basic education

Department:
Basic Education
REPUBLIC OF SOUTH AFRICA

Curriculum and Assessment Policy Statement: Technical Occupational

Year 1 - 4

CIVIL TECHNOLOGY:

BRICKLAYING AND PLASTERING

CONTENT

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

<table>
<tr><th colspan="3">Subjects

General Education</th><th colspan="2">Time</th></tr>
<tr><td colspan="3" rowspan="2">Languages
(Home Language and First Additional Language)

All 11 official languages (Afrikaans, English, isiNdebele, isiXhosa, isiZulu, Siswati, Sesotho, Setswana, Sepedi, Tshivenda, Xitsonga)</td><td colspan="2">3 Hours for Home Language</td></tr>
<tr><td colspan="2">2 hours for First Additional Language</td></tr>
<tr><td colspan="3">Mathematics</td><td colspan="2">3 hours</td></tr>
<tr><td rowspan="4">Life Skills</td><td>Personal and Social Well-being
(including aspects of Life Orientation, Social Sciences and Economic and Management Sciences)</td><td>2½ hours</td><td rowspan="4">6 hours</td></tr>
<tr><td>Physical Education</td><td>1 hour</td></tr>
<tr><td>Creative Arts</td><td>1 hour</td></tr>
<tr><td>Natural Sciences</td><td>1½ hours from year 2 onwards
This time to be used in year 1 to support Languages and Mathematics</td></tr>
<tr><td colspan="5">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.</td></tr>
</table>

Subjects **Technical Occupational: Electives**	**Time**
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**
Base Line Assessment for Language and Mathematics ➢ **Intervention (ISP)** **General Education:** • **Home Language** • **FAL** • **Mathematics** • **Life Skills:** ✓ Personal Social Wellbeing ✓ Physical Education ✓ Creative Arts ➢ ICT Enrichment **Technical Occupational** **Minimum 2 x SKILLS** **Across the year** **Post Assessment** • **Analyse results** Progress to Year 2 with appropriate support for Languages and Mathematics	**General Education:** • **Home Language** • **FAL** • **Mathematics** • **Life Skills:** ✓ Personal Social Wellbeing ✓ Physical Education ✓ Creative Arts ✓ Natural Sciences ➢ ICT Enrichment **Technical Occupational** **Minimum of 1 Skill**	**General Education:** • **Home Language** • **FAL** • **Mathematics** • **Life Skills:** ✓ Personal Social Wellbeing ✓ Physical Education ✓ Creative Arts ✓ Natural Sciences ➢ ICT Enrichment **Technical Occupational** **Minimum of 1 Skill**	**General Education:** • **Home Language** • **FAL** • **Mathematics** • **Life Skills:** ✓ Personal Social Wellbeing ✓ Physical Education ✓ Creative Arts ✓ Natural Sciences ➢ ICT Enrichment **Technical Occupational** **Minimum of 1 Skill** GCE: TO Qualification Or Certificate of Achievement (External exam- results verified / moderated)

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 CIVIL TECHNOLOGY: BRICKLAYING AND PLASTERING

2.1 What is Bricklaying and Plastering?

Bricklayers and plasterers are responsible for the building of the inner and outer walls of a building as well as the finishing of these structures. Bricklayers construct and repair walls, partitions, steps, free standing piers, arches, fireplaces and other structures made of brick, concrete block or masonry materials.

Bricklayers first study building plans to check specifications and determine the most accurate layout. Mortar is then mixed and a layer of mortar is spread as a base, after which bricks are positioned by hand to assure a neat, uniform appearance. (Must be level, plumb and square) Excess mortar is cut off. Mortar joints are then finished off so that moisture cannot penetrate.

A bricklayer:

- Is a craftsman who lays bricks to construct brickwork.
- The term also refer to personnel who use blocks to construct blockwork walls and other forms of masonry.

Plastering

- Is covering of (walls, ceilings, or other structure) with plaster.

Bricklaying and Plastering as a vocational subject is made up of three parts;

- **Bricklaying-** consists mostly of placing bricks and blocks on top on one another whilst following the four rules; plumb,square, level and straight.
- **Plastering**- comprises the artistic and functional covering and finishing of the interior and exterior walls of buildiings according to specifications and
- **Brick making-** is the process of making bricks using small aggregate cement which is formed in steel moulds and the finished blocks are then left to cure.

2.2 Topics to be studied in Bricklaying and Plastering

GENERIC:

1. Health and safety (OHS ACT)
2. First Aid

3. Tools
4. Materials

BRICK LAYING

5. Setting out
6. Trenches/ Excavation
7. Foundations
8. Bonding of walls
9. Brick Work (Substructure)
10. Water Proofing
11. Flooring
12. Window and Door openings
13. Brick Work (Super Structure)
14. Building drawing
15. Mixing Proportions
16. Tiling and paving

PLASTERING

17. Toping and screed finish
18. Plastering of walls
19. Mixing Proportions

BRICKMAKING

20. Moulding

2.3 Specific Aims

The learner is able to:

GENERIC:

1. Apply Health and safety principals (OHS ACT) when bricklaying, plastering and making bricks
2. Apply general First Aid within the context of bricklaying, plastering and making bricks
3. Work with suitable tools and equipment when bricklaying, plastering and making bricks
4. Work with suitable materials when bricklaying, plastering and making bricks.

BRICK LAYING

5. Set out design according to measurements in drawings
6. Dig and prepare trenches/ excavation
7. Cast foundations in trenches according to design drawings; Types strip, raft and pad
8. Construct different wall bondings
9. Construct brick work (Substructure)
10. Insert water proofing
11. Lay concrete floor and top screed
12. Build in windows and door openings
13. Construct brick work (Super Structure)
14. Read and interpret basic building drawings
15. Mix suitable proportions of cement and concrete for specific tasks
16. Lay tiles and pavers

PLASTERING

17. Top and screed floor surfaces
18. Plaster walls
19. Mix cement proportions for specfic types of plastering

BRICKMAKING

20. Use brick forms to mould bricks / blocks.

2.4 Requirements for Bricklaying and Plastering 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.

2.4.2 Resources

Human resources

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

Bricklaying and Plastering 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 (NOSA)
- 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
- 3 meter measuring tape

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

- Bricklaying and Plastering cannot be implemented in a school without an equipped workshop.
- The building site or work area must have a concrete slab that is level and has a roof covering.
- Electricity supply to the workshop is crucial.
- 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.The requirements of the Occupational Health and Safety (OHS) Act 85 of 1993 need to be complied with.
- 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.
- Safety rules must be displayed on posters in the workshop.

Equipment

The following is the minimum requirement for a Bricklaying and Plastering workshop.

NON CONSUMABLES-				
Safety Equipment				
Overalls (1 per learner)	Fire extinguisher (2 per workshop)	Safety signs as per venue	First aid kit (1 per venue)	Hard Hat (1 per learner)
Safety glasses (1 per learner)	Ear muffs (1 per learner)	Working gloves (1 per learner)	Safety boots (1 per learner)	Safety Harness (1 per 4 learners)
Mixing Tools				
Garden Spade (1 per learner)	Shovel (1 per learner)	Bucket (1 per learner)	Hose pipe (30 metre per venue)	Block Brush (1 per learner)
Brick Laying Tools				
Brick Trowel (1 per learner)	Gauging Trowel (1 per learner)	Line and Pins (1 per learner)	Spirit Level (1 per 3 learner3)	Gauge Rod (1 per 3 learners)
Corner Blocks (2 per 3 learners)	Dumpy level (2 per workshop)	Steel Square (1 per 3 learners)	Tingle Plate (1 per 3 learners)	Corner Profiles(2 per learner)
Setting Out Tools (1 per learner)				
Measuring tape 3m – 100m	Steel Square	Building Line	Leveling Pipe or Pipe level(1 per workshop	Chalk Line
Club Hammer	Steel Pegs	Straight Edge	Spirit Level	Profile boards
Brick Cutting Tools (1 per learner)				
Brick Hammer	Club Hammer	Comb Hammer		Pick Axe
Bolster	Cold Chisel	Angle Grinder (Electric) (2 per workshop)		

Jointing and Pointing tools (1 per learner)				
Long Jointer	Short Jointer	Pointing Trowel	Mastic Trowel	Block Brush
Plastering Tools (1 per learner)				
Hand Hawk	Wood Float	Corner Tools (External and Internal)		
Steel Float	Straight Edge	Block Brush	Rough Cast Machine	
Plastering Clamp				
Tiling and Paving Tools (1 per learner)				
Serrated edge trowel	Rubber mullet hammer	Tile Nipper	Spirit Level	Angle Grinder (Electric- 2 per class)
Rubber Float	Tile cutter (2 per class)	Chalk Line	Rod Saw	Tile Spacer
Brick Making Tools (1 per group of 10 learners)				
Brick Mould		Block Mould		
Other Important Tools and equipment (1 per group of 4 learners)				
Wheel Barrow		Scaffold and scaffold boards		
Slump Test equipment		Concrete Mixer		
Portable Concrete Vibrator		Power Float		

Drawing Equipment (full set per learner)				
Drawing board	Rulers	Set square	Scale ruler	Yellow duster
T-Square	Drawing pencil	Drawing compass	Dividers	Eraser

CONSUMABLE MATERIAL-			
Types of Cement	**Types of Sand** (plus stone)	**Types of wood approved for shuttering**	**Types of Bricks**
• Ordinary Portland Cement • Rapid Hardening Portland Cement • High Alumina Cement • Sulphate-resisting Cement • Lime • White Cement and Coloured Cement • Tile Cement	• Pit Sand • River Sand • Mine dump Sand • Crusher Sand • Sea Sand • Drift Sand • Desert Sand • Stone: 3/12/19/22 mm	• Baltic Soft wood • European deal or pine • Douglas pine • Baltic red wood • SA Pine	• Face Bricks • Stock (common) Bricks • Clay Bricks • Fire Bricks **Note:** **Shape of bricks-** Bullnose, End Skew on flat and side skew
Other Important Materials			
• Wood and Steel Door Frame	• Wood and Steel Window Frame	• PVC and Ceramic Tiles	• Pre Cast Concrete lintels
• Brick Force	• Wall Ties	• Bricks	• Building blocks

General:

- Dust masks, ear plugs
- Cleaning equipment- brooms, cleaning cloth, hand vaseline and towels

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 **Bricklaying and Plastering** include but is not limited to:

- Learnership and Apprenticeship in bricklaying and plastering
- Bricklayer
- Salesperson
- Plasterer
- Tiller
- Brickmaker

SECTION 3:

OVERVIEW OF TOPICS PER TERM AND ANNUAL TEACHING PLANS

3.1 Content overview

TOPIC	Year 1	Year 2	Year 3	Year 4
INTRODUCTION	Introduction and orientation to Bricklaying and Plastering	Introduction and orientation to Bricklaying and Plastering	Introduction to career opportunities Trades and Professions	Introduction to career opportunities, Trades and Professions
1. Health and Safety	HIV and Aids and awareness of substance abuse Importance of wearing protective gear Safety signs and building site rules	HIV and Aids and Awareness of Substance abuse Importance of wearing protective gear Safety signs and building site rules	Know safety Precautions when using tools and equipment such as scaffold and ladders Apply basic principles of Health and Safety on the Building site	Know safety Precautions when using tools and equipment such as scaffold and ladders Apply basic principles of Health and Safety on the Building site
2. First Aid	Basic first Aid principles	Basic first Aid principles	Apply basic first Aid	Apply basic first Aid
3. Tools	Identification, Basic Practical skill using different types of tools, Storage,maintenance and handling of tools(Good House	Identification, Basic Practical skill using different types of tools, Storage, maintenance and handling of tools(GoodHouse	Proper use of Bricklaying and plastering tools Be able to maintain and handle	Proper use of Bricklaying and Plastering tools Be able to maintain and handle

TOPIC	Year 1	Year 2	Year 3	Year 4
	Keeping)	Keeping)	tools and equipment	tools and equipment
4. Materials	Knowledge of different types of building material(Lime, Mortar/Dagha, Bricks, Blocks and Sand) **Types of sands** Crusher sand River sand Pit sand Drift sand Sea sand Mine dump sand Add Mixing proportion and storage of materials	Knowledge of different types of building material(Lime, Mortar/Dagha, Bricks, Blocks and Sand)	Knowledge and the use of Bricklaying and plastering Material Know the advantages and disadvantages of different materials Knowledge of testing the workability and the strength of concrete	Knowledge and the use of Bricklaying and plastering Material Know the advantages and disadvantages of different materials Knowledge of testing the workability and the strength of concrete

TOPIC	Year 1	Year 2	Year 3	Year 4
5. Setting Out	Drawing skill (Graphics) Know the tools used in setting out Buildings Know the methods of Measuring and squaring	Know the tools used in setting out buildings Know the methods of Measuring and squaring using the3-4-5 method to set out a rectangular building. Able to make a gauge rod using available material	Know the different methods of Measuring and squaring Know how to erect profiles and use Gauge rod	Know the different methods of Measuring and squaring Know how to erect profiles and use gauge rod
6. Trenches	N/A	Have the knowledge of digging up the foundation trenches Know the requirements of OHS Act pertaining: to safety risk Know the requirements pertaining to safe manual handling of heavy loads	Know the requirements of OHS Act pertaining To: Safety risks. Safe manual handling of Heavy loads Excavate trenches using specified dimensions Installing levels in foundation trenches Carry out the slump Test	Know the requirements of OHS Act pertaining To: Safety risks. Safe manual handling of Heavy loads Excavate trenches using specified dimensions Installing levels in foundation trenches Carry out the slump Test
7. Foundations	Types of foundations	Know how to use corner profiles	Transfer foundation lines to the ground accurately	Transfer foundation lines to the ground accurately

TOPIC	Year 1	Year 2	Year 3	Year 4
	Pad, Strip, Raft, Pile, Stepped	Know how to transfer foundation Lines accurately to the ground	Be able to cast Concrete and applying the correct ratios Be able to compact concrete using hand or vibrator	Be able to cast Concrete and applying the correct ratios Be able to compact concrete using hand or vibrator
8. Bondings of Walls	Know different types of bonds. Know the importance of bonding Application of basic Bricklaying and plastering skills	Know different types of bonds know the importance of bonding application of basic Bricklaying Skills	Be able to build 110mm and 220mm brick walls between columns and corners Be able to build 110mm and 220mm brick walls in stretcher bond Be able to build a Cavity wall	Be able to build110mm and 220mm brick walls between columns, corners and T-Junction Be able to build 110mm and 220mm brick walls in stretcher bond Be able to build a Cavity wall Be able to build 330mm brick wall in English Bond
9. Brickwork (Sub-structure)	N/A	Have the knowledge of setting out the foundation wall	Be able to set out the foundation wall Be able to build a foundation wall on the centre of the strip footing Be able to build one brick wall in stretcher bond below the floor level	Be able to set out the foundation wall Be able to build a foundation wall on the centre of the strip footing Be able to build one brick wall in stretcher bond below the floor level

TOPIC	Year 1	Year 2	Year 3	Year 4
10. Water Proofing	Understand the different types of water proofs Understand the importance of water proofing.	Be able to place the Damp Proof Membrane and Damp Proof Course	Install Damp Proof Course in accordance with specified requirements	Install Damp Proof Course in accordance with specified requirements
11. Flooring	N/A	Know the basic skill of mixing and placing of concrete on the floor slab	Be able to mix, place and Compact concrete slab Be able to mix, place, cure, compact and float concrete screed	Be able to mix, Place, compact and curing of concrete slab Be able to mix, place, compact and float concrete screed
12. Window, Door Opening and Arches	Know the different types of openings in a building	Have the basic knowledge of fixing the Door and Window opening	Be able to position Door and Window frames on the super structure Be able to apply DPC. Build in Sills and embedded wall ties in mortar Be able to construct the Flat Arch using the correct material	Be able to position Door and Window frames on the super structure Be able to apply DPC. Build in Sills and embedded wall ties in mortar Be able to construct the Flat Arch, semi-circular and Segmental using the correct moulds

TOPIC	Year 1	Year 2	Year 3	Year 4
13. Brickwork Superstructure	N/A	Have the basic knowledge of Bricklaying skills	Be able to use all Bricklaying tools Be able to apply all Bricklaying skills Be able to build courses of one Brick wall in Stretcher Bond above the floor level	Be able to use all Bricklaying tools Be able to apply all Bricklaying skills Be able to build course of one brick wall above the floor level
14.Building Drawing	Free hand drawing or sketches of Elevations, plans course, materials and tools Have a knowledge and use of different types of drawing instrument	Make basic scale drawings of Simple buildings Make basic sketches of half brick wall and one brick wall in stretcher Bond using drawing instruments	Know how to use scale Know the symbol used in a building plan Know wall sizes Know the simple abbreviations used on basic plans	Know how to use scale when drawing Know the symbol used in a building plan Know wall sizes 110mm or 220mm and cavity wall Know the simple abbreviations used on basic drawing plans Understand the layout of a basic Drawing dimensions on a plan Know the colour coding

TOPIC	Year 1	Year 2	Year 3	Year 4
15.Mixing Proportions for Brickwork	Know the correct mortar and concrete mixing proportions	Know the correct ratios for mixing concrete and mortar Able to mix mortar for Bricklaying using correct mixes Able to mix Concrete for Foundations	Know the correct ratios for mixing concrete and mortar Able to mix mortar for Bricklaying using correct mixes Able to mix Concrete for Foundations	Know the correct ratios for mixing concrete and mortar Able to mix mortar for Bricklaying using correct mixes Able to mix Concrete for Foundations
16.Paving and . Floor Tiling	N/A	Know different types of paving	Must be able to lay the different types of paving	Must be able to lay the different types of paving
	N/A	Know the tiling tools Know different types of floor tiles Have basic knowledge of tiling	Know how to set out Know the tiling tools Have the skill of using tiling tools Know different types of floor tiles Have the knowledge and skill of laying floor tiles	Know how to set out Know the tiling tools Have the skill of using tiling tools Know different types of floor tiles Have the knowledge and skill of laying floor tiles
17.Toping and screed finish	Know the correct mixing proportions for mixing topping	Know the correct mixing proportions for mixing topping Know how to mix topping for a screed finish.	Must be able to lay a screed and to do the finishing of the screed.(steel finish and wooden float finish)	Must be able to lay a screed and to do the finishing of the screed (steel finish and wooden float finish)

TOPIC	Year 1	Year 2	Year 3	Year 4
18.Plastering	Know the tools used for plastering Know the steps of how to plaster a brick/ block wall	Know the tools used for plastering Know the steps of how to plaster a brick/ block wall	Be able to prepare the wall surface to be plastered Mix mortar in accordance with specified work requirement Be able to use all Plastering tools Be able to apply the Plastering skill	Be able to prepare the wall surface To be plastered Mix mortar in accordance with specified work requirement Be able to use all Plastering tools Be able to apply the Plastering skill Be able to skim a wall and ceiling with Crete stone or Rhinolite
19.Mixing Proportions for Plastering	Know the correct mortar and concrete mixing proportions	Able to mix mortar for Plastering using correct mixes	Able to mix mortar for Plastering using correct mixes	Able to mix mortar for Plastering using the correct proportions
20 Moulding for Brick Making	Know the materials and equipment used for moulding bricks/blocks	Know the correct mixing proportion for brick and block making	Be able mix the material for making bricks Be able to mould bricks or Blocks	Be able mix the material for making bricks Be able to mould bricks or Blocks

3.2 Content outline per term

Year 1

WEEK	TOPIC	CONTENT **The learner is able to:**	**Techniques, activities, resources and process notes**
1	**Safety** OHS Act 85 of 1993	HIV and Aids and awareness of substance abuse Be aware of the dangers of HIV and Aids and how it is transmitted Be aware of different types of substance abuse and the effects of substance abused in the workplace Importance of wearing protective gear Name and identify the following protective clothing(PPE): ○ Overalls ○ Safety glasses ○ Ear muffs ○ Working gloves ○ Safety boots ○ Safety Helmet	Theoretical explanation as well as practical demonstrations **Techniques**: Teacher bring protective clothing and explain the importance of each item.(Demonstration) The teacher may also make use of Personal Protective Equipment, Safety DVD'S and Charts **Activities:** Learners to wear ,identify and name different types Of protective clothing (oral test) Learners should state the use of protective

		Safety signs and building site rules Demonstrate the following: Unsafe acts Unsafe conditions	clothing. (Oral test) Design their own safety sign List examples of unsafe acts and concitions **Resources**: Examples: PPE, DVD's about safety, charts.
	First Aid	• **Apply basic First Aid principles Definitions:** It refers to giving of care and support to a learner who is involved in an accident or is suffering from an illness **Types of injuries**: o Cuts o Burns o Fractures	**Resources**: PPE, DVD's about safety, charts **N**otes: Reasons for wearing protective clothing **Techniques**: Teacher to bring the first Aid Kit to the workplace to Shows learner's the items on the kit.(Demonstration) **Activities:** Learners to, identify and name different items on the First Aid kit Learners should state the use of each item.(oral test).

			Resources: First Aid Kit, DVD's about Injuries, Burns, Fractures and charts **N**otes: Reasons for having First Aid Kit
2	**Tools**	**Identification of tools and functions including care and safe use of:** • **Brick laying tools** ○ Bricklaying trowel ○ Line and pins ○ Spirit level ○ Wooden line blocks ○ Metal tingle ○ Gauge rod • **Setting out tools** ○ Steel tape ○ Steel square ○ Bulding line ○ Straight edge ○ Steel pegs	**Techniques**: The Teacher should also bring the different types of tools and explain the importance of each tool. (Demonstration) **Activities:** Learners to identify and state the function of different types of tools. **Resources**: Different types of Bricklaying Tools, Setting out Tools, Brick Cutting Tools and Jointing Tools Teacher to bring different measuring tools

		○ Pipe Level ○ Dumpy Level • **Brick cutting tools** ○ Brick hammer ○ Club hammer ○ Brick bolster ○ Cold chisel • **Jointing Tools** ○ Long jointer ○ Short jointer ○ Pointing trowel ○ scraper **Able to measure using various instruments /equipment** • Know and understands the SI unit standards ○ Meter, centimeters and millimeters ○ Measure length, height, width and calculate volume and area • Able to read a tape measure and convert units from meters, to centimeter to millimeters	**Activities:** Learners to understand SI unit To convert cm to mm and mm to cm To use some measuring toold **Resources**: Different measuring tools.(tape measure 3m to 100 metres, steel square, mitre square

3-4	**Tools and** **Setting Out**	**Set out and prepare the work area** • Demonstrate and know the methods of squaring ○ Know the symbols on a building plan ○ Able to erect the profile Boards	**Techniques**: Teacher should bring the drawing equipment into the theory classroom and demonstrate how to use the drawing equipment The Teacher should also bring the different types of tools and explain the importance of each tool. (Demonstration) The teacher may use DVD/s and Charts **Activities:** Learners to draw the Isosceles Triangle using the 3-4-5 method on the A4 sheet.(Class Test) Learners will identify and name different types of tools (oral test) Learners should state the use of protective clothing (Oral test) **Resources**: Drawing equipment, Setting out DVD's and charts **N**otes: Reasons for setting out
5-8	**Tools and** **Bonding of walls**	**Bonding of walls (Practical)** ○ Know different types of bonds	**Techniques**: • The Teacher should take learners into the

		○ Stretcher Bond ○ English Bond	workshop and show learners different types of brickwork bonds. (Assimilation) • show learners pictures of different types of bonds and also explain and the importance different types of bonds (Explanatory) **Activities:** • Learners should be able to assimilate the Stretcher Bond and English Bond using bricks. (Assimilation) • Also dry pack bricks showing different types of bonds **Resources**: Bricks, DVD's and charts **Notes**: Reasons for using different types of Bonds.

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.

Practical:

Activity 1 Demonstration:

Learners demonstrate how to care and use :Brick laying tools, Setting Out tools, Brick Cutting tools and Jointing/pointing tools and safety rules (25 %) - Assess using a rubric

***Activity* 2** Model:

Learners mix cement and build a brick wall for assessment (50 %) - Assess using a rubric

Theory:

Activity 3 Respond to questions Pen and paper test (Oral or written) 25% **-** Assess using a memorandum

Learners respond to questions covering the topics listed below:

1. Safety
2. First Aid
3. Measurement and calculation
4. Tools
5. Setting out
6. Bonding of walls

Year 2 Term 1

WEEK	TOPIC	CONTENT **The learner is able to:**	**Techniques, activities, resources and process notes**
1	Safety and First Aid OHS Act 85 of 1993	HIV and Aids and awareness of substance abuse Be aware of the dangers of HIV and Aids and how it is transmitted Be aware of different types of substance abuse and the effects of substance abused in the workplace • Name and identify the following protective clothing(PPE): ○ Overalls ○ Safety glasses ○ Ear muffs ○ Working gloves ○ Safety boots ○ Safety Helmet (Hard hat)	Theoretical explanation as well as practical demonstrations **Techniques**: Teacher bring protective clothing and explain the importance of each item.(Demonstration) The teacher may also make use of Personal Protective Equipment, Safety DVD'S and Charts **Activities:** Learners to wear, identify and name different types of protective clothing.(oral test) Learners should state the use of protective clothing. (Oral test).

		• **Aply basic first Aid principles: (Definition:** It refers to giving of care and support to a learner who is involved in an accident or is suffering from an illness) **Types of injuries**: • Cuts • Burns • Fractures	**Resources**: PPE, DVD's about safety, charts **N**otes: Reasons for wearing protective clothing. **Techniques**: Teacher to bring the first Aid Kit to the workplace to shows learner's the items on the kit.(Demonstration) **Activities:** Learners to, identify and name different items on the First Aid kit Learners should state the use of each item.(oral test) **Resources**: First Aid Kit, DVD's about Injuries, Burns, Fractures and charts **N**otes: Reasons for having First Aid Kit

2	**Tools**	**Know how to use different types of hand tools**
		
		Groups of tools
		
		• **Bricklaying tools**
		• **Brick cutting tool**
		• **Setting out tools**
		• **Jointing/Pointing tools**
		• Identify brick laying tools
		  ○ **Mortar tools**(trowels ,wheelbarrow ,block brush)
		  ○ **Measuring and alignment tools**(Spirit level, Steel square, line and pins, straight edge, corner blocks)
		  ○ **Cutting tools**(brick hammer ,club hammer ,bolsters ,cold chisel)
		  ○ **Digging tools (**pick, spade/shovel)
		  ○ **Plastering tools (**Hand Hawk, Plastering Trowel, Block Brush, Wooden Float**)**
		
		• Select the correct tools for a specific job
		• Care for bricklaying tools
		• Clean, maintain and store bricklaying tools
		• Understand the function of different bricklaying tools
		
		Storage and maintenance, maintenance and handling of tools
		
		Good House Keeping
			Techniques:
			
			Teacher to bring different group of tools Such as:
			
			Mortar tools, Measuring tools, Cutting
			
			tools and digging tools into the theory classroom
			
			Activities:
			
			Learners to, identify and name different types of tools
			
			Learners should state the use of each tool.(oral test)
			
			Resources:
			
			Different groups of Bricklaying and Plastering tools;
			
			Charts and DVD's
			
			Notes: Use, Care and maintenance of different tool

3	**Materials and Tools**	**Know and identify different building materials**
		• Identify different types of material.
		  ○ Types of Sand
		  ○ Types of Bricks
		  ○ Mixing of Concrete
		  ○ Testing of Concrete
		  ○ Curing of Concrete
		• Know the function of each material
		• Testing of concrete using Slump test and Cube test
		• Know the dangers and safety precautions when handling building material
			Techniques:
			Teacher to bring different types of materials Such as:
			Bricks, Building Sand, Plastering Sand, Crusher Sand, Stones, Portland Cement and Building Lime into the theory classroom
			Activities:
			Learners to, identify and name different types of materials
			Learners should state the function of each material
			(Oral test)
			Resources:
			Different types of Bricklaying and Plastering materials;
			Charts and DVD's
			Notes: Use, Care, maintenance, advantages and disadvantages of different materials used in Bricklaying and plastering

			Knowledge and of testing the workability and the strength of Concrete The teacher may also make use of the Slump Test to test the workability of Concrete, CD'S and pictures **Activities:** Learners to identify and name different types of materials Learners to Test the workability of concrete using the Slump Test (oral and Practical test) **Resources**: Materials, DVD's and charts. **N**otes: Reasons for using materials, Testing and Curing of Concrete
4	**Mixing Proportions**	• Know the correct mixing proportions of concrete and mortar such as:	**Techniques**: Teacher to bring different types of materials Such as: Building Sand, Plastering Sand, Crusher Sand, River sand, Stones, Portland Cement and Building Lime into the Practical classroom or workshop and demonstrate the correct mixing ratios

<table>
<tr>
<td></td>
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<table>
<tr><th></th><th>Cement</th><th>Pit Sand</th><th>River Sand</th><th>Stones</th><th>Water</th></tr>
<tr><td>Mortar</td><td>1</td><td>5</td><td></td><td></td><td>Water</td></tr>
<tr><td>Plaster</td><td>1</td><td>5</td><td></td><td></td><td>Water</td></tr>
<tr><td>Concrete</td><td>1</td><td></td><td>3</td><td>3</td><td>Water</td></tr>
</table>
</td>
<td>Teacher should also bring different tools to be used

Activities:
Learners should be able to mix the different materials using correct ratios.(Practical Test)
Resources:
Different types of materials to be used
Charts and DVD’s
Notes: Use, Care and maintenance of materials</td>
</tr>
<tr>
<td>5-6</td>
<td>Setting Out Drawing Equipment, Tools and</td>
<td>Set out and prepare the work area
• Name and identify the following Setting Out Tools:
○ Steel Tape 3 – 100m
○ Measuring tape
○ Steel Square
○ Steel Pegs
○ Building Line
○ Straight Edge
○ Leveling Pipe</td>
<td>Techniques:
Teacher should bring the drawing equipment into the theory classroom
The teacher should demonstrate the function of each drawing equipment
The Teacher should also bring the setting out tools and explain the importance of each tool. (Demonstration)
The teacher may use the setting DVD/s and Charts
Activities:</td>
</tr>
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		○ Spirit Level ○ Chalk Line • Demonstrate and know the methods of squaring • Know the drawing symbols on a building plan	Learners to draw the Isosceles Triangle using the 3-4-5 method on the A4 sheet.(Class Test) Learners will identify and name different types of tools (oral test) **Resources**: Drawing equipment, Setting out DVD's and charts **N**otes: Reasons for setting out
7-8	**Trenches** **(Excavation):** **And Tools**	**Trenches (Excavation):** • Clear the site, using Corner Profiles and transfer • Transfer foundation lines accurately to the ground • Dig up the foundation trench • **Put in level pegs** • Know the requirements of OHS Act pertaining: to safety risk • Know the requirements pertaining to safe manual handling ofheavy loads	**Techniques**: Teacher should bring the digging and excavation tools on the building site The teacher should demonstrate the function of each tool (Demonstration) The teacher may use the excavation DVD's and Charts The teacher may also use the Trenches DVD's and Charts **Activities:** • The teacher should ask learners to use the corner profiles using correct measurements

			• The teacher should ask learners to dig a trench **Resources**: Digging Tools, Excavation tools, Charts and DVD's **N**otes: Reasons for excavation and digging of trenches
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.	

Practical:

Activity 1 Demonstration: 25% Assess using a rubric

- Learners will put corner profiles and measure the length, width and the thickness of foundation trenches
- Learners will draw lines on the ground using building lime

***Activity* 2** Practical: 50% Assess using a Rubric

Learners will dig foundation trenches using the following tools:

- Building line
- Pick Axe
- Muttock
- Shovel
- Garden spade

Theory: Activity 3 : 25% **-** Assess using a memorandum

- Respond to questions
- Pen and paper test (Oral or written)

Learners respond to questions covering the topics listed below:

- Setting out.
- Trench Excavations
- Name, Identify and drawing of digging and setting out tools
- Ratios
- Learners will state the correct mixes for mortar and concrete

Year 2 Term 2

WEEK	TOPIC	CONTENT **The learner is able to:**	**Techniques, activities, resources and process notes**
1-3	**Foundations** **Tools, equipment and Materials**	**Foundations** • Types of foundations ➢ Pad Foundation ➢ Strip Foundation ➢ Raft Foundation ➢ Pile Foundation ➢ Stepped Foundation • Measure off width of foundations at each corner using corner profiles or pegs • Use corner profiles • Transfer foundation Lines accurately to the ground • Demonstrate installation of levels in trench floors with sloping ground	**Techniques**: Types of foundations Pad, Strip, Raft, Pile, Stepped (Demonstration) The Teacher should also bring the measuring tools on the building site The teacher should also bring corner profiles and steel pegs and demonstrate the use of each tool. (Demonstration) The teacher may use the foundation DVD/s and Charts **Activities:** Learners should be able to draw the Strip foundation. (class test) Learners should be able to use corner profiles and transfer lines accurately to the grounds. (Practical Task) **Resources**: Drawing equipment, foundation DVD's and charts **N**otes: Reasons for foundations

4-5	**Brick Making** **Tools, equipment, and Materials**	**Brick Making (types of bricks to be moulded)** **Stock Bricks and Building blocks** ○ Understand and use the machine used to mould bricks. ○ Apply the correct mixing proportion for brick and block making ○ Describe the drying process **Standard Sizes of bricks** • Identify the measurements of stock brick and building blocks **Brick Making Tools** • Understand and use tools for moulding bricks and building blocks	**Techniques**: Teacher should bring a sample of bricks with different sizes into the theory class room The teacher should also bring the materials for making bricks The teacher should also physically demonstrate how brick making machine functions The teacher should demonstrate the function of each tool and material. (Demonstration) The teacher may use the brick making DVD/s and Charts **Activities:** Learners should draw a free hand sketch of a brick and show the dimensions (Class test) Learners should identify brick making tools.(Oral test) Learners will identify and name different types of Bricks (oral test) Learners should be able to know different functions of eeach material **Resources**: Brick making tools, Brick making material, DVD's and charts **N**otes: Reasons for moulding bricks

6	**Bonding of walls And Brick Work** **Tools, equipment and Materials**	• **Brick bonds** describes the various styles of laying bricks to create different patterns • The bond is the method by which masonry "units" -- or bricks -- are interlocked or joined and the adhesion of mortar to the bricks **Bonding of walls is to ensure the stability of the** **Structure and to produce pleasing appearance** ○ Describe and illustrate the different types of bonds and the importance of bonding bricks ○ Stretcher Bond- Consists of all stretchers in every course ○ English Bond- A very strong bond consisting of alternate courses of headers and stretchers ○ Understand and apply the following rules of bonding: ○ A quarter bond is obtained by placing a queen closer next to the corner header ○ The bond is set out along the face of the wall, working from each end towards the centre ○ No cut bricks less than a closer must appear on the face of the wall ○ When the wall changes direction, the bond must be changed in the same course ○ A broken bond results when the bond pattern cannot be maintained in the given length	**Techniques**: Teacher should assimilate different types of bonds by laying bricks in the practical workshop (Dry bonding) The teacher should emphasize the importance bonding bricks (Demonstration) The teacher may use the brickwork bonds DVD/s and Charts **Activities:** Learners should assimilate the different types of bonds by laying bricks without using mortar (Assimilation) Learners should identify different types of bonds (Oral test) Learners will identify and name different types of Brickwork bonds (oral test) Learner will identify the terms used in bricklaying and plastering (Oral Task) **Resources**: Bricks, Brickwork bonds DVD's and charts **N**otes: Reasons for bonding bricks

		○ Learners should understand the following terms used in bonding. ○ Stretcher ○ Header ○ Arris ○ Queen Closer ○ Half Bat ○ Three quarter Bat ○ Course ○ Stopped end ○ Toothed end ○ Racking back ○ Return Angle	
7	**Water Proofing** **And Materials**	**Water Proofing / Damp Proof Course** **Types of DPC** ○ Polythene sheeting ○ Malthoid or Asphalt ○ Sheet Lead ○ Sheet Copper ○ Surface Concrete ○ Slate ○ State the importance and the purposes of Damp Proof Course and Damp Proof Membrane	**Techniques**: Teacher should show learners different types of DPC (demonstration) Teacher should demonstrate how to lay damp proof course on the wall The teacher should explain the effects of moisture on the building The teacher may use the DPC and DPM DVD/s and Charts

		○ Place the Damp Proof Course on the foundation wall ○ Place the Damp Proof Membrane underneath the surface bed top of the Hardcore filling	**Activities:** Learners should practice laying DPM and DPC on the building.(Assimilation) **Resources**: DPC and DPM, DVD's and charts **N**otes: Reasons laying DPC and DPM
8	**Floor Finishes** **Tools, equipment and Materials**	**Floor Finishes** Define Floor Finish :final surface treatment • Name different materials for constructing floor finishes • State the purposes served by a floor slab • Know the different types of floor finishes such as: ○ Cement Screed ○ Floor Tiles ○ Wooden Floor ○ Carpet Floor ○ Concrete finish/wooden float and steel trowel	**Techniques**: Teacher should bring different types of materials for constructing floor slabs such as: • Cement • Concrete Stones • Fine aggregate • Course aggregate • Water Learners should be able to use the correct tools for floor finishes **Activities:** Learners identify the different types of materials.(Oral)

			Resources: Cement, Concrete Stones. Fine aggregate Course, Aggregate, Water **N**otes: Reason for flooring
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	

Practical:

Activity 1 Demonstration 25% Assess using a rubric

Learners will level the base and the side of the foundations trench at each corner using tools such as:

- Spirit level
- Straight edge
- Garden spade
- To install pegs for casting concrete foundation

Activity 2 Practical 50% Assess using a rubric

- The learners should identify different types of DPC
- The learners must lay DPM and put in level for concrete floor

Theory:

Activity 3 Respond to questions Pen and paper test (Oral or written) 25%

Year 2 Term 3

WEEK	TOPIC	CONTENT **The learner is able to:**	**Techniques, activities, resources and process notes**
1-3	**Window,** **Door openings** **and Arches** **Tools, equipment and Materials**	Define an Arch Provide a window and door frames • Know the basic skill of fixing the Door and Window frames • Level and plumb the Door and Window frames • Know different types of Arches • Construct different types of Arches such as : o Segmental Arch o Semi Circular Arch o Flat Arch o Brick on Edge,Soldier course intallations-window sills,facebrick decorative work	**Techniques**: Teacher should demonstrate different steps of fixing the door and the window frames.(Demonstration) The teacher should also bring the charts of different types of Arches **Activities:** Learners should identify the different type's arches Learners should be able to construct different types of arches(Assimilation) Learners will be able to identify and name different types of Arches (oral test) **Resources**: Window and door frame frames Window and Door frames Charts and Arches DVD's **N**otes: Reasons for openings

4-5	**Brick Work** **Finishes** **Tools, equipment and Materials**	• Use pointint and jointing tools to finish off face brick wall.	**Techniques**: Teacher should bring long jointer, short jointer, mastic trowel and pointing trowel into the theory classroom (Demonstration) **Activities:** Learners should be able to identify the different types of finishing tools (oral test) **Resources**: Finishing tools, DVD's and charts **N**otes: Reasons for brickwork finishing

6	**Plastering**
	
	Tools, equipment and Materials
		• Describe and demonstrate the process of preparing a brick wall for plastering
		• Know and use the tools used for plastering and skimming
		• Plastering tools:
		  ○ Hand hawk
		  ○ Plaster's trowel
		  ○ Gauging trowel
		  ○ Pointing trowel
			Techniques:
			
			Teacher should demonstrate how to prepare a brick wall for plastering.(Demonstration)
			
			Teacher should demonstrate how to use plastering tools

		○ Wooden float ○ Block brush ○ Reading tool ○ Corner tools	**Activities:** Learners should be able to state different steps of preparing the brick wall for plastering (Oral test) **Resources**: DVD's and charts Plastering tools Plastering material **N**otes: Reasons for plastering walls
7	Floor Finishes And Material	• Identify different types of floor finishes such as: ○ Floor Tiles ○ Wooden Floor ○ Carpet Floor ○ Floor finishing with wood and steel floats • Place and square tiles on the floor for laying	**Techniques**: Teacher should assimilate different types of floor finishes Into the practical workshop.(Assimilation) Teacher should demonstrate how to lay the floor tiles (Demonstration) **Activities:** Learners should state or name the different types of

			floors.(Oral test) Learners should be able to place or lay tiles on the floor (Practical Task) **Resources**: Wooden floor, Carpet and Floor tiles DVD's and charts **N**otes: Reasons for flooring

8	Paving and Materials	• Identify different types of paving such as:
		  ○ Stretcher Bond
		  ○ Herring Bone paving
		  ○ Basket weave paving
		• Lay the paving bricks in different bonds
			Techniques:
			Teacher should be able to demonstrate the different types of paving into the workshop (Demonstration)
			Activities:
			Learners should be able to identify different types of paving
			Learners should be able to lay different types of paving (Practical)
			Resources:
			Paving Bricks, DVD's and charts
			Notes: Reasons for Paving

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.

Practical:

Activity 1 Demonstration 25% Assess using a Rubric

- Learners will practice the basic skill of fixing the Door and Window frames
- Learners will level and plumb the Door and Window frames

Activity 2 Practical 25% Assess using a rubric

- Learners will simulate(practical demonstration) the stretcher bond.

Activity 3 Practical 25% Assess using a Rubric

- Learners will level the surface for paving using the following tools
  - Spirit level
  - Straight edge
  - Building line and steel pegs
  - Steel square
  - 3-4-5 method for squaring
- Learners will construct different patterns of paving such as:
  - Stretcher pattern
  - Herring Bone pattern
  - Basket weave pattern

Theory:

Activity 4 Respond to questions Pen and paper test (Oral or written) 25% Assess using a memorandum

Year 2 Term 4

WEEK	TOPIC	CONTENT **The learner is able to:**	**Techniques, activities, resources and process notes**

1-2	**Building plans and Drawing equipment**	• Use free hand sketching to illustrate different types of tools used in the building industry:
		  ○ Brick trowel
		  ○ Club Hammer
		  ○ Bolster
		  ○ Corner Block
		• Use free hand sketching to illustrate different types of symbols used in building plans:
		  ○ Brickwork
		  ○ Concrete
		  ○ Doors
		  ○ Windows
		  ○ Electrical
		  ○ Plumbing
			Techniques:
			Teacher should bring different types of tools into the theory classroom
			Teacher should demonstrate to the learners how to draw
			Freehand sketches of the different types of
			tools.(Demonstration)
			Activities:
			Learners should draw the free hand sketch of different types of tools (Class Test)
			Learners should draw the free hand sketch of different types of symbols (Class Test)
			Resources:
			Drawing equipment
			Tools, DVD's and charts
			Notes: Reasons for drawing

3-7	**Interpretation of Building Plans And Drawing Equipment**	• Read, measure and interpret simple building plans • Draw simple building plans (e.g.(rooms with doors and windows)	**Techniques**: Teacher should bring a simple drawing of a ground plan interpret it to the learners **Activities:** Learners should be able to read the ground plan and show the following elevations (oral test) • North • South • East • West. Ground plan, DVD's and charts **N**otes: Reasons reading ground plans

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

Practical:

Activity 1 Demonstration 25% Assess using a Rubric

- Demonstrate simple process skill/s
  e.g. Freehand sketches of tools and sysmbols

Activity 2 Practical 50% Assess using a Rubric

- e.g. A building plan of a single garage

Theory:

Activity 3 Respond to questions Pen and paper test (Oral or written) 25%

Year 3 Term 1

WEEK	TOPIC	CONTENT **The learner is able to:**	**Techniques, activities, resources and process notes**
1	Safety and First Aid OHS Act 85 of 1993	**Scaffolding** **Define scaffolding** Scaffold" is a term used to describe a temporary structure for the support of workers and their materials during building operations **Types of Scaffolds** • Identify and describe different types of scaffolding: ○ Dependant Scaffolding relies on the wall for support ○ Independent scaffold stands on its own • Trestles **Safety on scaffolding** • Always wear protective gear	**Techniques**: Teacher to bring different parts of scaffold and to demonstrate to learners how to assemble them: (Demonstration) • Standards • Ledgers • Putlogs • Braces • Base Plates • Sole Plates • Jointing Pins • Expanding joint • Swivel Coupler • Gin wheel • Scaffold boards • Trestles • Ladders

		• Parts should securely fix to avoid tripping. • Base plates and sole plates should be on the firm ground • Boards must be level and overlap • Clear passage at least 400mm on the working platform to avoid obstruction • Braces must be used to prevent the scaffold from collapsing due to sideways sway • Guard rails and toe boards must be provided and securely fixed • Ladders should be securely fixed on a firm base • Safety harness should be used when using scaffold **First Aid Revision from year 2**	**Activities:** • Learners will identify different parts of scaffolds • Learners will assemble or erect different types of scaffold **Resources**: Different parts of scaffold listed above; Charts and DVD's **N**otes: Use, Care and maintenance of scaffold fitting
2	**Tools**	**Different types of hand tools:** **NB Tools are devided into four groups i.e** **Bricklaying tools, setting out tools** **brick cutting tools** **and Jointing/pointing tools**	**Techniques**: Teacher to bring different group of tools Such as: Mortar tools, Measuring tools, Cutting tools and digging tools into the workshop **Activities: Practical**

		• Identify different types of tool: ○ **Mortar tools**(trowels ,wheelbarrow ,block brush), ○ **Measuring and alignment tools**(Spirit level, Steel square, line and pins, straight edge, corner blocks) ○ **Cutting tools**(brick hammer ,club hammer ,bolsters ,cold chisel) ○ **Digging tools (**pick, spade/shovel) ○ **Plastering tools (**Hand Hawk, Plastering Trowel, Block Brush, Wooden Float**)** • Select the correct tools for a specific job • Care for bricklaying tools • Clean maintain and store bricklaying tools • Understand the function of different tools	Learners will use different tools for different purposes **Resources**: Different groups of Bricklaying and Plastering tools; Charts and DVD's **N**otes: Use, Care and maintenance of different tool
3-5	**Materials** **Tools, equipment and Materials**	**Different building materials .** • Select and use different types of materials to ensure that they perform their correct functions on a building: ○ Types of Sand ○ Types of Bricks ○ Course aggregate	**Techniques**: Teacher to bring different types of materials Such as: Bricks, Building Sand, Plastering Sand, Crusher Sand, Stones, Portland Cement and Building Lime into the theory classroom. (Demonstrate)

		○ Mixing of Concrete ○ Testing of Concrete (Slump Test- concrete being used is always of the same required strength) ○ Curing of Concrete	**Activities:** Learners should be able to mix different types of materials in their correct proportions Learners should be able to use different types of materials. (Practical Task) Learners should be able to test the workability of concrete Learners should be able to cure concrete using different methods **N**otes: Use, Care, maintenance, advantages and disadvantages of different materials used in Bricklaying and plastering Knowledge and of testing the workability and the strength of Concrete The teacher may also make use of the Slump Test to test the workability of Concrete, CD'S and pictures **Resources**: Materials, DVD's and charts **N**otes: Reasons for using materials, Testing and Curing of Concrete

<table>
<tr>
<td>6</td>
<td>Mixing Proportions

Tools, equipment and Materials</td>
<td>
Mix brick mortar, plaster mortar and concrete mixes in their correct proportions
The table below shows the correct mixing proportions

Low Strength
<table>
<tr><td></td><td>Cement bucket</td><td>Sand bucket</td><td>Stones bucket</td><td>Water</td></tr>
<tr><td>Mortar</td><td>1</td><td>5</td><td></td><td>Water</td></tr>
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<tr><td>Concrete</td><td>1</td><td>2</td><td>4</td><td>Water</td></tr>
</table>
</td>
<td>Techniques:

Teacher to bring different types of materials Such as:

Building Sand, Plastering Sand, Crusher Sand, River sand, Stones, Portland Cement and Building Lime into the Practical classroom or workshop and demonstrate the correct mixing ratios

Teacher should also bring different tools to be used

Activities:

Learners should be able to mix the different materials

using correct ratios.(Practical Test)

Resources:

Different types of materials to be used

Charts and DVD’s

Notes: Use, Care and maintenance of materials</td>
</tr>
</table>

7	**Setting Out**
	
	Tools, equipment and Materials
		Set out and prepare the work area
		• Name and identify the following Setting Out Tools:
		  ○ Steel Tape 3m – 100m
		  ○ Measuring tape
		  ○ Steel Square
		  ○ Steel Pegs
		  ○ Building Line
		  ○ Straight Edge
		  ○ Leveling Pipe
		  ○ Spirit Level
		  ○ Chalk Line
		
		• Demonstrate and know the methods of squaring
		• Know the drawing symbols on a building plan
			Techniques:
			Teacher should bring the setting out tools to the building site
			The teacher should demonstrate the function of
			each tool
			The Teacher should also demonstrate the 3-4-5 method for squarness
			The teacher should also use the diagonal check for squareness (Demonstration)
			
			Activities:
			Learners should be able to use the 3-4-5 method to set out the building
			(Practical)
			
			Resources:
			Setting out tools, DVD's and charts
			Notes: Reasons for setting out

8	**Trenches** **(Excavation):** **Tools, equipment and Materials**	**Trenches (Excavation):** **Define Excavation- setting out and digging of foundations)** • Dig trenches using the correct tools • Apply the requirements of OHS Act pertaining: to safety risk of trenches such as timbering and fencing to avoid accidents	**Techniques**: Teacher should bring the digging and excavation tools on the building site The teacher should demonstrate the function of each tool. (Demonstration) The teacher may use the excavation DVD/s and Charts The teacher may also use the Trenches DVD/s and Charts **Activities:** • To build corner profiles using correct measurements • to dig, level and trim trenches using correct tools • Place support to the sides of foundation trenches using the correct materials and tools **Resources**: Digging Tools, Excavation tools, Charts and DVD's **N**otes: Reasons for excavation and digging of trenches Reason for classification of timbering

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

Practical:

Activity 1 Demonstration 25% Assess using your own Rubric

- Learners will assemble or erect different types of scaffold and trestles

Activity 2 Practical 50% Assess using your own Rubric

e.g. Learners will

- dig trenches:
- mix concrete using the correct mixing proportions
- cast concrete into the trenches
- compact concrete and level it

Theory:

Activity 3 Respond to questions Pen and paper test (Oral or written) 25%

Year 3 Term 2

WEEK	TOPIC	CONTENT **The learner is able to:**	**Techniques, activities, resources and process notes**

1-3	**Foundations**
	
	Tools, equipment and Materials
		Foundations
		
		• To measure off width of foundations at each corner using corner profiles or pegs
		• The use of corner profiles
		• transfer foundation Lines accurately to the ground
		• To install level pegs for casting concrete foundation
		• The mixing concrete according to the correct proportions
		• to transport and pour concrete into the trenches
		• Learners should be able to compact and level the concrete
		• to cure concrete using the correct methods such as:
		  ○ Sand covering
		  ○ Water sprinkling
		  ○ Plastic covering
			Techniques:
			
			The teacher will demonstrate the correct measuring of the foundation width ,depth and levelling of foundations
			
			Types of foundations
			
			Pad, Strip, Raft, Pile, Stepped (Demonstration)
			
			The Teacher should also bring the measuring tools on the building site
			
			The teacher will demonstrate the testing the workability of concrete using the Slump Test(Demonstration)
			
			Activities: Practical Assessment
			
			Learners should be able mix and transport concrete
			
			Learners should be able to pour, compact and level concrete
			
			Learners should be able to cure concrete using the correct methods

			Resources Profile boards ,building line ,pegs ,mixing and levelling tools plastic for curing and water, charts
4-5	**Brick Making** **Tools, equipment and Materials**	**Brick Making (types of bricks to be moulded)** **Define a brick – building blocks made of cement or clay** **A brick is a solid unit of burnt clay** ○ **Stock Bricks (220mmx110mmx75mm)** ○ **Building Blocks(140mmx390mmx190mm) Outside wall** ○ **Building Blocks (90mmx390mmx190mm) Inside wall** **Standard Sizes of bricks** know the standard size of the above mentioned bricks ○ Mix the correct proportions for moulding cement bricks and blocks ○ Mould bricks and blocks using the bricks or block moulds ○ Drying bricks by exposing the bricks in the sun for five days	**Techniques**: Teacher should bring a sample of bricks with different sizes into the theory class room The teacher should also bring the materials for making bricks The teacher should demonstrate the function of each tool and material (Demonstration) The teacher may use the brick making DVD/s and Charts **Activities:** Learners should draw a free hand sketch of a brick and show the dimensions (Class test) Learners should identify brick making tools(Oral test) Learners will identify and name different types of Bricks (oral test) Learners should be able to know different functions of each

		Brick Making Tools • Use tools and equipment for molding bricks and blocks	material **Resources**: Brick making tools, Brick making material, DVD's and charts **N**otes: Reasons for moulding bricks
6	**Bonding of walls And Brick Work** **Tools, equipment and Materials** **(Application)**	**Bonding of walls is to ensure the stability of the** **Structure and to produce pleasing appearance** **NB: Building lime should be used for practical lessons** • Use all the bricklaying tools and materials • Build the following types of walls o 110mm and 220mm walls in Stretcher and English Bond o Return Angle Walls (Right Angled) o T-Junction walls o Racking back and toothed End o Basic brick piers or columns o Build between profiles	**Techniques**: Teacher should demonstrate types of bonds by laying bricks in the practical workshop The teacher should emphasize the importance bonding bricks. (Demonstration) **Activities(Practical)** Learners should be able to build the following types of walls in English and Stretcher (Practical) o 110mm and 220mm walls in Stretcher and English Bond o Return Angle Walls (Right Angled) o T-Junction walls o Racking back and toothed End o Basic brick piers or columns o Build between profiles

			Resources: The teacher may use the brickwork bonds DVD/s and Charts **N**otes: Rules of bonding
7	**Water Proofing,** **Material and Tools**	**Water Proofing / Damp Proof Course/Damp Proof Membrane** Identify the places where DPC and DPM should be placed on building sites o Walls of the substructure o Moisture rising through the floor o Moisture rising from the ground up to the walls o Through the bottom of the window sills when it rains, o Through the top of the wall o Place the Damp Proof Membrane underneath the surface bed top of the Hardcore filling	**Techniques**: Teacher should demonstrate how to lay damp proof course on the wall The teacher should explain the effects of moisture on the building The teacher will show how to lay DPC on the various areas of the building where moisture can penetrate **Activities:** Learners will identify and name places where DPC and DPM will be placed using the existing structure Learners should practice laying DPM and DPC on the building (Practical) **Resources**:

			DPC and DPM, DVD's and charts **N**otes: Reasons laying DPC and DPM
8	**Flooring and Finishes** **Tools, equipment and Materials**	Learners should know the Importance of a floor slab on a building **Procedure for laying a floor slab** ○ Fill the room spaces with hardcore(broken bricks, stones and soil) ○ Ram(compact) down the hardcore until it is level with the walls ○ Put a layer of Sand blinding to protect the DPM ○ Lay DPM over the floor area and DPC on the walls ○ Place mixed concrete and compact well ○ (Smoothen) concrete to flat level surface(wooden float ,steel trowel) **Floor Finishes** ○ Cement Screed(25mm thick) ○ Floor Tiles ○ Terrazzo/granolithic finish ○ Wooden Floor ○ Carpet Floor	**Techniques**: Teacher should bring different types of materials for constructing floor slabs and floor finishes such as: ○ Cement ○ Concrete Stones ○ Fine aggregate ○ Course aggregate ○ Water ○ PVC tiles **Activities:** • Learners identify and name the different types of materials for flooring (Oral) • Learners will practice placing the hardcore and the concrete floor slab • Learners will practice placing DPM and DPC on various places on a building • Learners will place the 25mm cement screed on top of

			the floor slab • Learners should be able to place the tiles on the floor • Learners should be able to place the wooden floor **Resources**: Cement, Concrete Stones. Fine aggregate Course, Aggregate, Water, different types of flooring **N**otes: Reason for flooring, DPC.DPM, Terrazzo
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	

Practical:

Activity 1 Demonstration 25% Assess using your own Rubric

- Demonstrate simple process skill/s
  e.g. Moulding of bricks and cement blocks

Activity 2 Practical 50% Assess using your own Rubric

- e.g. Lay a floor slab

Theory:

Activity 3 Respond to questions Pen and paper test (Oral or written) 25%

Year 3 Term 3

WEEK	TOPIC	CONTENT **The learner is able to:**	**Techniques, activities, resources and process notes**
1-4	**Window,** **Door openings,** **Arches and** **Brick work.** **Tools, equipment and Materials**	**NB: All openings should be on the same height** Procedure to be followed when fixing: **Door frames and window frames** • Frames must always be upright or plumb • On residential buildings the tops of the door frames must be level with the tops of the door frames • The frames must be securely fixed to the walls using the lugs • The frames must not carry any weight of the wall or roof above them **Arches** • Use the Arch centre to construct different types of Arches **Brick Work NB: Jointing should be applied when building with face brick** • After fixing the frames learners should be able to build in	**Techniques**: Teacher should demonstrate different steps of fixing the door and the window frames.(Demonstration) The teacher should also bring the charts of different types of Arches **Activities:** Learners should fix the window and door frames on the wall (Practical) Learners should be able to build in the window and door frames (Practical) Learners should be able to construct different types of Aches using Arch centres (Practical) Learners should able to place the brick force into the wall after every three to five courses Learners should be able to finish the walls by jointing

		the doors and the window frames to the height of the door and window frames • Precast concrete lintels must be placed on top of the door and window frames • Use the brick force to strengthen the wall after every three to five courses • Joint the wall if necessary	**Resources**: Window and Door frames, props and stays, arch centre jointing tool, .brick-force, Charts and DVD's for arches Notes: Procedure for fixing door frames and window frames and methods of constructing Aches
5	**Tools, equipment and Materials**	e.g Finishing Tools Learners should be able to use the following tools: • Brick Trowel • Spirit Level • Corner blocks • Building line • Long and short jointer • Gauge Rod • Steel square Learners should be able to use the following types of materials and equipment: • Bricks • Cement/Lime • Sand	**Techniques**: Teacher should bring long jointer, short jointer, mastic trowel and pointing trowel into the theory classroom (Demonstration) **Activities:** Learners should be able to identify the different types of finishing tools (oral test) **Resources**: Finishing tools, DVD's and charts **N**otes: Types of tool, equipment and materials

		• Wheel barrow • Brick force • Water • Corner profiles	
6	**Plastering** **Tools, equipment and Materials**	Learners should be able to describe the process of preparing the wall surface for plastering: Surface of the wall must be check for obsticles Surface of the wall must be dust freen and clean Learners should be able to use the following plastering tools • Hand Hawk • Steel Float • Wooden Float • Bricklayers Trowel • Bucket • Block Brush • Corner Tools • Spirit Level • Straight Edge Learners should be able to apply plaster mortar on the wall	**Techniques**:-Remove any projecting spots on the wall surface and always clean the floor below **-Sprinkle the surface of the wall with water to prevent wall from absorbing the moisture out of the plaster and,in so doing,reducing adhesion** **-Apply a border of plaster around the perimeter of the wall** **-Reduce this screed to the correct thickness and plumb it by using the straight edge and spirit level** Teacher should demonstrate the how to prepare a brick wall for plastering (Demonstration) **Activities:**

			Learners should be able to identify and name the plastering tools ○ Hand Hawk ○ Steel Float ○ Wooden Float ○ Bricklayers Trowel ○ Bucket ○ Block Brush ○ Corner Tools ○ Spirit Level ○ Straight Edge Learners should be able to state different steps of preparing the brick wall for plastering (Oral test) **Resources**: Tools, Materials, DVD's and charts **N**otes: Reasons for plastering walls
7	Floor Finishes **Tools, equipment and Materials**	State the different types of floor finishes such as: ○ Floor Tiles ○ Wooden Floor ○ Carpet Floor ○ PVC tiled floors ○ Concrete floors	**Techniques**: Teacher should assimilate different types of floor finishes Into the practical workshop (Assimilation) Teacher should demonstrate how to lay the floor tiles

		○ Screeded topings Learners should have basic skills of placing the tiles on the floor	(Demonstration) **Activities:** Learners should state or name the different types of floors.(Oral test) Learners should be able to place or lay tiles on the floor (Practical Task) **Resources**: Wooden floor, Carpet and Floor tiles DVD's and charts **N**otes: Reasons for flooring
8	Paving **Tools, equipment and Materials**	State the different types of paving such as: ○ Stretcher Bond ○ Herring Bone paving ○ Basket weave paving ○ Half bricks	**Techniques**: Teacher should be able to demonstrate the different types of paving into the workshop (Demonstration) **Activities:** Learners should be able to identify different types of paving

			Learners should be able to lay different types of paving (Practical) **Resources**: Paving Bricks, DVD's and charts **N**otes: Reasons for Paving
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	

Practical:

Activity 1 Demonstration 25% Assess using your own Rubric

- Demonstrate simple process skill/s
  e.g. plastering a wall

Activity 2 Practical 50% Assess using your own Rubric

- e.g. laying different patterns of paving bricks

Theory:

Activity 3 Respond to questions Pen and paper test (Oral or written) 25%

Year 3 Term 4

WEEK	TOPIC	CONTENT **The learner is able to:**	**Techniques, activities, resources and process notes**

1-3	**Building drawing**
	
	Tools, equipment and Materials
		• Present the sketch of a house in pictorial form
		• Sketch the floor plan and elevations of a building
		• Identify different types of foundations and recommend the appropriate foundation for a building structure
		• Label parts of a house
		• Select the appropriate door or window for a given design
		• Use the conventions and symbols to complete location drawings
		
		• Use the following drawing equipment:
		  ○ Pencil
		  ○ Drawing instruments
		  ○ Drawing Board
		• Show the following elevations:
		  ○ North Elevation
		  ○ South Elevation
		  ○ East Elevation
		  ○ West Elevation
			Techniques:
			Teacher should bring charts showing Autographic and
			Isometric drawing of a house plan into the classroom
			The teacher will interpret the drawings
			Activities:
			Learners should be able to prepare a sketch of a floor plan according to the specified dimensions and scale.(Class Test)
			Learners will be able to sketch the following elevations:
			  ○ North Elevation
			  ○ South Elevation
			  ○ East Elevation
			  ○ West Elevation
			  ○ Section A-A
			
			Resources:
			
			Drawing Instruments, Tools, and DVD's and charts

		• show the section through of the following
		  ○ A-A
		  ○ B-B
			Notes: Reasons for drawing ground plans

4-7	**Interpretation of Building Plans** **Tools, equipment and Materials**	• Rread and Interpret the ground plan of a simple building. • Ttransfer the position of the building plan • Uuse the following tools: ○ Building line ○ Steel pegs ○ Steel square ○ 100m Measuring tape ○ Spirit Level ○ Building Lime ○ Club Hammer ○ Corner profiles	**Techniques**: Teacher should bring a simple drawing of a ground plan and Interpret it to the learners on the building site.(Demonstration) The teacher should demonstrate how to set out the Building (Demonstration) The teacher should bring the following tools on the building site: ○ Building line ○ Steel pegs ○ Steel square ○ 100m Measuring tape ○ Spirit Level ○ Building Lime ○ Club Hammer ○ Corner profiles

			Activities: Learners should be able to read the ground plan and showing the following elevations (oral test) ○ North ○ South ○ East ○ West Learners should be able to read the ground plan apply the following steps (Practical) ○ Site Clearance and Levelling ○ Boundary Pegs ○ Measuring the position of the Building ○ Put up Corner Profiles ○ Fix ranging lines ○ Squareness 3-4-5 using method ○ Transfer the foundation lines to the ground using steel pegs and building line ○ Mark lines using building lime ○ Dig trench following the lines drawn on the ground

			Resources: Building site ,tools, DVD's and charts **N**ote: Reading of House plans
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	

Practical:

Activity 1 Demonstration 25% Assess using your own Rubric

- Demonstrate simple process skill/s
  e.g. **Practical setting out and fixing levels**

Activity 2 Practical 50% Assess using Rubric

- e.g. Drawing of a section through a foundation up to floor slab

Theory:

Activity 3 Respond to questions Pen and paper test (Oral or written) 25%

Year 4 Term 1

WEEK	TOPIC	CONTENT **The learner is able to:**	**Techniques, activities, resources and process notes**
1	Safety and First Aid OHS Act 85 of 1993	**Scaffolding** **Safety on scaffolding NB always wear protective gear** ○ Parts should securely fix to avoid tipping ○ Base plates and sole plates should be on the firm ground. ○ Boards must be level and overlap ○ Clear passage at least 400mm on the working platform to avoid obstruction ○ Braces must be used to prevent the scaffold from collapsing due to sideways sway ○ Guard rails and toe boards must be provided and securely fixed ○ Ladders should be securely fixed on a firm base ○ Safety harneses should be used when using scaffold Types of scaffolding: ○ Dependant Scafolding relies on the wall for support ○ Independent scaffold stands on its own ○ Methods of assembling scaffold parts	**Techniques**: Teacher to bring different parts of scaffold to demonstrate to learners how to assemble them.(Demonstration) such as: ○ Standards ○ Ledgers ○ Putlogs ○ Braces ○ Base Plates ○ Sole Plates ○ Jointing Pins ○ Expanding joint ○ Swivel Coupler ○ Gin wheel ○ Scaffold boards ○ Trestles ○ Ladders

		First Aid Revision from year 2	**Activities:** • Learners will identify and name different parts of scaffolds • Learners will assemble and use the scaffold during construction **Resources**: Different parts of scaffold listed above; Charts and DVD's **N**otes: Use, Care and maintenance of scaffold fitting
2	**Tools**	**Know how to use different types of hand tools:** • Learners will be able to use the tools ○ **Mortar tools**(trowels ,wheelbarrow ,block brush), ○ **Measuring and alignment tools**(Spirit level, Steel square, line and pins, straight edge, corner blocks) ○ **Cutting tools**(brick hammer ,club hammer ,bolsters ,cold chisel) ○ **Digging tools (**pick, spade/shovel) ○ **Plastering tools (**Hand Hawk, Plastering Trowel, Block Brush, Wooden Float**)** • Select the correct tools for a specific job • Care for bricklaying tools • Clean maintain and store bricklaying tools	**Techniques**: Teacher to bring different group of tools Such as: Mortar tools, Measuring tools, Cutting tools and digging tools into the workshop **Activities: Practical** Learners will use different tools for different purposes **Resources**: Different groups of Bricklaying and Plastering tools; Charts and DVD's **N**otes: Use, Care and maintenance of different tool

		• Understand the function of different tools	
3-5	**Materials** **Tools, equipment and Materials**	**Use of different building materials** • Use different types of materials to ensure that they perform their correct functions on a building such as: o Types of Sand o Types of Bricks o Course aggregate o Mixing of Concrete o Testing of Concrete (Slump Test) o Curing of Concrete	**Techniques**: Teacher to bring different types of materials Such as: Bricks, Building Sand, Plastering Sand, Crusher Sand, Stones, Portland Cement and Building Lime into the theory classroom (Demonstrate) **Activities:** Learners should be able to mix different types of materials in their correct proportions Learners should be able to use different types of materials. (Practical Task) Learners should be able to test the workability of concrete Learners should be able to cure concrete using different methods **N**otes: Use, Care, maintenance, advantages and disadvantages of different materials used in Bricklaying and plastering

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The teacher may also make use of the Slump Test to test the workability of Concrete, CD'S and pictures
Resources:
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<td>Techniques:
Teacher to bring different types of materials Such as:
Building Sand, Plastering Sand, Crusher Sand, River sand, Stones, Portland Cement and Building Lime into the Practical classroom or workshop and demonstrate the correct mixing ratios
Teacher should also bring different tools to be used
Activities:
Learners should be able to mix the different materials
using correct ratios.(Practical Test)
Learners should be able to carry out the Slump Test</td>
</tr>
</table>

High Strength

	Cement buckets	Sand buckets	Stones buckets	Water
Mortar	1	3		Water
Plaster	1	4		Water
Concrete	1	2	4	Water

to measure the workability of concrete

Learners should be able to place and compact

Learners should be able to cure concrete using different methods

Resources:

Different types of tools and materials to be used

Building area/Site

Charts and DVD's

Notes: Use, Care and maintenance of materials

Methods of curing concrete

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

Practical:

Activity 1 Demonstration 25% Assess using Rubric

- Mixing of Mortar and build a 330 x 330mm column five courses high e.g.

Activity 2 Practical 50% Assess using your own Rubric

- e.g. Mixing of Concrete and casting a slab 1m x 1m by 75mm thick

Theory:

Activity 3 Respond to questions Pen and paper test (Oral or written) 25%

Year 4 Term 2

WEEK	TOPIC	CONTENT The learner is able to:	Techniques, activities, resources and process notes

1-3	**Foundations**
	
	Tools, equipment and Materials
		Foundations – is a concrete strip to carry the brick work
		
		• To measure off width of foundations at each corner using corner profiles or pegs
		• Use corner profiles
		• Transfer foundation Lines accurately to the ground
		• Install level pegs for casting concrete foundation
		• Mix concrete according to the correct proportions.
		• Transport and pour concrete into the trenches
		• Compact and level the concrete
		• Cure concrete using the correct methods such as:
		  ○ Sand covering
		  ○ Water sprinkling
		  ○ Plastic covering
			Techniques:
			
			The teacher will demonstrate the correct measuring of the foundation width ,depth and levelling of foundations
			
			Types of foundations
			
			Pad, Strip, Raft, Pile, Stepped (Demonstration)
			
			The Teacher should also bring the measuring tools on the building site
			
			The teacher will demonstrate the testing the workability of concrete using the Slump Test(Demonstration)
			
			Activities:Practical Assessment
			
			Learners should be able mix and transport concrete
			
			Learners should be able to pour, compact and

			level concrete. Learners should be able to cure concrete using the correct methods **Resources** Profile boards ,building line ,pegs ,mixing and levelling tools plastic for curing and water, : charts **N**otes :notes and diagrams on the Slump Test
4-5	**Brick Making** **Tools, equipment and Materials**	**Brick Making (types of bricks to be moulded)** ○ **Stock Bricks (220mmx110mmx75mm)** ○ **Building block(140mmx390mmx190mm) Outside wall** ○ **Building block (90mmx390mmx190mm) Inside wall** **Standard Sizes of bricks** Know the standard size of the above mentioned bricks	**Techniques**: Teacher should bring a sample of bricks with different sizes into the theory class room The teacher should also bring the materials for making bricks The teacher should demonstrate the function of each tool and material (Demonstration) The teacher may use the brick making DVD/s

		• Mix the correct proportions for moulding cement bricks and blocks • Mould bricks and blocks using the bricks or block moulds • Drying bricks by exposing the bricks in the sun for five days **Brick Making Tools** • Use tools and equipment for moulding bricks and blocks	and Charts **Activities:** Learners should draw a free hand sketch of a brick and show the dimensions (Class test) Learners should identify brick making tools (Oral test) Learners will identify and name different types of Bricks (oral test) Learners should be able to know different functions of each material **Resources**: Brick making tools, Brick making material, DVD's and charts. **N**otes: Reasons for moulding bricks
6-8	**Bonding and Brickwork**	• Have a good understanding of the principles of bonding brickwok page 33 • Appreciate the importance of bonding brickwork. • Build a 110mm and 220mm walls in Stretcher and English bonds • Set out quoins, stopped ends,piers and openings in walling including broken bonds	**Techniques** Teacher to emphasize on the principles and importance of bonding brickwork for the following reasons: o Strength requirements o Stability o Pleasing and decorative appearance

			○ Teacher to demonstrate how to use corner profiles,set out quoins, piers,and openings in walling **Activities** Learners will revise work on rules of bonding(theory) Draw Return Angle walls and label the quoin brick, queen closer(theory) Build walls in Stretcher and English bonds, set out quoins,piers,and openings **Resources** **DVD's and charts**
			Notes on rules of bonding,charts and vedios Bricks,bats/queen closers,

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

Practical:

Activity 1 Demonstration 25% Assess using your own Rubric

- Demonstrate simple process skill/s
  e.g. Brickmaking

Activity 2 Practical 50% Assess using your own Rubric

- e.g. Different Bonding

Theory:

Activity 3 Respond to questions Pen and paper test (Oral or written) 25%

e.g. Learners will write class tests on rules and types of bonding, Draw return angle wall and label quoin brick, queen closer and quarter lap, Build return angle walls,piers,and set out openings in wallings

Year 4 Term 3

WEEK	TOPIC	CONTENT **The learner is able to:**	**Techniques, activities, resources and process notes**
1-3	**Bonding of walls And Brick Work** **Tools, equipment and Materials** **(Application)**	**Bonding of walls is to ensure the stability of the** **Structure and to produce pleasing appearance** **NB: Building lime should be used for practical lessons.** • Use all the bricklaying tools and materials • Build the following types of walls o 110mm and 220mm walls in Stretcher and English Bond o Return Angle Walls (Right Angled) o T-Junction walls o Racking back and toothed End o Basic brick piers or columns o Build between profiles	**Techniques**: Teacher should demonstrate types of bonds by laying bricks in the practical workshop The teacher should emphasize the importance bonding bricks (Demonstration) **Activities(Practical)** Learners should be able to build the following types of walls in English and Stretcher (Practical) o 110mm and 220mm walls in Stretcher and English Bond o Return Angle Walls (Right Angled) o T-Junction walls o Racking back and toothed End o Basic brick piers or columns o Build between profiles

			Resources: The teacher may use the brickwork bonds DVD/s and Charts **N**otes: Rules of bonding
3 - 4	**Cavity walls**	**Define cavity walls – is two skins or leaves of brickwork built with a cavity between them(cavity 50mm to 75mm)** Advantages of cavity wall Name all wall ties used in cavity walls What is the purpose of wall ties • Know the importance of cavity walls • Placement of DPC of Cavity Walls • Know the functions of wall ties Tie wires(butterflies)- keep the two skins or leaves of brickwork together • Know the importance of the cleaning of a cavity wall	**Techniques** Teacher will bring to the lesson the importance of a cavity walls Teacher will emphasise on the correct placement of DPC Teacher will demonstrate the correct method of how to place tie wires(butterfly and z-tie wires) The teacher will demonstrate how to clean cavity walls Activities(practical): • Learners must be able to build the first courses and lay the DPC • Learner nust be able to build the cleaning pockets(with sand) • **Learners must be able to build in tie wires**

			• **Learners must be able to clean cavity walls** **Resources:** **DVD's, Charts, tools and material**
5-6	**Openings in walls** **e.g. doors,** **windows and archers**	• Fix door and window frames to walling. Page 37 • Install sills to window openings • Bridge openings using concrete lintels • Have a knowledge of the categories of arches and the terms applied to arches	**Techniques** Teacher to demonstrate how to fix door and window frames. Teacher to demonstrate how to install sills to window openings Teacher to bring an arche centre for learners to see draw **Activities** Learners will practice fixing door and window frames,installing sills and constructing arches **Resources** -Window and door frames -Sillls -Precast lintels -Charts,notes,videos -Arche Centre

7-8	**Brickwork Superstructure.** Cavity Walls.	**What is Sub Structure – brickwork untill floor height** **What is Super Structure – brickwork until wall plate height** • State the purposes and advantages of cavity walls.(so that the interior of the building remains dry and good heat insulator • Have a clear understanding of the construction of cavity walls • Know how to prevent dampness penetrating the inner leaf of the cavity wall • Fix damp proof course(d.p.c) into cavity walls	**Techniques** Teacher to demonstrate how to build to build cavity wall. Teacher to bring different types of cavity wall ties to show learners **Activities** Learners will build cavity walls and fix wall ties Learners will fix D.P.C on the cavity wall **Resources** Bricks Wall ties D.P.C Cavity battens charts

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

Practical:

Activity 1 Demonstration 25% Assess using your own Rubric

- Build a Cavity Wall
  e.g.

Activity 2 Practical 50% Assess using your own Rubric

- e.g.Build in door and window

Theory:

Activity 3 Respond to questions Pen and paper test (Oral or written) 25%

Year4 Term 4

WEEK	TOPIC	CONTENT **Revision and consolidation** **The learner is able to:**	Techniques, activities, resources and process notes
1	Health and Safety, First Aid, Tools and Material	• Apply Health and safety principals (OHS ACT) when bricklaying, plastering and making bricks (page 17 & 22) • Apply general First Aid within the context of bricklaying, plastering and making bricks • Work with suitable tools and equipment when bricklaying, plastering and making bricks • Work with suitable materials when bricklaying, plastering and making bricks	Oral discussions in pairs and in groups Access information from reference books or suitable resources Sort information Present information visually Practical demonstration
2 - 3	Bricklaying	• Set out design according to measurements in drawings • Dig and prepare trenches/ excavation • Cast foundations in trenches according to design drawings; Types strip, raft and pad • Construct different wall bondings • Construct brick work (Substructure) • Insert water proofing • Lay concrete floor and top screed • Build in windows and door openings	Oral discussions in pairs and in groups Access information from reference books or suitable resources Sort information Present information visually Practical demonstration

		• Construct brick work (Super Structure) • Read and interpret basic building drawings • Mix suitable proportions of cement and concrete for specific tasks • Lay tiles and pavers	
4	Plastering and Brickmaking	• Top and screed floor surfaces (page 61) • Plaster walls • Mix cement proportions for specfic types of plastering • Use brick forms to mould bricks / blocks	Oral discussions in pairs and in groups Access information from reference books or suitable resources Sort information Present information visually Practical demonstration
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	

SECTION 4

ASSESSMENT

4.1 Introduction

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

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

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

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

4.2 Assessment Principles

4.2.1 Definition

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

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

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

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

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

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

4.2.2 Informal Assessment or Daily Assessment

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

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

4.2.3 Formal Assessment

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

a. Why use a Formal Assessment task?

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

b. What is a Formal Assessment Task?

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

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

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

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

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

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

The principles that drive these objectives are:

- ***Integration***

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

- ***Relevance***

  To be dynamic and responsive to national development needs.

- ***Credibility***

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

- ***Coherence***

  To work within a consistent framework of principles and certification.

- ***Flexibility***

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

- ***Participation***

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

- ***Access***

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

- ***Progression***

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

- ***Portability***

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

- ***Articulation***

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

- ***Recognition of Prior Learning***

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

- ***Validity of assessments***

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

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

- ***Reliability***

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

- ***Fairness and transparency***

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

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

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

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

4.3 Managing Assessment

Assessor Requirements

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

Types of Assessment

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

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

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

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

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

Planning Assessment

An assessment plan should cover three main processes:

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

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

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

Methods of Assessment

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

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

GROUP ASSESSMENT	Learners assess the individual performance of other learners within a group or the overall performance of a group of learners against given criteria.

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

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

Competence Descriptions

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

Strategies for Collecting Evidence

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

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

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

School Assessment Programme

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

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

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

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

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

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

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

Assessment 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%	○ Practical 75%
	Theory 25%	Theory 25%	Theory 25%	
				○ Pen and Paper Test/ Exam 25%
Term Report	100%	100%	100%	
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

<table>
<tr><td rowspan="4">Year 4</td><td colspan="3">Formal School-Based Assessments</td><td>Final End-of-Year Assessments</td></tr>
<tr><td>Term 1</td><td>Term 2</td><td>Term 3</td><td>Term 4</td></tr>
<tr><td>Practical 75%
Theory
25%</td><td>Practical 75%
Theory
25%</td><td>Practical 75%
Theory
25%</td><td rowspan="2">External Practical Assessment Task
25%</td></tr>
<tr><td></td><td></td><td></td><td rowspan="2">External
Pen and Paper Test
25%</td></tr>
<tr><td>Term Report</td><td>100%</td><td>100%</td><td>100%</td></tr>
<tr><td>End of Year</td><td colspan="3">SBA
50%</td><td>External Exams
50%</td></tr>
</table>

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

Projects

Suggested projects across the years	
Year 1	Year 1- Learners mix mortar and build a brick wall (Dry packing)
Year 2	Term 1- Digging of trenches
	Term 2- Installing level pegs for casting concrete foundation
	Term 3- Placing of window and door frames
	Term 4- Work on building plans
Year 3	Term 1- Learners should be able to use the 3-4-5 method to set out the building
	Term 2- Learners will mix concrete for casting surface bed
	Term 3- Learners should be able to lay different types of paving
	Term 4- Setting out and fixing levels
Year 4	Term 1- Construction of walls
	Term 2- Cavity walling
	Term 3- Building in door frames/window frames/lintels and plastering

Timing of formal assessment

YEAR 1					
Term	**Content/ concept/skill**	**Activities**	**Forms of Assessment**	**%**	**FATs based on activities in CAPS: TO**
Year 1	Safety OHS Act 85 of 1993 First Aid Tools Setting Out Bonding of walls	Activity 1 Demonstration care and use basic hand tools	Demonstration	25%	FAT 1
		Activity 2 Learners mix cement and build a brick wall	Practical	50%	
		Activity 3 Respond to questions	Pen and paper test (Oral or written)	25%	

YEAR 2					
Term	**Content/ concept/skill**	**Activities**	**Forms of Assessment**	**%**	**FATs based on activities in CAPS: TO**
Term 1	Safety and First Aid OHS Act 85 of 1993 Tools Materials Mixing Proportions Setting Out Drawing Equipment Tools for Setting Out	Activity 1 Demonstrate use of building line and layout of trenches	Demonstration	25%	FAT 1
		Activity 2 Dig a trench	Practical	50%	
		Activity 3 Respond to questions	Pen and paper test (Oral or written)	25%	
Term 2	**Foundations** **Tools, equipment and Materials** **Brick Making** **Bonding of walls And Brick Work** **Water Proofing and Materials** **Floor Finishes**	Activity 1 Demonstration how ro level the base and the side of the foundations	Demonstration	25%	FAT 2
		Activity 2 Lay DPM and put in level for concrete floor	Practical	50%	
		Activity 3 Respond to questions	Pen and paper test (Oral or written)	25%	
Term 3	**Window,** **Door openings and Arches** **Tools, equipment and Materials** **Brick Work**	Activity 1 Fixing the Door and Window frames	Demonstration	25%	FAT 3
		Activity 2 Simulate the stretcher bond	Demonstration	25%	
		Activity 3	Practical	25%	

	Finishes **Plastering** Floor Finishes and Material Paving and Materials	Level the surface for paving and construct different patterns of paving			
		Activity 4 Respond to questions	Pen and paper test (Oral or written)	25%	
Term 4	**Building plans** **and Drawing** **equipment** **Interpretation of**	Activity 1 Freehand sketches of tools and sysmbols	Demonstration	25%	FAT 4
		Activity 2 Building plan of a single garage	Practical	50%	
		Activity 3 Respond to questions	Pen and paper test (Oral or written)	25%	

YEAR 3					
Term	**Content/ concept/skill**	**Activities**	**Forms of Assessment**	**%**	**FATs based on activities in CAPS: TO**
Term 1	Safety and First Aid OHS Act 85 of 1993 **Tools, equipment and Materials** **Mixing Proportions** **Setting Out** **Trenches** **(Excavation):**	Activity 1 Erect different types of scaffold and trestles	Demonstration	25%	FAT 1
		Activity 2 • dig trenches: • mix concrete. • cast concrete • compact concrete and level	Practical	50%	
		Activity 3 Respond to questions	Pen and paper test (Oral or written)	25%	
Term 2	**Foundations** **Tools, equipment and Materials** **Brick Making** **Bonding of walls And Brick Work** **Water Proofing,** **Flooring and** **Finishes**	Activity 1 Moulding of bricks and cement blocks	Demonstration	25%	FAT 2
		Activity 2 Lay a floor slab	Practical	50%	
		Activity 3 Respond to questions	Pen and paper test (Oral or written)	25%	
Term 3	**Window,** **Door openings,** **\Arches and** **Brick work.** **Tools, equipment and**	Activity 1 Plastering a wall	Demonstration	25%	FAT 3
		Activity 2 **Laying different patterns of paving bricks**	Demonstration	50%	
		Activity 3	Pen and paper test	25%	

	Materials **Plastering** Floor Finishes Paving	**Respond to questions**	(Oral or written)		
Term 4	**Building drawing** **Tools, equipment and Materials** **Interpretation of Building Plans**	Activity 1 Practical setting out and fixing levels	Demonstration	25%	FAT 4
		Activity 2 Drawing of a section through a foundation up to floor slab	Practical	50%	
		Activity 3 Respond to questions	Pen and paper test (Oral or written)	25%	

YEAR 4					
Term	**Content/ concept/skill**	**Activities**	**Forms of Assessment**	**%**	**FATs based on activities in CAPS: TO**
Term 1	Safety and First Aid OHS Act 85 of 1993 **Tools** **Materials** **Tools, equipment and Materials** **Mixing Proportions**	Activity 1 Mixing of Mortar and build a 330 x 330mm column five courses high	Demonstration	25%	FAT 1
		Activity 2 Mixing of Concrete and casting a slab 1m x 1m by 75mm thick	Practical	50%	
		Activity 3 Respond to questions	Pen and paper test (Oral or written)	25%	
Term 2	**Foundations** **Tools, equipment and Materials** **Brick Making** **Tools, equipment and Materials** **onding and Brickwork**	Activity 1 Brickmaking	Demonstration	25%	FAT 2
		Activity 2 Different Bonding	Practical	50%	
		Activity 3 Respond to questions	Pen and paper test (Oral or written)	25%	
Term 3	**Bonding of walls And Brick Work** **Tools, equipment and Materials** **Cavity walls** **Openings in walls** **e.g. doors,** **windows and archers**	Activity 1 Build a Cavity Wall	Demonstration	25%	FAT 3
		Activity 2 Build in door and window	Practical	50%	
		Activity 3 Respond to questions	Pen and paper test (Oral or written)	25%	

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

Recording and Reporting

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

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

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

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

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

Codes and percentages for reporting

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

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

NOTE:

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

Progression and Promotion:

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

4.4 Moderation of Assessment

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

Moderation serves five purposes:

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

4.4.1 Internal moderation

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

4.4.2 External moderation

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

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

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

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

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

4.5 General

This document should be read in conjunction with:

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

SECTION 5

RESOURCES