE ACTIVATING MECHANISMS AND FUNCTIONS OF THE SAFETY FEATURES ON A VEHICLE –</p> <ul style="list-style-type: none"> • Identify the activating mechanisms and functions of the safety features on a vehicle. 	<ul style="list-style-type: none"> • Assess information from reference books or suitable resources. • Oral discussions in pairs and groups. • Written presentation • Practical demonstration
4 – 5	WHEEL ALIGNMENT	<p>APPLY BASIC WHEEL ALIGNMENT TECHNIQUES</p> <p>EXPLAIN AND DEMONSTRATE –</p> <ul style="list-style-type: none"> • Toe in / toe out • Camber / caster • Measurements between rear and front axles 	<ul style="list-style-type: none"> • Written presentation • Internet (YouTube videos) • Practical demonstration • Wheel alignment centres

6 - 8	BODY PARTS	<p>REMOVE, REPLACE AND ALIGN BODY PARTS</p> <p>ASSESS THE DAMAGE AND DETERMINE THE EXTENT OF REPAIRS –</p> <ul style="list-style-type: none">Assess the damage to the body parts and determine the extent of repairs.Identify and de-activate the safety restraint system and correctly label parts according to manufactures specifications. <p>RESTORE THE WORK AREA, COMPLETE AND PROCESS DOCUMENTATION –</p> <ul style="list-style-type: none">Complete all relevant documents; such as job cards, check sheets and reports.	<ul style="list-style-type: none">Assess manufacturers' manuals by using internetWritten presentationPractical demonstrationPresent information visually
9 – 10	Formal Assessment	The weeks allocated for formal assessment are integrated across the weeks planned for teaching and learning. The assessment will consist of Practical Task/s with a 75% weighting and a Theory test with a 25% weighting.	
<p>Activity 1 Assess the damage on body parts and compile a list of safety features on a vehicle.. . 75%</p> <p>Activity 2 Write a pen and paper assessment based on work competed in the terms. 25%</p>			

Year 4 Term 3 **PANEL BEATING**

WEEK	TOPIC	CONTENT The learner is able to:	Techniques, activities, resources and process notes
1 - 4	SURFACE PREPARATION	<p>PERFORM SURFACE PREPARATION ON A BODY PANEL</p> <p>INTERACT WITH OTHERS TO PERFORM A QUALITY CHECK ON THE SURFACE PREPARED AREA –</p> <ul style="list-style-type: none"> Inspect visually and physically the prepared surface in accordance with the workshop standards. Identify flaws such as imperfections, styling, lines, curves, holes and scratches in the surface preparation and explain their causes. 	<ul style="list-style-type: none"> Assess information from reference books and internet. Oral discussions in groups. Present visual information Written information Practical demonstration
5 - 8	DENT REPAIR	<p>REPAIR MAJOR DENTS ON FERROUS BODY SHELL AND PARTS</p> <p>DETERMINE THE REPAIR PROCESS OF THE DAMAGED PART –</p> <ul style="list-style-type: none"> Explain the use of chassis straightening equipment in the repair process. Identify the different chassis straightening equipment that can be used in the repair process Discuss the function of the following chassis 	<ul style="list-style-type: none"> Practical examples of imperfections Written information Visual inspections Refer to appropriate literature.

		<p>straightening equipment: Porto Power or Dozer or Korek</p> <p>REPAIR THE DAMAGED PART WHILE MAINTAINING SAFE WORKING PRACTISES –</p> <ul style="list-style-type: none">• Repair under supervision the damaged part by using chassis straightening equipment.• Explain and demonstrate safe working practises when using chassis straightening equipment. <p>PERFORM A QUALITY EVALUATION OF THE REPAIRED PART –</p> <ul style="list-style-type: none">• Evaluate the repaired part and identify defects. <p>DELIVER THE REPAIRS AND RESTORE THE WORK AREA –</p> <ul style="list-style-type: none">• Deliver the repairs correctly and complete work.• Clean the work area and clean and store the tools and equipment.	
9 – 10	Formal Assessment	The weeks allocated for formal assessment are integrated across the weeks planned for teaching and learning. The assessment will consist of Practical Task/s with a 75% weighting and a Theory test with a 25% weighting.	
<p>Activity 1 Perform a quality check on the prepared surface. . 25%</p> <p>Activity 2 Determine the repair process and preform dent repairs. 50%</p> <p>Activity 3 Write a pen and paper assessment based on work competed in the term. 25%</p>			

Year 4 Term 4 **PANEL BEATING**

WEEK	TOPIC	CONTENT Revision and Consolidation:	Techniques, activities, resources and process notes
1	SAFETY	<ul style="list-style-type: none"> Name, discuss and explain general safety rules Identify and explain the purpose of demarcated areas, emergency stops, exits and first aid stations Use personal protective equipment Identify and respond to unsafe or potentially unsafe conditions, incidents or acts that may occur 	<ul style="list-style-type: none"> Present information visually. Oral discussion in groups. Assess information from reference and books. Written presentation. Practical demonstration.
	FIREFIGHTING	<ul style="list-style-type: none"> Identify different types of fires Explain and practise fire prevention Operate basic fire- fighting equipment Perform basic fire -fighting procedures 	
2	SURFACE PREPARATION	<ul style="list-style-type: none"> Prepare the body panel surface with abrasives Identify, mix and apply fillers on the body panel 	
	DENT REPAIR	<ul style="list-style-type: none"> Repair minor dents on ferrous body shell and parts Repair major dents on ferrous body shell and parts 	
	WHEEL ALIGNMENT	<ul style="list-style-type: none"> Toe in / toe out Camber / caster Measurements between rear and front axles 	

3	HAND TOOLS / POWER TOOLS	<ul style="list-style-type: none">Select and use engineering hand and power tools
	LIFTING EQUIPMENT	<ul style="list-style-type: none">Discuss the basic operation of automobile lifting equipment
4	BODY CONSTRUCTION / PARTS	<ul style="list-style-type: none">Understand the body construction and parts of a vehicle
	WELDING	<ul style="list-style-type: none">Perform basic welding / joining of metals (Oxy Acetylene weld / Braze, MIG Welding or TIG Welding)
5-10	External examination	External moderation of school assessment over terms 1, 2 and 3 = 50% of qualification Complete external Practical Assessment Task (PAT) = 25% of qualification Formal external assessment written test or oral = 25% of qualification

3.3 Content overview **Spray Painting**

TOPIC	Year 1	Year 2	Year 3	Year 4
1. Safety	General safety rules in workshop	Emergency areas, exits and first aid stations	Personal protective equipment	Unsafe acts or conditions that may occur
2. Firefighting	Types of fires	Fire prevention	Firefighting equipment	Fire-fighting procedures
3. Hand Tools		Safe use and maintenance of spray painting hand tools		
4. Power Tools			Safe use and maintenance of spray painting power tools	
5. Surface Preparation	Clean and prepare body panel surface	Mix and apply spot fillers Hand sanding	Finish off surface Machine sanding	
6. Primer / Paint	Mix and spray primers (1K) Spray paint (1K)	Mix and spray fillers Primers / fillers and 2K materials	Mix and spray 2K paint / Waterborne	Mix and spray 2K Basecoat / clear coat / Waterborne
7. Masking		Prepare and mask areas	Remove masking	
8. Spray Equipment		Identify and use spray equipment	Correct use of spray guns	Maintain spray equipment
9. Spray Painting		Prepare for paint application	Spray painting techniques	Spray painting defects
10. Sealers			Identification and application of sealers	Application of sealers
11. Polishing		Identify polishing products Hand polishing	Polish painted areas Machine polishing	Safety procedures during application
12. Valet		Washing of vehicle	Valet of vehicle	
13. Colour Matching				Mixing basic colours

3.4 CONTENT OUTLINE PER TERM

Year 1 SPRAY PAINTING

WEEK	TOPIC	CONTENT The learner is able to:	Techniques, activities, resources and process notes
1 – 2	SAFETY	KEEP THE WORK AREA SAFE AND PRODUCTIVE NAME, DISCUSS AND EXPLAIN GENERAL SAFETY RULES – <ul style="list-style-type: none">• Demonstrate an understanding of safety rules in the workshop.• Keep work area neat and tidy.	<ul style="list-style-type: none">• Oral discussions (10 Basic rules)• Posters and signs.• Written presentations.
3 – 4	FIREFIGHTING	APPLY FIREFIGHTING TECHNIQUES IDENTIFY DIFFERENT TYPES OF FIRES – <ul style="list-style-type: none">• Identify the causes of fire in the workshop.• Explain the different types of fires that can occur in the workshop.	<ul style="list-style-type: none">• Oral discussions.• Practical demonstration.• Written presentations.• Research (4 Basic Fires)
5 – 6	SURFACE PREPARATION	PERFORM SURFACE PREPARATION ON A BODY PANEL CLEAN THE BODY PANEL – <ul style="list-style-type: none">• Clean body panels by using various types of degreasing liquids.	<ul style="list-style-type: none">• Oral discussions.• Practical demonstrations.• Written presentations.

		<p>PREPARE THE BODY PANEL SURFACE WITH ABRASIVES –</p> <ul style="list-style-type: none"> • Select the appropriate grit and type of abrasives to prepare body panel surface. • Demonstrate and perform the sanding operation in accordance with the job requirement. <p>RESTORE THE WORK AREA –</p> <ul style="list-style-type: none"> • Clean the work area. 	
7 – 8	PRIMER / PAINT	<p>IDENTIFY THE VARIOUS TYPES OF PAINT, PRIMERS, MATERIAL AND THEIR USES:</p> <p>IDENTIFY THE DIFFERENT TYPES OF PRIMER</p> <ul style="list-style-type: none"> • Identify and explain the use of the following primer (1K Grey Primer) • Demonstrate the correct use of 1K Grey Primer in accordance with manufacturer's manual • Apply 1K Solid Paint on a body panel. <p>RESTORE THE WORK AREA –</p> <ul style="list-style-type: none"> • Use safety masks in accordance with workshop 	<ul style="list-style-type: none"> • Oral discussions. • Written presentations. • Practical demonstration (cheaper primer can be used)

		<p>regulations.</p> <ul style="list-style-type: none"> • Clean and restore the work area, tools and equipment 	
9 – 10	Formal Assessment	<p>The weeks allocated for formal assessment are integrated across the weeks planned for teaching and learning. The assessment will consist of Practical Task/s with a 75% weighting and a Theory test with a 25% weighting.</p> <p>Activity 1 Identify different types of fires and explain general safety rules. 25%</p> <p>Activity 2 Perform surface preparation and apply primer on a surface. 50%</p> <p>Activity 3 Write a pen and paper assessment based on work completed in the term. 25%</p>	

Year 2 Term 1 **SPRAY PAINTING**

WEEK	TOPIC	CONTENT The learner is able to:	Techniques, activities, resources and process notes
1 – 2	SAFETY	KEEP THE WORK AREA SAFE AND PRODUCTIVE IDENTIFY AND EXPLAIN THE PURPOSE OF DEMARCATED AREAS, EMERGENCY STOPS, EXITS AND FIRST AID STATIONS – <ul style="list-style-type: none"> • Demonstrate an understanding of safety rules in the workshop. • Undertake all work in a safe manner according to procedures. • Keep work area neat and tidy. • Report on safety issues. • Demonstrate an understanding of safety rules regarding HIV / AIDS and the prevention thereof. 	<ul style="list-style-type: none"> • Demonstrate an understanding of safety issues. • Keep work area neat and tidy. • Written presentation (Posters / Signs).
3 – 4	FIREFIGHTING	APPLY FIREFIGHTING TECHNIQUES EXPLAIN AND PRACTISE FIRE PREVENTION – <ul style="list-style-type: none"> • Explain the prevention of fires in the workshop. • Explain fire prevention in relation to industry safe practices. • Explain the consequences of non-adherence to safe practices in relation to workshop procedures. 	<ul style="list-style-type: none"> • Discussion of fire prevention. • Written presentation. • Practical demonstration.

5 – 8	VALET	<p>EXPLAIN THE CORRECT USE OF WASHING MATERIALS</p> <p>IDENTIFY DIFFERENT TYPES OF CLEANING MATERIALS –</p> <ul style="list-style-type: none">• Identify the different types of soap and cleaning materials to be used when washing a vehicle.• Demonstrate the correct use of the different types of soaps and materials used to wash a vehicle. <p>IDENTIFY THE DIFFERENT STEPS OF WASHING A VEHICLE –</p> <ul style="list-style-type: none">• Identify and explain the 10 steps that must be followed when washing a vehicle.• Demonstrate the correct washing methods as indicated by the 10 steps.• Conduct visual checks for quality finishes at the end of the washing process.	<ul style="list-style-type: none">• Written presentation.• Discussion of washing method.• Practical demonstration.• Visit a valet centre• Encourage parents to buy proper spray paint masks which they can use year 2, 3 and 4
9 – 10	Formal Assessment	The weeks allocated for formal assessment are integrated across the weeks planned for teaching and learning. The assessment will consist of Practical Task/s with a 75% weighting and a Theory test with a 25% weighting.	
<p>Activity 1 Demonstrate fire prevention while adhering to safety rules. 25%</p> <p>Activity 2 Identify cleaning materials during the valet process. 50%</p> <p>Activity 3 Write a pen and paper assessment based on work competed in the term. 25%</p>			

Year 2 Term 2 **SPRAY PAINTING**

WEEK	TOPIC	CONTENT The learner is able to:	Techniques, activities, resources and process notes
1 – 2	HAND TOOLS	SELECT, USE AND CARE FOR HAND TOOLS SELECT AND USE HAND TOOLS – <ul style="list-style-type: none"> Identify and explain all the hand tools that can be used in the spray paint workshop. Demonstrate the ability to apply the various engineering hand tools in their different applications. Refer to appropriate literature when explaining the use of the hand tools. CARE FOR AND MAINTAIN HAND TOOLS- <ul style="list-style-type: none"> Carry out the maintenance of hand tools in accordance with the applicable requirements and work place procedures. Confirm the understanding of the maintenance process. 	<ul style="list-style-type: none"> Oral discussion – reference books. Written presentation. Practical demonstration. Visual information.
3 – 4	MASKING	PERFORM MASKING AND DE- MASKING ON A VEHICLE IDENTIFY THE AREA TO BE MASKED – <ul style="list-style-type: none"> Identify the area to be masked correctly. Determine the scope of the masking required in accordance with the workshop procedures. 	<ul style="list-style-type: none"> Visual identification. Written presentation. Practical demonstration. Internet (Materials).

		<p>PREPARE THE VEHICLE FOR CLEANING AND MASKING –</p> <ul style="list-style-type: none"> Follow the appropriate workshop procedures to position, prepare and clean the vehicle prior to masking. Identify the appropriate masking material obtained in accordance with the workshop procedures. <p>MASK THE IDENTIFIED AREA ON THE VEHICLE –</p> <ul style="list-style-type: none"> Apply the appropriate masking material and techniques for the specific area. Mask the area in accordance with the job requirement. <p>RESTORE THE WORK AREA –</p> <ul style="list-style-type: none"> Clean the work area in accordance to workshop procedures. Store all masking materials. 	
5 – 8	SPRAY EQUIPMENT	<p>USE AND MAINTAIN SPRAY PAINTING EQUIPMENT (COMPRESSOR / AIR REGULATOR / FANS / MASKS / SPRAY GUNS)</p> <p>DEMONSTRATE THE KNOWLEDGE OF USING SPRAY PAINTING EQUIPMENT. –</p> <ul style="list-style-type: none"> Identify the spray painting equipment used in the workshop. Name and discuss the function of the main parts of the spray paint equipment. Demonstrate the correct use of the spray paint equipment. 	<ul style="list-style-type: none"> Visual identification. Written presentation. Practical demonstration (Second-hand panels may be used).

		<p>PREPARE TO MAINTAIN SPRAY PAINTING EQUIPMENT</p> <ul style="list-style-type: none"> • Identify equipment to be maintained in the workshop • Maintain the equipment in accordance with manufacturer specifications and workshop requirements. <p>CONDUCT MAINTENANCE OF SPRAY PAINTING EQUIPMENT</p> <p>–</p> <ul style="list-style-type: none"> • Clean equipment according to workshop requirements. • Use solvents and cleaning agents that are appropriate to the component. • Check maintained equipment for functionality. <p>APPLY SAFETY PROCEDURES DURING THE MAINTENANCE PROCESS –</p> <ul style="list-style-type: none"> • Adhere to all workshop safety warnings and required actions before, during and after maintenance. . 	
9 – 10	Formal Assessment	<p>The weeks allocated for formal assessment are integrated across the weeks planned for teaching and learning. The assessment will consist of Practical Task/s with a 75% weighting and a Theory test with a 25% weighting.</p> <p>Activity 1 Prepare and mask the identified area not to be sprayed on a vehicle. 25%</p> <p>Activity 2 Use and maintain spray equipment safely. 50%</p> <p>Activity 3 Write a pen and paper assessment based on work competed in the terms. 25%</p>	

Year 2 Term 3 **SPRAY PAINTING**

WEEK	TOPIC	CONTENT The learner is able to:	Techniques, activities, resources and process notes
1 – 2	SURFACE PREPARATION	<p>PERFORM SURFACE PREPARATION ON A BODY PANEL</p> <p>CLEAN THE BODY PANEL –</p> <ul style="list-style-type: none"> • Demonstrate the various types of panels and their composition. • Clean panels in accordance with the workshop procedures. <p>PREPARE THE BODY PANEL SURFACE WITH ABRASIVES –</p> <ul style="list-style-type: none"> • Select the appropriate grit and type of abrasives in accordance with the job requirement. • Demonstrate and perform wet / dry hand sanding operation in accordance with the job requirement. <p>IDENTIFY, MIX AND APPLY FILLERS ON THE BODY PANEL IN A SAFE AND AWARE MANNER –</p> <ul style="list-style-type: none"> • Identify and mix 1K primers / fillers in accordance with the job requirement. <p>NB: Masking should be done before primers / fillers are applied.</p> <ul style="list-style-type: none"> • Apply and shape the filler in accordance with the job requirement. 	<ul style="list-style-type: none"> • Oral discussion – Reference books. • Practical demonstration. • Written presentation.

		<ul style="list-style-type: none"> Explain and demonstrate safe working practices. <p>INTERACT WITH OTHERS TO PERFORM A QUALITY CHECK ON THE PREPARED AREA –</p> <ul style="list-style-type: none"> Inspect the repaired surface areas to identify flaws Explain the causes of flaws in the surface preparation <p>RESTORE THE WORK AREA –</p> <ul style="list-style-type: none"> Clean the work area, tools and equipment. 	
3 – 5	PRIMER / PAINT	<p>IDENTIFY THE VARIOUS TYPES OF PAINT, PRIMERS, MATERIAL AND THEIR USES.</p> <p>IDENTIFY THE DIFFERENT TYPES OF PAINT AND PRIMERS –</p> <ul style="list-style-type: none"> Identify and explain the use of the following primers (1K ETCH Primer / 1 K Red Oxide / 1K Plastic Primer / 2K ETCH Primer / 2K MS Primer Filler) Demonstrate the correct use of 1K and 2K Primers in accordance to manufacturers' manuals. Mix and apply the different types of primers and fillers. <p>IDENTIFY THE DIFFERENT TYPES OF MATERIALS –</p> <ul style="list-style-type: none"> Identify and explain the use of the following materials (2K Thinners / Hardeners) Demonstrate the correct use of 2K Thinners / Hardeners in accordance with manufacturers' manuals. Mix and apply 2K Thinners / Hardeners with primers / fillers and apply on a body panel. 	<ul style="list-style-type: none"> Oral discussions. Written presentation. Practical demonstration. Visual information.

		<p>RESTORE THE WORK AREA –</p> <ul style="list-style-type: none"> • Use safety masks in accordance to workshop regulations. • Clean and store the work area, tools and equipment. 	
6 – 8	SPRAY PAINTING	<p>PERFORM BASIC SPRAY PAINTING</p> <p>PREPARE TO APPLY A PAINT APPLICATION ON A BODY PANEL. –</p> <ul style="list-style-type: none"> • Prepare the body panel by mounting it on trestles or masking it off on the vehicle. • Prepare the body panel by cleaning and sanding it in accordance with job requirement. • Demonstrate the ability to select and use the appropriate tools and equipment to perform the paint application. <p>PERFORM SPRAY PAINTING TECHNIQUES –</p> <ul style="list-style-type: none"> • Demonstrate the appropriate spray techniques which include: Distance control Application control Angle control Trigger control Paint thickness <p>APPLY PAINT IN A SAFE AND AWARE MANNER</p> <ul style="list-style-type: none"> • Identify and clearly explain the safety precautionary measures to be taken. 	<ul style="list-style-type: none"> • Discussions on procedures. • Written presentation. • Media

		<ul style="list-style-type: none">Discuss the use of personal protective equipment.	
9 – 10	Formal Assessment	The weeks allocated for formal assessment are integrated across the weeks planned for teaching and learning. The assessment will consist of Practical Task/s with a 75% weighting and a Theory test with a 25% weighting.	
Activity 1 Preform surface preparation on a body panel. 25%			
Activity 2 Identify and apply different types of primer and paint on a panel. 50%			
Activity 3 Write a pen and paper assessment based on work competed in the term. 25			

Year 2 Term 4 **SPRAY PAINTING**

WEEK	TOPIC	CONTENT The learner is able to:	Techniques, activities, resources and process notes
1 – 7	POLISHING	<p>POLISH AUTOMOTIVE PAINTED PANELS</p> <p>DEMONSTRATE KNOWLEDGE OF POLISHING PAINTED PANELS –</p> <ul style="list-style-type: none"> • Explain the purpose of polishing painted panels in terms of improving gloss or eliminating paint imperfections. • Identify different polishing materials according to their intended use (Hand application). • Identify methods of hand polishing and the type of equipment for the required improvement. • Identify and remove imperfections by sanding it down to a smooth surface. <p>POLISH PAINTED PANELS –</p> <ul style="list-style-type: none"> • Use the correct hand polishing method that is appropriate to the size and type of panel being polished. • Confirm paint imperfections to be removed through the polishing process. 	<ul style="list-style-type: none"> • Visual identification. • Oral discussion. • Written presentation. • Practical demonstration. • Internet (Materials).

		<p>APPLY SAFETY PROCEDURES DURING THE APPLICATION PROCESS –</p> <ul style="list-style-type: none"> Polish the panel without incident, accident or injury. <p>RESTORE WORK AREA –</p> <ul style="list-style-type: none"> Clean and store tools, equipment and material in accordance with workshop procedures. 	
8 – 10	Formal Assessment	<p>The weeks allocated for formal assessment are integrated across the weeks planned for teaching and learning. The assessment will consist of Practical Task/s with a 75% weighting and a Theory test with a 25% weighting.</p> <p>Activity 1 Demonstrate the knowledge of polishing painted panels safely.. 75%</p> <p>Activity 2 Write a pen and paper assessment based on work completed in the terms. 25%</p>	

Year 3 Term 1 **SPRAY PAINTING**

WEEK	TOPIC	CONTENT The learner is able to:	Techniques, activities, resources and process notes
1 – 2	SAFETY	KEEP THE WORK AREA SAFE AND PRODUCTIVE USE PERSONAL PROTECTIVE EQUIPMENT – <ul style="list-style-type: none"> Identify and explain the use of personal equipment Demonstrate the use of personal protective equipment Demonstrate an understanding of safety precautions in the workshop Undertake all work in a safe manner according to established procedures. Report on safety issues. 	<ul style="list-style-type: none"> Demonstrate an understanding of safety issues. Report on safety issues. Written presentation (Posters / Signs). Practical demonstration.
3 – 4	FIREFIGHTING	APPLY FIREFIGHTING TECHNIQUES OPERATE BASIC FIREFIGHTING EQUIPMENT – <ul style="list-style-type: none"> Identify the basic firefighting equipment as provide in the workshop Demonstrate the operation of basic firefighting equipment in accordance with organizational procedures. Identify the type of firefighting equipment in relation to specific types of fires. 	<ul style="list-style-type: none"> Describe and rehearse procedures for responding to various types of fire. Written presentation. Practical demonstration. Fire brigade (Demonstration).

5 – 6	HAND TOOLS	<p>SELECT, USE AND CARE FOR POWER TOOLS</p> <p>CARE FOR AND MAINTAIN POWER TOOLS –</p> <ul style="list-style-type: none"> • Confirm the understanding of the maintenance process by responding accurately to task related questions. • Recognise and report problems, changes and or malfunctions while working with spray painting power tools. <p>WORK SAFELY WITH DUE CARE FOR SELF, FELLOW WORKERS, EQUIPMENT, MATERIALS AND THE ENVIRONMENT –</p> <ul style="list-style-type: none"> • Explain and demonstrate safe working practises. • Safe working practises must include the use of appropriate personal protective equipment. 	<ul style="list-style-type: none"> • Oral discussion – Reference books. • Written presentation. • Visual information. • Practical demonstration.
7 – 8	VALET	<p>EXPLAIN THE CORRECT USE OF CLEANING EQUIPMENT</p> <p>IDENTIFY THE DIFFERENT TOOLS AND EQUIPMENT</p> <ul style="list-style-type: none"> • Identify all the tools and equipment needed to valet a vehicle. • Demonstrate the use of all tools and equipment that is used to valet a vehicle. 	<ul style="list-style-type: none"> • Written presentation. • Practical demonstration. • Visual inspection. • Visit a valet centre.

		<p>APPLY SAFETY PROCEDURES DURING THE VALET PROCESS.</p> <ul style="list-style-type: none"> • Adhere to all safety procedures and required actions before, during and after using valet equipment. • Dispose hazardous materials in accordance with workshop and legislative requirements. <p>RESTORE WORK AREA -</p> <ul style="list-style-type: none"> • Clean and store tools, equipment and material in accordance with workshop requirements. • Conduct visual checks for quality finishes at the end of the working process. 	
9 – 10	Formal Assessment	<p>The weeks allocated for formal assessment are integrated across the weeks planned for teaching and learning. The assessment will consist of Practical Task/s with a 75% weighting and a Theory test with a 25% weighting.</p> <p>Activity 1 Use personal protective equipment when operating basic fire fighting equipment. 25%</p> <p>Activity 2 Maintain and use engineering hand tools safely during the valet process. 50%</p> <p>Activity 3 Write a pen and paper assessment based on work competed in the term. 25%</p>	

Year 3 Term 2 **SPRAY PAINTING**

WEEK	TOPIC	CONTENT The learner is able to:	Techniques, activities, resources and process notes
1 - 3	SURFACE PREPARATION	<p>PERFORM SURFACE PREPARATION ON A BODY PANEL</p> <p>CLEAN THE BODY PANEL –</p> <ul style="list-style-type: none"> • Demonstrate the various types of panels and their composition. • Clean panels in accordance with the workshop procedures <p>PREPARE THE BODY PANEL SURFACE WITH ABRASIVES –</p> <ul style="list-style-type: none"> • Select the appropriate grit and type of abrasives in accordance with the job requirements. • Demonstrate and perform the machine sanding operation in accordance with the job requirement. <p>IDENTIFY, MIX AND APPLY FILLERS ON THE BODY PANEL IN A SAFE AND AWARE MANNER –</p> <ul style="list-style-type: none"> • Identify and mix 2K fillers in accordance with the job requirement (new technology fillers can be used). • Apply and shape the filler in accordance with the job requirement. 	<ul style="list-style-type: none"> • Oral discussions – Reference books. • Practical demonstration. • Interact with others to perform a quality check of area.

		<ul style="list-style-type: none"> • Explain and demonstrate safe working practices. <p>INTERACT WITH OTHERS TO PERFORM A QUALITY CHECK ON THE PREPARED AREA –</p> <ul style="list-style-type: none"> • Inspect the prepared surface area to identify flaws • Explain the causes of flaws in the surface preparation <p>RESTORE THE WORK AREA –</p> <ul style="list-style-type: none"> • Clean the work area, tools and equipment. 	
4 - 5	MASKING	<p>PERFORM MASKING AND DE-MASKING ON A VEHICLE OR PANEL</p> <p>RESTORE THE VEHICLE AFTER PAINT APPLICATION IN A SAFE AND AWARE MANNER –</p> <ul style="list-style-type: none"> • De-mask the vehicle without damaging the paint application. • Perform the removing of over spray and clean the vehicle. • Identify and adhere to safety precautionary measures to be taken during the process. <p>INTERACT WITH OTHERS TO QUALITY ASSURE THE MASKING PROCESS –</p> <ul style="list-style-type: none"> • Perform quality assurance with the assistance of a competent person. <p>RESTORE THE WORK AREA –</p> <ul style="list-style-type: none"> • Dispose of all de-masked materials in a safe manner 	<ul style="list-style-type: none"> • Visual identification and inspection. • Written presentation. • Practical demonstration.

		<ul style="list-style-type: none"> Restore the work area in accordance with workshop procedures 	
6 - 8	SPRAY EQUIPMENT	<p>USE AND MAINTAIN SPRAY PAINTING EQUIPMENT (Gravity / Suction Spray Guns)</p> <p>DEMONSTRATE THE KNOWLEDGE OF USING SRAY PAINTING EQUIPMENT –</p> <ul style="list-style-type: none"> Identify the spray painting equipment used in the workshop Name and discuss the functions of the main parts of the spray paint equipment Demonstrate the correct use of spray paint equipment <p>PREPARE TO MAINTAIN SPRAY PAINTING EQUIPMENT</p> <ul style="list-style-type: none"> Identify equipment to be maintained in the workshop Maintain the equipment in accordance with manufacturer specifications and workshop requirements <p>CONDUCT MAINTENANCE OF SPRAY PAINTING EQUIPMENT –</p> <p>Clean equipment according to workshop requirements</p> <ul style="list-style-type: none"> Use solvents and cleaning agents that are appropriate to the component. Check maintained equipment for functionality 	<ul style="list-style-type: none"> Visual identification. Written presentation. Practical demonstration. Internet.

		<p>APPLY SAFETY PROCEDURES DURING THE MAINTENANCE PROCESS –</p> <ul style="list-style-type: none"> • Adhere to all workshop safety warnings and required actions before, during and after maintenance 	
9 – 10	Formal Assessment	The weeks allocated for formal assessment are integrated across the weeks planned for teaching and learning. The assessment will consist of Practical Task/s with a 75% weighting and a Theory test with a 25% weighting.	
<p>Activity 1 Preform surface preparation and mask areas not to be sprayed. 25%</p> <p>Activity 2 Use and maintain spray equipment safely. 50%</p> <p>Activity 3 Write a pen and paper assessment based on work completed in the terms. 25%</p>			

Year3 Term 3 **SPRAY PAINTING**

WEEK	TOPIC	CONTENT The learner is able to:	Techniques, activities, resources and process notes
1 - 3	SPRAY PAINTING	<p>PERFORM BASIC SPRAY PAINTING</p> <p>PERFORM SPRAY PAINTING TECHNIQUES –</p> <ul style="list-style-type: none"> • Demonstrate the appropriate spray painting techniques in accordance with the body construction • Ensure that the finished paint application is in accordance with the standards required for the paint and the part • Identify and explain imperfection on painted surface which were caused by: <ul style="list-style-type: none"> : Incorrect settings of equipment : Incorrect techniques : Contamination : Incorrect curing : Incorrect preparation <p>APPLY PAINT IN A SAFE AND AWARE MANNER –</p> <ul style="list-style-type: none"> • Identify and clearly explain the safety precautionary measures to be taken • Discuss the use of personal equipment <p>CLEAN AND STORAGE PROCEDURES –</p> <ul style="list-style-type: none"> • Clean and storage procedures include: 	<ul style="list-style-type: none"> • Discussions on procedures. • Written presentations. • Practical demonstration. • Internet.

		: The stripping and cleaning of a spray gun : Disposal of excess paint and materials : Safe storage of the spray painting equipment	
4 - 8	PRIMER / PAINT	IDENTIFY THE VARIOUS TYPES OF PAINT, PRIMERS, MATERIAL AND THEIR USES IDENTIFY THE DIFFERENT TYPES OF PAINT – <ul style="list-style-type: none"> • Identify and explain the use of the following paint (2K Enamel Paint and or Waterborne paint) • Demonstrate the correct use of 2K Enamel Paint and or Waterborne paint in accordance with the manufacturer's manuals • Mix and apply 2K Enamel paint and or Waterborne paint on a body panel RESTORE THE WORK AREA – <ul style="list-style-type: none"> • Use safety masks in accordance with workshop regulations • Clean and store the work area, tools and equipment 	<ul style="list-style-type: none"> • Oral discussions. • Written presentations. • Practical demonstration. • Manufacturing company info.

9 – 10	Formal Assessment	The weeks allocated for formal assessment are integrated across the weeks planned for teaching and learning. The assessment will consist of Practical Task/s with a 75% weighting and a Theory test with a 25% weighting.
<p>Activity 1 Demonstrate spray painting techniques. 25%</p> <p>Activity 2 Identify and apply paint safely on a surface.. 50%</p> <p>Activity 3 Write a pen and paper assessment based on work completed in the term. 25%</p>		

Year 3 Term 4 **SPRAY PAINTING**

WEEK	TOPIC	CONTENT The learner is able to:	Techniques, activities, resources and process notes
1 - 5	POLISHING	<p>POLISH AUTOMOTIVE PAINTED PANELS</p> <p>DEMONSTRATE KNOWLEDGE OF POLISHING PAINTED PANELS –</p> <ul style="list-style-type: none"> • Explain the purpose of polishing painted panels in terms of improving gloss or eliminating paint imperfections. • Identify different polishing materials according to their intended use (Machine application) • Identify methods of machine polishing and the type of equipment for the required improvement • Identify and remove imperfections by sanding it down to a smooth surface <p>POLISH PAINTED PANELS –</p> <ul style="list-style-type: none"> • Use the correct machine polishing method that is appropriate to the size and type of panel being polished. • Confirm paint imperfections to be removed through the polishing process 	<ul style="list-style-type: none"> • Visual identification • Oral discussion. • Written presentation. • Practical demonstration. • Internet (Method)

		<p>APPLY SAFETY PROCEDURES DURING THE APPLICATION PROCESS –</p> <ul style="list-style-type: none"> • Polish the panel without incident, accident or injury • Adhere to all safety rules when using polishing machines <p>RESTORE WORK AREA –</p> <ul style="list-style-type: none"> • Clean and store tools, equipment and material in accordance with workshop procedures 	
6 - 7	SEALERS	<p>APPLY SEALERS AND CAVITY FILLERS ON VEHICLE</p> <p>DEMONSTRATE KNOWLEDGE OF APPLICATION OF SEALERS AND CAVITY FILLERS –</p> <ul style="list-style-type: none"> • Explain the purpose of using sealers and cavity fillers in terms of the manufacturers design. • Identify the different types of sealers used by vehicle manufacturers • Explain the method of removing old sealer in accordance with accepted workshop practices. <p>PREPARE FOR APPLICATION OF SEALERS AND CAVITY FILLERS –</p> <ul style="list-style-type: none"> • Remove the existing sealer in accordance with manufacturer specifications. • Prepare the surface in accordance with workshop instructions • Ensure masking provides adequate protection to 	<ul style="list-style-type: none"> • Written presentation. • Practical demonstration. • Internet or manufacturers' notes.

		<p>surrounding areas</p> <ul style="list-style-type: none"> Identify and check tools and equipment required to apply the sealer and cavity filler for functionality prior to commencing with the task 	
8 – 10	Formal Assessment	<p>The weeks allocated for formal assessment are integrated across the weeks planned for teaching and learning. The assessment will consist of Practical Task/s with a 75% weighting and a Theory test with a 25% weighting.</p> <p>Activity 1 Demonstrate the knowledge of safely polishing a painted surface . 75%</p> <p>Activity 2 Write a pen and paper assessment based on work completed in the terms. 25%</p>	

Year 4 Term 1 **SPRAY PAINTING**

WEEK	TOPIC	CONTENT The learner is able to:	Techniques, activities, resources and process notes
1 - 2	SAFETY	<p>KEEP THE WORK AREA SAFE AND PRODUCTIVE</p> <p>IDENTIFY AND RESPOND TO UNSAFE OR POTENTIALLY UNSAFE CONDITIONS, INCIDENTS OR ACTS THAT MAY OCCUR –</p> <ul style="list-style-type: none"> • Demonstrate an understanding of safety issues in the workshop • Undertake all work in a safe manner according to established procedures • Report on safety issues • Keep work area neat and tidy <p>SELECT AND USE VEHICLE LIFTING EQUIPMENT (USE A JACK)</p> <ul style="list-style-type: none"> • Identify and discuss the basic operation of a jack • Inspect jack for safety before and during use • Determine load carrying capacity of a jack • Position and operate jack in accordance with prescribed procedures to eliminate risk of damage to vehicle and people (use safety stands) • Explain the use of safety stands • Position and use safety stands correctly 	<ul style="list-style-type: none"> • Oral discussion (Specific rules) • Written presentation of information • Group discussion • Refer to safety posters and signs • Download information from internet • Practical demonstration • Posters • Signs • Internet • Books • Safety equipment

3 - 5	FIREFIGHTING	<p>APPLY FIREFIGHTING TECHNIQUES</p> <p>PERFORM BASIC FIREFIGHTING PROCEDURES –</p> <ul style="list-style-type: none"> • Explain and demonstrate the steps to be taken when fighting fires in accordance with organisational procedures. • Explain the precautions to be taken when fighting fires according to organisational procedures • Describe the steps to be taken when containing fires in accordance with organisational procedures. 	<ul style="list-style-type: none"> • Oral discussion (steps) • Written presentation of information • Group discussion • Practical information • Visit local fire brigade • Information from internet • Fire extinguisher • Burning material • Safety equipment • Books
6 - 8	SPRAY EQUIPMENT	<p>USE AND MAINTAIN SPRAY PAINTING EQUIPMENT</p> <p>PREPARE TO MAINTAIN SPRAY PAINTING EQUIPMENT</p> <ul style="list-style-type: none"> • Identify spray painting equipment to be maintained • Identify the type and extent of maintenance required in accordance with manufacturer's specifications. • Identify tools and equipment required for the maintenance task <p>CONDUCT MAINTENANCE OF SPRAY PAINTING EQUIPMENT –</p> <ul style="list-style-type: none"> • Clean equipment according to workshop requirements • Use solvents and cleaning agents that are appropriate to the cleaning of components • Identify damage and wear of parts and report to teacher 	<ul style="list-style-type: none"> • Written presentation • Practical demonstration • Oral discussing • Identification of equipment and parts • Practical handling of equipment

		<ul style="list-style-type: none"> • Replace replacement parts with suitable parts. • Check maintained equipment for functionality <p>APPLY SAFETY PROCEDURES DURING THE MAINTENANCE PROCESS –</p> <ul style="list-style-type: none"> • Adhere to all workshop safety warnings and required actions before, during and after maintenance. 	
9 – 10	Formal Assessment	The weeks allocated for formal assessment are integrated across the weeks planned for teaching and learning. The assessment will consist of Practical Task/s with a 75% weighting and a Theory test with a 25% weighting.	
<p>Activity 1. Identify unsafe conditions when performing basic firefighting procedures. 25%</p> <p>Activity 2 Apply safety procedures maintaining spray painting equipment. 50%</p> <p>Activity 3 Write a pen and paper assessment based on work completed in the term. 25%</p>			

Year 4 Term 2 **SPRAY PAINTING**

WEEK	TOPIC	CONTENT The learner is able to:	Techniques, activities, resources and process notes
1 - 2	PRIMER / PAINT	<p>IDENTIFY THE VARIOUS TYPES OF PAINT, PRIMERS, MATERIAL AND THEIR USES</p> <p>IDENTIFY THE DIFFERENT TYPES OF PAINT –</p> <ul style="list-style-type: none"> Identify and explain the use of the following paint (2K Basecoat / Clear coat and or waterborne paints) Demonstrate the correct use of 2K Basecoat / Clear coat and or waterborne paints in accordance to manufacturers manuals Mix and apply 2K Basecoat / Clear coat and or waterborne paints on a body panel <p>RESTORE THE WORK AREA –</p> <ul style="list-style-type: none"> Use safety masks in accordance to workshop regulations Clean and store the work area, tools and equipment 	<ul style="list-style-type: none"> Written presentation of information Oral discussion (groups) Practical demonstration Theory notes (mixing, ratios on tins) Mixing of paint Spray out of material Spray equipment (basecoat gun) Basecoat material / clear coat Demonstration panels
3 - 8	SPRAY PAINTING	<p>PERFORM BASIC SPRAY PAINTING</p> <p>IDENTIFY PAINT DEFECTS AND UNDERSTAND THEIR CAUSES –</p> <ul style="list-style-type: none"> Identify paint defects that include but is not limited to: <ul style="list-style-type: none"> Runs Fish eyes 	<ul style="list-style-type: none"> Written presentation of information Visual identification (Discussing) Practical demonstration Theory notes (books/ Internet) Practical demonstration Spray equipment

		<ul style="list-style-type: none">○ Blisters○ Orange peel <ul style="list-style-type: none">• Demonstrate the knowledge and understanding of paint defects and their causes.• Give clear and appropriate examples and explanations of all defects.	<ul style="list-style-type: none">• Body panels (paint defects)• Spray material
9 – 10	Formal Assessment	The weeks allocated for formal assessment are integrated across the weeks planned for teaching and learning. The assessment will consist of Practical Task/s with a 75% weighting and a Theory test with a 25% weighting.	
Activity 1. Identify the different types of paint. 25%			
Activity 2 Identify paint defects and understand their causes... 50%			
Activity 3 Write a pen and paper assessment based on work completed in the terms. 25%			

Year 4 Term 3 **SPRAY PAINTING**

WEEK	TOPIC	CONTENT The learner is able to:	Techniques, activities, resources and process notes
1 - 3	POLISHING	<p>POLISH AUTOMOTIVE PAINTED PANELS</p> <p>DEMONSTRATE KNOWLEDGE OF POLISHING PAINTED PANELS –</p> <ul style="list-style-type: none"> Identify which polishing conditions will achieve the required result Explain the consequences of not using the correct type of polishing equipment in terms of time spent on the job and the required final finish <p>PREPARE TO POLISH PAINTED PANELS –</p> <ul style="list-style-type: none"> Identify paint imperfections that will be rectified through polishing Remove imperfections by sanding it with the correct grit sanding paper Select polishing materials and equipment appropriate for the task Confirm that the condition of the paint is ready for polishing Mask off high points to minimise the risk of polishing through 	<ul style="list-style-type: none"> Oral discussion Visual identification Written presentation of information Practical demonstration (use a few tins of paint and explain process by mixing by hand) Internet, video clips Polish equipment Polish material Painted body panels Safety equipment

		<p>POLISH PAINTED PANELS –</p> <ul style="list-style-type: none"> • Apply appropriate polishing techniques to achieve the required finish • Clean polishing pads as necessary to ensure efficiency of the polishing process. • Polish surface without leaving swirl marks or hologram effects • Remove masking tape when required to ensure consistency of the polished panel <p>APPLY SAFETY PROCEDURES DURING THE APPLICATION PROCESS –</p> <ul style="list-style-type: none"> • Use equipment and tools in accordance with workshop and manufacturer requirements • Adhere to all safety rules when polishing a vehicle <p>RESTORE WORK AREA –</p> <ul style="list-style-type: none"> • Clean and store tools, equipment and material in accordance with workshop procedures. 	
4 – 6	COLOUR MATCHING	<p>MIXING OF BASIC COLOURS</p> <p>PAINT FORMULATION –</p> <ul style="list-style-type: none"> • Explain what paint is 	<ul style="list-style-type: none"> • Written presentation of information

		<ul style="list-style-type: none"> • Explain what a pigment is • Identify the three different categories of pigments • Discuss the requirements for good pigments <p>COLOUR MATCHING –</p> <ul style="list-style-type: none"> • Discuss the basic colour matching rules • Identify the three main colour groups • Mix a few colours by using paint from three main colour groups <p>VISCOSITY OF PAINT –</p> <ul style="list-style-type: none"> • Explain the term viscosity • Demonstrate the use of viscosity equipment • Mix paint by using vehicle manufacturers specifications from codes and colour matching manuals <p>RESTORE THE WORK AREA –</p> <ul style="list-style-type: none"> • Clean and store tools, equipment and materials in accordance with workshop procedures. 	<ul style="list-style-type: none"> • Oral discussion / identification • Use colour matching charts • Identify colour from vehicle colour codes • Practical demonstration • Paint (2 or 3 non expensive toners can be used to demonstrate basic mixing) • Mixing equipment • Colour charts • Paint manufacturers information
7 - 8	SEALERS	<p>APPLY SEALERS AND CAVITY FILLERS ON VEHICLES</p> <p>APPLY SEALERS AND CAVITY FILLERS –</p> <ul style="list-style-type: none"> • Identify and apply sealers according to manufacturer specifications. • Demonstrate different methods of applying sealer to body 	<ul style="list-style-type: none"> • Oral discussions in groups • Written presentation of information • Internet information • Practical demonstration • Sealers

		<p>panels</p> <ul style="list-style-type: none"> Identify and match the required texture to existing work on the vehicle. <p>APPLY SAFETY PROCEDURES DURING THE APPLICATION PROCESS –</p> <ul style="list-style-type: none"> Adhere to all workshop safety warning and required workplace actions before, during and after applying sealer. Dispose hazardous materials in accordance with workplace requirements <p>RESTORE WORK AREA –</p> <ul style="list-style-type: none"> Clean and store tools and equipment in accordance with workshop rules. 	<ul style="list-style-type: none"> Sealer application tools Safety equipment
9 – 10	Formal Assessment	<p>The weeks allocated for formal assessment are integrated across the weeks planned for teaching and learning. The assessment will consist of Practical Task/s with a 75% weighting and a Theory test with a 25% weighting.</p> <p>Activity 1. Apply safety procedures when polishing panted panels. 25%</p> <p>Activity 2 Perform basic colour matching by using paint formulation.... 50%</p> <p>Activity 3 Write a pen and paper assessment based on work competed in the terms. 25%</p>	

Year 4 Term 4 **SPRAY PAINTING**

WEEK	TOPIC	CONTENT Revision and consolidation:	Techniques, activities, resources and process notes
1	SAFETY	<ul style="list-style-type: none"> Name, discuss and explain general safety rules Identify and explain the purpose of demarcated areas, emergency stops, exits and first aid stations Use personal protective equipment Identify and respond to unsafe or potentially unsafe conditions, incidents or acts that may occur 	<ul style="list-style-type: none"> Present information visually Oral discussions in groups Assess information from reference books Written presentation Practical demonstration
	FIREFIGHTING	<ul style="list-style-type: none"> Identify different types of fires Explain and practise fire prevention Operate basic firefighting equipment Perform basic firefighting procedures 	
2	SURFACE PREPARATION	<ul style="list-style-type: none"> Clean and prepare body panel surface for paint application Identify, mix and apply fillers on the body panel 	
	PRIMER / PAINT	<ul style="list-style-type: none"> Identify, mix and apply the different types of primer (1k / 2K) Identify, mix and apply the different types of paint (1K / 2K / Basecoat / Waterborne) 	
3	SPRAY EQUIPMENT	<ul style="list-style-type: none"> Demonstrate the knowledge of using spray painting equipment 	<ul style="list-style-type: none"> Written presentation of information Visual identification (Discussing)

		<p>PERFORM BASIC SPRAY PAINTING</p> <ul style="list-style-type: none"> Identify paint defects and understand their causes: <ul style="list-style-type: none"> Identify paint defects that include but is not limited to: <ul style="list-style-type: none"> Runs Fish eyes Blisters Orange peel Demonstrate the knowledge and understanding of paint defects and their causes. <p>Give clear and appropriate examples and explanations of all defects.</p>	<ul style="list-style-type: none"> Practical demonstration Theory notes (books / internet) Practical demonstration Spray equipment Body panels (paint defects) <p>Spray material</p>
	POLISHING	<p>POLISH AUTOMOTIVE PAINTED PANELS</p> <ul style="list-style-type: none"> Demonstrate knowledge of polishing painted panels: <ul style="list-style-type: none"> Identify which polishing conditions will achieve the required result Explain the consequences of not using the correct type of polishing equipment in terms of time spent on the job and the required final finish Prepare to polish painted panels: <ul style="list-style-type: none"> Identify paint imperfections that will be rectified through polishing 	<ul style="list-style-type: none"> Oral discussion Visual identification Written presentation of information Practical demonstration Internet, video clips Polish equipment Polish material Painted body panels Safety equipment

		<ul style="list-style-type: none"> ○ Remove imperfections by sanding it with the correct grit sanding paper ○ Select polishing materials and equipment appropriate for the task ○ Confirm that the condition of the paint is ready for polishing ○ Mask off high points to minimise the risk of polishing through • Polish painted panels: <ul style="list-style-type: none"> ○ Apply appropriate polishing techniques to achieve the required finish ○ Clean polishing pads as necessary to ensure efficiency of the polishing process ○ Polish surface without leaving swirl marks or hologram effects ○ Remove masking tape when required to ensure consistency of the polished panel • Apply safety procedures during the application process: <ul style="list-style-type: none"> ○ Use equipment and tools in accordance with workshop and manufacturer requirements ○ Adhere to all safety rules when polishing a vehicle • Restore work area: and clean and store tools, 	
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4	COLOUR MATCHING	<ul style="list-style-type: none"> • Perform basic colour matching <p>MIXING OF BASIC COLOURS</p> <ul style="list-style-type: none"> • Paint formulation: <ul style="list-style-type: none"> ○ Explain what paint is ○ Explain what a pigment is ○ Identify the three different categories of pigments ○ Discuss the requirements for good pigments • Colour matching: <ul style="list-style-type: none"> ○ Discuss the basic colour matching rules ○ Identify the three main colour groups ○ Mix a few colours by hand using paint from three main colour groups • Viscosity of paint: <ul style="list-style-type: none"> ○ Explain the term viscosity ○ Demonstrate the use of viscosity equipment ○ Mix paint by using vehicle manufacturers' specifications from codes and colour matching manuals • Restore the work area: <ul style="list-style-type: none"> ○ Clean and store tools, equipment and materials in accordance with workshop procedures 	<ul style="list-style-type: none"> • Written presentation of information • Oral discussion / identification • Use colour matching charts • Identify colour from vehicle colour codes • Practical demonstration • Paint (various colours) • Mixing equipment • Colour charts <p>Paint manufacturers information</p>
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5-10	External examination	<p>External moderation of school assessment over terms 1, 2 and 3 = 50% of qualification</p> <p>Complete external Practical Assessment Task (PAT) = 25% of qualification</p> <p>Formal external assessment written test or oral = 25% of qualification</p>
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SECTION 4

ASSESSMENT

4.1 Introduction

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

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

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

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

4.2 Assessment Principles

4.2.1 Definition

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

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

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

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

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

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

4.2.2 Informal Assessment or Daily Assessment

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

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

4.2.3 Formal Assessment

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

a. Why use a Formal Assessment task?

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

b. What is a Formal Assessment Task?

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

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

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

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

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

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

The principles that drive these objectives are:

- ***Integration***

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

- ***Relevance***

To be dynamic and responsive to national development needs.

- ***Credibility***

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

- ***Coherence***

To work within a consistent framework of principles and certification.

- ***Flexibility***

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

- ***Participation***

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

- **Access**

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

- **Progression**

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

- **Portability**

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

- **Articulation**

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

- **Recognition of Prior Learning**

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

- **Validity of assessments**

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

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

- **Reliability**

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

- **Fairness and transparency**

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

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

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

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

4.3 Managing Assessment

Assessor Requirements

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

Types of Assessment

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

- **Baseline assessment:** At the beginning of a level or learning experience, baseline assessment establishes the knowledge, skills, values and attitudes (SKVAs) that learners bring to the classroom. This knowledge assists teachers to plan learning programmes and learning activities.
- **Diagnostic assessment:** This assessment diagnoses the nature and causes of barriers to learning experienced by specific learners. It is followed by guidance, appropriate support and intervention strategies. This type of assessment is useful to make referrals for learners requiring specialist help.

- **Formative assessment (Informal Assessment):** This assessment monitors and supports teaching and learning. It determines learners' strengths and weaknesses and provides feedback on progress. It determines if a learner is ready for summative assessment.
- **Summative assessment (Formal Assessment)** This type of assessment gives an overall picture of student progress at a given time. It determines whether the student is sufficiently competent to progress to the next level.

Planning Assessment

An assessment plan should cover three main processes:

- **Collecting evidence:** The assessment plan indicates which learning programme topics, content and skills will be assessed, what assessment method or activity will be used and when this assessment will be conducted.
- **Recording:** The process of recording refers to the assessment instruments or tools with which the assessment will be captured or recorded. Therefore, appropriate assessment instruments must be developed or adapted.
- **Reporting:** All the evidence is put together in a report to deliver a decision for the subject.

Methods of Assessment

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

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

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

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

Competence Descriptions

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

Strategies for Collecting Evidence

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

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

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

School Assessment Programme

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

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

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

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

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

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

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

Assessment across the four years

Year 1 Reporting only in the term when the skill is done.

The GCE Technical Occupational Qualification at NQF Level 1 is a four-year Learning Programme. In year one a learner is exposed to a number of Occupational Subjects. Each subject is offered over a ten-week period (one term) in Year 1, where the learner is exposed to the basic skills required for the subject. By the end of year 1 the learner will select a minimum of one skill for the qualification.

Year 1	Formal School-Based Assessments
	Learner performance in the Term:
	Practical 75% *
	Theory 25%
Term Report	100%

Years 2 and 3

Year 2 will focus on a broad overview of the subject with a basic understanding and mastery of some of the basic skills required in the subject. Year 3 will focus on the consolidation of the basic skills and the addition of more advanced skills. Learners must in Year 3 start to develop a greater degree of independent mastery of the subject skills

Year 2/3	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 75%
	Theory 25%	Theory 25%	Theory 25%	
Term Report	100%	100%	100%	o Pen and Paper Test/ Exam 25%
End of Year	SBA 75%			25%

Year 4 Qualification year

In year 4 the focus shifts to the World of Work. Learners must consolidate required skills for the qualification and may engage in workplace exposure for a short period of time during the fourth year. Learners develop independent mastery of skills to be competent within the workplace

Year 4	Formal School-Based Assessments			Final End-of-Year Assessments
	Term 1	Term 2	Term 3	Term 4
	Practical 75% *	Practical 75% *	Practical 75% *	External Practical Assessment Task 25%
	Theory 25%	Theory 25%	Theory 25%	
				External
Term Report	100%	100%	100%	Pen and Paper Test 25%
End of Year	SBA 50%			External Exams 50%

CLARIFICATION ON ASSESSMENT PERIODS

Year 2 and 3:

Term 1 theory assessment to consist of work done in term 1 only

Term 2 theory assessment to consist of work done in terms 1 and 2

Term 3 theory assessment to consist of work done in term 3 only

Term 4 theory assessment to consist of work done in terms 3 and 4

Year 4:

Term 1 theory assessment to consist of work done in term 1 only

Term 2 theory assessment to consist of work done in terms 1 and 2

Term 3 theory assessment to consist of work done in terms 1, 2 and 3

Term 4 Theory completed in the year

Timing of formal assessment

Suggested Program of Assessment for PANEL BEATING

YEAR 1 PANEL BEATING					
Term	Content/ concept/skill	Activities	Forms of Assessment	%	FATs based on activities in CAPS:TO
Year 1	SAFETY <ul style="list-style-type: none"> Name, discuss and explain general safety rules. 	Activity 1 Demonstration	Demonstration	25%	FAT 1
	FIREFIGHTING <ul style="list-style-type: none"> Identify different types of fires. 	Activity 2 Model	Practical	50%	
	HAND TOOLS <ul style="list-style-type: none"> Select and use hand tools. Demonstrate and explain the correct use of basic hand tools. DENT REPAIR <ul style="list-style-type: none"> Determine the repair process of the damaged part Repair the damaged part while maintaining safe working practises Deliver the repairs and restore the work area. 	Activity 3 Respond to questions	Pen and paper test (Oral or written)	25%	

YEAR 2 PANEL BEATING					
Term	Content/ concept/skill	Activities	Forms of Assessment	%	FATs based on activities in CAPS:TO
Term 1	SAFETY <ul style="list-style-type: none"> Identify and explain the purpose of demarcated areas, emergency stops, exits and first aid stations. FIREFIGHTING <ul style="list-style-type: none"> Explain and practise fire prevention. HAND TOOLS <ul style="list-style-type: none"> Select and use hand tools. Care for and maintain hand tools. Work safely with due care for self, fellow workers and equipment. 	Activity 1 Demonstration	Demonstration	25%	FAT 1
		Activity 2 Model	Practical	50%	
		Activity 3 Respond to questions	Pen and paper test (Oral or written)	25%	
Term 2	POWER TOOLS <ul style="list-style-type: none"> Select and use power tools. Work safely with due care for self, fellow workers and equipment. SURFACE PREPARATION <ul style="list-style-type: none"> Read and interpret all available information. Clean the body panel Prepare the body panel surface DENT REPAIR <ul style="list-style-type: none"> Determine the repair process of the damaged part. Repair the damaged part 	Activity 1 Demonstration	Demonstration	15%	FAT 2
		Activity 2 Model	Practical	60%	
		Activity 3 Respond to questions	Pen and paper test (Oral or written)	25%	

	<p>while maintaining safe working practises.</p> <ul style="list-style-type: none"> • Deliver the repairs and restore the work area. 				
Term 3	<p>BODY PARTS</p> <ul style="list-style-type: none"> • Remove panel or body parts. • Restore the work area. <p>LIFTING EQUIPMENT</p> <ul style="list-style-type: none"> • Discuss the basic operation of lifting equipment. • Use of a jack. • Use safety stands. • Use of creepers. <p>DENT REPAIR</p> <ul style="list-style-type: none"> • Determine the repair process of the damaged part. • Repair the damaged part while maintaining safe working practises. • Deliver the repairs and restore the work area. 	Activity 1 Demonstration	Demonstration	25%	FAT 3
		Activity 2 Model	Practical	50%	
		Activity 3 Respond to questions	Pen and paper test (Oral or written)	25%	
Term 4	<p>WELDING</p> <ul style="list-style-type: none"> • Prepare for work activity. • Weld / join metals. • Apply quality checks on the weld • Perform finishing activities • Work safely with due care for self, fellow workers and equipment. 	Activity 1 Model	Practical	75%	FAT 4
		Activity 2 Respond to questions	Pen and paper test (Oral or written)	25%	

YEAR 3 PANEL BEATING					
Term	Content/ concept/skill	Activities	Forms of Assessment	%	FATs based on activities in CAPS: TO
Term 1	SAFETY <ul style="list-style-type: none"> Use personal protective equipment. FIREFIGHTING <ul style="list-style-type: none"> Operate basic firefighting equipment. POWER TOOLS <ul style="list-style-type: none"> Care for and maintain power tools. Check on power supply connections to equipment. Work safely with due care for self, fellow workers and equipment. LIFTING EQUIPMENT <ul style="list-style-type: none"> Operate a hoist. Carry out precautionary measures before operating a lifting devise. 	Activity 1 Demonstration	Demonstration	25%	FAT 1
		Activity 2 Model	Practical	50%	
		Activity 3 Respond to questions	Pen and paper test (Oral or written)	25%	
Term 2	BODY CONSTRUCTION <ul style="list-style-type: none"> Body constructions. Compile a list of body components. Compile a list of materials used in body construction. BODY PARTS <ul style="list-style-type: none"> Replace and align the body parts, trim and accessories. Restore the work area. 	Activity 1 Demonstration	Demonstration	25%	FAT 2
		Activity 2 Model	Practical	50%	
		Activity 3 Respond to questions	Pen and paper test (Oral or written)	25%	

Term 3	SURFACE PREPARATION <ul style="list-style-type: none"> Prepare the body panel surface with abrasives. Identify, mix and apply fillers on the body panel in a safe and aware manner. DENT REPAIR <ul style="list-style-type: none"> Determine the repair process of the damaged part. Repair the damaged part while maintaining safe working practises. Perform a quality evaluation of the repaired part. Deliver the repairs and restore the work area. 	Activity 1 Demonstration	Demonstration	25%	FAT 3
		Activity 2 Model	Practical	50%	
		Activity 3 Respond to questions	Pen and paper test (Oral or written)	25%	
Term 4	WELDING <ul style="list-style-type: none"> Prepare for work activity. Weld / join metals. Apply quality checks on weld. Perform finishing activities. Work safely with due care for self, fellow workers and equipment. 	Activity 1 Model	Practical	75%	FAT 4
		Activity 2 Respond to questions	Pen and paper test (Oral or written)	25%	

YEAR 4 PANEL BEATING					
Term	Content/ concept/skill	Activities	Forms of Assessment	%	FATs based on activities in CAPS: TO
Term 1	SAFETY <ul style="list-style-type: none"> Identify and respond to unsafe or potentially unsafe conditions, incidents or acts that may occur. FIREFIGHTING <ul style="list-style-type: none"> Perform basic firefighting procedures. POWER TOOLS <ul style="list-style-type: none"> Select and use power tools. Recognise and report problems, changes and / or malfunctions while working. Work safely with due care for self, fellow workers and equipment. SEALERS <ul style="list-style-type: none"> Demonstrate knowledge of application of sealers and cavity fillers. Prepare for application of sealers and cavity fillers. Apply sealers and cavity fillers. Apply safety procedures during the application process. 	Activity 1 Demonstration	Demonstration	25%	FAT 1
		Activity 2 Model	Practical	50%	
		Activity 3 Respond to questions	Pen and paper test (Oral or written)	25%	

Term 2	BODY CONSTRUCTION <ul style="list-style-type: none"> Compile a list of safety features in a vehicle. Interact with others to identify the activating mechanisms and functions of the safety features on a vehicle. 				
	WHEEL ALIGNMENT Apply basic wheel alignment techniques	Activity 1 Model	Practical	75%	FAT 2
	BODY PARTS <ul style="list-style-type: none"> Assess the damage to determine the extent of repairs. Restore the work area, complete and process documentation. 				
		Activity 2 Respond to questions	Pen and paper test (Oral or written)	25%	
Term 3	SURFACE PREPARATION <ul style="list-style-type: none"> Interact with others to perform a quality check on the surface of prepared area. DENT REPAIR <ul style="list-style-type: none"> Determine the repair process of the damaged part. Repair the damaged part while maintaining safe working practises. Perform a quality evaluation of the repaired part. Deliver the repairs and restore the work area. 	Activity 1 Demonstration	Demonstration	25%	FAT 3
		Activity 2 Model	Practical	50%	
		Activity 3 Respond to questions	Pen and paper test (Oral or written)	25%	

Term 4	Core content and Concept across the years	External moderation of school assessment over terms 1, 2 and 3.		50%	GCE: TO Qualification
		Activity 1 Practical	Formal external Practical Assessment Task	25%	
		Activity 2 Respond to questions	Formal external assessment: Written test (or oral where necessary)	25%	

Suggested Program of Assessment for SPRAY PAINTING

YEAR 1 SPRAY PAINTING					
Term	Content/ concept/skill	Activities	Forms of Assessment	%	FATs based on activities in CAPS: TO
Year 1	SAFETY <ul style="list-style-type: none"> Name, discuss and explain general safety rules. FIREFIGHTING <ul style="list-style-type: none"> Identify different types of fires. SURFACE PREPARATION <ul style="list-style-type: none"> Clean the body panel. Prepare the body panel surface with abrasives. Restore the work area. PRIMER / PAINT <ul style="list-style-type: none"> Identify the different types of primer. Restore the work area. 	Activity 1 Demonstration	Demonstration	25%	FAT 1
		Activity 2 Model	Practical	50%	
		Activity 3 Respond to questions	Pen and paper test (Oral or written)	25%	

YEAR 2 SPRAY PAINTING					
Term	Content/ concept/skill	Activities	Forms of Assessment	%	FATs based on activities in CAPS: TO
Term 1	SAFETY <ul style="list-style-type: none"> Identify and explain the purpose of demarcated areas, emergency stops, exits and first aid stations. FIREFIGHTING <ul style="list-style-type: none"> Explain and practise fire prevention. VALET <ul style="list-style-type: none"> Identify different types of cleaning materials. Identify the different steps of washing a vehicle. 	Activity 1 Demonstration	Demonstration	25%	FAT 1
		Activity 2 Model	Practical	50%	
		Activity 3 Respond to questions	Pen and paper test (Oral or written)	25%	
Term 2	HAND TOOLS <ul style="list-style-type: none"> Select and use hand tools. Care for and maintain engineering hand tools. MASKING <ul style="list-style-type: none"> Identify the area to be masked. Prepare the vehicle for cleaning and masking. Mask the identified area on the vehicle. Restore the work area. SPRAY EQUIPMENT <ul style="list-style-type: none"> Demonstrate the knowledge of using spray painting equipment. Prepare to maintain spray painting equipment. Conduct maintenance of spray painting equipment. Apply safety procedures during the maintenance process. 	Activity 1 Demonstration	Demonstration	25%	FAT 2
		Activity 2 Model	Practical	50%	
		Activity 3 Respond to questions	Pen and paper test (Oral or written)	25%	

Term 3	SURFACE PREPARATION <ul style="list-style-type: none"> Clean the body panel. Prepare the body panel surface with abrasives. Identify, mix and apply fillers on the body panel in a safe and aware manner. Interact with others to perform a quality check on the prepared area. Restore the work area. PRIMER / PAINT <ul style="list-style-type: none"> Identify the different types of paint and primer. Identify the different types of materials. Restore the work area. SPRAY PAINTING <ul style="list-style-type: none"> Prepare to apply a paint application on a body panel. Perform spray painting techniques. Apply paint in a safe and aware manner. 	Activity 1 Demonstration	Demonstration	25%	FAT 3
		Activity 2 Model	Practical	50%	
		Activity 3 Respond to questions	Pen and paper test (Oral or written)	25%	
Term 4	POLISHING <ul style="list-style-type: none"> Demonstrate knowledge of polishing painted panels. Polish painted panels. Apply safety procedures during the application process. Restore the work area. 	Activity 1 Model	Practical	75%	FAT 4
		Activity 2 Respond to questions	Pen and paper test (Oral or written)	25%	

YEAR 3 SPRAY PAINTING					
Term	Content/ concept/skill	Activities	Forms of Assessment	%	FATs based on activities in CAPS: TO
Term 1	SAFETY <ul style="list-style-type: none"> Use personal protective equipment. FIREFIGHTING <ul style="list-style-type: none"> Operate basic firefighting equipment. POWER TOOLS <ul style="list-style-type: none"> Care for and maintain power tools. Work safely with due care for self, fellow workers, equipment, materials and the environment. VALET <ul style="list-style-type: none"> Identify the different tools and equipment. Apply safety procedures during the valet process. Restore the work area. 	Activity 1 Demonstration	Demonstration	25%	FAT 1
		Activity 2 Model	Practical	50%	
		Activity 3 Respond to questions	Pen and paper test (Oral or written)	25%	
Term 2	SURFACE PREPARATION <ul style="list-style-type: none"> Clean the body panel. Prepare the body panel surface with abrasives. Identify, mix and apply fillers on the body panel in a safe and aware manner. Interact with others to perform a quality check on the prepared area. Restore the work area. MASKING <ul style="list-style-type: none"> Restore the vehicle after paint application in a safe and 	Activity 1 Demonstration	Demonstration	25%	FAT 2
		Activity 2 Model	Practical	50%	
		Activity 3 Respond to questions	Pen and paper test (Oral or written)	25%	

	<p>aware manner.</p> <ul style="list-style-type: none"> Interact with others to quality assure the masking process. Restore the work area. <p>SPRAY EQUIPMENT</p> <ul style="list-style-type: none"> Demonstrate the knowledge of using spray painting equipment. Prepare to maintain spray painting equipment. Conduct maintenance of spray painting equipment. Apply safety procedures during the maintenance process. 				
Term 3	<p>SPRAY PAINTING</p> <ul style="list-style-type: none"> Perform spray painting techniques. Apply paint in a safe and aware manner. Clean and storage procedures. <p>PRIMER / PAINT</p> <ul style="list-style-type: none"> Identify the different types of paint. Restore the work area. 	Activity 1 Demonstration	Demonstration	25%	FAT 3
		Activity 2 Model	Practical	50%	
		Activity 3 Respond to questions	Pen and paper test (Oral or written)	25%	
Term 4	<p>POLISHING</p> <ul style="list-style-type: none"> Demonstrate knowledge of polishing painted panels. Polish painted panels. Apply safety procedures during the application process. Restore work area. <p>SEALERS</p> <ul style="list-style-type: none"> Demonstrate knowledge of application of sealers and cavity fillers. 	Activity 1 Model	Practical	75%	FAT 4
		Activity 2 Respond to questions	Pen and paper test (Oral or written)	25%	

	<ul style="list-style-type: none"> Prepare for application of sealers and cavity fillers. 				
YEAR 4 SPRAY PAINTING					
Term	Content/ concept/skill	Activities	Forms of Assessment	%	FATs based on activities in CAPS: TO
Term 1	SAFETY <ul style="list-style-type: none"> Identify and respond to unsafe or potentially unsafe conditions, incidents or acts that may occur. Select and use vehicle lifting equipment (Jack) FIREFIGHTING <ul style="list-style-type: none"> Perform basic firefighting procedures. SPRAY EQUIPMENT <ul style="list-style-type: none"> Prepare to maintain spray painting equipment. Conduct maintenance of spray painting equipment. Apply safety procedures during the maintenance process. 	Activity 1 Demonstration	Demonstration	25%	FAT 1
		Activity 2 Model	Practical	50%	
		Activity 3 Respond to questions	Pen and paper test (Oral or written)	25%	
Term 2	PRIMER / PAINT <ul style="list-style-type: none"> Identify the different types of paint. Restore the work area. SPRAY PAINTING <ul style="list-style-type: none"> Identify paint defects and understand their causes. 	Activity 1 Model	Practical	75%	FAT 2
		Activity 2 Respond to questions	Pen and paper test (Oral or written)	25%	

Term 3	POLISHING <ul style="list-style-type: none">• Demonstrate knowledge of polishing painted panels• Prepare to polish painted panels.• Polish painted panels.• Apply safety procedures during the application process.• Restore work area. COLOUR MATCHING <ul style="list-style-type: none">• Paint formulation.• Colour matching.• Viscosity of paint• Restore the work area. SEALEARS <ul style="list-style-type: none">• Apply sealers and cavity fillers.• Apply safety procedures during the application process.• Restore the work area.	Activity 1 Demonstration	Demonstration	25%	FAT 3	
		Activity 2 Model	Practical	50%		
		Activity 3 Respond to questions	Pen and paper test (Oral or written)	25%		
Term 4	Core content and Concept across the years	External moderation of school assessment over terms 1, 2 and 3.		50%	GCE: TO Qualification	
		Activity 1 Practical	Formal external Practical Assessment Task	25%		
		Activity 2 Respond to questions	Formal external assessment: Written test (or oral where necessary)	25%		

Recording and Reporting

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

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

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

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

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

Codes and percentages for reporting

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

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

NOTE:

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

Progression and Promotion:

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

4.4 Moderation of Assessment

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

Moderation serves five purposes:

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

4.4.1 Internal moderation

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

4.4.2 External moderation

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

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

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

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

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

4.5 General

This document should be read in conjunction with:

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

SECTION 5

RESOURCES

PUBLIC COMMENT