



basic education

Department:
Basic Education
REPUBLIC OF SOUTH AFRICA

**Curriculum and Assessment Policy
Statement: Technical Occupational
Year 1- 4**

**INFORMATION AND COMMUNICATIONS
TECHNOLOGY**

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SECTION 1:

INTRODUCTION TO THE CURRICULUM AND ASSESSMENT POLICY STATEMENT: TECHNICAL OCCUPATIONAL

1.1 Background

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

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

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

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

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

1.2 Overview

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

The following legal framework will be adhered to:

- (i) National Curriculum Statement, Grades R to 12 (2011) together with the National Protocol for Assessment and the National Policy pertaining to the Programme and Promotion Requirements of the National Curriculum Statement, Grades R to 12;
- (ii) Draft Technical Vocational Subject Statements listed in the Draft General Certificate of Education: Technical Occupational, a Qualification at Level 1 on the National Qualification Framework;
- (iii) General and Further Education and Training Quality Assurance Act, 2001 (Act No.58 of 2001); the General and Further Education and Training Amendment Act, 2008 (Act No 50 of 2008); the NQF Act, 2008 (Act no 67 of 2008) and the Continuing Education and Training Act, 2006 as amended by Act No 3 of 2012 and Act No 1 of 2013;
- (iv) The General and Further Education and Training Qualifications Sub- Framework (August 2013);
- (v) Standards and quality assurance for General and Further Education and Training (June 2008, Revised April 2013);
- (vi) Policy and regulations pertaining to the conduct, administration and management of assessment for the General Education and Training Certificate in Skills and Vocational Training: A qualification at Level 1 on the National Qualification Framework (NQF);
- (vii) Education White Paper 6 on Special Needs Education: Building an Inclusive Education and Training System (2001);
- (viii) The United Nations Convention on the Rights of Persons with Disabilities adopted by the United Nations General Assembly on 13 December 2006 and ratified by the South African parliament on 5 June 2007;
- (ix) The White Paper on the Rights of Persons with Disabilities, 2015;

- (x) Section 11 of the Children's Act (2007);
- (xi) Chapter 5, section 76 of the Children's Act as amended (2007);
- (xii) Umalusi's Quality Assurance of Assessment: Directives, Guidelines and Requirements;
- (xiii) Skills Development Act, 1998 (Act 97 of 1998); and
- (xiv) Assessment Policy for Qualifications and Part Qualifications on the Occupational Qualifications Sub-Framework (OQSF), 2014 of the QCTO.

1.3. General Aims of the Technical Occupational Curriculum

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

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

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

The specific aims of the qualification are to:

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

Learners successfully completing the qualification will be able to:

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

1.4. Subjects and Time Allocation

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

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

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

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

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

Note:

Year One is an orientation year and learners must be exposed to a minimum of two occupational skills so that they can select a skill with which they will continue from Year Two. Schools that offer more than the minimum two skills in Year One may adapt the Annual Teaching Plan for Year One to accommodate their rotation system to expose learners to more skills e.g. schools may offer a skill per term for Terms 1, 2 and 3 and learners then select the skill they will specialise in and start it in Term 4. It is important that learners in Year One experience the core competencies of the skills so that an informed choice can be made.

Years Two, Three and Four are the critical years for learners. It is important that learners are exposed to all the Topics and Specific Aims per selected Occupational skill, acknowledging that not all learners will be successful in all of these.

SECTION 2:

INTRODUCTION TO INFORMATION AND COMMUNICATION TECHNOLOGY (ICT)

2.1 What is Information and Communication Technology?

Information and Communications Technology is the use of computers, applications and internet technologies to enable users to communicate, create, store, distribute and manage information.

The curriculum is offered as an employability skill by the school that may decide on the format of delivery. Schools may use fixed periods or may deal with the topics for ICT by integrating relevant ICT topics across the curriculum in General and or Technical Occupational Education. It is compulsory to offer the skills but the delivery method may differ to suite the school context.

Note: ICT is not part of the formal GCE Technical Occupational qualification. ICT must not be confused with the subject, *Office Administration*, which forms part of the twenty-one elective skills subjects.

2.2 Topics to be studied in Information and Communication Technology:

1. System technologies
2. Graphics
3. Keyboarding Skills – Typing Tutor
4. Word Processing
5. Spreadsheets
6. Presentations
7. Internet and E-communications
8. Application Development (Optional) – Preferably a program freely available on the Internet such as Scratch should be used
9. Web Page design (Optional) – Any basic text editor could be used e.g. Notepad++

2.3 Specific aims of ICT

1. use end-user software applications and development tools proficiently to produce solutions to problems within any real-life scenarios;
2. understand the concepts of ICTs with regard to the technologies that make up a computing system;

3. use the Internet and the WWW and understand the role that the Internet plays as part of the global information superhighway;
4. find reliable and relevant information, process the information to draw conclusions, make decisions and communicate the findings in appropriate presentation media; and
5. learn how to use ICTs responsibly.

2.4 Requirements for ICT as a subject

The following are guidelines for the allocation of time and resources to teach ICT. It is recommended that schools plan and budget so that it is able to meet the requirements for the equipment and software.

2.4.1 Time allocation

Below is the minimum time required for all topic areas. Schools are at liberty to allocate extra time based on their needs.

Topic / Content	Year 1	Year 2	Year 3	Year 4
Systems Technologies	4 Hours	4 Hours	-	-
Graphics	3 Hours	3 Hours	-	-
Keyboard Skills	4 Hours	4 Hours		
Word Processing	4 Hours	4 Hours	5 Hours	4 Hours
Spreadsheets	5 Hours	4 Hours	5 Hours	4 Hours
Presentations	4 Hours	4 Hours	4 Hours	-
Internet and E-communications	4 Hours	5 Hours	5 Hours	4 Hours
Application Development (Optional)	-	-	-	8 Hours
Web Page Design	-	-	9 Hours	4 Hours

Total	28 Hours	28 Hours	28 Hours	24 Hours
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2.4.2 Resources

In ICT, learners are required to work individually on a computer during contact time and need access to the Internet.

2.4.3 Infrastructure, equipment and finance

Schools must have a management plan for the subject that addresses the following:

- Initial capital layout for setting up a computer laboratory. The financial plan should provide for the following:
 - Entry level computers (to ensure a lifespan of 4 - 5 years), networked
 - One computer per learner per period (during contact time)
 - Provision for sufficient computers to enable the assessment to be completed in **one sitting**
 - Internet access
- One high-speed printer per network
- Data projector
- Software Requirements
 - Operating system
 - Office suite which includes word processing, spreadsheets, presentations and an e-mail application
 - Suitable graphics program e.g. 'Paint'
 - Security software – antivirus
 - Web browser e.g. Microsoft Internet Explorer, Microsoft Edge, Chrome or Mozilla Firefox
 - Multimedia software, i.e. Adobe Flash Player (version 10.2 or later – free online installation)
 - Graphical software development environment e.g. Scratch (freely available from the Internet)
 - HTML editor for Web Page design, i.e. Notepad (free with Windows OS)
- Budget
 - Annual running costs
 - Software licensing (operating system, application software, security software)
 - Cartridges, paper, storage media
 - Breakages and maintenance (regular service plan)

- Insurance
- Internet connectivity
- Sustainability plan
 - To upgrade or replace software and equipment every 4 - 5 years.
- Safety standards in terms of electrical points and Distribution boards (DB) must be met. Surge arrestors should be installed. Electrical work within the computer lab must carry a certificate of compliance from an appropriate service provider/authority.
- All anti-theft and fire safety measures must be installed in the computer lab

2.5 Career opportunities

The ever-present nature of ICTs has seen its inclusion in every sector of employment and entrepreneurship. The general aim of this programme is to equip learners with knowledge and skills that will allow them to easily adapt to any ICT environment that requires basic end user computing. The fundamentals of software development and web page design are also explored.

Schools may investigate the ICDL or IC3 certificate as a more formal qualification for learners.

SECTION 3

OVERVIEW OF TOPICS PER TERM AND ANNUAL TEACHING PLANS

3.1 Content overview

Suggested guidelines for an ICT Learning Programme

The suggested guidelines is the minimum content that should be covered before the exit level. The content and skills presented here should be integrated into meaningful activities that are relevant to learner's context and future workplace expectations. Activities could incorporate a single content item/skill or could include a range of content items/skills. The content should be done sequentially and scaffolded from Year 1 to 4. Content sequence within a year can be changed to suit the needs of the school from year 2 onwards.

Topic / Content	Year 1	Year 2	Year 3	Year 4
Systems Technologies	<ul style="list-style-type: none"> • Types of computers • Identifying parts of the computer. • Turning a computer on and off • Introduction to the operating system environment • Mouse skills • Basic file management • Cutting/copying and pasting • Portable devices 	<ul style="list-style-type: none"> • ICTs in everyday life • Ports and connectors • Storage devices and media • Application and system software • File management • Help files • Basic printing • Printing options • Utilities • System properties 		
Keyboard Skills	<ul style="list-style-type: none"> • Introduction to keyboard and keys: QWERTY, Tab, Caps Lock, Backspace, Shift, etc. • Using the keyboard 	<ul style="list-style-type: none"> • Use of a typing tutor for drills to consolidate typing skills • Intro to common shortcuts 		

Topic / Content	Year 1	Year 2	Year 3	Year 4
	<p>correctly - correct fingers and correct keys</p> <ul style="list-style-type: none"> • Use of a typing tutor (freely available as open source) 			
Word Processing	<ul style="list-style-type: none"> • Typing and editing • Opening and saving • Basic formatting • Spell/Grammar checking • Using clipart 	<ul style="list-style-type: none"> • Intermediate typing, editing and formatting • Graphics, shapes and diagrams with grouping 	<ul style="list-style-type: none"> • Text, paragraph and page formatting • Tables • Sections • Styles • Bullets and numbered lists 	<ul style="list-style-type: none"> • Mail merge • Reviewing tools • Thesaurus
Spreadsheets	<ul style="list-style-type: none"> • Basic overview • Cells, rows and columns • Resizing rows and columns • Basic formatting and editing • Introduction to graphs / charts 	<ul style="list-style-type: none"> • Formatting and editing • Introduction to calculations • Basic functions and formulae • Basic error indicators • Graphs / charts 	<ul style="list-style-type: none"> • Formatting and editing • Calculations using formulae and functions • Graphs / charts • Error indicators/values 	<ul style="list-style-type: none"> • Formatting and editing (conditional formatting, alignment and borders) • Calculations using formulae and functions
Presentations	<ul style="list-style-type: none"> • Overview of presentations • Creating basic slides • Basic animation • Slide show • Inserting clipart 	<ul style="list-style-type: none"> • Slide design elements • Text and lists • Editing and formatting • Custom slide show 	<ul style="list-style-type: none"> • Intermediate formatting slide show • Printing presentations • Inserting charts and external images/objects 	
Internet and E-communications	<ul style="list-style-type: none"> • Working with a web browser • Introduction to search engines 	<ul style="list-style-type: none"> • Complex searches • Bookmarks / Favourites 	<ul style="list-style-type: none"> • Introduction to web based e-mail • Working with E- 	<ul style="list-style-type: none"> • Cloud computing • Online services e.g.

Topic / Content	Year 1	Year 2	Year 3	Year 4
		<ul style="list-style-type: none"> • Introduction to e-mail using an e-mail client/ISP • E-mail netiquette 	mail attachments. <ul style="list-style-type: none"> • Using collaborative tools such as wikis • Blogging / discussion groups 	Banking, Shopping <ul style="list-style-type: none"> • Safe Internet use • Social networking e.g. Facebook, Twitter and Instagram • Podcasts
Application Development				<ul style="list-style-type: none"> • Basic programming skills using Scratch
Web Page Design			<ul style="list-style-type: none"> • Introduction to HTML • Basic HTML tags and syntax • HTML images • Create basic web page with text and images 	<ul style="list-style-type: none"> • HTML links • HTML lists • HTML tables

Expanded Opportunities

There is some content that is listed under Expanded Opportunities. It is envisaged that in certain scenarios at school level, there may be learners who progress faster than others. These learners can engage with this content. Depending on the individual circumstances of each school and varying ability of learners, this content need not be assessed in any of the formal/informal assessments.

3.2 Content outline

Year 1

TOPIC	CONTENT The learner is able to:	Duration	Techniques, activities, resources and process notes
Systems Technologies	<ul style="list-style-type: none"> • Identify parts of the computer <ul style="list-style-type: none"> ○ System unit ○ Keyboard ○ Mouse ○ Screen/monitor • Identify and list characteristics of the different types of computers <ul style="list-style-type: none"> ○ Desktop computer ○ Laptop/Notebook computer ○ Mobile device ○ Wearable device • Identify and list basic characteristics of portable devices <ul style="list-style-type: none"> ○ Tablet ○ Smartphone ○ Phablet ○ Laptop / Notebook 	2 Hours	<p>Use old computer parts to present the different parts of a computer. Slide presentation/YouTube video on the different kind of computers. An activity with pictures requiring learners to label the various parts of a computer and different devices. Learners should also categorise each part under Input, Processing and Output devices. Finally, teacher/learners can draw a flow diagram of the parts connected to input, processing and output.</p> <p>Activity: Worksheet with pictures of the different types of computers. Learners will list some characteristics that they will get from a resource that teacher will prepare with characteristics in random order.</p> <p>The same can be done for portable devices.</p>

	<ul style="list-style-type: none"> • Electricity safety <ul style="list-style-type: none"> ○ Connect power supply cables ○ Identify the power source at wall socket ○ Explain the problems with switching off at the power source/plug • Turn a computer on and off using the computer switch/button • Interact with the basic settings of the operating system environment and perform basic file management <ul style="list-style-type: none"> ○ Regional settings ○ Screen saver and Energy settings ○ Folders: create, open, close, maximise, minimise and resizing ○ Access various applications, i.e. word processor, spreadsheets, etc. 	1 Hour	<p>Demonstrate how to switch on and shut down a computer. Identifying and naming the different basic components within the operating system environment e.g. files, folders, taskbar, start button, etc.</p> <p>Activities that allow learners to learn the different terminology around GUI components. Basic settings in the Control Panel e.g. Regional Settings, Screen Saver, Energy Settings, etc.</p>
	<ul style="list-style-type: none"> • Achieve competency in the following mouse and keyboard skills <ul style="list-style-type: none"> ○ Accuracy in pointing and selecting text ○ Single click, double click and ○ Right click for options ○ Drag and drop 	1 Hour	<p>Activities that allow learners to drag and drop files and folders, double clicking, left click and right click.</p> <p>Teacher to demonstrate the use of cut, copy and paste on text within a document and also on files within and between folders. Learners will then be required to engage in practice activities.</p>

	<ul style="list-style-type: none"> • Cut, copy and paste: <ul style="list-style-type: none"> ○ Text within a document and ○ Files from one folder to another 		
Graphics	<ul style="list-style-type: none"> • Create basic shapes and images using <ul style="list-style-type: none"> ○ Free hand drawing ○ Shapes tool ○ Various colours for borders and fill ○ Different brush types and sizes 	3 Hours	Teacher to demonstrate the use of a basic graphics program e.g. Paint. Learners to practice the following: Free hand drawing, adjust size of drawing tool, create basic regular shapes, draw in different colours and fill colour into and out of shapes. Cropping and resizing images.
Keyboard Skills	<ul style="list-style-type: none"> • Identify and use the keyboard and keys: QWERTY, Tab, Caps Lock, Backspace, Shift, etc. • Use the keyboard correctly - correct fingers and correct keys (Home Row) • Demonstrate basic keyboard skills (using a Typing tutor) • Demonstrate the use of common shortcuts <ul style="list-style-type: none"> ○ Editing text e.g. Ctrl + B, I, U, Z and Ctrl + Enter 	4 Hours	<p>Teacher will demonstrate the layout of the keyboard and how to locate and identify the various special keys on the keyboard and their use.</p> <p>Teacher will demonstrate the use of the “home row” and why it is ideal placement of the fingers to easily access the rest of the keyboard</p> <p>Any free typing tutor is recommended to develop good keyboard skills and posture habits. Typing skills are ongoing and can be done for 5 -10 minutes at the beginning of every period. Learners should aspire to do touch typing.</p> <p>Teacher will demonstrate the most common keyboard shortcuts and learners will practice the use of these shortcuts using</p>

			suitable activities.
Word Processing	<ul style="list-style-type: none"> • Create, type and edit documents using input devices like the keyboard and mouse • Editing techniques <ul style="list-style-type: none"> ○ Selecting text ○ Cut/Copy/Paste and move text within a document • Save and open documents 	2 Hours	<p>Learners will practice opening pre-saved files and saving files with the same and different names and choosing location of files.</p> <p>Basic typing and editing techniques to be demonstrated to learners e.g. backspace, delete, cursor positioning, cut/copy/paste and punctuation. Learners do activities that will allow them to edit prepared documents.</p> <p>Expanded opportunities:</p> <p>Editing/input techniques on touchscreen devices e.g. swyping, pinching, multi-touch</p>
	<ul style="list-style-type: none"> • Demonstrate basic formatting of text and pictures and proofing of documents using: <ul style="list-style-type: none"> ○ Font attributes and alignment ○ Spell check and thesaurus ○ Insert clipart pictures / graphics, (online pictures) / shapes and adjust size and arrangement 	2 Hours	<p>Teacher will demonstrate spell check feature and the following formatting: Font: bold, italics, underline, type, style, shading and size</p> <p>Paragraph: Various Spacing options</p> <p>Learners will do activities that practice the above and insert pictures/graphics, resize, crop and positioning of images.</p> <p>Learners will do activities that allow the use of the spell checker and thesaurus.</p> <p>Typing tutor will be ongoing until learners achieve a reasonable typing speed with accuracy.</p>

Spreadsheets	<ul style="list-style-type: none"> • Explain the purpose of a spreadsheet and the concepts of a cell, row, column and a sheet. • Demonstrate the resizing of rows and columns • Format and edit cells with a focus on: <ul style="list-style-type: none"> ○ Type and edit contents of cells ○ Use font attributes and alignment ○ Cut/copy and paste text from one cell to another • Introduction to graphs / charts. <ul style="list-style-type: none"> ○ Use chart wizard on given data. 	4 hours	<p>Teacher to introduce basic spreadsheet environment, explaining rows, columns, cells and sheets. Give a practical example of the purpose of a spreadsheet. Different methods of editing contents of cells.</p> <p>Provide activities to practice:</p> <ul style="list-style-type: none"> • Cell/row height and cell/column width • Selecting cells/cell ranges. Applying formatting such as: text colour, borders and shading <p>Introduction to chart types e.g. pie, column and bar charts/graphs</p> <p>Create charts from existing data. (Teacher prepared).</p>
Presentations	<ul style="list-style-type: none"> • Create basic slides using default layout (no template) • Insert and delete slides • Slide layout: Insert clipart, textboxes with font attributes and alignment • Apply Basic animation to slides and text • Create basic slide show 	4 Hours	<p>Teacher-led introduction to presentations application. Adding/deleting slides at various points. Inserting, resizing and positioning objects such as pictures and graphics</p> <p>Basic animation e.g. text and picture movement/entrance into slide</p> <p>Teacher-led activity to introduce learners to slide layout feature</p> <p>Create basic automatic slide show</p> <p>Activities to practice the skills learnt</p>

<p>Internet and E-communications</p>	<ul style="list-style-type: none"> • Work with a Web browser <ul style="list-style-type: none"> ○ Explain what the purpose of a browser is ○ Identify the different web browsers: Internet Explorer, Chrome, Firefox and Safari ○ Type in a URL in the address bar ○ Set a home page • Introduction to search engines <ul style="list-style-type: none"> ○ Identify different search engines such as Google, Yahoo and Bing ○ Refine Internet searches with keywords 	<p>5 Hours</p>	<p>Introduce concept of the Internet and interconnectedness</p> <p>Introduction to a web browser, components and features. Explain URL, website, web page and hyperlink.</p> <p>Activities: How to use search engines and basic searching techniques.</p>
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Formal Assessment:

The assessment will consist of Practical task/s with a 90% weighting and a Theory test with a 10% weighting.

E.g. Theoretical assessment can be done with multiple choice questions showing a picture and giving options for the right terminology.

Year 2

TOPIC	CONTENT The learner is able to:	Duration	Techniques, activities, resources and process notes
System Technologies	<ul style="list-style-type: none"> • Identify ports and connectors and devices/media that can be connected <ul style="list-style-type: none"> ○ USB, card reader, Ethernet, audio and HDMI • Use of ICTs in real life (Shopping, banking and education) • Identify storage devices and capacities <ul style="list-style-type: none"> ○ Hard Drive (internal and external, 2.5 and 3.5 inch) ○ Flash Drive (USB) ○ Optical Drive and Optical disc ○ Memory cards (SD, Micro SD and Sony Memory Stick) • Systems and Application software <ul style="list-style-type: none"> ○ Explain the difference between system and application software ○ Identify application and system software • File management <ul style="list-style-type: none"> ○ Identify different types of files (extensions) e.g. docx, xlsx, pptx, txt, jpg, bmp, html ○ Identify drive and path 	4 Hours	<p>Recap on different types of computers. Demonstrate with actual devices or use videos to show the characteristics of the various portable devices.</p> <p>Activity with pictures to assist in the identification of ports and connectors and devices that attach to them.</p> <p>Teacher to demonstrate the use of websites that support shopping, banking and education.</p> <p>Activity: Crossword puzzle where clues are pictures and learners will have a name list resource for storage devices, ports and connectors. Learners will associate names in the list with the pictures and finally write the correct term in the crossword frame.</p> <p>Activity: teacher to create a list of characteristics about system and application software. Learners will attempt to associate each item in the list with the relevant type of software. Further make a list of various software and learners will tabulate them into either system or application software.</p>

	<ul style="list-style-type: none"> ○ Organise, copy, paste, rename, delete, restore, move, view and sort files and folders ○ Interact with Help files (Operating system and the office suite) ● Print from word processor and spreadsheet using different settings, i.e. <ul style="list-style-type: none"> ○ Normal printing ○ Multiple pages per sheet, current/specific pages and print orientation. ● System properties and utilities <ul style="list-style-type: none"> ○ Update software ○ Uninstall programs ○ Turn on/off wireless communication (Bluetooth and Wi-Fi) ○ Create user account ○ Change themes and backgrounds ○ Change time, language and regional settings ○ Format a USB Flash drive ○ Use an antivirus program ○ Check capacity of storage medium 		<p>Activities: A worksheet that makes a learner identify different file extensions for a list of given files and their path on a computer. Create/use a set of instructions that direct the learner to perform some file management. Finally a learner must discover how to use a certain feature of an application or operating system setting by using the help file.</p> <p>Activity: Learners will print from a word processor and spreadsheet with orientation change, specific pages, print on both sides and scaling with multiple pages per sheet.</p> <p>Activity: A worksheet that will give instructions and direct a learner to perform all the skills listed for system properties and utilities. Worksheet can also contain some self-assessment to perform the skills.</p>
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Graphics	<ul style="list-style-type: none"> • Open and save graphical images (jpeg images) • Edit images <ul style="list-style-type: none"> ○ Select, erase portion, crop, resize and rotate images ○ Save with different image file format 	3 Hours	Activity / Worksheet: The activity should direct learners to explore the tools and environment within the graphics program to find the appropriate tools to practice the skills mentioned in the Content column. Certain aspects of image/picture editing can also be done using a word processor.
Keyboard Skills	<ul style="list-style-type: none"> • Use a typing tutor for drills to consolidate typing skills • Demonstrate the use of common shortcuts <ul style="list-style-type: none"> ○ Using the clipboard e.g. Ctrl + A, C, V and X ○ Navigating between windows e.g. Alt + F4, Tab and Esc 	4 Hours	<p>Learners will engage with the typing tutor to consolidate all skills done in the previous year.</p> <p>Teacher will demonstrate the most common keyboard shortcuts and learners will practice the use of these shortcuts using suitable activities.</p>
Word Processing	<ul style="list-style-type: none"> • Edit documents <ul style="list-style-type: none"> ○ Heading styles from the gallery (Styles tab) ○ Find and replace text ○ Format painter • Graphics and shapes <ul style="list-style-type: none"> ○ Resize, crop and move clipart/images and text alignment options ○ Insert shapes and group shapes 	4 Hours	<p>Teacher to facilitate an activity where learners practice the requisite editing techniques.</p> <p>Activities: Insert an image/picture into a document with text to practice using the tools for resizing and arrangement within the text.</p> <p>Activity: Learners to group and ungroup multiple images / pictures / shapes</p>

<p>Spreadsheets</p>	<ul style="list-style-type: none"> • Formatting and editing <ul style="list-style-type: none"> ○ Use cell formatting e.g. number currency, text, date, percentage and time ○ Increase, decrease decimal places • Calculations <ul style="list-style-type: none"> ○ Use formulae with basic operators: addition, subtraction constants and cell references Use basic functions: MIN, MAX, SUM and AVERAGE • Graphs/charts <ul style="list-style-type: none"> ○ Create graphs/charts from given data and choose appropriate graph types ○ Create/change chart title. <p>Expanded Opportunities:</p> <ul style="list-style-type: none"> • Use legends, data labels, axis labels and gridlines in graphs 	<p>4 Hours</p>	<p>Activity: Teacher to develop a document where cells are inappropriately formatted for given data and learners are required to format all cells/data correctly</p> <p>Activities: Learners use formulae and functions to solve real-life problems. E.g. monthly budget, calculating area and perimeter, etc.</p> <p>Activities: Learners will be given data and they have to select appropriate graph for analysis. Chart formatting e.g. title and legend.</p> <p>They could then insert/use all the graph features/formatting to enhance graphs/charts for easy user interpretation</p>
<p>Presentations</p>	<ul style="list-style-type: none"> • Slide design elements <ul style="list-style-type: none"> ○ Choose different slide templates and design themes • Formatting and editing <ul style="list-style-type: none"> ○ Use text and lists/bullets ○ Cut/copy and paste text and clipart/images 	<p>4 Hours</p>	<p>Teacher to demonstrate the result of different templates and design themes on existing slides and learners follow up with some practice.</p> <p>Activities: learners can do a presentation where they focus on their life story and separate slides for each phase/aspect of their lives.</p>

	<ul style="list-style-type: none"> ○ Insert/delete/edit header and footers ● Record slide show with timings ● Insert video and audio onto slides 		<p>Insert a video clip and/or audio clip on something about their home/school/sport/culture. Learners can then create slide show with timings.</p>
Internet and E-communications	<ul style="list-style-type: none"> ● Enhance web searches using <ul style="list-style-type: none"> ○ Specific keywords, use the plus (+) and minus signs(-), quotation marks(" ") ● Create and use bookmarks/favourites ● Use an E-mail client (Microsoft Outlook/ Mozilla Thunderbird) <ul style="list-style-type: none"> ○ Read from Inbox. Reply/reply to all ○ Forward, delete and compose an e-mail. Use of To, Cc and subject fields ● E-mail netiquette <ul style="list-style-type: none"> ○ Using all caps ○ Meaningful subject line ○ Ensure virus free content ○ Responsible use of acronyms and pictures ○ Concise wording <p>Expanded Opportunities:</p> <ul style="list-style-type: none"> ● Complex web searches that could be explored is the use of operators like (and), (or) and (not) 	5 Hours	<p>Teacher can demonstrate use of special characters in a web search.</p> <p>Activity: Get learners to write down the top 3 websites for a topic that the teacher will specify e.g. “what is the most popular breed of dog in the world”. Learners will decide which keywords and special characters to use. Finally check what most popular website was returned. Then create a bookmark/'favorite' for that website.</p> <p>Setting up your e-mail on a client like Microsoft Outlook or Mozilla Thunderbird. Accessing your e-mail and navigating between folders e.g. Inbox, Sent Items, Junk e-mail and Outbox. Creating and using contacts in e-mails. Using the Cc field. Send/Receive, Forward, Reply to and Reply to all</p> <p>Activity: Teacher to devise a matching and/or true and false and/or missing words activity to assess learner’s knowledge around E-mail netiquette. Sample E-mails can also be used where learners must identify problems with the netiquette.</p>

Formal Assessment:

The assessment will consist of Practical task/s with a 90% weighting and a Theory test with a 10% weighting.

Year 3

TOPIC	CONTENT The learner is able to:	Duration	Techniques, activities, resources and process notes
Word Processing	<ul style="list-style-type: none"> • Format and edit <ul style="list-style-type: none"> ○ Use line spacing, page/section breaks and indentation ○ Adjust page orientation and margins ○ Insert headers and footers • Insert/delete tables, insert/delete rows and columns within tables. Merge/unmerge rows and columns • Insert first and second level bullets and numbered lists • Use styles to standardise the formatting of the different levels of headings 	5 Hours	<p>Activity: Teacher to prepare some text in one lengthy paragraph. [Tip: generate random dummy text for Word by typing the following formula: =rand(1,50), i.e. Random data relating to word processing of 1 paragraph and 50 lines will appear.] Learners will perform the various formatting and editing on the text. They can then insert a header for page number and footer with their names.</p> <p>A table can then be inserted between two paragraphs. Certain rows and/or columns can be merged/unmerged. Learners can also use bullets in the table and create a second level bulleted list outside the table on a portion of the text.</p>
Spreadsheets	<ul style="list-style-type: none"> • Format and edit <ul style="list-style-type: none"> ○ Combine and centre (merge) and wrap text ○ Find and replace text ○ Set margins and page orientation ○ Use spellchecks <p>Expanded Opportunities:</p> <ul style="list-style-type: none"> • Perform calculations 	5 Hours	<p>Activity: Use formatting and editing skills on prepared data and reset margins and page orientation.</p> <p>Activity: Give learners some problems that allow them to use the required formulae and functions on prepared data. Extend the activity for learners to create an appropriate graph / chart of the data. Format the graph using the skills</p>

	<ul style="list-style-type: none"> ○ Practice complex formulae using more than one operator e.g. addition (+) and multiplication (*) in one formula ○ Use the following functions: ROUND, SMALL, LARGE, COUNT, LEFT, RIGHT, MID and CONCATENATE ● Insert and edit Graphs/charts <ul style="list-style-type: none"> ○ Change graph type ○ Change data colours, insert fill in chart area, apply shadow effects to data ● Identify error indicators/values <ul style="list-style-type: none"> ○ Identify problems based on the following error indicators: #Value, #name, #num, #N/A, #Ref and #DIV/0 		<p>required.</p> <p>Activity: Prepare a matching activity that has the error values for column A and description of error values in column B.</p> <p>NOTE: If learners are not engaging in the expanded opportunities then the teacher will have to assist when learners encounter the error indicators.</p>
Presentations	<ul style="list-style-type: none"> ● Change animations and slide transitions ● Advance slide on mouse click or on time ● Hide slides in a show ● Create custom slide show with mixed order and omitting/hiding? certain slides ● Print multiple slides per page ● Insert graphs/charts 	4 Hours	Teacher will first demonstrate all requisite skills using a data projector or lead learners through the skills as they work on their own. Then develop one activity that will utilise the whole range of skills as listed in the Content column alongside.
Internet and E-	<ul style="list-style-type: none"> ● Use a web-based e-mail application e.g. gmail or yahoo mail. Cover same e-mail skills as in year 2. 	5 Hours	Activity: Learners must create their own e-mail address on gmail or yahoo mail and practice all the skills learnt in year 2.

communications	<ul style="list-style-type: none"> • E-mail attachments <ul style="list-style-type: none"> ○ Insert and delete e-mail attachment/s ○ Limit size • Create single contacts and groups • Send e-mails to groups • Use and explain the Bcc field • Explain and use wikis e.g. Wikipedia etc. • Explain and use blog/discussion groups 		<p>Activity: Facilitate a lesson/s where learners practice the use of an E-mail application with the required skills. Develop another activity where they can send E-mail messages to each other using the required skills.</p> <p>Teacher to explain the use of wikis showing how anybody can contribute to its content.</p> <p>Get learners to explain the use of blogs by visiting a few and analysing the discussions briefly.</p>
Web Page Design	<ul style="list-style-type: none"> • Explain the concept of websites and web pages • Explain what is HTML? • Create basic web pages using the following tags <ul style="list-style-type: none"> ○ <html>, <head>, <title>, <body>, <h1>....<h6>, <p>,
, <hr>, , <i> and 	9 Hours	<p>Teacher can lead a discussion to explain what a website is and how web pages make up a website. Browser can be used to illustrate examples.</p> <p>Teacher should introduce an HTML editor, e.g. Notepad++ and demonstrate how to save with the correct file extension, i.e. .html. And then how to open in a browser and how to refresh the web page, i.e. F5.</p> <p>Activity: Scaffolded activity that will focus on html syntax and require learners to add one html tag at a time and then check the result in a browser. Once all tags have been practised, learners can then write the HTML code to simulate sample web pages. Finally they will get a chance to show their creativity by creating their own unique web page.</p> <p>A Tag list will be supplied in an Annexure.</p>

			HTML beginner examples can be found at: http://www.w3schools.com/html/html_examples.asp and http://www.tutorialspoint.com/html/html_tutorial.pdf <u>These resources can also be downloaded and/or printed.</u>
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Formal Assessment:

The assessment will consist of Practical tasks with a 100% weighting

Year 4

TOPIC	CONTENT The learner is able to:	Duration	Techniques, activities, resources and process notes
Word Processing	<ul style="list-style-type: none"> • Reviewing tools <ul style="list-style-type: none"> ○ Find synonyms/alternative words using the thesaurus ○ Insert and delete comments to parts of a document <p>Expanded Opportunities:</p> <ul style="list-style-type: none"> • Mail merge <ul style="list-style-type: none"> ○ Select recipients/data source to a form letter ○ Insert merge fields into appropriate parts of the document ○ Merge to document and/or printer • Activate track changes to a document as well as accept and reject tracking options 	4 Hours	<p>Activity: Worksheet that will facilitate completing a mail merge. Teacher will prepare data in a spreadsheet to connect to a word processing document. Learner will create a short document to insert merge fields into e.g. a common letter to all learners in a class.</p> <p>Activity: Play a game where learners are given a list of words where they have to find two synonyms for each word using a word processor.</p> <p>Activity: Create a word processing document with a few glaring mistakes. Learners will have to add a comment briefly describing the problem they see and give a suggestion on how to solve the problem.</p> <p>Activity: Pair up learners. Give them a prepared document and they will then rename it with their name. Each one will activate track changes and then make a few changes. They will then pass (send via e-mail) the document to their partner and further changes must be made. Document will then be given back to owner and he/she will accept some changes and reject others randomly.</p>

Spreadsheets	<ul style="list-style-type: none"> • Format and edit documents with: <ul style="list-style-type: none"> ○ Conditional formatting ○ Alignment and borders <p>Expanded Opportunities:</p> <ul style="list-style-type: none"> • Solve problems using the following functions: <ul style="list-style-type: none"> ○ IF, COUNTIF, SUMIF with relational operators 	4 Hours	<p>Activity: Teacher will demonstrate a problem where numbers below a certain value need to show up with some kind of different formatting. Learners will then practise on a similar example.</p> <p>Activity can include finalisation with some alignment and border changes other than conditional formatting.</p> <p>Teacher to explain the concept of a condition and how a decision is made by the IF functions as well as relational operators. Teacher will demonstrate a few examples with the 3 variations of the IF function. Facilitate an activity where learners solve problems using the 3 IF functions.</p>
Internet and E-communications	<ul style="list-style-type: none"> • Demonstrate the use of Cloud computing with: <ul style="list-style-type: none"> ○ Dropbox ○ Google Drive, Google Docs and Google Sheets • Explain the features/characteristics of online banking and shopping • Safe Internet use <ul style="list-style-type: none"> ○ Identity Theft ○ Verifying safe websites ○ Sharing of personal information • Use social networking such as: 	4 Hours	<p>Teacher explains Cloud computing and demonstrates how to create a Dropbox account using data projector/network/hand-out. Allow learners to then create their own Dropbox account. Create a folder, post a file and share contents with another person via an E-mail address. Can be done as group work due to time constraints. A similar activity can be done for Google Drive, Google Docs and Google Sheets. Basic examples just to show learners that word processing and spreadsheets can be done online without having the necessary applications installed on the computer.</p> <p>If resources are available, invite a banking official to come to school to do a presentation on online banking and show the</p>

	<ul style="list-style-type: none"> ○ Facebook, Twitter and Instagram <p>Expanded Opportunities:</p> <ul style="list-style-type: none"> • Explain advantages and disadvantages of social networking • Download/stream podcasts 		<p>features with advantages and disadvantages of online banking. Alternatively, the teacher could source some pictures/YouTube videos or visit the various bank websites that reflect the different features of online banking and shopping.</p> <p>Teachers should focus on examples of Identity Theft. And then ways to prevent it. An activity can be done that pitches two websites against each other and the reasons why one is safe and the other is not. What to look for to verify it being safe. Also look for reviews from other people who have used a shopping site and their experiences. Finally give examples on how sharing of personal information can be unsafe as well it being embarrassing to others.</p> <p>Activity: Facilitate learners/groups opening up their own Facebook, Twitter and Instagram accounts. Groups can then interact with one another with text posts and image posts with comments etc. Learners to work in groups and present the advantages and disadvantages of social networking.</p> <p>Teacher will demonstrate downloading or streaming a podcast. Teacher will then give a list of 3 podcasts to listen to. Learners will have to search and listen to them and give a brief verbal summary of each podcast.</p>
Application Development	<ul style="list-style-type: none"> • Understand what an algorithm is in simple real life scenarios • Solve basic problems using Algorithms 	8 Hours	<p>Activity: Teacher can demonstrate a simple problem such as the making of a cup of coffee and introduce the concept of an algorithm showing learners the various steps in making the coffee.</p>

	<ul style="list-style-type: none"> • Identify and interact with the Scratch environment, components and understand their roles/features • Create shapes and animations using a programming language called Scratch • Use the following features of Scratch to create shapes and animations <ul style="list-style-type: none"> ○ Use the default sprite and select new sprites to draw shapes using the Motion and Pen scripts ○ Select and apply stage backdrops ○ Use the blocks within the motion, looks, sound, events, control and sensing scripts to create animation 	<p>Get learners to write an algorithm for other tasks e.g. making a sandwich, baking a cake, etc.</p> <p>They need to grasp the concept of breaking a problem into a series of logical steps.</p> <p>Activity: Teacher will facilitate the “Getting started with Scratch v2” and “Scratch2Cards” (freely available) documents with learners to get familiar with the Scratch environment and animation techniques.</p> <p>Activity: Teacher will determine a list of scripts to use. Learners will explore and make a note of what the effect of the various scripts are.</p> <p>Activity: Once all the required scripts have been practised learner will develop their own animation project.</p> <p>The program Scratch can be downloaded at : http://scratch.mit.edu/scratch2download/</p> <p>The getting started documents are freely available and can be downloaded from the same link</p>
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Web Page Design	<ul style="list-style-type: none"> • Create web pages making use of <ul style="list-style-type: none"> ○ All tags used in Year 3 together with ○ Hyperlink, list and table tags e.g. , , , , <table>, <tr>, <td> 	4 Hours	<p>Teacher to revise Year 3 tags and then demonstrate the use and result of the hyperlink, list and table tags. Learners will practice the use of these tags.</p> <p>Activity: Learners will develop a website with a minimum of two pages that will be linked to one another. All tags used in Year 3 and 4 should be used. Learners can also use other tags outside the curriculum that they may find through research.</p>
<p>Formal Assessment:</p> <p>The assessment will consist of Practical tasks with a 100% weighting</p>			

SECTION 4

ASSESSMENT

4.1 Introduction

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

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

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

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

4.2 Assessment Principles

4.2.1 Definition

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

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

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

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

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

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

4.2.2 Informal Assessment or Daily Assessment

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

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

4.2.3 Formal Assessment

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

a. Why use a Formal Assessment task?

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

b. What is a Formal Assessment Task?

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

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

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

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

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

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

The principles that drive these objectives are:

- **Integration**

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

- **Relevance**

To be dynamic and responsive to national development needs.

- **Credibility**

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

- **Coherence**

To work within a consistent framework of principles and certification.

- **Flexibility**

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

- **Participation**

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

- **Access**

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

- **Progression**

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

- **Portability**

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

- **Articulation**

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

- **Recognition of Prior Learning**

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

- **Validity of assessments**

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

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

- **Reliability**

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

- ***Fairness and transparency***

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

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

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

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

4.3 Managing Assessment

Assessor Requirements

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

Types of Assessment

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

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

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

Planning Assessment

An assessment plan should cover three main processes:

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

Methods of Assessment

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

TEACHER ASSESSMENT	The Teacher assesses learners' performance against given criteria in different contexts, such as individual work, group work, etc.
SELF-ASSESSMENT	Learners assess their own performance against given criteria in different contexts, such as individual work, group work, etc.
PEER ASSESSMENT	Learners assess another student or group of learners' 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.
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Task lists and **checklists** show the learners what needs to be done. They consist of short statements describing the expected performance in a particular task. The statements on the checklist can be ticked off when the learner has adequately achieved the criterion. Checklists and task lists are useful in peer or group assessment activities.

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

Competence Descriptions

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

Strategies for Collecting Evidence

A number of different assessment instruments may be used to collect and record evidence.

Examples of instruments that can be (adapted and) used in the classroom include:

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

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

School Assessment Programme

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

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

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

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

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

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

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

Programme of assessment

Assessment across the four years

The Programme of Assessment for ICT is designed so that formal assessment tasks in a school take place throughout the year. While the sequence of the topic areas should be maintained, there is no prescription on pacing per term. Each topic area can have more than one test that will finally be converted to the weighting indicated.

The table below gives a guideline for the composition of formal assessment per topic area.

PUBLIC COMMENT

Formal School-Based Assessments

Year 1 and 2

Topic Areas to be covered for the year with percentage weightings indicated								
Year 1 & 2	Systems Technologies	Graphics	Keyboard Skills	Word Processor	Spreadsheet	Presentations	Internet & E-communications	Total
Practical	5%	10%	15%	15%	15%	15%	15%	90%
Theory	10%							10%
								100%

Year 3

Topic Areas to be covered for the year with percentage weightings indicated						
Year 3	Word Processor	Spreadsheet	Presentations	Internet & E-communications	Web Page Design	Total
Practical	20%	20%	20%	20%	20%	100%
						100%

Year 4

Topic Areas to be covered for the year with percentage weightings indicated						
Year 4	Word Processor	Spreadsheet	Internet & E-communications	Application Development	Web Page Design	Total
Practical	20%	20%	20%	20%	20%	100%
						100%

** Optional Topic Area (No formal assessment needs to be done for the optional topic area. The recording of a mark is optional.)

Recording and Reporting

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

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

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

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

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

Codes and percentages for reporting

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

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

NOTE:

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

Progression and Promotion:

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

4.4 Moderation of Assessment

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

Moderation serves five purposes:

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

4.4.1 Internal moderation

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

4.4.2 External moderation

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

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

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

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

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

4.5 General

This document should be read in conjunction with:

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

SECTION 5

RESOURCES

Annexure 1 Sample reporting format:

Year 1 Term 1 Report for ICT			
School X	Rating code	Percentage	Teacher's comment
Systems Technologies	7	84	
Word Processing	4	55	
Graphics	6	78	

One can also report in such a way where the proficiency of learners in each topic area is reflected according to certain criteria. The sample below can be adapted for each term, year and the individual needs of the school.

Content Area		Limited	Basic	Satisfactory	Proficient
General	File Management (Open, Close, Save, Save as, Create new, Name, Rename, etc.)				
	Printing (All pages, range, current, portrait, landscape, etc.)				
	Keyboard skills (touch typing, short cuts)				
Word Processing	Formatting/Editing (text, paragraph, page, cut, copy, paste)				
	Reviewing (spell checking, comments, track changes)				
	Objects (manipulating tables and graphics)				
	Mail Merge				
Spreadsheet	Formatting/Editing				
	Graphs				
	Calculations/Formulae				
	Functions				

Presentation	Formatting/Editing (text, lists, slide layout, design)				
	Animations				
	Slide Show				
Internet	Web browser (open, type URL)				
	Search Engine (open, key in search words, refine search)				
E-mail	Open, reply, compose Forward, delete Use subject line, cc bcc Apply netiquette rules				
Web Design (HTML)	Text formatting (bold, italic, headings)				
	Links				
	Lists				
	Images				
	Tables				
Application Development - Scratch	Sprite motion, direction and location				
	Creating Shapes				
	Applying backdrops, animation, sounds				

Annexure 2

HTML Tag sheet

Basic Tags		Formatting Tags continued	
Tag	Description	Tag	Description
<body></body>	Defines the body of the web page		Inserted before each list item, and adds a number or symbol depending upon the type of list selected
<body bgcolor="pink">	Sets the background colour of the web page		Adds an image
<body text="black">	Sets the colour of the body text		Aligns an image: can also be "right", "center"; "bottom", "top", "middle"
<head></head>	Contains information about the document		Sets size of border around an image
<html></html>	Creates an HTML document – starts and ends a web page		Sets the height and width of an image
 	Adds a line break		Displays alternative text when the mouse hovers over the image or when the image is not found
<title></title>	Defines a title for the document	<hr/>	Inserts a horizontal line
<!-- -->	Comment	<hr size="3"/>	Sets size (height) of line
Text Tags		<hr width="80%"/>	Sets width of line, in percentage or absolute value
Tag	Description	<hr color="ff0000"/>	Sets the colour of the line
<h1></h1>	Creates the largest heading	Table Tags	
<h6></h6>	Creates the smallest heading	Tag	Description
	Creates bold text	<table></table>	Creates a table
<i></i>	Creates italic text	<tr></tr>	Creates a row in a table
	Sets size of font, from "1" to "7"	<td></td>	Creates a cell in a table
	Sets font colour	<th></th>	Creates a table header (a cell with bold, centred text)
	Sets font type		
Links Tags			
Tag	Description		
	Creates a hyperlink		

<code></code>	Creates an image link	<code><table width="50"></code>	Sets the width of the table
<code></code>	Creates a target location	<code><table border="1"></code>	Sets the width of the border around the table cells
<code></code>	Links to a target location created somewhere else in the document	<code><table cellpadding="1"></code>	Sets the space between the table cells
Formatting Tags			
Tag	Description	<code><table cellspacing="1"></code>	Sets the space between a cell border and its contents
<code><p></p></code>	Creates a new paragraph	<code><table cellpadding="1"></code>	Sets the alignment for cell(s) (can also be "center" or "right")
<code><p align="left"></code>	Aligns a paragraph to the "left" (default), can also be "right", or "center"	<code><tr align="left"></code>	Sets the vertical alignment for cell(s) (can also be "middle" or "bottom")
<code>
</code>	Inserts a line break	<code><tr valign="top"></code>	Sets the number of columns a cell should span
<code></code>	Creates a numbered list	<code><td colspan="2"></code>	Sets the number of rows a cell should span
<code><ol type="A","a", "I","i","1"></code>	Defines the type of numbering used	<code><td rowspan="4"></code>	
<code></code>	Creates a bulleted list		
<code><ul type="disc", "square","circle"></code>	Defines the type of bullets used		
Excerpt from CAT CAPS Examination Guidelines			